



RFP Document for  
SITC and O&M of SDWAN Solution at Various  
Location of GMDC and OCI along with NOC  
at GMDC HO

**RFP No. GMDC/CO/IT/SDWAN/01/23-24**

January 2024

<b>Last date for submission of queries</b>	:	12/01/2024
<b>Pre-Bid Meeting</b>	:	16/01/2024
<b>Last date for submission of online bid</b>	:	09/02/2024
<b>Last date for submission of physical documents</b>	:	09/02/2024
<b>Technical bid opening date &amp; time</b>	:	09/02/2024

Gujarat Mineral Development Corporation Limited

**(A Government of Gujarat Enterprise)**

**CIN No.: L14100GJ1963SGC001206**

Khanij Bhavan, 132 ft. Ring Road, Nr Gujarat University Ground,  
Vastrapur, Ahmedabad- 380052 India



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## ACRONYMS

<b>List of Acronyms used in the RFP</b>		
<b>Sr. No.</b>	<b>Acronym</b>	<b>Full Form</b>
1	3G	Third generation of broadband cellular network technology
2	4G	Fourth generation of broadband cellular network technology
3	AAR	Application Aware Routing
4	AC	Alternating Current
5	AD	Active Directory
6	AD	Application Detection
7	AES	Advanced Encryption Standard
8	AH	Ampere Hours
9	API	Application Programming Interface
10	ASIC	Application Specific Integrated Circuit
11	ATM	Asynchronous Transfer Mode
12	AWS	Amazon Web Services
13	BGP	Border Gateway Protocol
14	BMS	Building Management System
15	BOQ	Bill of Quantities
16	CASB	Cloud Access Service Broker
17	CCNP	Cisco Certified Network Professional
18	CCTV	Closed Circuit Tele Vision
19	CLI	Command Line Interface
20	CPE	Customer Premises Equipment
21	C-SOC	Centralized Security Operations Center
22	CSV	Comma Separated Value
23	DC	Data Center
24	DDoS	Distributed Denial of Service
25	DES	Data Encryption Services
26	DHCP	Dynamic Host Configuration Protocol
27	DoS	Denial of Service
28	DPI	Deep packet inspection
29	DR	Disaster Recovery Site
30	DSCP	Differentiated Services Code Point
31	EAL	Evaluation Assurance Level
32	EMD	Earnest Money Deposit
33	ERP	Enterprise Resource Planning
34	FEC	Forward error correction
35	FEC	Forward Error Correction (FEC)
36	FTTH	Fiber to the Home
37	FY	Financial Year
38	GM	General Manager
39	GMDC	Gujarat Mineral Development Corporation Ltd
40	GNFC	Gujarat Narmada Valley Fertilizers and Chemicals Limited
41	GRE	Generic Routing Encapsulation
42	GST	Goods and Services Tax
43	GUI	Graphical User Interface
44	HO	Head Office
45	HTML	Hypertext Mark-up Language
46	HTTP	Hyper Text Transfer Protocol
47	HTTPS	Hypertext Transfer Protocol Secure
48	Hz	Hertz
49	IaaS	infrastructure-as-a-Service

<b>List of Acronyms used in the RFP</b>		
<b>Sr. No.</b>	<b>Acronym</b>	<b>Full Form</b>
50	IFSC	Indian Financial System Code
51	IGBT	Insulated Gate Bipolar Transistor.
52	IKEv2	Internet Key Exchange Version 2
53	IMIX	Internet Mix
54	IP54	Ingress Protection 54
55	IPS	Intrusion Protection System
56	IPsec	Internet Protocol Security
57	IPv4	Internet Protocol Version 4
58	IPv6	Internet Protocol Version 6
59	IS-IS	Intermediate System to Intermediate System
60	ISO	International Organization for Standardization
61	IT	Information Technology
62	JSON	Java Script Object Notation
63	KVA	Kilo Volt Ampere
64	KW	Kilo Watt
65	L3	Layer 3
66	L4	Layer 4
67	LAN	Local Area Network
68	LCD	Liquid Crystal Display
69	LDAP	Lightweight Directory Access Protocol
70	LLP	Limited Liability partnership
71	LLQ	Low-latency queuing
72	LTE	long-term evolution (a standard for wireless broadband communication for mobile devices and data terminals, based on the GSM/EDGE and UMTS/HSPA standards)
73	MAC	Media Access Control.
74	MEF	Metro Ethernet Forum
75	MPLS	Multi-Protocol Label Switching
76	MSME	Ministry of Micro, Small and Medium Enterprises
77	MTU	Maximum Transmission Unit
78	NAPT	Network address port translation
79	NAT	Network Address Translation
80	NDA	Non-Disclosure Agreement
81	NEFT	National Electronic Fund Transfer
82	NMS	Network Management System
83	NPM	Network Performance Measurement (NPM)
84	NTP	Network Time Protocol
85	O&M	Operation and Maintenance
86	OEM	Original Equipment Manufacturer
87	Opex	Operational Expenses
88	OSPF	Open Shortest Path First
89	PAT	Port Address Translation
90	PBG	Performance Bank Guarantee
91	PDF	Portable Document Format
92	PIM	Protocol-Independent Multicast
93	PMP	Project Management Professional
94	PO	Purchase Order
95	PQ	Pre-Qualification
96	PSU	Public Sector Undertaking
97	PWM	Pulse-width modulation
98	QCBS	Quality cum Cost Basis Selection
99	QoE	Quality of Experience

<b>List of Acronyms used in the RFP</b>		
<b>Sr. No.</b>	<b>Acronym</b>	<b>Full Form</b>
100	QoS	Quality of Service
101	RADIUS	Remote Authentication Dial-In User Service
102	REST	Representational State Transfer
103	RFP	Request for Proposal
104	RH	Relative Humidity
105	RIP	Routing Information Protocol
106	RTGS	Real Time Gross Settlement
107	RTP	Real-Time Transport Protocol
108	SaaS	Software-as-a-Service
109	SD WAN	Software Defined Wide Area Network
110	SFP	Small Form Factor
111	SHA	Secure hashing algorithm
112	SITC	Supply, Installation, Testing & Commissioning
113	SLA	Service Level Agreement
114	SMS	Short message service
115	SNMP	Simple Network Management Protocol
116	SP	Service Provider
117	SSH	Secure Shell Protocol
118	SSL	Secure Sockets Layer
119	TACACS	Terminal Access Controller Access-Control System
120	TLS1.3	Transport Layer Security 1.3
121	TP	Tunnelling Protocol
122	UPS	Uninterruptible Power Supply
123	URL	Uniform Resource Locator
124	USB	Universal Serial Bus
125	VLRA	Valve-regulated lead-acid battery
126	VNET	Virtual Network
127	VPC	Virtual Private Cloud
128	VPN	Virtual Private Network
129	VRF	Virtual Routing and Forwarding
130	WAN	Wide Area Network
131	WFQ	Weighted fair queueing
132	XML	extensible Mark-up Language
133	ZTNA	Zero Trust Network Access



## **SECTION -1 INTRODUCTION**

Gujarat Mineral Development Corporation Ltd. (GMDC) is one of India's leading mining and mineral processing companies. For more than five decades, we have been engaged in the development of the ample mineral resources of the state. A zero-debt company, we're ranked 486<sup>th</sup> among India's Fortune 500 Companies (2022) and among the Top-5 organizations by market capital in the mining sector.

GMDC is India's second largest Lignite-producing company. We're the leaders in Lignite exploration and supply in Gujarat. Mining lignite from deposit-rich areas across the state, we market it to various high-growth industries, including textiles, chemicals, ceramics, bricks and captive power

GMDC is involved in the exploration of Bauxite, Fluorspar, Manganese, Silica Sand, Limestone, Bentonite and Ball Clay. They find application across diverse industries, from manufacturing of hydrofluoric acid and purifying water to manufacturing glass and ceramic ware, and drilling oil.

GMDC has a sizeable presence in the energy sector. We have a diversified portfolio of Thermal power projects and renewable power generation projects comprising wind and solar power. We ventured into harnessing renewable sources of energy more than a decade ago and are readying for a sustainable future. Over the years, we've generated 2522416+ MWhr of Green Energy.

GMDC has embarked on a journey of transformation. GMDC has a huge stock of mined out Silica Sand and similar in-situ deposits in one of its upcoming projects. As a part of forward integration, GMDC is seeking to explore new avenues in diversified sector in silica sand as well as other allied industries by value addition for manufacturing of float glass, solar panels, etc. Envisaging suitable market potential, we're investigating new avenues in diversified sector in bauxite and other allied industries by value addition of plant and non-plant grades of bauxite.

As a high demand is being forecast for cement, GMDC is exploring new opportunities for utilisation of cement grade Limestone for cement industry and focusing on capacity augmentation, introduction of alternate market structures, possible diversification prospects, value additions and opportunities that the industry might require.

GMDC's sustained efforts at consolidating their leadership position are complemented by appointing professionals with proven expertise. Additionally, there is an increased focus on working with strategies advisory consultancies and project management consultants. Combined with initiatives in value addition, forward integration and portfolio expansion, they will help augment our financial standing as befitting a stalwart in mining and mineral processing.

GMDC is currently undergoing a transformation journey. It aims to increase the productivity and efficiency of its current mining operations on one hand. It is planning related diversifications in several high value projects on the other hand.

GMDC's Information Technology structure is required to gear up to this transformation. It also needs modernisation and updation to usher in higher productivity and efficiency. Thus, GMDC is in the process of undertaking several IT and digital transformation related projects for which it intends to select System Integrators/ Consultants/ (collectively the "IT Agencies ") through competitive and transparent procurement processes.

Considering Digital Transformation as one its key initiative for supporting growth, GMDC Plans to revamp and enhance the existing connectivity network. The aim is to enhance connectivity network for future readiness of Convergence related activities that includes but not limited to consolidation of solutions like ERP Application, Email, Networking (LAN & WIFI), Communication (Voice & Video), CCTV etc. This RFP is being floated for the procurement of Devices which will be used for termination of MPLS and ILL Links and using this GMDC is planning to migrate to SD-WAN solutions compared to the existing termination boxes which are traditional routers.

## SECTION – 2 PROJECT BRIEF AND DETAILS

### Project Implementation Timeline

Post release of the Workorder to the successful Bidder selected by the bidding process the successful Bidder should complete the entire project on turnkey basis within 12 weeks times which includes Supply, Installation, Testing and Commissioning of all the links including configuration of SD WAN devices etc.

### Completion details

It is proposed to complete these works as per the given schedule. The nature of works broadly comprises as mentioned in Section -3 "Scope of Work"

### Bidding option for the Bidder

The Bidder must bid for all the services and solutions and if the bid is not offered as above then the same will be liable to rejection.

### RFP notice and information for online bidding

On behalf of GMDC the General Manager – IT invites online RFP Document for SDWAN Installation, O&M and MPLS and ILL Link Monitoring post NOC Setup at GMDC (HO and all Locations) on Supply, Installation, Testing & Commissioning (SITC) Basis

#### 1. The schedule for e-bidding is as under:

<b>Brief Description of work</b>	RFP Document for SITC and O&M of SDWAN Solution at Various Location of GMDC and OCI along with NOC at GMDC HO
<b>Project Implementation TimeLine</b>	12 weeks
<b>Availability of RFP</b>	GMDC website <a href="http://www.gmdcltd.com">www.gmdcltd.com</a> and nprocure portal <a href="https://tender.nprocure.com">https://tender.nprocure.com</a> Price Bids shall be required to be submitted online on the nprocure portal ( <a href="https://tender.nprocure.com">https://tender.nprocure.com</a> ).
<b>EMD (Earnest Money Deposit)</b>	Rs. 30,00,000 (Rupees Thirty Lacs only) in any one of following form  DD / BG in favour of GMDC Ltd. Payable at Ahmedabad. RTGS/NEFT in the following bank account: Account Name: - Gujarat Mineral Development Corporation Limited, ICICI Bank, Ahmedabad Branch, Ahmedabad Account Number: 002405019379 IFSC: ICIC0000024 <b>Relaxation in terms of submission of EMD shall be given to the Bidder who is holding valid Certificate issued under the MSME Act, 2006 on the date of submission of RFP.</b>
<b>RFP Processing Fee</b>	➤ Rs. 5000/- (Five thousand only) plus GST @ 18% aggregating to Rs. 5900/- payable by RTGS/NEFT in the following bank account: Account Name: - Gujarat Mineral Development Corporation Limited ICICI Bank, Ahmedabad Branch, Ahmedabad Account Number: 002405019379

	<p>IFSC: ICIC0000024</p> <p><b>Relaxation in terms of submission of RFP Processing Fee shall be given to the Bidder who is holding valid Certificate issued under the MSME Act, 2006 on the date of submission of RFP.</b></p>
<b>Bid Validity Period</b>	180 days from the date of opening of the preliminary bid, which shall be deemed extended unconditionally for further period of 60 days, if GMDC requires it.
<b>Commencement of RFP</b>	04/01/2024
<b>Last date of submission of written request for clarification for pre-bid.</b>	12/01/2024 up to 18.00 Hours
<b>Pre-Bid Meeting</b>	<p>Pre-Bid Meeting will be held on 16/01/2024 at 16.30 Hours. Venue of pre-bid meeting will be Corporate Office, GMDC, Ahmedabad (Gujarat).</p> <p>Microsoft Teams meeting</p> <p><b>Join on your computer, mobile app or room device</b></p> <p>Teams Meeting link : <a href="#">Click here to join the meeting</a></p> <p>Meeting ID: 492 564 508 56</p> <p>Passcode: mQxiKh</p>
<b>Last date of submission of Price bid through online</b>	09/02/2024 up to 18.00 Hours
<b>Last date of submission of physical documents i.e. EMD, RFP Fee, Technical Bid etc.</b>	09/02/2024 up to 18.00 Hours at Corporate Office, GMDC Ahmedabad
<b>Date for online opening of preliminary bid.</b>	09/02/2024 at 18.30 Hours
<b>General and Important Terms and Conditions</b>	<p>GMDC reserves absolute right/discretion to accept and/or reject any or all the RFPs received or invite fresh bid at any stage or split the work between more than one Bidders as the case may be.</p> <p>The Bidders are required to quote the rate strictly as per the terms and conditions mentioned in the RFP document. Conditional RFP shall not be entertained and will be rejected summarily without assigning any reasons.</p> <p>GMDC may issue amendments / corrigendum in the RFP documents, schedule, forms etc. at any time during the period between publication of notice and submission of bids of the RFP on website. The Bidders in their own interest are advised to visit the website regularly till the last date of submission of the bid. No separate newspaper advertisement will be released for amendments /corrigendum.</p> <p>GMDC reserves the rights to modify or alter any Condition of the RFP.</p>



	<p>The Bidders are advised to submit their price bid online on <a href="https://tender.nprocure.com">https://tender.nprocure.com</a> only. Physical price bid shall not be accepted and shall be rejected summarily without assigning any reasons.</p> <p>Failure to submit bid online in stipulated time due to any reason whatsoever by any Bidder shall result in disqualification of bid. In such circumstances, bid submitted physically along with supporting documents, RFP processing fees, EMD amount etc. shall not be considered as bid submitted and the same will be returned to the Bidder without opening the same. GMDC reserves the right to take suitable decision in this regard.</p>
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2. **Downloading RFP Documents:** RFP documents will be available on the website up to the date and time as shown above. Bidders who wish to participate in this RFP shall have to register on web site <https://tender.nprocure.com>
3. **Digital Certificate:** Bidders who wish to participate in online Bidding shall have to procure / should have legally valid Digital Certificate (Class III) as per Information Technology Act-2000, using which they can sign their electronic RFPs. Bidders can procure the same from any of the licensed certifying Authority of India or can procure from (n) code solutions – a division of GNFC Ltd, who are licensed Certifying Authority by Govt. of India. All RFPs shall be digitally signed. For details regarding digital signature certificate and related training the below mentioned addressee shall be contacted. In case Bidders need any clarification/assistance or training for participating in online RFP, they can contact the following office: -

(n) Code solutions, A division of GNFC  
 301, GNFC Info tower, Bodakdev, Ahmedabad – 380 054 (India)  
 Tel: + 91 26857316/17/18, Fax: +91 79 26857321,  
 Mobile: 9327084190, 9925117079; E-mail: [nprocure@gnvc.net](mailto:nprocure@gnvc.net)

4. Bidders who already have a valid Digital certificate need not procure new Digital certificate.
5. **Online Submission of RFP:** Bidders can prepare and add on their bid *n* number of times prior to the last date and time prescribed for RFP submission. However, the RFP shall not be permitted to be edited in any case after the last date and time prescribed for submission of RFP as specified hereunder.
6. No written or online request in this regard shall be entertained. Bidders shall submit their RFP in electronic format only on above mentioned website and prior to the date and time mentioned above, and each RFP shall be digitally signed by the authorized person of the Bidder. RFP documents shall be accepted in the electronic format online on nprocure.com. However, BIDDER have to submit copy of **physical technical bid with proper spiral binding, page number and indexing within time limit.**
7. A scan copies of all details as required shall be uploaded in electronic format only. During the opening of online technical bid if it is found that above details as mentioned are not submitted in electronic format, RFPs of such Bidder shall not be considered.
8. The online RFPs can be uploaded as per time limit mentioned in the schedule. The RFP document comprises of two RFPs i.e. (i) Technical bid and (ii) Commercial bid.
9. In case of queries regarding RFP documents, the list of queries may be sent through email to: [tenderit@gmdcltd.com](mailto:tenderit@gmdcltd.com) in prescribed format only as under:

Sr. No	Bid Page no	Existing Clause no	Existing Clause	Query	Clarification/ Justification
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Queries should be submitted in the XLS format. No other format of the file will be accepted.

10. **Opening of Technical RFP:** Technical RFPs shall be first opened online as per schedule mentioned in RFP.
11. Technical bid shall be evaluated as per procedures mentioned in the RFP documents. The decision of the committee on evaluation of the bids shall be final and binding to every Bidder.
12. **Opening of Commercial bid:** Commercial bid of only qualified Bidder whose technical bid is accepted shall be opened.
13. Bidder must invariably quote the rate online on every Commercial bid, failing which they shall not be allowed to participate in on line auction.
14. **Contacting Officer:** Further details/clarification if any will be available from the GMDC HO, GM IT 3<sup>rd</sup> Floor, Khanij Bhavan,132 ft. Ring Road, Nr Gujarat University Ground, Vastrapur, Ahmedabad- 380052 India
15. RFPs without RFP fees, EMD and which do not fulfil all or any of the conditions of RFP document shall be rejected outright. RFP with incomplete details in any aspect shall also be rejected.
16. Conditional RFP shall not be accepted.
17. This RFP notice shall form a part of RFP document.
18. **The Bidders are advised to read carefully all the Instructions and conditions stipulated in the RFP documents.**
19. GMDC reserves the rights to reject any or all RFPs without assigning any reason thereof.
20. Bidders are bound by Government rules and regulations being issued from time to time.
21. Any kind of amendments / corrigendum shall be published only on-line and shall be final and binding to all Bidders.
22. The details of RFPs can be seen on website [www.gmdcltd.com](http://www.gmdcltd.com), <https://tender.nprocure.com>
23. The bid submitted by the Bidder shall have valid digital signature certificate.
24. Every Bidder shall mention his e-mail address in technical bid.



## SECTION 3 – SCOPE OF WORK AND ARCHITECTURE

### Objective

The objectives of implementing SD-WAN solution in GMDC are following:

- To support GMDC’s Digital Transformation Journey for integrating multiple locations, facilitating convergence of IT and OT, Link Aggregation / Load balancing the remote traffic and enhancing user experience.
- To build a transport independent overlay network to connect all the offices of GMDC using all available transport options including MPLS, Internet (broadband, leased line etc.), Cellular (4G/3G) and LTE.
- To provide a secure and encrypted overlay independent of the transport layer and can offload Internet destined traffic closer to the edge of the network.
- To allow for Link Aggregation / load sharing of traffic across multiple WAN connections in an efficient and dynamic fashion that can be based on business and/or application policies.
- Ability to monitor quality parameters like round-trip delay, jitter, packet drop etc. and route critical applications on the link with better characteristics.
- Visibility of traffic flowing across all the links.
- **Bandwidth optimization:** visibility on application-wise bandwidth consumption and use all available bandwidth in optimal way.
- To simplify the complexity associated with management, configuration and orchestration of WAN.
- **Implementation Requirement:** Bidder to consider OEM Implementation services while submitting the commercial Proposal. Design & Implementation for proposed entire SDWAN solution should be done by OEM Person only.
- **IP Schema:** migration to dual stack i.e., IPv4 and IPv6 due to statutory requirements

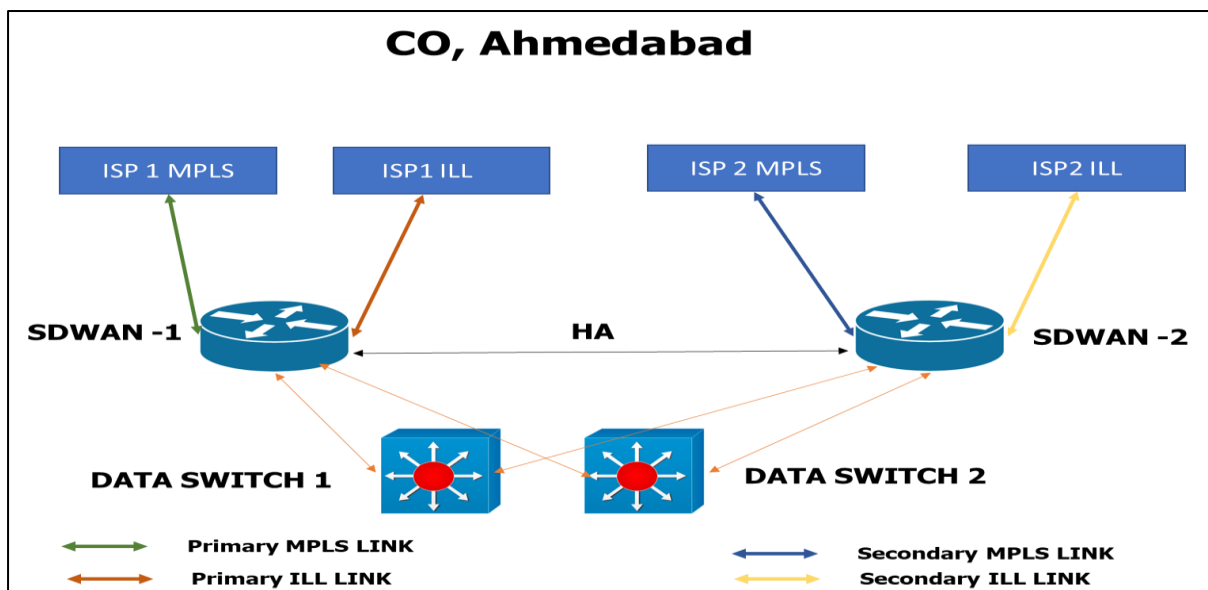
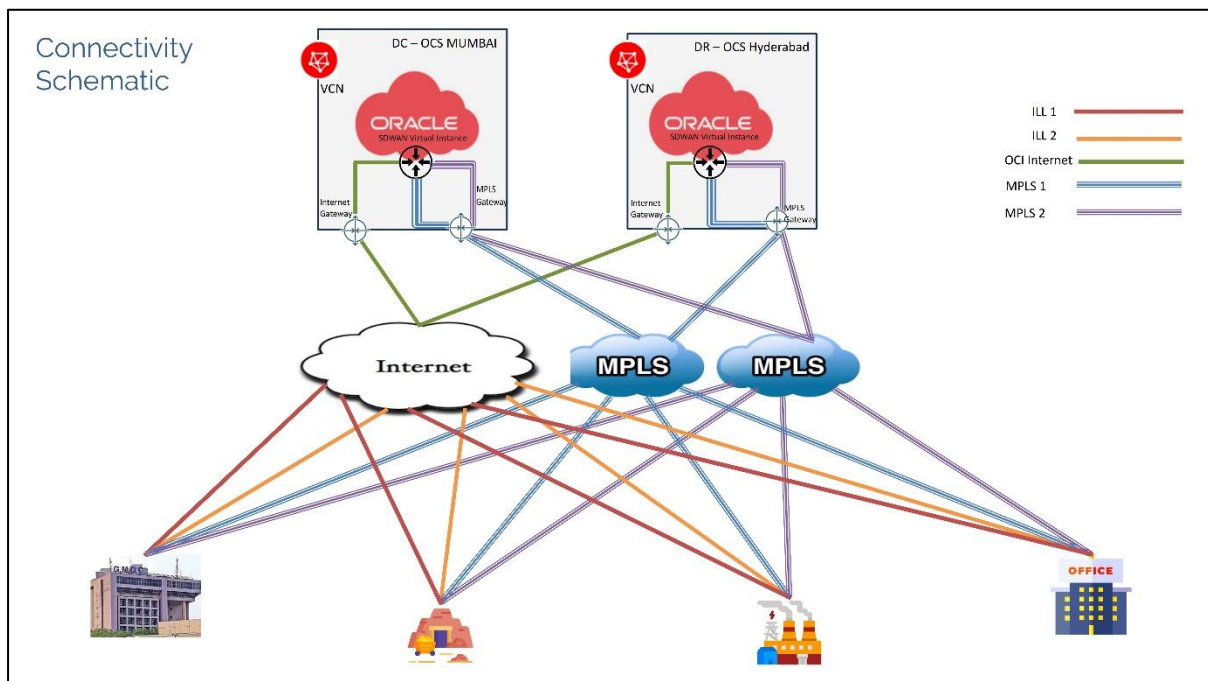
### Project Implementation Timeline

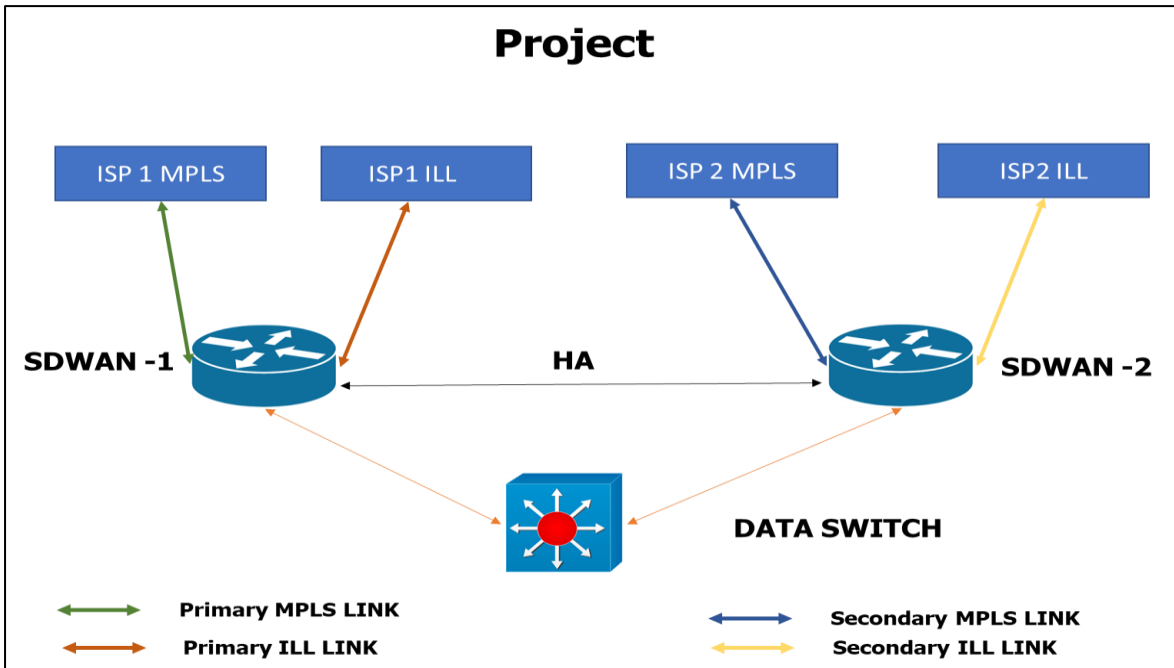
Sr_No	Task	Brief Description of the Task	Tentative Time in Weeks
01	Supply Installation Testing and Commission (SITC)	SITC of <ul style="list-style-type: none"> <li>- Licenses for Management, Orchestration, Monitoring and all other licenses as per the specifications</li> <li>- Edge devices with security Licenses at Remote Locations as per the specifications</li> <li>- UPS, battery, Racks and other accessories as per the specifications at each location (Remote and HO)</li> <li>- Switches at HO and Remote Locations as per the specifications</li> </ul>	12 weeks from Issue of PO
02	NOC setup for SDWAN Monitoring	Setting up Network Operations Center that includes <ul style="list-style-type: none"> <li>- Supply of Equipment as per the specifications (Displays, Workstations Link monitoring software etc.)</li> <li>- Deputation of Manpower as defined in the specification’s sections on 24x7 basis</li> <li>- Co-ordination with MPLS ILL Service Providers for Link performance and uptime management</li> <li>- Reporting Link’s and equipment performance to GMDC for clearing the OPEX invoices raised by GMDC</li> </ul>	

03	Operation and Maintenance (O&M)	Five years O&M for all Hardware, Software being supplied Half yearly Preventive Maintenance to be done at all site and reports certified by GMDC Personnel to be submitted within 15 Days.	60 months from the date of Go Live and Acceptance Testing
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These works as mentioned in the above table needs to be executed as per the specifications mentioned in the Technical specification Section.

## ARCHITECTURE CONNECTIVITY DIAGRAM





## SECTION 4 – PRE-QUALIFICATION CRITERIAS

<b>PRE QUALIFICATON-CRITERIA TABLE</b>		
	<b>Criteria</b>	<b>Supporting to be given</b>
<b>1</b>	<b>LEGAL ENTITY</b>	
	Bidder should be a legal entity registered in India under either Indian Companies Act 1956/2013 or LLP Act 2008 since last 5 years on the bid submission date.	A copy of the Certificate of Incorporation
<b>2</b>	<b>GST REGISTRATION</b>	
	The bidder should have valid GST registration in India	GST Registration certificates issued by competent authority
<b>3</b>	<b>POWER OF ATTORNEY/ BOARD RESOLUTION</b>	A Board Resolution / authorization letter from the board of directors or Power of Attorney authorizing the RFP signing authority.
	The bidder should submit an authorization letter for authorizing the RFP signing authority for signing and submission of the RFP	
<b>4</b>	<p><b>Experience of Executing similar works associated to WAN deployment, management &amp; Monitoring of WAN solution and associated O&amp;M in India within the last three years.</b></p> <p>Two Purchase orders of WAN Solution with Minimum 10 Sites in single Order costing not less than 1 Cr value each</p>	<p>1) Copy of Work Orders / Contracts AND</p> <p>2) Copy of Completion certificate from Client.</p>
<b>5</b>	<b>FINANCIAL CAPABILITY</b>	
	The bidder should have overall average annual turnover of at least INR 50 Crore (Turnover from System Integration Business) in last 3 financial years (FY20-21, FY 21-22, FY 22-23).	<p>Certificate(s) from statutory auditor with all relevant details from the bidder.</p> <p>The bidder shall provide a copy of each of audited annual report to ascertain its turnover &amp; net-worth.</p>
<b>6</b>	<b>NON- BLACKLISTING/HOLIDAY LIST/NON-LIQUIDATION / COURT RECEIVERSHIP</b>	Self-Certification from the authorized signatory of the bidder
	The bidder should not have been blacklisted or placed on Holiday List or under Non-Liquidation or under Court Receivership by any Indian or International Government (Central/ state /PSU) Organization as during the	



**PRE QUALIFICATION-CRITERIA TABLE**

	<b>Criteria</b>	<b>Supporting to be given</b>
	last three years from the date of Bid submission date	
<b>07</b>	The bidder should submit Manufacturer Authorization Form (MAF) for the following products: <ul style="list-style-type: none"><li>- SDWAN products</li><li>- Switching products</li><li>- UPS and accessories</li><li>- Racks and accessories</li></ul>	MAF for all the above to be submitted along with the proposal

## SECTION 5 - INSTRUCTION TO BIDDERS

### Section Details: -

Section -1	Introduction
Section -2	Project Brief and Details
Section -3	Scope of Work
Section -4	Bid Pre-qualification Criteria
Section -5	Instruction to the bidders
Section -6	Technical Specification
Section -7	Unpriced BOQ format (to be submitted in the technical Bid)
Section -8	Priced BOQ Format (To be submitted online)
Section 9 Annexures	Annexure – I - Format of Earnest Money Deposit in the form of Bank Guarantee Annexure – II: Performance Bank Guarantee Format Annexure – III: Earnest Money Deposit & RFP Fee Details Annexure IV - RFP letter form Annexure V – Declaration for Non-Black Listing Annexure VI - Work Experience details -as mentioned in the Pre- qualification criteria Annexure VII - Financial Strength of the bidder Annexure VIII - Manpower Details on bidder Roll Annexure IX - Bank List Annexure X – Location addresses of HO and GDMC remote locations Annexure XI - Contract Agreement Draft

### Cost of bidding

The bidder shall bear all costs associated with the preparation and submission of the Bid and GMDC will in no case be responsible for those costs, regardless of the conduct or outcome of the bidding process.

### Bidding documents

bidders can download the bid document and further amendment if any freely available on <https://tender.nprocure.com> .in and submit the same on N procure on or before due date of the RFP. bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submits a Bid not substantially responsive to the bidding documents in every respect may result in the rejection of the Bid.

### Due Diligence

The bidder is expected to and shall be deemed to have examined all instructions, forms, terms and specifications and other information in this RFP Document. The bid should be precise, complete and in the prescribed format as per the requirement of the RFP Document. Failure to furnish all information required by the RFP Document or submission of a bid not responsive to the RFP Document in every respect will be at the bidder's risk and may result in rejection of the bid. GMDC LTD. shall at its sole discretion be entitled to determine the adequacy/ sufficiency of the information provided by the bidder.

### **Clarification on bidding documents**

bidders can seek written clarifications from date of issue of the RFP document, to: General Manager IT  
3<sup>rd</sup> Floor Khanij Bhavan during office hours, E-mail: [tenderit@gddcltd.com](mailto:tenderit@gddcltd.com) in prescribe format.

### **Amendment of bidding documents**

At any time prior to the deadline for submission of bids, GMDC, for any reason, whether at its own initiative or in response to the clarifications requested by prospective bidders may modify the bidding documents by amendment.

GMDC is authorized to take suitable decision and action in case of requirement to amend/alter the contract conditions/quantities of the items.

All prospective bidders will be notified of the amendment and such modification will be binding on them. bidders are also requested to browse the website of GMDC i.e. [www.gmdcltd.com](http://www.gmdcltd.com) or <https://tender.nprocure.com> for further amendments if any.

To allow prospective bidders a reasonable time to take the amendment into account in preparing their bids, GMDC, at its discretion, may extend the deadline for the submission of bids.

### **Contact Details**

All inquiries concerning this procurement are to be addressed to the following;

General Manager (IT)  
Gujarat Mineral Development Corporation Ltd.  
Khanij Bhavan, 132' Ring Road, University Ground,  
Vastrapur, Ahmedabad 380 052  
(EPABX :079-27913501, 27913200)  
E-mail: [tenderit@gmdcltd.com](mailto:tenderit@gmdcltd.com)

### **Language of bid**

The Bid prepared by the bidder, as well as all correspondence and documents relating to the Bid exchanged by the bidder and GMDC shall be in English. Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an accurate translation of the relevant pages in English. For purposes of interpretation of the bid, the translation shall govern.

### **Consortium / Joint Venture:**

Consortium / Joint Venture are not allowed.

The successful bidder shall not change the constitution of the bidder/name during the currency of the contract without prior approval of GMDC. Upon such change in constitution and/or name, Supplementary agreement to that effect shall be executed and if the SD is submitted in form of BG/FD than fresh BG in the name and/or constitution shall be submitted failing which necessary action as deemed fit by GMDC shall be taken.

### **Statutory Obligations**

If any amount becomes payable by GMDC because of any claim or application in terms of the provisions or non-compliance of provision of the any Acts and the Rules and Regulations, By-laws or the Orders made there under, applicable from time to time, such amounts shall be recoverable from the Successful bidder for which GMDC will not be responsible for any compensation.

The successful bidder shall also indemnify the GMDC against any claims, compensations, damages, loss, liquidated damages etc. for breach and / or non-fulfilment of the prevailing Rules and

Regulations and other statutory provisions in force from time to time and applicable to the work during the currency of contract.

### **Section comprising the bids**

The quotation should be scan-able and distinct without any option stated in. The bid submitted shall have the following documents:

#### **The Bid Security (Physically Submission at GMDC)**

The bid security to be furnished to GMDC office on or before due date. The details are required to be filled in this section. A non-interest-bearing Earnest Money Deposit ₹ 30,00,000.00 in any of the following forms:

Demand Draft in favour of GMDC Limited Payable at Ahmedabad.

OR

Bank Guarantee from Banks approved by Govt. Of Gujarat (except Co-operative Bank) duly pledged in **favour** of GMDC for a period of not less than 6(six) months from the last date of submission of bid and shall be renewed from time to time in case of requirement.

OR

Bank details for submitting RFP Processing Fees and EMD through NEFT/RTGS:

Bank Name: ICICI Bank

Name of beneficiary: GUJARAT MINERAL DEVELOPMENT CORPORATION LTD.

Address: JMC house Branch, Ambawadi, Ahmedabad

Account No: 0024050193 79 IFSC Code: I C I C 0 0 0 0 2 4

### **Technical Section**

(To be submitted Physically at GMDC)

- Clause by clause Compliance statement for Bid document including all annexure to be submitted.
- All annexure / Table, duly filled-in with necessary proofs, as required and stated in the bid document
- Letter of Authority for signing the bid.
- Document having the details of bidders visibility to approach the project with methodology details, skill sets required and other things associated to the project

A soft copy of the complete technical bid in the USB should be submitted along with the physical bid and the same should contain

- Reference documents in PDF format
- Tables etc. inserted in the bid in editable format (Data will be used for purpose of evaluation)

### **Price bid Section**

(To be uploaded with supporting on the <https://tender.nprocure.com> website)

Priced bid (in the prescribed format only)

#### **Bid forms**

Wherever a specific form is prescribed in the Bid document, the bidder shall use the form to provide relevant information. If the form does not provide space for any required information, space at the end of the form or additional sheets shall be used to convey the said information. Failing to submit the information in the prescribed format, the bid is liable for rejection.

For all other cases, the bidder shall design a form to hold the required information.

GMDC shall not be bound by any printed conditions or provisions in the bidder's Bid Forms

### **Fraudulent & corrupt practice**

Fraudulent practice means a misrepresentation of facts in order to influence a procurement process or the execution of a Contract and includes collusive practice among bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the GMDC of the benefits of free and open competition.

“Corrupt Practice” means the offering, giving, receiving or soliciting of anything of value, pressurizing to influence the action of a public official in the process of Contract execution

GMDC will reject a proposal for award and may forfeit the E.M.D. and/or Performance Guarantee if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for, or in executing, contract(s).

### **Lack of information to bidder**

The bidder shall be deemed to have carefully examined all contract documents to his entire satisfaction. Any lack of information shall not in any way relieve the successful bidder of his responsibility to fulfil his obligation under the Contract.

### **Work Order obligations**

If after the award of the work order, the successful bidder does not sign the Service Level Agreement or fails to furnish the Performance Bank guarantee within fifteen (15) working days along with the inception report and working schedule as per the RFP requirements & if the operation is not started within fifteen(15) working days after submission of P.B.G. as mentioned, GMDC reserves the right to cancel the contract and apply all remedies available to him under the terms and conditions of this contract.

### **Bid price**

Unit costs offered in INR the prices should be exclusive of all taxes and inclusive of all duties

The priced bid should indicate the prices in the format/price schedule only.

Any effort by a bidder or bidder’s agent / consultant or representative howsoever described to influence the GMDC/ in any way concerning scrutiny / consideration / evaluation / comparison of the bid or decision concerning award of work order shall entail rejection of the bid.

Unit rates should be quoted separately for each item. Quantities can be increased or decreased by purchaser and bidder must supply deviated quantities at the rates prescribed and approved by the purchaser in the RFP document.

### **Bid currency**

The prices should be quoted in Indian Rupees. Payment for the services as specified in the agreement shall be made in Indian Rupees.

Unsuccessful bidder's Bid security will be refunded within thirty (30) days from the award of work to the successful bidder.

The successful bidder's Bid security will be discharged upon the bidder signing the Service Level Agreement and furnishing the Performance Bank Guarantee.

The Bid security may be forfeited at the discretion of GMDC, because of one or more of the following reasons:

The bidder withdraws their Bid during the period of Bid validity specified by them on the Bid letter form.

bidder does not respond to requests for clarification of their Bid.



bidder fails to co-operate in the Bid evaluation process, and in case of a successful BIDDER, the said bidder fails:

- To sign the Service Level Agreement in time
- To furnish Performance Bank Guarantee

### **Period of validity of bids**

Bids shall remain valid for 180 days after the date of Bid opening prescribed by GMDC. A Bid valid for a shorter period shall be rejected.

In exceptional circumstances, GMDC may solicit bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The Bid security shall also be suitably extended. A BIDDER granting the request is not required nor permitted to modify the Bid.

### **Format and signing of bid**

The documents to be uploaded/submitted physically shall be typed or written in indelible ink and shall be signed by the BIDDER or a person duly authorized to bind the bidder to the Contract/ Concession Agreement. All the pages to be uploaded, shall be signed by the person or persons signing the bid.

The complete bid shall be without alteration or erasures, except those to accord with instructions issued by the GMDC or as necessary to correct errors made by the bidder, in which case such corrections shall be initialized by the person or persons signing the bid.

### **Bid due date**

Bid must be uploaded by bidder at given N procure website not later than the bid submission date specified in the RFP.

The GMDC may, at its discretion, on giving reasonable notice by fax, e-mail, website upload or any other written communication to all prospective bidders who are planning to bid and extend the bid due date, in which case all rights and obligations of the GMDC and the bidders, previously subject to the bid due date, shall thereafter be subject to the new bid due date as extended.

### **Late bid**

Any bid received by the GMDC after the bid due date/time prescribed in RFP shall be rejected.

### **Modification and withdrawal of bid**

The bidder may modify or withdraw his bid before the last date of submission of bids through the e-Bidding website <https://tender.nprocure.com>

No bid may be modified after the deadline for submission of the bids.

No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of the bid validity specified by the bidder on the Bid Form. Withdrawal of a bid during this interval shall result in the bidder's forfeiture of its bid EMD.

### **Opening and evaluation of bids**

An evaluation committee has been formed for the evaluation of the bids. Decision of the committee would be final and binding upon all the bidders.

GMDC will open all bids (only Technical Bids at the first instance) through the e-Bidding website of in the presence of bidder or his representative who choose to attend, and at the following address in the presence of the representatives of the bidders who choose to attend, at the time, date and place, as mentioned in RFP Document.

In the event of the specified date of Bid opening being declared a holiday for the GMDC, the Bids shall be opened at the appointed time and location on the next working day. It is, therefore, advised to send



a responsible, authorized and senior representative so that clarifications, if any, can be given on the spot.

The bidder's names, modifications, bid withdrawals, and the presence or absence of the requisite EMD and such other details considered appropriate will be announced at the bid opening.

### **Evaluation process**

The evaluation process of the RFP, proposed to be adopted by the GMDC is indicated under this clause. The purpose of this clause is only to provide the bidders an idea of the evaluation process that the GMDC may adopt. However, the GMDC reserves the right to modify the evaluation process at any time during the RFP process, without assigning any reason, whatsoever and without any requirement of intimating the bidders of any such change.

### **Evaluation of bid**

bidders need to fulfil all the Technical criteria and conditions mentioned in RFP document. GMDC will examine the bids to determine whether they are complete, whether the bid format confirms to the RFP's requirements, whether any computational errors have been made, whether required EMD has been furnished, whether the documents have been properly signed, and whether the bids are generally in order including Techno commercial compliance.

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

The GMDC may waive off any informality or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.

### **Evaluation of technical bid**

Firstly, the technical bid document will be evaluated as per the requirements specified in the RFP and adopting the evaluation criteria spelt out in RFP document

All the bidders who secure a Technical Score of 70 or more will be declared as technically qualified. The commercial bids of only the technically qualified bidders will be opened for further processing. It is however, clarified that, subject to other provisions of this document, every bidder will have to fulfil the minimum technical specifications laid down in the RFP for being qualified technically.

In order to assist in the examination, evaluation and comparison of Bids, GMDC may at its discretion ask the bidder for a clarification regarding its Bid. The clarification shall be given in writing immediately, but no change in the price shall be sought, offered or permitted. However, while giving a clarification, a BIDDER may offer a higher specification or model without any impact on Financial Bid to be opened subsequently.

### **Announcement of bids**

The bidder names, bid modifications or withdrawals and such other details as the GMDC at discretion may consider appropriate, will be announced at the bid opening.

### **Bids not considered for evaluation**

Bids that are rejected during the bid opening process due to incomplete documentation or late receipt shall not be considered for further evaluation.

### **Criteria for evaluation of bids**

A three-stage procedure will be adapted for evaluation of proposals, with the technical qualification being completed before the commercial evaluation and there after financial proposal being opened and compared. Pursuant to the Technical qualification criterion bidders will be short-listed for opening of commercial bid.



Conditional bids are liable to be rejected.

GMDC will review the technical bids of the short-listed bidders to determine whether the technical bids are substantially responsive, is fitting in the Technical evaluation score of more than 70 Marks out of 100 marks. Bids that are not substantially responsive are liable to be disqualified.

Post that Quality Cum Cost Basic selection criteria as per the details given below will be applied for the selection among the technically qualified bidders

**QCBS (Quality cum Cost Basis Selection) introduction and details related to the same**

- QCBS (Quality cum Cost Basis) is increasingly being employed for awarding various e-governance contracts. It is a methodology which tries to give weightage to both quality and cost. The weights are usually more for technical (or quality) and less for commercial (or cost) aspects of the bid (usually 60:40 or 70:30 or sometimes even 80:20).
- The financial scores are usually calculated through a normalization process where the lowest bidder is given 100 and scores of all other bidders are normalized against this. For example – If A is the lowest bidder who has bid 20 crores for a project and B and C are the other 2 bidders with bids of 40 crores and 60 crores, normalized scores of A is taken as 100, B is taken as  $(100 \times 20 / 40 = 50)$  and C is taken as  $(100 \times 20 / 60 = 33.3)$ .
- Technical scores are calculated based on a variety of parameters such as experience in similar projects, quality of resources to be deployed (usually based on number of qualifications, no of projects worked on, no. of years of experience etc.), write up or presentation on approach and methodology, average annual turnover etc. with scoring being done for each factor separately and final technical score being a summation of these scores.
- After calculating technical and financial scores, they are multiplied by respective weightages to find the total score and the bidder with the highest total score is supposed to be awarded the contract.
- On the face of it, this system appears to be a very sound one and it gives higher weightage to the technical parameters which is as it should be. And it does work quite well as long as companies bidding for a project quote more or less in the same price range.
- The evaluation will be made based on Quality –cum- Cost Based Selection with a weightage to quality of services, technical feasibility and cost in the ratio of 70:30
- The ranking of bidders shall decide based on total bid amount for all the items & most technically suitable economical option will be considered as L1
- GMDC will assign points (quality of services score) to the technically qualified bidders based on the technical evaluation criterion approved by GMDC. The commercial bids for the technically qualified bidders will then be opened and reviewed to determining whether the commercial bids are substantially responsive.

**Criteria for evaluation and comparison of technical bids.**

The Following criteria shall be used to evaluate the technical bids. All the bids scoring 70 and above in the technical will be qualified for commercial bid opening.

<b>TABLE SHOWING THE DETAILS OF MARKING PER CRITERIA WHICH WILL BE USED FOR THE TECHNICAL QAULIFICATION OF THE BIDDER</b>				
<b>Sr. No</b>	<b>Criterion</b>	<b>Conditions</b>	<b>Max. Marks</b>	<b>Total Marks for the Sub head</b>
<b>1</b>	<b>Organizational Strength: Turnover and Employee Strength; Implementation References &amp; Certifications</b>			<b>60</b>



<b>TABLE SHOWING THE DETAILS OF MARKING PER CRITERIA WHICH WILL BE USED FOR THE TECHNICAL QAULIFICATION OF THE BIDDER</b>				
<b>Sr. No</b>	<b>Criterion</b>	<b>Conditions</b>	<b>Max. Marks</b>	<b>Total Marks for the Sub head</b>
1.1	Annual Turnover (As mentioned in the PQ section revenue earned	> = 50 Crores & < 65 Crores as per the PQ req.	5	
		> = 65 Crores & < 80 Crores as per the PQ req.	10	
		> = 80 Crores as per the PQ req.	15	
1.2	No. of Certified Personals for SDWAN services.	> = 1 Employee and < 5 Employees	5	
		> = 5 Employees and < 10 Employees	10	
		> = 10 Employees	15	
1.3	Experience of Executing similar works associated to SDWAN deployment / O&M within the last three years	> = 1 & < 5 Purchase orders	5	
		> = 5 & < 10 Purchase orders	10	
		> = 10 Purchase orders	15	
1.4	Certifications owned by the bidder's organization	ISO 9000 – Quality 2 Marks ISO 27001 - ISMS 2 Marks	04	
1.5	OEM SDWAN Projects in in last Three Year as on bid submission date.	> = 5 & < 10 Purchase orders of SD WAN Solution	4	
		> = 10 & < 15 Purchase orders of SD WAN Solution	8	
		> = 15 Purchase orders of SD WAN Solution	11	
<b>2</b>	<b>Technical Solution Offered: bidder to submit the complete document with Approach Methodology mechanism on task to be executed, tentative proposed Architectures for SDWAN, Policy frameworks etc. and highlight the solutions USPs that with benefit GMDC in the long run (BIDDER to submit the document and GMDC will invite for the presentation)</b>			<b>40</b>

**Note:** The financial bids of only those bidders will be opened and considered who have scored at least 70 Marks of the sum of the total maximum marked specified for all above mentioned attributes in the technical bid evaluation process.

### Opening and comparison of the financial bids

The financial bids will be opened, in the presence of bidders' representatives who choose to attend the financial bid opening on the date and time to be communicated to all the technically qualified bidders. The Bidders' representative who are present shall sign a register evidencing the attendance. The name of the bidder, Bid Prices, and Discount etc. will be announced in the meeting.

QCBS methodology will be used for deciding the bidder to whom the bid will be awarded and the same will done using quality and cost and as mentioned in the QCBS section the ratio to technical to commercial will be **70: 30**. The table below explains the formula which will be used to decide the L1 bidder.



<p><b>Price Evaluation Criteria:</b></p> <p><b>BIDDER with Highest Score as per below techno commercial formula as Outcome of " L " will be the L1 BIDDER for the award of contract.</b></p>
<p><b>Formula for calculation the bidder point: <math>L = \{C_{min} * Wt1 / C_{quoted}\} + \{T_{scored} * Wt2 / T_{max}\}</math></b></p>
<p>Cmin = Minimum (L1 bidder) quoted cost for the entire scope of work of</p>
<p>Cquoted = Quoted cost (Cost of the bidder whose bid is being evaluated)</p>
<p>Tscored = Marks scored in the technical evaluation whose bid is being evaluated</p>
<p>Tmax = Maximum marks in the technical evaluation</p>
<p>Wt1 = 30% - Commercial Weightage</p>
<p>Wt2 = 70% - Technical Weightage</p>

As mentioned above bidder will be decided based on the commercial calculation which will be done as per the above table.

### Contacting GMDC

bidder shall not approach GMDC officers outside of office hours and/ or outside GMDC office premises, from the time of the Bid opening to the time the Contract is awarded.

Any effort by a bidder to influence GMDC officers in the decisions on Bid evaluation, bid comparison or contract award may result in rejection of the bidder's offer. If the bidder wishes to bring additional information to the notice of the GMDC, it should do so in writing.

### Rejection of bids

GMDC's right to reject any or all bids: GMDC reserves the right to 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(s) or any obligation to inform the affected bidder(s) of the grounds for such decision.

### Choice of Firm:

Final Choice of Firm / Firms, to execute this project shall be made based on conformity to technical and operational requirements, time schedule of execution and appropriateness of priced bid from the point of view of cost competitiveness. GMDC, however, will have the discretion to choose to enter into any price negotiations or not. GMDC may ask the successful bidder to match lowest prices under each item / head.

### Procurement Process

Once the bidder is declared H1 based on the QCBS Parameters, they would be issued the Workorder for the entire value.

### Award of Work order

Award Criteria: The Criteria for selection will be as the QBCS methodology defined above for technically qualified bidders.



GMDC's right to vary requirements at time of award: GMDC reserves the right at the time of award to increase or decrease quantity for the service requirements originally specified in the document without any change in Bid rate or other terms and conditions.

### **Signing of Contract, Service Level Agreement and Non-Disclosure Agreement (NDA)**

Post Issuance Workorder, the successful bidder shall have to submit the PBG. Then the Successful bidder is then required to sign the Contract, Service Level agreement (SLA) and NDA in line with the bidding documents.

The successful bidder shall submit security deposit of 10% of the total contract value excluding Goods & Service Tax (GST) within 15 days from the date of receipt of Workorder in any one of following form

Demand Draft in **favour** of GMDC Limited Payable at Ahmedabad.

OR

Fixed Deposit from Banks approved by Govt. Of Gujarat (except Co-operative Bank) duly pledged in **favour** of GMDC for a period of not less than **66 (Sixty-Six months)** months from the date of receipt of LOI and shall be renewed from time to time in case of requirement.

OR

Bank Guarantee issued by banks approved by Govt. Of Gujarat from time to time (except Co-Operative bank) in the form and manner acceptable to GMDC (Govt. GR for approved bank). It should be valid for a period of not less than **66 (Sixty-Six months)** from the date of receipt of LOI and shall be renewed from time to time in case of requirement.

Security deposit shall not bear any interest under any circumstances.

GMDC will reserve the right to recover the charges or the liquidated damages from the Security Deposit in the following circumstances-

If the successful bidder or its employees causes any damage or destroy any property belonging to GMDC.

The shortfall amount of all compensations, penalties and other sums of money payable by the successful bidder or recoveries to be made under the terms of this contract which is due but not paid by the successful bidder in full, etc.

Any other dues because of statutory compliance.

Upon the successful bidder's furnishing of Performance Bank Guarantee and signing of Service Level Agreements, The Bid Security of all unsuccessful bidders will be refunded. Once the acceptance of LOI is done and PBG is submitted by the bidder, GMDC will issue the purchase order as per the quantities decided jointly by the bidder and GMDC team post the kick off meeting.

### **Force majeure**

Force majeure is herein defined as any cause which is beyond the control of the successful bidder or the GMDC as the case may be which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affect the performance of the contract, such as:

Natural phenomena such as floods, draughts Cyclone, earthquake and epidemics, declaration of war.

Acts of any government, including but not limited to war, declared or undeclared priorities, quantities, embargoes, providing either party shall within fifteen (15) days from the occurrence of such a cause notify the other in writing of such cases.



The successful bidder will advise, in the event of his having resort to this clause by a registered letter duly certified by the statutory authorities, the beginning and end of the cause of delay, within fifteen days of the occurrence and cessation of such Force Majeure condition. In the event of delay lasting over two months, if arising out of Force Majeure, the contract may be terminated at the discretion of the GMDC.

For delay arising out of Force Majeure, the successful bidder will not claim extension in completion date for a period exceeding the period of delay attributable to the causes of force Majeure and neither company nor the successful bidder shall be liable to pay extra costs (like increase in rates, remobilization, advance, idle charges for labour and machinery etc.) provided it is mutually established that the Force Majeure conditions did exist.

If any of the Force Majeure conditions exists in the place of operation of the successful bidder even at the time of submission of bid, he will categorically specify them in his bid and state whether they have been taken into consideration in their quotations.

The successful bidder or the GMDC shall not be liable for delays in performing his obligations resulting from any force majeure cause as referred to and/ or defined above. The date of completion will, subject to the hereinafter provided, be extended by a reasonable time.

### **Service Level Agreement obligations**

Once a Service Level Agreement is confirmed and signed, the terms and conditions contained therein shall take precedence over the successful bidders bid and all previous correspondence.

### **Amendment to the Service Level agreement**

Amendments to the Service Level Agreement may be made by agreement by both the Parties. No variation in or modification in the terms of the Service Level Agreement shall be made except by written amendment signed by both the parties. All alterations and changes in the Service Level Agreement will consider prevailing rules, regulations and laws.

### **Use of Service Level Agreement documents and information**

The successful bidder shall not without prior written consent from GMDC disclose the Service Level Agreement or any provision thereof or any specification, plans, drawings, pattern, samples or information furnished by or on behalf of GMDC in connection therewith to any person other than the person employed by the BIDDER in the performance of the Service Level Agreement. Disclosure to any such employee shall be made in confidence and shall extend only as far as may be necessary for such performance.

The successful bidder shall not without prior written consent of GMDC make use of any document or information made available for the project except for purposes of performing the Service Level Agreement.

All project related documents issued by GMDC other than the Service Level Agreement Itself shall remain the property of GMDC and Originals and all copies shall be returned to GMDC on completion of the successful bidders performance under the Agreement, if so required by the GMDC.

### **Service Level Requirements (SLA)**

Service Level requirements will be necessarily managed by the successful bidder **using SDWAN tools (to be supplied as per the specifications defined)**. Successful bidder will make this information available to authorized GMDC personnel through on-line browsing and through hard copy of the report as per requirement.

For monitoring the SLAs in the RFP, the successful bidder shall provide Incidents and SLA management tool for recording all incidents regarding links and infrastructure. Users, both internal and external, will have access in the tool to report incidents on real time basis. The successful bidder shall also record



resolution in the same tool as and when required. The successful bidder shall monitor SLA breaches through the tool. GMDC will be given web-based access of this tool at multiple levels to monitor life-cycle of the incidents, their resolution and SLA compliance. The successful bidder will be responsible to submit report of calculation of SLA and applicable penalty along with periodical invoices to GMDC as and when applicable as per payment terms.

Service level monitoring will be performed by the successful bidder. Reports will be produced as and when required and forwarded to GMDC.

This section lists the minimum service level required to be maintained by the successful bidder on award of the contract. The successful bidder has to enter into a service level agreement with GMDC before the award of the contract as per the format provided by GMDC.

**SLA for Network Equipment (SD-WAN) at CO-Ahmedabad, RO-Bhubaneshwar and OCI (Mumbai / Hyderabad) \*:**

Classification	Response Time (#) T	Resolution Time (#) R
CO-Ahmedabad, RO-Bhubaneshwar, OCI-Mumbai & Hyderabad	10 Minutes	Within 4 hours from the time of logging incident

**SLA for Network Equipment (SD-WAN Devices) at other locations:**

Classification	Response Time (#) T	Resolution Time (#) R
Other Location	1 hour	Within 24 Hrs from the time of logging

For purpose of SLA at All Locations, the business hours will be considered 24x7x365

- All resolution times mentioned above includes travel time of Engineers also.
- Successful bidder shall provide on-site support for addressing SD-WAN devices related issues.
- The Successful bidder shall offer onsite comprehensive warranty for the hardware and software against defects arising out of faulty design, materials and workmanship for a period of Five (5) years from the date of Installation / acceptance and sign off by the GMDC at his own cost, including the cost of transport if any. The new releases (minor / major), versions, bug fixes etc. for the hardware and system software will be supplied to the GMDC at no extra charge, with necessary documentation.
- To complete the work at the site/ location within stipulated timeframe, successful bidder's engineers may have to visit the site multiple times at no extra cost. Engineer should wear I-card in the GMDC premises while attending to calls.
- Breach of Service levels consistently on part of the successful bidder may lead to invocation of Clause for "Termination for Default".
- Defective hardware/part thereof shall be replaced by the successful bidder at his own cost, including the cost of transport if any within defined SLA. The new releases (minor / major), versions, bug fixes etc. for the hardware and software will be supplied proactively to the GMDC at no extra charge, with necessary documentation.
- In case of 3 (three) consecutive failure of any device/part thereof during the warranty & AMC period, the successful bidder will have to replace the device with a new device of higher configuration, unconditionally, at no extra cost within 15 (fifteen) days of the reporting of the issue (4th occasion) as per the SLA and provide a Non EOL/EOS standby device of equivalent/higher configuration on immediate basis till the time replacement device is installed at the affected location.
- The "Downtime" is the time between the Time of Report by the GMDC and Time of Restoration/Rectification within the contracted hours. "Failure" is the condition that renders the any



of the module of the solution is not available. "Restoration" is the condition when the selected bidder demonstrates that the solution (all the modules) is in working order and GMDC in charge acknowledges the same.

- During the tenure of the O&M and Warranty support period if the equipment at project site needs to be relocated on the same site the successful bidder will execute the works as per the instruction of GMDC at no extra cost. Successful bidder to include the cost of such services in the cost of the O&M
- The successful bidder should treat all configuration changes requested by GMDC during the O&M tenure as a service call which needs to be completed as per the definition of the SLA defined for O&M period and for the same GMDC will not pay any extra cost to the bidder demonstrates that the solution (all the modules) is in working order and GMDC in charge acknowledges the same.
- Any device or part thereof, that are reported as down or gone faulty should be replaced with new device or part by bidder as per SLA. Meanwhile, the successful bidder has to arrange temporary substitute (of equivalent or higher configuration) within defined SLA at no extra cost and the temporary substitute should not be EOL/EOS. The reporting will be through a telephonic, email or any other mode as GMDC may decide.
- Warranty also covers all spares include power cords, cards, cables and other related equipment.
- During the O&M period, if call is registered as physical damage, the successful bidder should provide quote for repairing the device (hardware), meanwhile the successful bidder should provide the standby device (hardware) at no extra cost as per the SLAs for resolution time mentioned under the section of "**SERVICE LEVEL EXPECTATIONS DURING WARRANTY & AMC PERIOD**" of the RFP.
- The successful bidder shall ensure to submit consolidated report of any upgrade/advisory/bugs/vulnerabilities, released/suggested by OEM at any point of time during the AMC period on quarterly basis. If the bidder fails to do so, Penalty of Rs.500/- per day will be imposed on the Bidder, subject to a maximum of Rs.5000/- per month for every quarter.
- The successful bidder shall ensure to close the vulnerabilities identified by the GMDC's security team or any third- party affiliations such as Cert-in, etc. within timeline or GMDC will impose a penalty as mentioned below:

<b>Location</b>	<b>Workaround Solution Timeline</b>	<b>Permanent Resolution timeline</b>	<b>Penalty applicable if timeline exceeded</b>
At any Location Equipment	Within 24 Hrs. from receiving communication from the GMDC	Within 7 days from receiving communication from the GMDC	Workaround: Penalty of Rs.5000/- per day per equipment will be imposed on the Bidder. Permanent Solution: Penalty of Rs.10000/- per equipment per day after 7 Days during the contract period.

- The successful bidder has to review the new released version/patch by the OEM and ensure that new released version/patch must be stable before up-gradation.

### **Assignment & sub contracts**

#### **Assignment by BIDDER**

The successful bidder shall not assign or sub-contract, in whole or in part, its rights and obligations to perform under the Service Level Agreement to a third party.

#### **Resolution of disputes**

If any dispute arises between the Parties hereto during the subsistence or thereafter, in connection with the validity e, interpretation, implementation or alleged material breach of any provision of the Agreement or regarding a question, including the questions as to whether the termination of the



Contract Agreement by one Party hereto has been legitimate, both Parties hereto shall endeavour to settle such dispute amicably. The attempt to bring about an amicable settlement is considered to have failed as soon as one of the Parties hereto, after reasonable attempts [which attempt shall continue for not less than 30 (thirty) days], give 15 days' notice thereof to the other Party in writing.

In the case of such failure the dispute shall be referred to a sole arbitrator

**Arbitration**

All questions, disputes, differences whatsoever which may at any time arises between the parties to this RFP and subsequent contract in connection with the RFP and subsequent contract or any matter arising out of or in relation there to, shall be referred to Sole Arbitrator as per the provisions of Arbitration and Conciliation Act, 1996 and subsequent amendment thereto and the venue of arbitration proceedings shall be at Ahmedabad only. The Language of the Arbitration shall be in English only

**Jurisdiction**

The matter related to any dispute or difference arising out of this RFP and subsequent contract shall be subject to the exclusive jurisdiction of Court at Ahmedabad only.

**Taxes & duties**

The successful bidder is liable for all taxes and duties as in force from the time of the signing of agreement till performance liability period expires, may arise by any law comes to the notice of GMDC or comes in force etc. This must be noted for compliance at any time.

**Bankruptcy**

If the successful bidder commits an act of Bankruptcy or goes into liquidation except for construction purposes, or if its business is carried on by a receiver, such receiver, liquidator or any person in whom the contract may become vested shall forthwith give notice thereof in writing to GMDC and in reasonable time during which he shall take all reasonable steps to prevent stoppage of performance of the contract, have the option of carrying out the contract subject to his or their providing such guarantees as may be required by GMDC but not exceeding the value of the work for the time being remaining unexecuted.

In the event of stoppage of performance under the contract, the period of option under this clause shall be decided by GMDC considering the situation, provided that the above option is not exercised, GMDC may terminate the contract by serving notice in writing to the Successful bidder. The power and provision so reserved to GMDC on taking of the work out of the Successful bidder's hands shall apply as far as they may be when the contract is so terminated

**Payments terms**

1	No advance payment will be made	
2	For Material Supply	<ul style="list-style-type: none"> <li>• 80% against receipt of material post inspection and Certification of GMDC/TPA personnel for Installation,</li> <li>• 20% post Installation, Go Live and Acceptance Test</li> <li>• Installation charges would be paid once the system becomes Live and AT is done</li> </ul>
3	For O&M	<ul style="list-style-type: none"> <li>• Quarterly bills to be raised at the end of every quarter with reports. Payment will be released after deducting Statutory charges and Penalty (if any).</li> </ul>



The bills, submitted at the office of General Manager (IT) will be processed within 30 days considering the following deductions.

Income tax as per provision of Income Tax Act, and other Taxes (and surcharges) applicable in force from time to time

Cost of any other services provided / material supplied, if any, by the GMDC.

Liquidated damages,

Other deductions, if any.

### **Service terms**

The entire scope of the work depends on the technical skill and experience in management of the same level or kind of infrastructure.

It is mandatory for the successful bidder to deploy qualified professional to install, commission & maintain the equipment, as defined under scope of work.

**The bidder must submit regular schedule of man power availability & get it approved by GMDC.**

### **Liquidated Damages for delay in implementation:**

If the successful bidder fails to deliver, install and commission any or all of the proposed solution and devices and parts mentioned in the Purchase order (PO) within the timelines mentioned in the RFP from the date of issue of purchase order, Purchaser shall, without prejudice to its other rights and remedies under and in accordance with the Contract, deduct from the Contract price, as liquidated damages, a sum equivalent to **1 % percent per week (Delay of more than 3 days will be counted as a week for determination of Liquidated damages) or part thereof of purchase order subject to maximum deduction of 10% of the purchase order.** In case of undue delay beyond a period of 12 weeks unless otherwise waived by the Purchaser, Purchaser in its discretion may consider termination of the Contract.

If the successful bidder fails to complete the entire work i.e. installation and commissioning of proposed solution before the scheduled completion date or the extended date or if successful bidder repudiates the Contract before completion of the Services, the Purchaser may without prejudice to any other right or remedy available to the Purchaser as under the Contract recover from the Selected Bidder, as ascertained and agreed liquidated damages and not by way of penalty.

The Purchaser may without prejudice to its right to effect recovery by any other method, deduct the amount of liquidated damages from any money belonging to the successful bidder in its hands (which includes the Purchaser's right to claim such amount against Performance successful bidder's GMDC Guarantee) or which may become due to the bidder. Any such recovery or liquidated damages shall not in any way relieve the successful bidder from any of its obligations to complete the works / Services or from any other obligations and liabilities under the Contract.



**Penalties during the O&M Period:**

Response and Resolution Time	Penalty
Response Time > T (As per tables defined in the SLA Section) from the time	<p><b>CO, Bhubaneswar, OCI-Mumbai and Hyderabad</b></p> <p>Response: ₹5000/- for delay of every additional 10 Minutes subject to a maximum of 5% of quarterly payment amount.</p> <p>Resolution: ₹20,000/- for delay of every additional hour subject to a maximum of 10% of quarterly payment amount.</p>
Resolution Time > R (As per table defined SLA section in the above) from the time	
	<p><b>Other Location</b></p> <p>Response: ₹5000/- for delay of every additional Hour subject to a maximum of 5% of quarterly payment amount.</p> <p>Resolution : ₹20,000/- for delay of every additional Day subject to a maximum of 10% of quarterly payment amount.</p>

For every quarterly bill submitted reports of 3 months submitted would be considered and based on the SLA parameters if deductions are to be done the same will be deducted from the quarterly bill submitted

**Project implementation**

The successful bidder will implement the project strictly as per the plan approved by GMDC.

GMDC will form committee for Project and all inspection, installation; commissioning and acceptance of work will be undertaken by successful bidder which will be approved by appointed committee. All Invoices, Vouchers, Bills for services offered by the successful bidder under the scope of the work will be verified vetted and accepted by the GMDC committee for release of payment.

As part of implementation the BIDDER shall provide details of tools and manpower required.

The successful bidder shall provide, log analysis and other associated training required to monitor the security infrastructure to GMDC Personnel at no cost to GMDC. The training schedule, content and modalities will be defined jointly by both the parties. For Certification the successful bidder should consider the training costs to train 04 GMDC team members.

In case the service delivery is rejected owing to its non-conformity to the specifications or due to the poor quality of workmanship, the same shall be done again promptly. No additional cost for the same will be paid by GMDC

The successful bidder shall treat all matters connected with the contract strictly confidential and shall undertake not to disclose, in any way, information, documents, technical data, experience and know how, without prior written permission from GMDC.

The successful bidder shall have to furnish the documentation of the work undertaken in consultation with official-in-charge/GMDC rep. 1 sets of such documentation should be provided before the issue of completion certificate.

It is a turnkey project. The successful bidder shall be fully responsible for implementing the Project in totality and should include the items and their prices, if not included in Schedule of Requirement to complete the project on turnkey basis. Any claim whatsoever in this regard will not be entertained later.

In the event of the delay in delivery/ services not satisfactory the purchaser may procure services from elsewhere as prescribed in bid and The successful bidder shall be liable without limitations for the



difference between the cost of such substitution and the price set forth in the contract for the goods involved i.e. at the risk and cost of the the successful bidder.

The successful bidder shall be responsible to take required insurance for all their representatives working on the site at their own cost. GMDC will not be responsible for any injury, loss or damage to any of the representatives of the successful bidder during the said contract. The successful bidder should strictly comply to GMDC EHS (Environment Health and Safety policy) and should start work execution post submission of the necessary documents and safety evidences as per the requirement of EHS officer on Site. This should be strictly followed in the Mines area.

All work shall be performed and executed by the successful bidder in strict conformity with the engineer-in-charge / representative from GMDC and any relative instructions issued to the successful bidder by the Engineer in- charge from time to time.

### **Software licenses (wherever applicable)**

The successful bidder shall be responsible for providing Software (System Software, Application Software, Device Drivers etc.) required, if any, to meet any functional requirements as specified in the bid during the currency of the Agreement without any additional cost to GMDC. All license software must be in the name of GMDC. The ownership of any customized software involved will be of the GMDC.

### **Installation of additional hardware (wherever applicable)**

During the currency of the Agreement, for any additional requirement of equipment including interface equipment, the specifications will be provided by the successful bidder. GMDC/The Third-Party Agency will verify suitability of the specifications submitted by successful bidder and recommend to GMDC for acceptance. The bidder will be obligated to undertake integration, operation and maintenance for all additional equipment if required.

### **Limitation of liability:**

Successful bidder's cumulative liability for its obligations under the contract shall not exceed the contract value and the Successful bidder agency shall not be liable for incidental, consequential, or indirect damages including loss of profit or saving.

### **Termination for convenience:**

Either party may terminate the said Service Level Agreement at any time by giving sixty (60) days prior written notice to the other Party. Upon termination, the GMDC shall pay to Successful bidder all undisputed amounts for all products and services delivered up to the date of termination.

### **Risk purchase:**

If successful bidder fails to cure the breach in the agreed duration and accept its inability to correct, GMDC may terminate the part of the contract that is breached and employ a third party to do the work at the risk & cost of the successful bidder . The successful bidder shall not be liable for any compensation for the work executed this way. BIDDER shall execute the balance part of work as agreed under the contract.

### **Foreclosure:**

In case of any necessity arising due to working conditions or any unforeseen reason not in the control of the GMDC or any reason what so ever GMDC shall be at liberty to Fore close the contract without assigning any reasons or notice there for. For this no compensation will be payable to the successful bidder



## SECTION – 6 SPECIFICATIONS

### SD WAN Core Components

SD-WAN solution should employ centrally managed WAN edge devices placed in branch offices to establish logical connections with other branch edge devices across the physical WAN or via hub across the physical WAN.

These logical connections should create secure paths across multiple WAN connections and carriers, such as hybrid Internet, LTE and Multiprotocol Label Switching (MPLS) architecture. SD-WAN solutions should allow for load sharing of traffic across multiple WAN connections in an efficient and dynamic fashion that can be based on business and/or application policies. SD-WAN solution should dramatically simplify the complexity associated with management, configuration and orchestration of WANs.

The proposed solution should also provide self-service capabilities which gives configuration access to GMDC and the on-site engineers deployed by the successful bidder at the site(s).

The proposed solution should facilitate the communications between sites on private WAN (MPLS) and public Internet. The proposed SD-WAN solution should have the following minimum features:

- Application visibility and Analytics,
- Centralized Orchestration & Policy Management,
- Transport Independent Overlay Solution,
- Application Aware Routing,
- Performance based App Aware Routing & Load Sharing,
- Segmentation & Dynamic Topologies,
- Application Based QoS,
- Local Internet Break out,
- Path Brownout,
- Security & Encryption,

### Classification of Locations

For this RFP, the locations of GMDC are classified into Four (4) categories, the details of locations are given in Appendix and the summary given below:

Sr. No.	Category	Location quantities	Functional requirement of Categorized Locations
1	Type A Locations (Other Location)	23	<ul style="list-style-type: none"> <li>• Dual CPE to terminate two IP MPLS and two ILL links coming from different service providers.</li> <li>• Both CPEs should be active – active as per diagram shown above.</li> </ul>
2	Type B Locations (CO)	01	
3	Type C Locations (OCI)	02	Virtual Appliance in HA at OCI (Mumbai & Hyderabad)
4	Type D Locations (Other Location)	07	<ul style="list-style-type: none"> <li>• Single CPE to terminate One ILL link.</li> </ul>

Based on the architecture for the SDWAN to be adapted the following components needs to be installed At the main Location and remote locations.

This should be Virtual appliances (Single / Multiple) hosted at OCI within India which will manage the following functionalities as mentioned below:

### **Controller / Manager / Orchestrator Functionality**

- Centralized Network Management.
  - o Will Provide comprehensive solution to manage, visualize, provision, automate configure and monitor the proposed SD-WAN infrastructure from a single graphical interface.
- Traffic Routing and Optimization
- Dynamic Path Selection.
- Security and Firewall Policies
- Policy-Based Traffic Management
- Automatic Failover and Redundancy
- Load Balancing / Sharing
- Quality of Service (QoS) and Application Visibility and Control
- Reporting & Analytics
  - o Will analyse logs, events and provide reports, analytics capabilities.
  - o Will support historical and real-time data reporting for application usage based on volume, bandwidth, application performance based on latency, jitter, packet loss and WAN links performance.

### **WAN Edge Device (CPE)**

- Facilitate WAN interface termination
- Facilitate hosting of Security Licenses at remote location in the Device
- Facilitate routing of data across the network (Intranet and Internet) in an encrypted and secured manner.

### **NOC**

- The successful bidder to setup on-site NOC at GMDC Ahmedabad HO. L1 and L2 resources for managing the SD-WAN and MPLS VPN links (current and future links) along with necessary software for managing must be deployed by the successful bidder. Monitoring, management, troubleshooting etc. are to be carried out by the resources.

### **Functional Specifications (Brief)**

#### **Transport Independent Overlay Network**

- Each edge device must dynamically establish encrypted overlays paths towards the hub across multiple different WAN services: L3VPN, MPLS, Internet etc.
- The solution should have the capability to establish dynamic optimal direct site to site connectivity or communicate to other spokes via Hub.
- The overlay paths established amongst the edge devices must support:
  - Transport of unicast, multicast, and broadcast traffic
  - The ability to run routing protocols: OSPF v2 and v3, BGP; for IPv4 and IPv6
- The design shall be such that only the WAN IP addresses of the edge devices at each branch locations need to be known for establishing the overlay network.
- The locations must be able to access Internet directly (local breakout) without going through the centralized Internet Gateway of GMDC at DC. However, in case of failure of local Internet, the failover should be configured to access it over centralized Internet Gateway at GMDC DC.

#### **Dynamic Load Sharing of Traffic Based on Business and/or application policies**

- Edge devices must be able to load balance traffic across multiple WAN paths based on load balancing algorithms efficiently using all available WAN bandwidth.
- Edge devices must be able to identify and classify applications, including application encrypted traffic. Identification and classification of at least the following classes of application types must be supported by the solution:
- Current: Oracle ERP, Mailing Solutions and Video conferencing solutions (The exact details of the applications would be shared with shortlisted Service provider.)

- The solution must be able to dynamically control data packet forwarding decisions by looking at application type, performance, policies, and path status.
- The solution must be able to monitor the network performance - jitter, packet loss / bandwidth and delay and make decisions to forward critical applications over the best performing path based on the defined application policy.
- The solution must respond to measured performance changes (degradation) in addition to link and node state changes (up/down) and adjust application forwarding accordingly.
- The solution must be able to prioritize real time traffic over other traffic.
- The solution must have application awareness with capability of deep packet inspection of traffic to identify and monitor applications' performance to determine what traffic is running across the network to tune the network for business-critical services, resolve network problems and to help ensure that critical applications are properly prioritized across the network.

### **Security and Encryption**

All traffic must be encrypted when transported over WAN transport links: MPLS, LTE, Internet and 3G/4G network protecting Data Confidentiality and Integrity.

The encryption must be done as per IPsec standards using AES with 256 bit keys or higher coupled with Internet Key Exchange Version 2 (IKEv2) or higher.

The use of encryption should not limit the performance or availability of remote site applications and should be transparent to end users.

The proposed SD-WAN solution should have stateful security features (L3/L4 filtering, Zone-Protection for network, DoS protection for edge device) for network isolation in the CPE along with SD-WAN features.

The SDWAN solution should have **Next Generation Firewall features**. All the features should be able to be enabled on the same CPE device or with addition of separate hardware of the same OEM with redundancy.

The logs of devices should be able to be integrated with C-SOC (to be setup by GMDC) for correlation and analysis.

### **Centralized Management, Monitoring and Configuration of WAN.**

The Centralized management solution extended by the bidder must provide a single, unified platform for network service provisioning, monitoring and assurance, change and compliance management thru the bidder.

The centralized management solution must have web-based GUI.

The solution must support zero-touch provisioning/plug-n-play for new branches, which entails on-site branch personnel having to make physical (i.e., cabling) changes only and administrators not having to make configuration changes to bring new branches online.

The solution must provide guided workflows for deployment and management of SD-WAN infrastructure.

The solution must support end-to-end real-time flow visualization for the application paths for identifying issues and taking corrective actions.

All network-wide configurations shall be from the centralized management appliance.

All application forwarding policies shall be configured from the centralized management appliance.

The centralized management solution shall have NMS capabilities and must support network wide device and network visibility for all the devices in the scope of the SDWAN solution. The NMS should be configured to monitor all the links terminated on the devices irrespective of the type of link (MPLS, broadband, LTE, Internet etc.).

The solution must be able to collect and aggregate traffic statistics for all WAN paths. Traffic statistics include path utilization, application specific utilization and path performance.

The solution must support device health monitoring for all the devices within the solution scope.

The solution must store historical traffic and performance information for at least one year to assist with trouble analysis, traffic forecasting and SLA compliance.

The solution must support email & SMS - based alarm/alert to notify the administrators when any device/link fault or network performance degradation happens.

## Reports & Analytics

Real & historical time series log event reporting

Traffic usage/protocol anomaly detection

Ad-hoc and scheduled reports

Predefined and custom report templates

Report export formats: csv, pdf, xls, email notification. Should also have provision to integrate with SMS & Email gateway.

**Traffic reports per site:** availability, bandwidth usage per access circuit, bandwidth usage per application, latency, packet loss, QoS per access circuit etc.

**Firewall reports:** top rules, zones, source, destination by IP/domain name/geo location, ports, protocols, session duration, QoS, DDoS, NAT events, pool utilization and Flood detection

**Application reports:** Top Applications usages, Top URLs, Top Bandwidth Consuming Applications, Top Sources, Top Destinations, Site based Application usage analysis report, Top sites, Top Sites over time, Site availability over time, Total Availability etc.

## User Interface

The solution should provide detailed dashboard & reports on network performance parameters like utilization, packet loss, jitter, latency, availability etc., and security of all the transport media terminated (including media proposed to be terminated during the period of contract) on the CPE. The dashboard should support at least 50 concurrent users of the GMDC, including bidder engineers.

Dashboard views for SD-WAN, security, CPE functionality etc.

Visualization using charts, real-time views, maps, grids

Drilldown support to analyse data instantly for a given time range, detect trends and anomalies

HTTP/HTTPS Web-based interface

During the contract period, GMDC may add/ delete / replace more number of applications, security policies etc. Accordingly, the selected bidder shall carry out necessary configuration changes (if required) in their network, as advised by the GMDC from time to time at no extra cost to the GMDC.



## **SD WAN CPE**

All the hardware supplied should be appliance based, RACK mountable and should be from the same OEM and must be supplied with all related accessories, power cables, mounting kit etc.

GMDC would terminate multiple transport media viz., MPLS VPN links (from multiple service providers), Internet link (broadband, 4G etc.), LTE etc. on the CPE(s).

The bidder should ensure that all the supplied hardware and software for the solution must not be End of Support / End of service and spares/upgrades should be available. In case of any equipment goes End of life from OEM, the bidder has to replace equivalent / higher it without any extra cost to the GMDC to keep the solution working.

It shall be the responsibility of the selected bidder to provide replacement for faulty equipment (or any of its components) to minimize the time required to make such sites operational within the SLA, the selected bidder should keep adequate number of spare equipment and components at suitable places so that same may be provided as per the timelines mentioned in the RFP. GMDC will not provide any space at any of its locations for storing the same.

The CPE provided at the locations should be new and bidder shall provide and install software Updates/Patches/Versions during all the Stages for all software components including operating systems (that of Network Equipment's), firmware, management software, security software, or any other software, which would be part of the supplies.

The maintenance and upkeep of CPEs and links (supplied by service provider) is the bidder responsibility. GMDC will not be responsible for any damage to the bidder equipment due to voltage fluctuations, surge, earthing issues etc.

## **SDWAN General Specifications**

The SD-WAN solution should comprise of following components Virtual Appliance hosted on OCI within India.

- **Controller / Management Engine / Orchestrator**
  - Shall be a separate component(s) that provides single point of entry for Configuration and Monitoring. Management engine shall be securely accessed and shall be capable of configuration policies, monitoring and troubleshooting of multiple WAN Edge devices in the branches, data-centers or remote locations. This management engine shall be available in either physical/virtual form factor and should provide high availability.
  - all the routing information from the edge devices and distributes route prefixes, encryption key to all Edges. The controller/ manager / orchestrator shall maintain centralized routing table, controls route advertisement as per policy, creates end to end segments on network, instructs data plane to change traffic flow as per the defined policy. Controller/ manager / orchestrator shall be available in virtual form factor and should provide Active-Active instances across DC and DR.
  - shall be used to authenticate the onboarding edge devices using Certificates and serial number of the edge devices.
- SD-WAN controllers/orchestrators/Management engine should scale horizontally or vertically
- SD-WAN solution should provide hardened physical appliances in branches and virtual Appliance in OCI cloud for termination of MPLS and ILL links coming from the ISP
- In the proposed SD WAN solution, the WAN path selection at the project locations should be based on the near real time analytics of Quality (Packet loss, Latency, Jitter, etc.).
- In the proposed SD WAN solution, the WAN path selection should be dynamically selected based on the policy set from the Central controller/ manager / orchestrator.
- In the proposed SD WAN solution, it should be possible to have control and data communication on two different paths. For example, use only MPLS or ILL for edge device & controller communication and use ILL & MPLS both for data communication.



- In the proposed SD WAN solution, the system architecture should allow the use the most preferred link based upon Link characteristics (Latency, Jitter, PLR) for critical applications as defined in policy.
- The proposed SD WAN solution should support traffic flow/packet forwarding on WAN links based on SLA. The proposed SD WAN solution should be able to load balance across multiple links simultaneously (up to 6 includes MPLS, ILL, Broadband, LTE links) at spoke locations and multiple links simultaneously (up to 08 includes MPLS, ILL) at OCI sites.
- The proposed SD WAN device should be able to deploy In-line mode.
- The proposed SD WAN device should allow creation of multiple end to end segments and per segment topology within network.
- The proposed SD WAN device should create per transport encryption keys to encrypt traffic. (Only where ILL connected)
- The proposed SD WAN solution should allow automated and policy driven refresh of the encryption key per virtual private network.
- The proposed SD WAN solution should allow time-based refresh of the encryption key for each virtual private network.
- The proposed SD WAN solution should allow automatic/dynamic encrypted tunnels creation (without any manual configuring) between project devices to enable project to project communication via hubs (Full Mesh/Partial Mesh).
- The proposed SD WAN solution should allow automatic/dynamic tunnels to be created without manually configuring any static overlays from project devices to Hub locations.
- The proposed SD WAN solution should allow for multiple hub destinations (at least 2 active Hub sites) to be created for application specific traffic using a policy defined for it. Traffic destined for a hub must be directly router towards that hub only.
- The proposed SD WAN solution should be automatically able to retrieve the network LAN information.
- The proposed SD WAN solution should ensure that any change in physical connectivity (change in bidder or IP address) does not require any change in virtual private network configuration in the controller or physical device at location.
- The proposed SD WAN solution should ensure that the virtual private network specific configuration is not to be attached to physical or logical WAN.
- The Central components of proposed SD-WAN solution including but not limited to Orchestrator, Controller, Manager, Analytic engine, Hub/gateway, or any other component should support at least 50 remote locations for day one and the same should be scalable to 75 Locations without change of hardware (Each project having minimum 4 Link and Redundant CPE Hardware).
- The proposed SD WAN solution should ensure that virtual private network configuration and policy is pre-formed in the controller / manager / orchestrator. The addition of one or more project devices in to the network should not require any changes in the virtual private network configuration in software defined network controller.
- The proposed SD WAN solution should allow for internet break out at the local project, centralized location, remote entity (remote location) based on the application and the policy defined in the Central SD WAN controller.
- In the proposed SD WAN solution, the communication between the SD WAN controller/Orchestrator/Analytic and the project device running on the remote entity should be secure and encrypted.
- The Proposed SD WAN solution should support Hybrid deployment where Non-SD WAN sites and SD WAN enabled sites would interoperate in the SD WAN topology. Non-SDWAN Site may communicate via HUB location.
- In the SD WAN solution, the tunnel/VRF creation should be automatic & dynamic without any manual configuration on the edges and the controller.

- The Proposed SD WAN solution should ensure that during various phases of implementation, the performance, security, etc. of the existing network setup is not compromised.
- The proposed SD WAN solution should be able to leverage multiple links simultaneously for a single or multiple user accessing single/multiple applications sessions by distributing the packets/flows across multiple links and load balance session to ensure high application performance for bandwidth intensive applications such as multi-media streaming, video conferencing, backups, and large file transfers.
- The proposed SD WAN solution should continuously check the link flaps, if the link is not stable then put the link in monitor state, once the link is stable for time then start sending traffic on that link with QoS features/ bandwidth shaping.
- The proposed SD WAN solution during the failure on one link, the critical traffic should automatically migrate to the other bidder link without any manual intervention and without session disconnect. QoS also should maintain during the failure of the WAN link.
- The proposed SD WAN solution appliance should be able to select the path based on the link quality (latency, loss and jitter) must be taken into consideration when a data transfer is initiated.
- The proposed SD WAN solution should support seamless application accessibility across DC 's & Projects during auto failover of WAN links and load balancing.
- The proposed SD WAN solution should support Link failover due to packet loss, Latency, Jitter, link flap & Etc. - without TCP / UDP session failover.
- The proposed SD WAN solution should be capable of selecting path per traffic type (i.e. Voice always on SP-1 link and Application X always on SP-2 link).
- SD WAN solution should be able to define the traffic priority level (critical level) base on different criteria such as application, Destination TCP/UDP port Number, Destination IP address and Source IP address.
- The proposed SD WAN solution should be able to define Guaranteed Bandwidth base on different criteria such as application, Destination TCP/UDP port Number, Destination IP address and Source IP address.
- The proposed SD WAN solution must be able to allocate a maximum bandwidth usage cap to each class of traffic. The proposed SD WAN solution must allow usage to burst above the maximum bandwidth usage cap if no other traffic classes attempt to utilize the available bandwidth.
- The proposed SD WAN solution should be able to send packets on a same path (persistence) based on the need (User configurable).
- The proposed SD WAN solution should be able to do Real-time traffic duplication across single/multiple links to mitigate against latency and packet drops only when feature is enabled.
- The proposed SD WAN solution must support IPv4 and shall have the capability to support IPv6 Protocols.
- The proposed SD WAN solution must support Bandwidth testing on WAN links to check the available bandwidth.
- The proposed SD WAN solution must have DPI (deep packet inspection) engine to identify applications and apply rules to control how application traffic is handled.
- The proposed SD WAN solution should have ability to inject under-layer routing to / from over-layer routing with controllability for each direction.
- The proposed SD WAN solution must support Applying Global Policy Templates.
- The proposed SD WAN solution should be configurable, to easily deliverable all WAN virtualization and should not have any service impact.
- The proposed SD WAN devices/appliances in the proposed SD WAN solution should be able to interoperate with the existing products of different OEM. (eg: - cisco, juniper, checkpoint, D-link, Fortinet, Alcatel etc.)

- The proposed SD WAN solution must not require additional software plug-ins or agents on client or server hosts.
- The proposed SD WAN solution should have the capability to detect the path MTU (Maximum Transmission Unit).
- The proposed SD WAN solution can be integrated with AD, NTP Server, Monitoring tool, incident management tool etc.
- SD-WAN solution should support Zero Touch onboarding of customer edge devices on MPLS and Internet transports
- SD-WAN solution branch and Hub devices (Virtual / Physical) should be authenticate against their serial numbers and Certificate provided by OEM.
- SD-WAN Edge Devices should build secure Control plane sessions with Controllers, Orchestration, Management engines and encrypted Data Plane sessions with peer edge devices and forwards actual application traffic in encrypted tunnels.
- SD-WAN solution should securely build control plane connections thru MPLS transport and Data plane connectivity thru MPLS and Internet both
- SD-WAN Solution shall support deployment of any kind of topologies such as full- mesh, hub-spoke and partial mesh or any arbitrary topology. It should be possible to change network topology only by pushing policy from central controller and shall not require any device by device configurations
- SD-WAN edge device should support logical segmentation of WAN, LAN and Management interfaces using VRF technology
- SD-WAN solution should support full- mesh, hub-spoke and partial mesh topology per VRF/ Customer Segment with role base access control
- SD-WAN solution should build IPSEC tunnels automatically between branch and virtual hub edge devices hosted in Customer cloud.
- SD-WAN solution should support highest level encryption and authentication protocols like AES-256-GCM
- SD-WAN solution should have IPsec encryption keys per transport and per router and it should generate by device locally and it should get refresh frequently and automatically it should get exchanged with other edge devices.
- SD-WAN solution should use standard known protocols to probe the link health end to end and to detect the link SLA (Latency/Drops/Jitter). The protocol should be DSCP aware so that it can be mapped with MPLS SP QoS offerings if required
- SD-WAN solution should be able to automatically route over the overlay WAN/IPSEC tunnels without the need of any separate routing protocols running between edge devices.
- SD-WAN solution should support OSPF and BGP protocols for WAN underlay as well as on LAN side
- SD-WAN solution should support NAT/PAT/Static NAT on CPE devices
- SD-WAN solution should support per flow / per session traffic forwarding
- SD-WAN solution should support underlay reachability with non-SD-WAN sites directly from the site thru MPLS as well as overlay connectivity with Hub or other edge devices on overlay.
- SD-WAN solution should support dual stack IPV4 and IPV6 support on underlay and overlay
- SD-WAN Solution should be capable of upgrading CPE (Customer Premises Equipment) devices to the latest version and support rollback of the software version when upgraded to the latest software version, if required. Rollback and Upgrade should be performed from the central management engine
- Central Management engine should support Customized Role Based Access Control that provides only relevant information to the user based on their roles and privileges. Solution shall provide detailed information of changes done using configurations/templates
- SD-WAN solution should support integration with AD using RADIUS/TACACS protocols also should have integration with NTP, SYSLOG.
- SD-WAN solution should be functional for upto 7 days in-case of connectivity failure to the controller and there should not be any data plane disruption when the SDWAN controllers/management engines are not reachable or offline for maintenance



- SD-WAN hardware should be a hardened appliance of OEM running SD-WAN firmware on it and OEM should test function and scale parameters along with hardware and software together
- SD-WAN solution should have support of API level integration with customers' existing ticketing engine or NMS
- SD-WAN solution should identify the known application using Deep Packet inspection engines
- SDWAN solution should be able to load balance traffic across multiple connectivity paths based on load balancing algorithms efficiently using all available connectivity's. System should also detect blackouts & brownouts by supporting active-active load balancing and fast session failover
- SD-WAN solution should support traffic load balancing across unequal capacity of wan links
- SD-WAN solution should support SLA based application aware routing for various on prem applications running over IPSEC tunnels to DC/DR/Cloud

**Hardware and Software specifications for SDWAN Device at CO, Ahmedabad**

<b>SECTION 8 TECHNICAL SPECIFICATIONS</b>					
<b>SPECIFICATION FOR SDWAN Edge DEVICES TO BE INSTALLED AT CO, Ahmedabad</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
<b>1</b>		<b>Eligibility Criteria for OEM supplying SDWAN EQUIPMENTS (For all Locations)</b>			
1.1		OEM should have direct presence in India at-least for 05 years (Supporting documents required)			
1.2		The OEM should be in the Leadership Quadrant of Latest Gartner Magic Quadrant for SDWAN for the year.			
1.3		The OEM should have a Service Center/Spares Depo in India to manage repair and replacement process for Service Request raised. (Supporting document required. In case of OEM offering the above service thru Distributor or Service Partner will also be accepted)			
1.4		The appliances/Hardware/Software that is being offered by the SD WAN OEM should be MEF 3.0 Certified as per the MEF standards defined. OEM to give the details of the same with supporting from the MEF portal			
1.5		All hardware for SDWAN and Switching should be preferably from same OEM or from Gartner's Leader.			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN Edge DEVICES TO BE INSTALLED AT CO, Ahmedabad**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
1.6		OEM should give a declaration that the offered products is the latest among their offering and the same is not end of Life or End of Support and if Product is declared End of Life / End of Support then it should be replaced at no extra cost to GMDC during the contract period. Also, the OEM needs to mention that support for the offered product will be available for a period of 7 years from the date of Installation.			
		<b>Hardware and Software specifications SDWAN EQUIPMENTS</b>			
	Architecture	Appliance Based.			
	Memory	As per the architecture requirement to ensure that it support a non-blocking architecture.			
	Ethernet Interfaces	Minimum 10 1G Copper WAN other than Heartbeat and Management port.			
	Other Interfaces	USB - minimum 01 Console Port - 01			
	Internet Mix Traffic Throughput	Minimum 1 GBPs Full Duplex or greater on Each Device.			
	OS Certification	<ul style="list-style-type: none"> <li>Operating System should be tested and certified for EAL 3/NDPP or above under Common Criteria Certification</li> </ul>			
	Embedded OS features	<ul style="list-style-type: none"> <li>Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications from Day1</li> <li>should have traffic load balancing capability on WAN Links based on advanced criteria, such as reachability, delay, loss, jitter.</li> <li>shall have capability to add on demand IPsec VPN tunnels</li> </ul>			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN Edge DEVICES TO BE INSTALLED AT CO, Ahmedabad**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		dynamically established multipoint-to-multipoint IPSEC based spoke-to-spoke VPN tunnels matching traffic conditions			
	Support for ISP Links	Auto Link failover with 0 downtimes and Link Load balancing			
	Support for HA Modes	Active-Active and Active-Passive Without any external switches for WAN terminations. bidder to consider Licenses accordingly			
	IP schema support	Should support IPV4 and IPV6			
	Network Topology support	Should support the following deployment topologies <ul style="list-style-type: none"> <li>• hub-to-spoke (partial mesh),</li> <li>• spoke-to-spoke (full mesh),</li> <li>• multi-WAN transport support</li> </ul>			
	VPN/Overlay	Should support <ul style="list-style-type: none"> <li>• IKEv1, IKEv2, VRF-aware IPsec, IPsec over IPV6, Hardware-accelerated DES, 3DES, AES 128, AES 192, and AES 256 from day 1.</li> </ul>			
	Advanced Networking	Should support the below mentioned protocols <ul style="list-style-type: none"> <li>• DHCP v4/v6, DNS, NAT – source, destination, static NAT, destination NAT, PAT.</li> <li>• Device should support End to End segmentation for minimum 25 segment and should be scalable to 50 scalable segment.</li> </ul>			
	QoS	Should support the following QOS Features <ul style="list-style-type: none"> <li>• like LLQ, WFQ, PBR, Class of service, Real-Time Transport Protocol (RTP) header compression, DiffServ &amp; HQoS</li> <li>• Traffic shaping based on bandwidth limits per application and WAN link,</li> </ul>			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN Edge DEVICES TO BE INSTALLED AT CO, Ahmedabad**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		<ul style="list-style-type: none"> <li>rate limits per application and WAN link,</li> <li>prioritization of application traffic per WAN link, marking/remarking DSCP bits for influencing traffic QoS on egress devices,</li> <li>application steering based on ToS marking</li> </ul>			
	Multicast	should support Multicast forwarding using <ul style="list-style-type: none"> <li>PIM sparse (rfc 4601) or dense mode (rfc 3973), PIM rendezvous point</li> </ul>			
	SD-WAN Services	Basic path optimization with <ul style="list-style-type: none"> <li>FEC and packet duplication,</li> <li>App QoE</li> <li>RBAC by VPN</li> </ul>			
	Traffic steering	Application Aware Routing (AAR) with Application Detection (AD) and Network Performance Measurement (NPM) to redirect traffic to best fit uplink based on policy should be supported using: <ul style="list-style-type: none"> <li>Well known hosted application signatures (bidder to give the list of applications supported),</li> <li>first packet Identification,</li> <li>deep packet inspection using Known and custom application</li> <li>TLS1.2 or higher with mandated ciphers, and deep inspection</li> </ul>			
	Application aware traffic control	Should Support Traffic Optimization feature which are built in the SDWAN operating system and the following features associated to it should be supported <ul style="list-style-type: none"> <li>Granular application policies,</li> <li>application SLA based path selection,</li> <li>dynamic bandwidth measurement of SD-WAN paths,</li> <li>active/active and active/standby forwarding,</li> </ul>			



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**SPECIFICATION FOR SDWAN Edge DEVICES TO BE INSTALLED AT CO, Ahmedabad**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		<ul style="list-style-type: none"> <li>• overlay support for encrypted transport,</li> <li>• Application or session-based steering,</li> <li>• probe-based SLA measurements</li> </ul>			
	WAN features for optimizing performance of real time applications	Should support <ul style="list-style-type: none"> <li>• Forward Error Correction (FEC) for packet loss compensation,</li> <li>• packet duplication for best real-time application performance,</li> <li>• per packet / flow-based load balancing across multiple wan links</li> </ul>			
	Encryption Support	Secure key generation and distribution IPsec authentication: <ul style="list-style-type: none"> <li>• SHA1, SHA2</li> <li>• IPsec encryption: 3DES, AES-128, AES-192</li> <li>• AES-256 Authenticated and encrypted control plane connections</li> </ul>			
	Analytics and Visibility	Should support <ul style="list-style-type: none"> <li>• Central usage statistics collection for ports, flows,</li> <li>• QoS queues Event-based logging</li> <li>• Secure syslog integration</li> <li>• Remote port mirroring</li> <li>• Inbound CLI access for centralized diagnostics</li> </ul>			
	Authentication Server support	<ul style="list-style-type: none"> <li>• should support AAA using RADIUS and TACACS+</li> </ul>			
	Firewall Support	<ul style="list-style-type: none"> <li>• The SDWAN Solution being offered should have support for NextGen Firewall features including but not limited to Zone-Based Stateful Firewall, Application Aware Firewall and application inspection and control feature, IPS, IDS, Anti-Malware, Web Filtering.</li> <li>• If the same is not available in SDWAN Edge Device, bidder to offer additional device of same OEM as SDWAN in HA to support the functionality.</li> </ul>			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN Edge DEVICES TO BE INSTALLED AT CO, Ahmedabad**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
	Security Services to be embedded in the SDWAN Box	<p>Licenses for the following services should be offered on a 5-year subscription basis (The licenses should be system wide and not user based) along with the appliance or the SDWAN Box:</p> <ul style="list-style-type: none"> <li>• <b>IPS Services</b></li> <li>• <b>Anti-Malware Detection</b> Services for different devices that access the services on the network and the services portfolio includes solutions for Anti-Virus, Mobile malware, Botnet, Crash data Retrieval, Virus Outbreak protection,</li> <li>• <b>Web Security Services</b> for URL and Web Content and Video Filtering</li> </ul> <p>In case the Licensing is Cloud Based or Appliance base bidder to Consider the cost of 5 years of services.</p>			
	Key Security Features	<p>With the above licensing the following key functionalities associated to cybersecurity needs to be achieved:</p> <ul style="list-style-type: none"> <li>• Dual Factor Authentication for administration.</li> <li>• Blocking of inappropriate content and malicious sites which may contain malware and other security risks</li> <li>• Protecting all guests, employees, and devices accessing internet against malware, phishing, ransomware and C2 call-backs</li> <li>• Blocking malicious domain requests and IP responses at the DNS-layer</li> <li>• enforcing acceptable use policies using more than 50 content categories</li> <li>• providing URL filtering, AMP, stateful Firewall functionality with On-premises Licensing</li> </ul>			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN Edge DEVICES TO BE INSTALLED AT CO, Ahmedabad**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		<ul style="list-style-type: none"> <li>Securing access to IAAS and SAAS</li> </ul>			
	Cloud Integration of SDWAN Device for security Purposes	<ul style="list-style-type: none"> <li>SD-WAN solution should have API based automation with simple step by step automated workflows to integrate with Cloud security solution providers like Umbrella SIG / Zscaler / equivalent using IPSEC/GRE tunnels in future whenever required.</li> </ul>			
	Safety Standards Compliance	<ul style="list-style-type: none"> <li>SD WAN Device shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements of Information Technology Equipment.</li> </ul>			
	EMC Compliance	<ul style="list-style-type: none"> <li>SD WAN Device shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards</li> </ul>			



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**SPECIFICATION FOR SDWAN Edge DEVICES TO BE INSTALLED AT CO, Ahmedabad**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		for EMC (Electro Magnetic Compatibility) requirements.			
	Operating temperature	<ul style="list-style-type: none"> <li>0° to 55° C / 32° to 131° F</li> </ul>			
	Operating relative humidity	<ul style="list-style-type: none"> <li>5% to 85% at 40° C</li> </ul>			

**Hardware and Software specifications for SDWAN Device at OCI, Mumbai & Hyderabad**

**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN VIRTUAL APPLIANCE TO BE PROVISIONED AT OCI**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
<b>1</b>		<b>Eligibility Criteria for OEM supplying SDWAN EQUIPMENTS (For all Locations)</b>			
1.1		OEM should have direct presence in India at-least for 05 years (Supporting documents required)			
1.2		The OEM should be in the Leadership Quadrant of Latest Gartner Magic Quadrant for SDWAN for the year.			
1.3		The OEM should have a Service Center/Spares Depo in India to manage repair and replacement process for Service Request raised. (Supporting document required. In case of OEM offering the above service thru Distributor or Service Partner will also be accepted)			
1.4		The Virtual appliances/Software that is being offered by the SD WAN OEM should be MEF 3.0 Certified as per the MEF standards defined. OEM to give the details of the same with supporting from the MEF portal			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN VIRTUAL APPLIANCE TO BE PROVISIONED AT OCI**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
1.5		All hardware for SDWAN and Switching should be preferably from same OEM or from Gartner's Leader.			
1.6		OEM should give a declaration that the offered products is the latest among their offering and the same is not end of Life or End of Support and if Product is declared End of Life / End of Support then it should be replaced at no extra cost to GMDC during the contract period. Also, the OEM needs to mention that support for the offered product will be available for a period of 7 years from the date of Installation.			
		<b>Virtual Appliance and Software specifications SDWAN EQUIPMENTS (OCI)</b>			
	OCI Infra	<b>Bidder to consider cost of OCI IAAS / virtual machine required for 5 Years.</b>			
	Architecture	Virtual Appliance Based at OCI  The SDWAN solution should support VA / instance-based deployment in Oracle Cloud			
	Memory	As per the architecture requirement to ensure that it support a non-blocking architecture.			
	Virtual Ethernet Interfaces	Minimum 10 1G WAN other than Heartbeat and Management port.			
	Internet Mix Traffic Throughput	Minimum 1 GBPs Full Duplex or greater on Each Device.			
	OS Certification	<ul style="list-style-type: none"> <li>Operating System should be tested and certified for EAL 3/NDPP or above under Common Criteria Certification</li> </ul>			
	OS features	<ul style="list-style-type: none"> <li>Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter,</li> </ul>			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN VIRTUAL APPLIANCE TO BE PROVISIONED AT OCI**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		packet loss to assure business-critical IP applications from Day1 <ul style="list-style-type: none"> <li>• should have traffic load balancing capability on WAN Links based on advanced criteria, such as reachability, delay, loss, jitter.</li> <li>• shall have capability to add on demand IPsec VPN tunnels dynamically established multipoint-to-multipoint IPSEC based spoke-to-spoke VPN tunnels matching traffic conditions</li> </ul>			
	Support for ISP Links	Auto Link failover with 0 downtimes and Link Load balancing			
	Support for HA Modes	Active-Active and Active-Passive Without any external switches for WAN terminations. bidder to consider Licenses accordingly			
	IP schema support	Should support IPV4 and IPV6			
	Network Topology support	Should support the following deployment topologies <ul style="list-style-type: none"> <li>• hub-to-spoke (partial mesh),</li> <li>• spoke-to-spoke (full mesh),</li> <li>• multi-WAN transport support</li> </ul>			
	VPN/Overlay	Should support <ul style="list-style-type: none"> <li>• IKEv1, IKEv2, VRF-aware IPsec, IPsec over IPV6, Hardware-accelerated DES, 3DES, AES 128, AES 192, and AES 256 from day 1.</li> </ul>			
	Advanced Networking	Should support the below mentioned protocols <ul style="list-style-type: none"> <li>• DHCP v4/v6, DNS, NAT – source, destination, static NAT, destination NAT, PAT.</li> <li>• Device should support End to End segmentation for minimum 25 segment and should be scalable to 50 scalable segment.</li> </ul>			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN VIRTUAL APPLIANCE TO BE PROVISIONED AT OCI**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
	QoS	Should support the following QoS Features <ul style="list-style-type: none"> <li>• like LLQ, WFQ, PBR, Class of service, Real-Time Transport Protocol (RTP) header compression, DiffServ &amp; HQoS</li> <li>• Traffic shaping based on bandwidth limits per application and WAN link,</li> <li>• rate limits per application and WAN link,</li> <li>• prioritization of application traffic per WAN link, marking/remarking DSCP bits for influencing traffic QoS on egress devices,</li> <li>• application steering based on ToS marking</li> </ul>			
	Multicast	should support Multicast forwarding using <ul style="list-style-type: none"> <li>• PIM sparse (rfc 4601) or dense mode (rfc 3973), PIM rendezvous point</li> </ul>			
	SD-WAN Services	Basic path optimization with <ul style="list-style-type: none"> <li>• FEC and packet duplication,</li> <li>• App QoE</li> <li>• RBAC by VPN</li> </ul>			
	Traffic steering	Application Aware Routing (AAR) with Application Detection (AD) and Network Performance Measurement (NPM) to redirect traffic to best fit uplink based on policy should be supported using: <ul style="list-style-type: none"> <li>• Well known hosted application signatures (bidder to give the list of applications supported),</li> <li>• first packet Identification,</li> <li>• deep packet inspection using Known and custom application</li> <li>• TLS1.2 or higher with mandated ciphers, and deep inspection</li> </ul>			
	Application aware traffic control	Should Support Traffic Optimization feature which are built in the SDWAN operating system and the			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN VIRTUAL APPLIANCE TO BE PROVISIONED AT OCI**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		following features associated to it should be supported <ul style="list-style-type: none"> <li>• Granular application policies,</li> <li>• application SLA based path selection,</li> <li>• dynamic bandwidth measurement of SD-WAN paths,</li> <li>• active/active and active/standby forwarding,</li> <li>• overlay support for encrypted transport,</li> <li>• Application or session-based steering,</li> <li>• probe-based SLA measurements</li> </ul>			
	WAN features for optimizing performance of real time applications	Should support <ul style="list-style-type: none"> <li>• Forward Error Correction (FEC) for packet loss compensation,</li> <li>• packet duplication for best real-time application performance,</li> <li>• per packet / flow-based load balancing across multiple wan links</li> </ul>			
	Encryption Support	Secure key generation and distribution IPsec authentication: <ul style="list-style-type: none"> <li>• SHA1, SHA2</li> <li>• IPsec encryption: 3DES, AES-128, AES-192</li> <li>• AES-256 Authenticated and encrypted control plane connections</li> </ul>			
	Analytics and Visibility	Should support <ul style="list-style-type: none"> <li>• Central usage statistics collection for ports, flows,</li> <li>• QoS queues Event-based logging</li> <li>• Secure syslog integration</li> <li>• Remote port mirroring</li> <li>• Inbound CLI access for centralized diagnostics</li> </ul>			
	Authentication Server support	<ul style="list-style-type: none"> <li>• should support AAA using RADIUS and TACACS+</li> </ul>			
	Firewall Support	<ul style="list-style-type: none"> <li>• The SDWAN Solution being offered should have support for NextGen Firewall features including but not limited to</li> </ul>			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN VIRTUAL APPLIANCE TO BE PROVISIONED AT OCI**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		Zone-Based Stateful Firewall, Application Aware Firewall and application inspection and control feature, IPS, IDS, Anti-Malware, Web Filtering. <ul style="list-style-type: none"> <li>If the same is not available in SDWAN Edge Device, bidder to offer additional device of same OEM as SDWAN in HA to support the functionality.</li> </ul>			
	Security Services to be embedded in the SDWAN Box	Licenses for the following services should be offered on a 5-year subscription basis (The licenses should be system wide and not user based) along with the SDWAN Virtual appliance: <ul style="list-style-type: none"> <li><b>IPS Services</b></li> <li><b>Anti-Malware Detection</b> Services for different devices that access the services on the network and the services portfolio includes solutions for Anti-Virus, Mobile malware, Botnet, Crash data Retrieval, Virus Outbreak protection,</li> <li><b>Web Security Services</b> for URL and Web Content and Video Filtering</li> </ul> In case the Licensing is Cloud Based or Appliance base bidder to Consider the cost of 5 years of services.			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN VIRTUAL APPLIANCE TO BE PROVISIONED AT OCI**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
	Key Security Features	<p>With the above licensing the following key functionalities associated to cybersecurity needs to be achieved:</p> <ul style="list-style-type: none"> <li>• Dual Factor Authentication for administration.</li> <li>• Blocking of inappropriate content and malicious sites which may contain malware and other security risks</li> <li>• Protecting all guests, employees, and devices accessing internet against malware, phishing, ransomware and C2 call-backs</li> <li>• Blocking malicious domain requests and IP responses at the DNS-layer</li> <li>• enforcing acceptable use policies using more than 50 content categories</li> <li>• providing URL filtering, AMP, stateful Firewall functionality with On-premises Licensing</li> <li>• Securing access to IAAS and SAAS</li> </ul>			
	Cloud Integration of SDWAN Device for security Purposes	<ul style="list-style-type: none"> <li>• SD-WAN solution should have API based automation with simple step by step automated workflows to integrate with Cloud security solution providers s like Umbrella SIG / Zscaler / equivalent using IPSEC/GRE tunnels in future whenever required.</li> </ul>			



**Hardware and Software specifications for SDWAN Device at Remote Locations**

<b>SECTION 8 TECHNICAL SPECIFICATIONS</b>					
<b>SPECIFICATION FOR SDWAN DEVICES TO BE INSTALLED AT PROJECT SITES AND REMOTE OFFICES</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
<b>1</b>		<b>Eligibility Criteria for OEM supplying SDWAN EQUIPMENTS (For all Locations)</b>			
1.1		OEM should have direct presence in India at-least for 05 years (Supporting documents required)			
1.2		The OEM should be in the Leadership Quadrant of Latest Gartner Magic Quadrant for SDWAN for the year.			
1.3		The OEM should have a Service Center/Spares Depo in India to manage repair and replacement process for Service Request raised. (Supporting document required. In case of OEM offering the above service thru Distributor or Service Partner will also be accepted)			
1.4		The appliances/Hardware/Software that is being offered by the SD WAN OEM should be MEF 3.0 Certified as per the MEF standards defined. OEM to give the details of the same with supporting from the MEF portal			
1.5		All hardware for SDWAN and Switching should be preferably from same OEM or from Gartner's Leader.			
1.6		OEM should give a declaration that the offered products is the latest among their offering and the same is not end of Life or End of Support and if Product is declared End of Life / End of Support then it should be replaced at no extra cost to GMDC during the contract period. Also, the OEM needs to mention that support for the offered product will be available for a period of 7 years from the date of Installation.			
		<b>Hardware and Software specifications SDWAN</b>			



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**SPECIFICATION FOR SDWAN DEVICES TO BE INSTALLED AT PROJECT SITES AND REMOTE OFFICES**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		<b>EQUIPMENTS (Project Sites and Remote offices)</b>			
	Architecture	Appliance Based			
	Memory	As per the architecture requirement to ensure that it support a non-blocking architecture.			
	Ethernet Interfaces	Minimum 8 1G Copper WAN other than Heartbeat and Management port.			
	Other Interfaces	USB - minimum 01 Console Port - 01			
	Internet Mix Traffic Throughput	Minimum 100 Mbps Full-Duplex on Each Device.			
	OS Certification	<ul style="list-style-type: none"> <li>Operating System should be tested and certified for EAL 3/NDPP or above under Common Criteria Certification</li> </ul>			
	Embedded OS features	<ul style="list-style-type: none"> <li>Should have extensive support for IP SLA and best path selection for metrics like delay, latency, jitter, packet loss to assure business-critical IP applications from Day1</li> <li>should have traffic load balancing capability on dual WAN Links based on based on advanced criteria, such as reachability, delay, loss, jitter.</li> <li>shall have capability to add on demand IPsec VPN tunnels dynamically established multipoint-to-multipoint IPSEC based spoke-to-spoke VPN tunnels matching traffic conditions</li> </ul>			
	Support for ISP Links	Auto Link failover with 0 downtimes and Link Load balancing			
	Support for HA Modes	Active-Active and Active-Passive Without any external switches for			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN DEVICES TO BE INSTALLED AT PROJECT SITES AND REMOTE OFFICES**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		WAN terminations. bidder to consider Licenses accordingly .			
	IP schema support	Should support IPV4 and IPV6			
	VPN/Overlay	Should support <ul style="list-style-type: none"> <li>• IKEv1, IKEv2, VRF-aware IPsec, IPsec over IPV6, Hardware-accelerated DES, 3DES, AES 128, AES 192, and AES 256 from day 1.</li> </ul>			
	Advanced Networking	Should support the below mentioned protocols <ul style="list-style-type: none"> <li>• DHCP v4/v6, DNS, NAT – source, destination, static NAT, destination NAT, PAT.</li> <li>• Device should support End to End segmentation for minimum 25 segment and should be scalable to 50 scalable segment.</li> </ul>			
	QoS	Should support the following QOS Features <ul style="list-style-type: none"> <li>• like LLQ, WFQ, PBR, Class of service, Real-Time Transport Protocol (RTP) header compression, DiffServ &amp; HQoS</li> <li>• Traffic shaping based on bandwidth limits per application and WAN link,</li> <li>• rate limits per application and WAN link,</li> <li>• prioritization of application traffic per WAN link, marking/remarking DSCP bits for influencing traffic QoS on egress devices,</li> <li>• application steering based on ToS marking</li> <li>• Should support Adaptive QOS</li> </ul>			
	Multicast	should support Multicast forwarding using			



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**SPECIFICATION FOR SDWAN DEVICES TO BE INSTALLED AT PROJECT SITES AND REMOTE OFFICES**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		<ul style="list-style-type: none"> <li>• PIM sparse (rfc 4601) or dense mode (rfc 3973), PIM rendezvous point</li> </ul>			
	SD-WAN Services	Basic path optimization with <ul style="list-style-type: none"> <li>• FEC and packet duplication,</li> <li>• App QoE:</li> <li>• RBAC by VPN</li> </ul>			
	Traffic steering	Application Aware Routing (AAR) with Application Detection (AD) and Network Performance Measurement (NPM) to redirect traffic to best fit uplink based on policy should be supported using: <ul style="list-style-type: none"> <li>• Well known hosted application signatures (bidder to give the list of applications supported),</li> <li>• first packet Identification,</li> <li>• deep packet inspection,</li> <li>• custom application signatures,</li> <li>• TLS1.2 or higher with mandated ciphers, and deep inspection</li> </ul>			
	Application aware traffic control	Should Support Traffic Optimization feature which are built in the SDWAN operating system and the following features associated to it should be supported <ul style="list-style-type: none"> <li>• Granular application policies,</li> <li>• application SLA based path selection,</li> <li>• dynamic bandwidth measurement of SD-WAN paths,</li> <li>• active/active and active/standby forwarding,</li> <li>• overlay support for encrypted transport,</li> <li>• Application or session-based steering,</li> <li>• probe-based SLA measurements</li> </ul>			
	WAN features for optimizing performance of real time applications	Should support <ul style="list-style-type: none"> <li>• Forward Error Correction (FEC) for packet loss compensation,</li> <li>• packet duplication for best real-time application performance,</li> </ul>			



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**SPECIFICATION FOR SDWAN DEVICES TO BE INSTALLED AT PROJECT SITES AND REMOTE OFFICES**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		<ul style="list-style-type: none"> <li>packet / flow based load balancing across multiple wan links</li> </ul>			
	Encryption Support	Secure key generation and distribution IPsec authentication: <ul style="list-style-type: none"> <li>SHA1, SHA2</li> <li>IPsec encryption: 3DES, AES-128, AES-192</li> <li>AES-256 Authenticated and encrypted control plane connections</li> </ul>			
	Cloud Connectors for Integrating the systems to the Cloud	The connectors for the following Cloud providers mentioned below should be available from day one: <ul style="list-style-type: none"> <li>AWS</li> <li>Google Cloud</li> </ul> Other than this if any other connectors are available the bidder should mention the same			
	Authentication Server support	<ul style="list-style-type: none"> <li>should support AAA using RADIUS and TACACS+</li> </ul>			
	Firewall Support	<ul style="list-style-type: none"> <li>The SDWAN Solution being offered should have support for NextGen Firewall features including but not limited to Zone-Based Stateful Firewall, Application Aware Firewall and application inspection and control feature, IPS, IDS, Anti-Malware, Web Filtering.</li> <li>If the same is not available in SDWAN Edge Device, bidder to offer additional device of same OEM as SDWAN in HA to support the functionality.</li> </ul>			
	Security Services to be embedded in the SDWAN Box	Licenses for the following services should be offered on a 5-year subscription basis (The licenses should be system wide and not user based along with the appliance or the SDWAN Box: <ul style="list-style-type: none"> <li><b>IPS Services</b></li> </ul>			



**SECTION 8 TECHNICAL SPECIFICATIONS**

**SPECIFICATION FOR SDWAN DEVICES TO BE INSTALLED AT PROJECT SITES AND REMOTE OFFICES**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		<ul style="list-style-type: none"> <li>• <b>Anti-Malware Detection</b> Services for different devices that access the services on the network and the services portfolio includes solutions for Anti-Virus, Mobile malware, Botnet, Crash data Retrieval, Virus Outbreak protection,</li> <li>• <b>Web Security Services</b> for URL and Web Content and Video Filtering</li> </ul> <p>In case the Licensing is Cloud Based or Appliance base bidder to Consider the cost of 5 years of services.</p>			
	Key Security Features	<p>With the above licensing the following key functionalities associated to cybersecurity needs to be achieved:</p> <ul style="list-style-type: none"> <li>• Dual Factor Authentication for Administrative access</li> <li>• Blocking of inappropriate content and malicious sites which may contain malware and other security risks</li> <li>• Protecting all guests, employees, and devices accessing internet against malware, phishing, ransomware and C2 call-backs</li> <li>• Blocking malicious domain requests and IP responses at the DNS-layer</li> <li>• enforcing acceptable use policies using more than 50 content categories</li> <li>• providing URL filtering, AMP, stateful Firewall functionality with On-premises Licensing</li> <li>• Securing access to IAAS and SAAS</li> </ul> <p>In case the Licensing is Cloud Based or Appliance base bidder to Consider the cost of 5 years of services.</p>			



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**SPECIFICATION FOR SDWAN DEVICES TO BE INSTALLED AT PROJECT SITES AND REMOTE OFFICES**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
	Cloud Integration of SDWAN Device for security Purposes	<ul style="list-style-type: none"> <li>SD-WAN solution should have API based automation with simple step by step automated workflows to integrate with Cloud security solution providers like Umbrella SIG / Zscaler / equivalent using IPSEC/GRE tunnels in future whenever required.</li> </ul>			
	Safety Standards Compliance	<ul style="list-style-type: none"> <li>SD WAN Device shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements of Information Technology Equipment.</li> </ul>			
	EMC Compliance	<ul style="list-style-type: none"> <li>SD WAN Device shall conform to EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements.</li> </ul>			
	Operating temperature	<ul style="list-style-type: none"> <li>0° to 40° C / 32° to 104° F</li> </ul>			
	Operating relative humidity	<ul style="list-style-type: none"> <li>5% to 85% at 40° C</li> </ul>			



**Hardware and Software specifications for SDWAN MANAGEMENT, MONITIRING, REPORTING AND ANALYTIC MODULE**

<b>SPECIFICATION FOR CENTRALIZED MANAGEMENT, MONITORING, ORCHESTRATION AND ANALYTIC DEVICES FOR SDWAN MANAGEMENT, MONITORING AND ANALYSIS</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		GENERAL REQUIREMENTS			
		Key objective of deploying the Tools is Centralized Management, Monitoring and Orchestration of all SD WAN devices deployed at the central site and remote locations			
		OEM should give a declaration that the offered products is the latest among their offering and the same is not end of Life or End of Support and if Product is declared End of Life / End of Support then it should be replaced at no extra cost to GMDC during the contract period. Also, the OEM needs to mention that support for the offered product will be available for a period of 7 years from the date of Installation.			
		<b>ARCHITECTURE (FOR MANAGER MODULE, ORCHESTRATION MODULE, MONITORING MODULE AND ANALYTICAL MODULE (COULD BE DIFFERENT BOXES OR BUNDLED)</b>			
	Architecture	Virtual Appliance on OCI Cloud Based or OEM's own Cloud.  In case of OCI or OEM's own Cloud bidder to offer the cost of 5years including the cost of IAAS/SAAS Services. The cloud should be residing in India and as per MEITY Compliance.  Connectivity to OEM's Cloud should be provided by Bidder.  Other Links at OCI, CO and Remote site for SDWAN will be provided GMDC			
	IP schema support (For Appliance)	Should support IPV4 and IPV6			
	Device support	To Support supplied devices for 30 Sites on Day One and should be scalable to 50			



<b>SPECIFICATION FOR CENTRALIZED MANAGEMENT, MONITORING, ORCHESTRATION AND ANALYTIC DEVICES FOR SDWAN MANAGEMENT, MONITORING AND ANALYSIS</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		Sites in future without any additional cost for cloud (IAAS / SAAS).			
	Other Licenses	Licenses to Manage, Monitor, Orchestrate and Analyse the data, links and other things coming from these boxes should be given along with the box			
		<b>MANAGEMENT FEATURES AND FUNCTIONALITIES</b>			
		In the proposed SD WAN solution, the DC and DR management console should have the capacity and scalability to manage 50 Sites with horizontal and vertical scalability			
		Should facilitate Centralized management of all devices from the Central locations using Web based GUI and 2FA authenticated access			
		Should have templates for Zero Touch Provisioning where in configurations can be created and pushed to the device installed over the remote location			
		The configuration should facilitate configuration of devices, ports and links installed on the ports and enable policy definitions based on the requirements			
		The management module should support complete Inventory management			
		Should support User-management and AAA integration – Radius/LDAP/TACACS+			
		Should support configuration and management of Role-based access control			
		should support TLS 1.2 or higher for management web GUI SSL access for better security.			
		must support SSH for access to the management Command Line Interface.			
		must provide administrator authentication via TACAS/RADIUS/LDAP			



<b>SPECIFICATION FOR CENTRALIZED MANAGEMENT, MONITORING, ORCHESTRATION AND ANALYTIC DEVICES FOR SDWAN MANAGEMENT, MONITORING AND ANALYSIS</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		or any other standard Authentication software			
		should support role-based administration that can be linked to groups of WAN Virtualization appliances. Depending on their assigned roles, administrators may have read-only or read-write			
		should provide role-based access control or multiple user. Roles that facilitate separation of duties.			
		must provide the ability to manage its files through the GUI, including upload, download and deletion.			
		must provide the ability to backup and restore the solution configuration and traffic data centrally			
		must provide the ability to configure Manual /automatic backups, download/upload backup files, view backups that have been created.			
		must support partial software upgrade feature which allows the network administrator to selectively upgrade the software on sites in the network without needing to upgrade all sites simultaneously			
		should support to update the Patch, OS on the REMOTE/DC/DR devices using central management console			
		must support configuration rollback feature to detect and recover from software and configuration errors by reverting to previously active and working software or configuration.			
		All the functions and features should be configurable locally/remotely on device in each project devices and Primary and DR devices. (any functionality should not be restricted with local device configuration).			



<b>SPECIFICATION FOR CENTRALIZED MANAGEMENT, MONITORING, ORCHESTRATION AND ANALYTIC DEVICES FOR SDWAN MANAGEMENT, MONITORING AND ANALYSIS</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		should have Automated and centralized firmware updates and backups and setting security policy plans for common groups of SD-WAN devices/appliances and virtual security gateways (Firewall & IPS).			
		the policy should include the traffic steering based on the WAN link type (MPLS, Internet, or any of the type of WAN link) available at the project location.			
		should allow for the automatic failover of the VPN tunnels to the disaster recovery data center from the project if the data center is not reachable from the project location or if the WAN connectivity to the Data Center is down or if the application hosted in the data center is not accessible.			
		the software defined network controller must have REST APIs available for 3rd party integration or integration with custom automation tools.			
		should have the flexibility to define a set of rules for analysing the incident/ events.			
		should have the capability to audit any tampering of collected log.			
		should possible to create end to end segmentation within network where traffic in different segment will be separated at layer 3 level.			
		<b>MONITORING FEATURES AND FUNCTIONALITIES</b>			
		support centralized monitoring of deployed appliances, including health reporting and archival of log messages			
		should have authentication and authorization only with the pre-configured Controller/Management server/Management Console which is placed in DC/DR.			



<b>SPECIFICATION FOR CENTRALIZED MANAGEMENT, MONITORING, ORCHESTRATION AND ANALYTIC DEVICES FOR SDWAN MANAGEMENT, MONITORING AND ANALYSIS</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		should be able to create customized single console dashboard for the monitoring all links, all appliances.			
		should support granular Real Time/near real time Monitoring and Historical Reporting like: Statistic bandwidth usage of available links, Network statistics, including continuous performance monitoring of loss, latency, and packet ordering for all network paths and link utilization" etc.			
		solution should be able to generate report for Traffic statistics of all the included path, specific application utilization, path performance etc			
		the software defined controller must be able to monitor and report top applications by usage across all project locations, in a project location along with the data rate and flow usage. This data must be stored by the controller for a minimum of 1 year.			
		the administration should be able to drill down these reports for troubleshooting. For e.g. application accessed by specific users along with bandwidth consumed during defined amount of time			
		should provide a dashboard that provides state of appliances (Online, Offline, Not connected).			
		solution must provide summary reporting of user defined Top IP Sources and Destinations with external monitoring server.			
		The system should be able to notify external systems of events such as faults/alarms as Syslog messages, SNMP (SNMPv3) traps, Telemetry etc.			
		the system must be able to send email / SMS notification for events and alerts. The valid email addresses and numbers for receiving the SMS notifications should be configurable centrally			



<b>SPECIFICATION FOR CENTRALIZED MANAGEMENT, MONITORING, ORCHESTRATION AND ANALYTIC DEVICES FOR SDWAN MANAGEMENT, MONITORING AND ANALYSIS</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		receiver or log collection component must store the data locally if communication with centralized controllers is unavailable. The minimum holding period shall be of 10 days.			
		should be capable of retrieving the archived logs for analysis, correlation, reporting, and forensic purposes			
		Should monitor in Real time WAN Link Condition over the period and but not limited to <ul style="list-style-type: none"> <li>• Packet Loss over the customized time and real time.</li> <li>• Jitter over the customized time and real time.</li> <li>• Link Errors over the customized time period and real time.</li> <li>• Bandwidth Utilization over the customized time period and real time.</li> </ul>			
		should create Alerts/ notifications in several ways, i.e. from the dashboards, configuration settings, or when one or more number of events occurs with configurable conditions, thresholds being met/exceeded and more			
		should provide customizable and custom reports templates. The proposed SD WAN solution should allow scheduling of creation and distribution of reports. The proposed SD WAN solution must provide fully customizable queries and report libraries to define reports and alert combinations			
		should also give business critical network dashboard to understand the Traffic, latency and Bandwidth utilization per user/location/site/projects/application.			
		should provide analysis of network traffic patterns over months, days, or minutes by drilling down. The proposed SD WAN solution should be able to map the traffic, IP address, and MAC of each host on the network, allowing for easy identification			



<b>SPECIFICATION FOR CENTRALIZED MANAGEMENT, MONITORING, ORCHESTRATION AND ANALYTIC DEVICES FOR SDWAN MANAGEMENT, MONITORING AND ANALYSIS</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		of each host and the traffic in the network.			
		should further be able to provide network packet flow diagram to illustrate network communication between multiple application tiers			
		should be able monitor QoS performance on a per-class basis and set up alerts based on severity level for proactive notifications of application issue.			
		solution should offer an integrated alert viewer to look at alerts generated based on real time monitoring where thresholds are exceeded for service parameters. The proposed SD WAN solution should support integration GMDC's Email, Gateway.			
		solution must be capable of exporting traffic statistics to Net Flow, excel, text file, etc.			
		solution must include a comprehensive logging capability, integrate to GMDC AD & customize user roll base facility.			
		Logs must be retained in each individual device for a period of at least six month, with inbuilt capability or with external database where storing for longer duration is possible, depending on size of the data or cloud.			
		the system must be able to monitor ISP link parameters like link quality, link usage and link congestion and should be able to provide historical data on the same for a period of minimum 1 Years.			
		<b>REPORTING AND ANALYTICS</b>			
		The device should support minimum one day storage capability.			
		Should have the capacity to analyze 1500/logs per second			



<b>SPECIFICATION FOR CENTRALIZED MANAGEMENT, MONITORING, ORCHESTRATION AND ANALYTIC DEVICES FOR SDWAN MANAGEMENT, MONITORING AND ANALYSIS</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		Should have the capacity to Collect 2000 logs per second			
		It should be able to support 200 devices from which data can be collected simultaneously and processed in line the above-mentioned speeds			
		It should be able to store data for a period of 1 Year for purpose of analytics and reporting			
		should come with license/subscription of Security Automation Service to enable further automation for incident response with enhanced monitoring and escalation, built-in incident management workflows, connectors, playbooks			
		Should facilitate Analytics with event correlation and real-time detection across all logs, with Indicators of Compromise (IOC) service and detection of advanced threats			
		should support automation driven analytics need for providing full visibility of network devices, systems, and users, with correlated log data for threat intelligence and analysis of real-time and historical events			
		With automation driven analytics the team will have access to correlated views and reports that will provide deep insights with context and meaning of network activity, risks, vulnerabilities, attack attempts, and investigation of operational anomalies with monitoring of sanctioned and unsanctioned user activity for SaaS applications			
		The analyzer should provide around 50+ Templates for building Custom reports and should have around 1500+ ready to use datasets, charts and macros for analysing Secure SD-WAN, VPN, network anomaly detection, threat assessments, 360 Security Reviews,			



<b>SPECIFICATION FOR CENTRALIZED MANAGEMENT, MONITORING, ORCHESTRATION AND ANALYTIC DEVICES FOR SDWAN MANAGEMENT, MONITORING AND ANALYSIS</b>					
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		situational awareness, self-harm and risk indicators			
		The data of these reports for purpose of flexible viewing by the stakeholders can be exported to PDF, HTML, CSV, XML, and JSON. Other that this if any other formats are supported the bidder should mention the same.			



## Hardware and Software for ITAM (Asset Management) And ITSM (Service Management)

The same will be used for setting the NOC and monitoring of all hardware assets (SDWAN Devices, Switches, UPS, and all VM Instances (Appliance/Cloud based) associated to SDWAN Management, Monitoring, Orchestration etc. Thru this EMS discovery all IT assets will be done and then those will be monitored for their health and based on the changes alerts will be generated. The same will be used manage the SLAs and it will also create a help desk for Service management

<b>SPECIFICATION FOR ENTERPRISE MANAGEMENT SYSTEMS FOR IT ASSET MANAGEMENT, MONITORING, SLA COMPLIANCE AND IT SERVICE MANAGEMENT</b>					
<b>MAKE: MANAGEENGINE, EVEREST, MOTADATA, BMC REMEDIES, SERVICE NOW, HP, IBM, SOLARWINDS</b>					
<b>Sr_ No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		<b>OEM PQ</b>			
		OEM should give a declaration that the offered products is the latest among their offering and the same is not end of Life or End of Support and if Product is declared End of Life / End of Support then it should be replaced at no extra cost to GMDC during the contract period. Also, the OEM needs to mention that support for the offered product will be available for a period of 7 years from the date of Installation.			
		<b>GENERAL REQUIREMENT</b>			
	Architecture	SAAS/Cloud Based. If Cloud Based relevant IAAS ensuring support for functionality and scalable architectures as per the specifications required should be supplied by the bidder with OEM supporting for Compatibility for 5 Years.			
		Bidder to provide OEM cloud or consider cost of OCI IAAS / virtual machine required for 5 Years with all required license Included but not limited to application, database.			
		The solution should have dual-stack IP support (support both IPv4 and IPv6) and should be completely vendor-agnostic in nature to be able to monitor a multi-vendor environment			
		The solution should be a unified system which can monitor networks, servers,			



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		apps and any IT or Non-IT Communicable device (ex.: RF device, VSAT etc.)			
		The solution should be completely multi-tenant where in every module and system being used can be assigned to a specific set of users or a group of users.			
		The system should be capable to retrieve and show fault, performance, inventory and SLA data in a single dynamic view with option to export the views into PDF, Word, Excel, HTML etc. formats depending on the need. System should have capability to add any additional information about the nodes via custom fields.			
		System should have Node Tags for device grouping and resource/interface tagging for element grouping. Apart from Node Tags additionally system should have options to do device grouping based on default fields and customer fields			
		System should provide the option to have the portal account to the end customers with restricted views limits to their specific infrastructure. System should have the capability to be implement in DMZ and non-DMZ zone with adequate security.			
		Tool must provide Role based Access Control option			
		Cover geographically distributed networks through multi-level scalable distributed deployment architecture			
		Ability to add new pollers at no extra cost.			
		The tool should be deployed in HA mode (High Availability) for redundancy purpose			
	Device support	Minimum Licensing for 300 device support license should be given and the			



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		same should be scalable upto 1000 devices			
	Other Licenses	Licenses to Manage, Monitor, Orchestrate and Analyse the data, links and other things coming from these boxes should be given along with the box			
		<b>THIRD PARTY SDN INTEGRATION</b>			
		Integration should provide the option in both north as well as south bound integration on each module level. Any fault details should be able to send to third party CRM, Customer Portal, UNMS or even EMS if needed using the Trap, XML and even direct database query integration			
		Provide 12+ open APIs in the system which can be used by customers for integrating their own systems. Integration should provide the option in both north as well as south bound integration using multiple options like RestAPI, XML, SOAP, Corba etc. on each module level. Any fault details should be able to send to third party CRM, Customer Portal, UNMS or even EMS if needed using the Trap, XML and even direct database query integration			
		<b>IT ASSET MANAGEMENT - DISCOVERY</b>			
		System should have option for multiple options for discovery including IP address-based discovery, IP address range discovery, CSV based discovery for bulk discovery and it should allow options to add custom fields to support customer specific data to upload during discovery			
		The system should fetch topology via SNMP for ARP tables from routers, MAC tables from layer 2 switches, cisco Discovery Protocol, Link Layer Discovery Protocol, Foundry Discovery Protocol or			



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		Synoptics Network Management Protocol. The discovery should be automated and continuous.			
		Discovery has to work intelligently by identifying the device in the network by the given IP range and categorize into network devices and servers with vendor and model details.			
		Automatically learn devices that supports SNMP, HTTP, Ping, SMTP, POP3, WMI, JMX, SOAP, REST API, PDC, SSH and Telnet along with any required protocol to communicate to the devices.			
		IP Asset Management solution should have complete IP discovery, IP management with historical tracking			
		IPAM should have IP Grouping, Sub grouping and role and privileged based access.			
		Support both IPv4 and V6 along with IP Classes and VLSM based			
		Should have templates for Zero Touch Provisioning where in configurations can be created and pushed to the device installed over the remote location			
		The configuration should facilitate configuration of devices, ports and links installed on the ports and enable policy definitions based on the requirements			
		The management module should support complete Inventory management			
		Should support User-management and AAA integration – Radius/LDAP/TACACS+			
		Should support configuration and management of Role-based access control			



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		should support TLS 1.2 or higher for management web GUI SSL access for better security.			
		must support SSH for access to the management Command Line Interface.			
		must provide administrator authentication via TACAS/RADIUS/LDAP or any other standard Authentication software			
		should support role-based administration that can be linked to groups of WAN Virtualization appliances. Depending on their assigned roles, administrators may have read-only or read-write			
		should provide role-based access control or multiple user. Roles that facilitate separation of duties.			
		must provide the ability to manage its files through the GUI, including upload, download and deletion.			
		must provide the ability to backup and restore the solution configuration and traffic data centrally			
		must provide the ability to configure Manual /automatic backups, download/upload backup files,			
		must support partial software upgrade feature which allows the network administrator to selectively upgrade the software on sites in the network without needing to upgrade all sites simultaneously			
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		should support to update the Patch, Firmware, OS on the REMOTE/DC/DR devices using central management console			
		must support configuration rollback feature to detect and recover from software and configuration errors by reverting to previously active and working software or configuration.			
		should have Automated and centralized firmware updates and backups and setting security policy plans for common groups of LAN/WAN/IT Devices devices/appliances and virtual security gateways (Firewall & IPS) that support CLI (SSH/Telnet)			
		the policy should include the traffic steering based on the WAN link type (MPLS, Internet, or any of the type of WAN link) available at the project location.			
		should allow for the automatic failover of the VPN tunnels to the disaster recovery data center from the project if the data center is not reachable from the project location or if the WAN connectivity to the Data Center is down or if the application hosted in the data center is not accessible.			
		should have the flexibility to define a set of rules for analysing the incident/ events.			
		should have the capability to audit any tampering of collected log.			
		<b>THRESHOLD DEFINATION</b>			
		System should support global threshold and it should have option to define individual resource/interface statistics level threshold			



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		System should have built in self learning algorithms to auto baseline and auto calculate thresholds of components or nodes to enable tool admin to start the monitoring with zero threshold configurations			
		Configurable parameters like frequency, data duration, resolution duration, sigma-based polarity value, reset points should be available			
		All thresholds should have set point, reset point, polarity, set point message and reset point message for ease of use.			
		<b>FAULT MANAGEMENT FEATURES</b>			
		Detect & highlight faults (abnormal situations) in near real-time occurring anywhere within the monitored IT Infrastructure			
		Provides Filtering, De-duplication, Holding, Suppression and Correlation capability to let user focus on the critical event that affects the business and business processes			
		Support multi-level (preferably six-level) Severity definition, will handle events automatically and inform the designated person as per operational requirement			
		<p>System should support separate Rule Engine based alarms apart from the generic threshold.</p> <ul style="list-style-type: none"> <li>• Should have capability to configure Device Group based, Node Based, Resources/Interface based, Aggregation link based.</li> <li>• On Selection of Nodes/Resources/Aggregation links it should have flexibility to filter based on fields available in node information</li> </ul>			



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		<ul style="list-style-type: none"> <li>• Rules should have option to apply configuration on top of performance value or based on configured threshold alarms</li> <li>• Rules should have option configure the breach based on min, max and average values</li> <li>• Should have option to configure rules n repeat counters</li> <li>• Should have options to select custom alarm and clear alarm messages for individual configured rules</li> <li>• Should have option to send severity levels like error, warning and information</li> <li>• Notifications support based on configured rules</li> </ul>			
		Provides alarm suppression withhold time and aid in prevention of flooding			
		Sends alert via E-mail, SMS, Execute Batch file, SNMP Trap, XML notification, Pop-up window and Audio alert			
		<b>ASSET PERFORMANCE MONITORING</b>			
		Monitors all traffic from all the interfaces of the network device. Provides traffic Utilization based on individual interface level, nodes level or based on the group by location, branch, departments etc... as an Avg, Min and Max bandwidth, utilization, throughput or any custom monitoring parameters.			
		Provision to change the polling interval to any frequency depending on the priority till the individual component / resource level like each interface might have the different polling interval in the same device based of the criticality and importance of service customer			



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		support centralized monitoring of deployed appliances, including health reporting and archival of log messages			
		should be able to create customized single console dashboard for the monitoring all IT assets (Links, devices, Servers, Virtual Services and other IT devices)			
		should support granular Real Time/near real time Monitoring and Historical Reporting like: Statistic bandwidth usage of available links, Network statistics, including continuous performance monitoring of loss, latency, and packet ordering for all network paths and link utilization" etc.			
		It should fetch data from the SDWAN Controller and using that data the solution should be able to generate report for Traffic statistics of all the included path, specific application utilization, path performance etc			
		It should fetch data from the SDWAN Controller and using that data it should report top applications by usage across all project locations, in a project location along with the data rate and flow usage. This data must be stored by the controller for a minimum of 1 year.			
		solution must provide summary reporting of user defined Top IP Sources and Destinations with external monitoring server.			
		The system should be able to notify external systems of events such as faults/alarms as Syslog messages, SNMP (SNMPv3) traps, etc.			
		the system must be able to send email / SMS notification for events and alerts. The valid email addresses and numbers			



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		for receiving the SMS notifications should be configurable centrally			
		receiver or log collection component must store the data locally if communication with centralized controllers is unavailable. The minimum holding period shall be of 10 days.			
		should be capable of retrieving the archived logs for analysis, correlation, reporting, and forensic purposes			
		<p>Should monitor in Real time WAN Link Condition over the period and but not limited to</p> <ul style="list-style-type: none"> <li>• Packet Loss over the customized time and real time.</li> <li>• Jitter over the customized time period and real time.</li> <li>• Link Errors over the customized time period and real time.</li> <li>• Bandwidth Utilization over the customized time period and real time.</li> </ul> <p>Application utilization from bandwidth over the customized time period and real time.</p> <p>User (i.e. end user IP) utilization from bandwidth over the customized time period and real time.</p>			
		should create Alerts/ notifications in several ways, i.e. from the dashboards, configuration settings, or when one or more number of events occurs with configurable conditions, thresholds being met/exceeded and more			
		should be able monitor QoS performance on a per-class basis and set up alerts based on severity level for proactive notifications of application issue.			
		solution should offer an integrated alert viewer to look at alerts generated based			



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		on real time monitoring where thresholds are exceeded for service parameters.			
		solution must be capable of exporting traffic statistics to Net Flow, excel, text file, etc.			
		solution must include a comprehensive logging capability, integrate to GMDC AD & customize user roll base facility.			
		Logs must be retained in each individual device for a period of at least 1 Year, with inbuilt capability or with external database where storing for longer duration is possible, depending on size of the data or cloud.			
		the system must be able to monitor ISP link parameters like link quality, link usage and link congestion and should be able to provide historical data on the same for a period of minimum 1 Years.			
		<b>POLLING FACILITY</b>			
		System should have capability to configure business, non-business hours or custom time polling. These configurations should be available for every device as well as every component in the device.			
		Provision to disable and enable the polling of specific type of devices			
		System should have capability to configure the maintenance period for any device. When device is in maintenance period there is no polling done and the SLA clock on the device is stopped.			
		<b>SERVICE LEVEL AGREEMENT</b>			
		SLA calculation / Isolation report should be made with the consideration of both the Primary and Secondary link together instead of individual link based. The downtime calculation will be measured			



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		when both the links are down for internal reporting and link based for ISP reporting. System should provide the flexible configuration in UI itself based on user needs			
		<b>REPORTING</b>			
		The offered solution should support per day storage capability of 80GB (applicable for virtual appliance-based design)			
		Should have sufficient capacity to collect & analyse logs per second for offered solution under this RFP			
		It should be able to support 1000 IT assets from which data can be collected simultaneously and processed in line the above-mentioned speeds			
		It should be able to store data for a period of 2 years for purpose of analytics and reporting			
		The analyzer should provide around Templates for building Custom reports and should have around ready to use datasets, charts and macros for analysing Secure SD-WAN, VPN, network anomaly detection, threat assessments.			
		<p>Provide online and offline reports that allow the user to view the present usage of their devices. The data of these reports for purpose of flexible viewing by the stakeholders can be exported to PDF, HTML, CSV, XML, and JSON. Other than this if any other format are supported the bidder should mention the same.</p> <p>Allows end-users to browse all reports using any web browser like Internet Explorer, Mozilla Firefox, Google Chrome etc. without the need to install any report specific software</p>			



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		Provide standard reports that display status of nodes and interfaces. Reports could be viewed on daily graph (5-minute average), weekly graph (1-hour average minute average), monthly graph (1-hour average) and yearly graph (1-day average)			
		Automatically generate daily reports that provide a summary of the IT Infrastructure as well as custom Reports and that are automatically sent by email at a pre-defined schedule to any recipient or save into any specific folder or drive.			
		<b>DIAGNOSTICS</b>			
		Supports instant diagnosis of the node status through Ping, Telnet and SNMP walk			
		Support Real-Time report generation for checking continuous reachability of target device			
		<b>TOPOLOGY REPRESENTATION AND DISCOVERY</b>			
		System should provide many different types of topology representation. To perform the following <ul style="list-style-type: none"> <li>• Display physical connections of the different devices being monitored in the system</li> <li>• Display flat maps of the entire network or networks in a single view</li> <li>• Display customer maps based on user configurations</li> <li>• Display maps based on geo locations</li> </ul>			
		Automatically learn IP Networks and their segments, LANs, hosts, switches, routers, firewalls etc. and to establish the connections and to correlate			
		<b>CONFIGURATION AND INVENTORY MANAGEMENT</b>			



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		Tool should have complete inventory information of the assets discovered along with an option to fetch the target network device EoL (End of Life) / EoS (End of Support) information if required			
		Tool must support CLI-based network device configuration snapshot management including backup of configuration files, traffic logs, messages etc., pushing configuration files to target network devices, with option to perform remote firmware upgrades.			
		The configuration changes to be done on target network devices must follow an approval-based system wherein changes can be performed only after required approvals are passed. Tool must have in-built approval mechanism along with option to integrate with Change Management module of other tools for the approval process.			
		Tool must provide option for target CLI-based network device vulnerability detection based on their model number and firmware version. It should also provide options to remedy the vulnerabilities with help of pre-configured scripts for certain vulnerability types.			
		Tool must provide option to perform standard compliance checks like PCI-DSS, NIST, DISA etc. across all target CLI-based network devices			
		Tool must provide an option for taking remote access via Telnet / SSH to target CLI-based Network Devices with an option to record all sessions to capture all commands being executed on the remote devices. The tool must allow session relay wherein a higher-privileged user can view the ongoing CLI session of a lower-privileged user in real-time from the tool GUI. The sessions should be saved for			



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		historical analysis with flexible filter options like searching for sessions in which a command has been executed.			
		<b>NETWORK TRAFFIC MONITORING</b>			
		Should identify which users, applications, protocols, countries, AS numbers, top routers, and top interfaces are consuming the most bandwidth			
		System should have capability to alternatively capture traffic data via packet capture.			
		Should be able to associate traffic coming from different sources to application names			
		Should be able to receive flows from non-SNMP-enabled devices, like VMware vSwitch			
		Should monitor Type of Service (ToS), Differentiated Services Codepoint (DSCP), and Per-Hop Behaviour (PHB), BGP AS and NEXT HOP			
		Should provide flow analysis with 1-minute granularity and the solution should be able to monitor up to 5 million flows per second, and should employ advanced optimization methods			
		Solution should feature threat monitoring by comparing enterprise traffic against known IOC			
		Solution should also feature signature-based detection techniques and allow drilldown to packets from alerts			
		Solution should be able to detect DDoS attacks based on volumetric attacks, application attacks, scanning etc			
		Solution should support packet-based intrusion detections based on signatures			



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		Solution should support advanced SSL/TLS analysis like detecting false certificates, expired, self-signed			
		<b>WAN LINK MONITORING</b>			
		Tool should allow QoS monitoring of WAN links across multiple technologies like Cisco IPSLA, Juniper RPM, Huawei NQA etc. across multiple protocols like HTTP, TCP, FTP, DNS etc.			
		QoS parameters should include link response time, link-level latency, link-level packet loss, link-level jitter, Round-Trip-Time etc.			
		Should monitor Class-Based Quality of Service (CBQoS) to find out if traffic prioritization policies are effective and if business-critical applications have network traffic priority. Should also support CBQoS Nested policies			
		<b>INTERGRATION SUPPORT FOR HYPERVISORS AND DATABASES</b>			
		System should support VM, Hypervisor and Cluster monitoring from different vendors like VMWare, Citrix, Nutanix, Linux etc. Bidder to give the list of all compatible hypervisors			
		System licensing should be based only on Physical Hosts and not charge separately for individual guest VMs running on VM Hosts			
		System show have capability to monitor availability and performance of industry standard web server like IIS / Tomcat / Apache / Jboss, email server like Office 365 / Exchange / Zimbra / Lotus Notes, and databases like Oracle / MSSQL / MySQL / PostgreSQL etc. Bidder to give the list of all compatible hypervisors			
		System show have capability to monitor HTTP service, HTTPS service server			



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		statistics, POP/SMTP services, ICMP services or any customer specific port-based systems			
		<b>SECURITY FEATURES FOR ACCESSING THE NMS</b>			
		The system should allow remote access to the internal network via a Zero Trust system and no use of VPN or agents.			
		Only specific protocols like SSH, RDP, Telnet, VNC which are essential for remote access should be allowed			
		All the actions taken during the remote access should be recorded and have ability to audit them later.			
		All remote access should be authenticated and all devices a user has access should be pre-allocated			
		The system should have ability to authenticate access to any device via Single sign on and password should not be exposed to users			
		All CLI session should have command control, any command that is not authorized cannot be used and session should be terminated			
		Administrator should be able to view the live session of any ongoing session and can terminate them also			
		Any file being transferred should be via the Zero trust system. File will be scanned for virus and only then be transferred to the target location			
		Time based, temporary users should be configurable in the system			
		<b>IT SERVICE MANAGEMENT AND HELP DESK</b>			
		The proposed The proposed tool must be ITIL v3/v4 compliant and should be Pink			



**SPECIFICATION FOR ENTERPRISE MANAGEMENT SYSTEMS FOR IT ASSET MANAGEMENT, MONITORING, SLA COMPLIANCE AND IT SERVICE MANAGEMENT**

**MAKE: MANAGEENGINE, EVEREST, MOTADATA, BMC REMEDIES, SERVICE NOW, HP, IBM, SOLARWINDS**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		elephant certified on minimum 7 processes, including Availability Management, Event Management, Incident Management, Problem Management, Change Management, Request Fulfilment, Service Level Management, Service Catalog Management, Service Asset & Configuration Management, Asset Management, Release & Deployment Management and Knowledge Management			
		The proposed tool must provide GUI interface for users, requesters, customers, support staff, 3rd party vendors, Area Managers, Field Engineers, Site Engineers, Supervisors, Managers, (Helpdesk available 24x7 at customer site ) etc. with options to restrict amount of information that can be accessed by each role			
		The proposed tool must provide native mobile application for Android and iOS both and it should be accessible by users, requesters, customers, support staff, 3rd party vendors, Area Managers, Field Engineers, Site Engineers, Supervisors, Managers etc.			
		The proposed tool must provide Role based Access Control for each Process, module, feature available in the tool			
		The proposed tool must provide powerful connectivity to other data sources or 3rd party applications for data import and export using REST APIs			
		The proposed tool must provide intelligent Email-to-Incident feature in which tool admin has the option to allow certain domains for automatic conversion of emails to tickets			
		Tool should merge all subsequent email communication for a email-to-incident			



**SPECIFICATION FOR ENTERPRISE MANAGEMENT SYSTEMS FOR IT ASSET MANAGEMENT, MONITORING, SLA COMPLIANCE AND IT SERVICE MANAGEMENT**

**MAKE: MANAGEENGINE, EVEREST, MOTADATA, BMC REMEDIES, SERVICE NOW, HP, IBM, SOLARWINDS**

Sr_ No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
		ticket into the same ticket in the form of a message thread.			
		The solution should be able to provide web-based email client which can be used for interaction with other team members and record all the Email Communication in Chronological Order so that entire email chain (to & fro) should be available in a single view			
		Tool should provide REST APIs to integrate with IT Infrastructure Management, Configuration Management, Network Management, CRM tools to automate Events to Ticket			
		Should be able to do 2 Way Integration with 3rd party and should be able to exchange the data at any stage of the lifecycle of the Incident, Problem, Change, Request, Task, Release etc.			
		Tool should be able to provide real-time notification alerts via Email/ SMS / API / SLACK / WhatsApp to notify respective users about any state or status change of a ticket			
		Tool should support multi-tenancy, where internal and external users can create tickets from the same portal			
		Tool GUI should be Easy-to-use based on single-page-application concept			
		Product should be able to Import User data from LDAP, AD or from other 3rd party systems via API calls. It should also have option to manually upload user data using CSV template			
		The proposed tool must have option to define announcements for notifying end users / requesters about any important information with option to schedule it for certain time period			



**Specifications of Data Switch**

<b>SPECIFICATON FOR NETWORK SWITCHES</b>					
<b>MAKE: SAME OEM FROM WHICH SDWAN PRODUCTS ARE OFFERED OR FROM GARTNER'S LEADERS</b>					
<b>Sr. No</b>	<b>Parameter</b>	<b>Specification</b>	<b>Compliance Y-N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		<b>GENERAL SPECIFICATIONS TO BE COMPLIED BY OEM-SI FOR THE NETWORK SWITCHES BEING OFFERED</b>			
<b>1</b>		All the H-w being offered should be IPV6 ready from day one and whenever NFSU wants to migrate to IPV6 they should be in a position to do so without adding or changing the H-w. Bidder should give specific compliance for the same			
<b>2</b>		All the Components offered in the solutions should comply to open standards assuring that future cross compatibility with other OEM brands on the integration front.			
<b>3</b>		All the Components switches should be warranted for a period of 5 years" warranty and during warranty any Software and Firmware upgrade etc. should be available free of cost to GMDC. Bidder to take the cost consideration for the same.			
<b>4</b>		The switches being offered should come with the latest H-w and S-w version and OEM to give a binding for this on his letter pad for the same			
<b>5</b>		OEM should give a declaration that the offered products is the latest among their offering and the same is not end of Life or End of Support and if Product is declared End of Life / End of Support then it should be replaced at no extra cost to GMDC during the contract period. Also, the OEM needs to mention that support for the offered product will be available for a period of 7 years from the date of Installation.			
<b>1</b>		<b>GENERAL REQUIREMENTS</b>			



<b>SPECIFICATON FOR NETWORK SWITCHES</b>					
<b>MAKE: SAME OEM FROM WHICH SDWAN PRODUCTS ARE OFFERED OR FROM GARTNER'S LEADERS</b>					
<b>Sr. No</b>	<b>Parameter</b>	<b>Specification</b>	<b>Compliance Y-N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
A		The switch should be 19" rack mountable			
B		All 24 ports should be usable and if additional SPF of SPF+ Modules are added to uplinks or connectivity then 1000 Tx ports should not be disabled meaning that 24 port switches should be 24 ports + Uplinks ports			
C		The switch should have minimum of 4 SPF slots			
D		The switch should have support for 1000Base-T, 1000Base-SX,1000Base-LX			
E		Switch should have internal memory and flash memory that will ensure that switching speeds for a non-blocking architecture are managed in the designated time frame. The Switch should have 512MB RAM and 256MB Flash			
F		Uplink ports can be used to connect up to eight switches and manage them via a single IP address.			
<b>2</b>		<b>Performance Parameters</b>			
a		Switch shall have minimum 56 Gbps of switching fabric and 41 Mpps of forwarding rate.			
b		Shall have minimum 15 K MAC Addresses and 256 Active VLANs.			
c		Shall have minimum IPv4 and IPv6 multicast routes and 1024 IGMP groups			
d		Should have minimum 64 STP instances			
e		Shall have 512 IPv4 and 512 IPv6 security access list entries			
f		Switch should support 1024 IPv4 multicast routes, IGMP groups and IPv6 multicast groups			
g		Switch Need to support 600 IPv4/MAC security ACEs and IPv6 security ACEs			



<b>SPECIFICATON FOR NETWORK SWITCHES</b>					
<b>MAKE: SAME OEM FROM WHICH SDWAN PRODUCTS ARE OFFERED OR FROM GARTNER'S LEADERS</b>					
<b>Sr. No</b>	<b>Parameter</b>	<b>Specification</b>	<b>Compliance Y-N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
h		Switch will support 10240-byte Jumbo Ethernet frame from day 1			
I		Switch need to support. 9198 bytes MTU-L3 packet			
j		Switch shall have minimum 56 Gbps of switching fabric and 41 Mpps of forwarding rate.			
<b>3</b>		<b>Functionality Requirements</b>			
a		Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3az.			
b		Switch must have features like static routing 16 for IPv4 and 16 for IPv6			
c		Shall have 802.1p class of service, marking and classification & eight egress queues.			
d		Switch should support QoS through Differentiated Services Code Point (DSCP) mapping and filtering.			
e		Switch should support Shaped Round Robin (SRR) scheduling and Weighted Tail Drop (WTD) congestion avoidance.			
f		Switch should support management features like SNMPv3, NTP, RADIUS and TACACS+ .			
g		Switch should support advance mechanism to handling link failures and improving convergence time in ring topologies with industry standard like Resilient Protocol or equivalent.			
h		Switch should support DHCP, Auto Negotiation, DTP, LACP, UDLD, MDIX, VTP, TFTP, NTP, Per-port broadcast, multicast, Static routing, Layer 2 trace route and unicast storm control.			
I		Must have the capabilities to enable automatic configuration of switch ports as			



<b>SPECIFICATON FOR NETWORK SWITCHES</b>					
<b>MAKE: SAME OEM FROM WHICH SDWAN PRODUCTS ARE OFFERED OR FROM GARTNER'S LEADERS</b>					
Sr. No	Parameter	Specification	Compliance Y-N	Deviation	Ref Page no.
		devices connect to the switch for the device type.			
j		Should support management CLI and web UI over SNMP, RJ-45, Bluetooth or USB console access			
K		Should have trunk failover capabilities to ensure server NIC adapters team up to provide redundancy in the network so that in case of the link is lost on the primary interface, network connectivity is transparently changed to the secondary interface.			
L		Security with 802.1X support for connected devices, Switched Port Analyzer (SPAN), and Bridge Protocol Data Unit (BPDU) Guard			
m		Switch should support MTBF of more than 20,00,000			
n		<b>Industry Standard:</b> 60950-1, CISPR22 Class A, EN55024, RoHS and IPv6 Ready Logo			
0		<b>Switch should support enhanced QoS like,</b> egress queues, Ingress policing to, QoS through Differentiated Services Code Point (DSCP) mapping and filtering, QoS through traffic classification, Trust boundary, AutoQoS, Shaped Round Robin (SRR) scheduling and Weighted Tail Drop (WTD) congestion avoidance, 802.1p Class of Service (CoS) ,			
P		Switch should have intelligent power management, allows flexible power allocation across all ports. With Perpetual PoE, the PoE+ power is maintained during a switch reload. So that there is no power disruption during a switch reboot.			
q		<b>Operating Temperature range:</b> -5 to +50 deg C			
<b>4</b>		<b>Security features support</b>			



<b>SPECIFICATON FOR NETWORK SWITCHES</b>					
<b>MAKE: SAME OEM FROM WHICH SDWAN PRODUCTS ARE OFFERED OR FROM GARTNER'S LEADERS</b>					
Sr. No	Parameter	Specification	Compliance Y-N	Deviation	Ref Page no.
a		Switch should support 802.1X features to control access to the network, including flexible authentication, 802.1X monitor mode, and RADIUS change of authorization			
b		Switch support 802.1X with Network Edge Access Topology (NEAT), which extends identity and user distribution, which enables you to load-balance users with the same group name across multiple different VLANs.			
c		Switch should have capability to disable per-VLAN MAC learning to allow you to manage the available MAC address table space by controlling which interface or VLANs learn MAC addresses			
d		Switch should support Multidomain authentication to allow an IP phone and a PC to authenticate on the same switch port while being placed on the appropriate voice and data VLANs.			
e		Switch need to support Access Control Lists (ACLs) for IPv6 and IPv4 security and Quality-of-Service (QoS) ACL elements (ACEs).			
f		Switch should have features like Port-based ACLs, SSH, Kerberos, and SNMP v3, TACACS+ and RADIUS authentication, Web authentication redirection, Multilevel security on console access, Spanning Tree Root Guard (STRG), Internet Group Management Protocol (IGMP) filtering,			
g		Switch should support SPAN, with bidirectional data support, to allow the OEM Intrusion Detection System (IDS) to take action when an intruder is detected.			
		<b>SAFETY AND COMPLIANCE</b>			
a		Safety certification UL 60950-1 Second Edition, CAN/CSA-C22.2 No. 60950-1 Second Edition, EN 60950-1 Second			



<b>SPECIFICATON FOR NETWORK SWITCHES</b>					
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<b>Sr. No</b>	<b>Parameter</b>	<b>Specification</b>	<b>Compliance Y-N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		Edition, IEC 60950-1 Second Edition, AS/NZS 60950-1			
b		EMC: Emissions certification 47CFR Part 15 (CFR 47) Class A, AS/NZS CISPR22 Class A, CISPR22 Class A, EN55022 Class A, ICES003 Class A, VCCI Class A, EN61000-3-2, EN61000-3-3, KN22 Class A, CNS13438 Class A			
c		EMC: Immunity, certification EN55024 (including EN 61000-4-5), CISPR24, EN300386, KN24			
d		Environmental Reduction of Hazardous Substances (RoHS) including Directive 2011/65/EU			

**Specifications of UPS for Remote Sites**

<b>Specifications of 5 KVA Online UPS with 1 Hr Backup with Lithium Battery</b>					
<b>MAKE UPS: APC by Schneider, VERTIV, ABB</b>					
<b>MAKE BATTERIES: SAMSUNG, LG, PANASONIC, TOSHIBA</b>					
<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y-N</b>	<b>Deviation</b>	<b>Ref Page no.</b>	
	<b>Make &amp; Model</b>				
	Rating	5 KVA			
System parameter	Technology	IGBT based Double conversion PWM based online UPS			
	Installation mode	Rack mount UPS and Batteries outside			
	Rated voltage	220 Vac			
Input	Voltage Range	176Vac ~ 288Vac at full load, 100Vac ~ 176Vac linear increasing, 100Vac at half load			
	Rated Frequency	50 Hz			
	Frequency Range	40Hz ~ 70Hz			
	Power factor	≥ 0.99 at full load; ≥ 0.97 at half load; ≥ 0.94 at 30% load			
Output	Rated power	5000VA/5000W			
	Voltage	220Vac/230Vac/240Vac, 220Vac by default			



<b>Specifications of 5 KVA Online UPS with 1 Hr Backup with Lithium Battery</b>					
<b>MAKE UPS: APC by Schneider, VERTIV, ABB</b>					
<b>MAKE BATTERIES: SAMSUNG, LG, PANASONIC, TOSHIBA</b>					
<b>Parameter</b>		<b>Specifications</b>	<b>Compliance Y-N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
	Frequency synchronization range	Rated frequency $\pm 3\text{Hz}$ . Configurable range: $\pm 0.5\text{Hz} \sim \pm 5\text{Hz}$			
	Frequency track rate	Default: $0.5\text{Hz/s}$ . Configurable range: $0.2/0.5/1\text{Hz/s}$ (single UPS)			
	Rated Power Factor	Unity			
	Crest Factor	3:1			
	Voltage harmonic distortion	$< 1\%$ (linear load), $< 3\%$ (Non-Linear Load)			
	Overload Capacity on Normal Mode	$105\% \sim 125\%$ , 10min; $125\% \sim 150\%$ , 1min; $150\%$ above, 200ms			
	Overload Capacity on battery mode	$105\% \sim 125\%$ , 1min; $125\%$ above, 200ms			
Efficiency	ECO Mode	98%			
	Mains Efficiency	94%			
Battery Backup 1 Hr	Type	Lithium Ion			
	Charge Current	As per requirement of Battery capacity.			
Transfer Time	Mains - Battery	0ms			
	Inverter-Bypass	Synchronous transfer: less than 1ms			
	Automatic Bypass to mains power in case of UPS hardware failure	Automatic and immediate			
Noise	Acoustic Noise level	$< 48\text{db}$			
Panel display mode	Display type	Colourful LCD			
	Orientation	Gravity sense			
Environmental parameter	Operating temperature	$0^{\circ}\text{C} \sim 40^{\circ}\text{C}$ without derating, Derates to 90% and 80% capacity at 40-45 deg.C and 46-50 deg.C respectively			
	Storage temperature	$-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$ (battery excluded); $-15^{\circ}\text{C} \sim +40^{\circ}\text{C}$ (battery included)			
	Relative humidity	$5\%RH \sim 95\%RH$ , non-condensing			
	Altitude	$\leq 3000\text{m}$ ; derating when higher than 3000m			
Mechanical parameter	W*D*H (mm)	to be mentioned			
	Weight	to be mentioned			
	Ventilation	Forced -air cooled			
	Ingress protection level	IP20			
	Cable entry	Rear			



<b>Specifications of 5 KVA Online UPS with 1 Hr Backup with Lithium Battery</b> <b>MAKE UPS: APC by Schneider, VERTIV, ABB</b> <b>MAKE BATTERIES: SAMSUNG, LG, PANASONIC, TOSHIBA</b>					
Parameter		Specifications	Compliance Y-N	Deviation	Ref Page no.
Network Management	Intelligent Card Port	For connecting Modbus card / Remote management card. The UPS should have the SNMP card from day one for remote monitoring			
	USB port	Built-in			
	Ethernet Port	Inbuilt. Supports HTTP and SNMP protocol			
	Dry Contacts	Inbuilt			
	SNMP Card	Required			
Complying Standards	Safety (CE)	IEC/EN 62040-1:2008+A1:2013			
	Electromagnetic Compatibility (EMC)	Conducted Emission: IEC/EN 62040-2 C2, Harmonic current: IEC/EN 61000-3-2			
	Surge Protection	IEC/EN 61000-4-5			
	Energy Star	Yes			
	BIS	Yes			
	ROHS	Yes			
	Quality standard	IS 9001-2015			
	Environment standard	ISO 14001			
	OSHAS	ISO 45001			
IT security management	ISO 27001				
Warranty	UPS	5 Years			
	Battery	5 Years			



**Specifications of AC racks for DC and remote sites**

<b>INDOOR 42U AC RACKS SPECIFICATIONS FOR DATA CENTER SITE</b> <b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
Sr. No.	Parameter	Specifications	Compliance (Yes-No)	Deviation	Ref Page No
<b>Specifications for Data Center Rack</b>					
1	Frame Structure	<b>Basic frame:</b> Frame of sturdy frame section construction, consisting of 9 x folded rolled hollow frame section punched in 25mm DIN pitch pattern. All profile edges are radiused. The corners are stiffened with welded 3 Axis corner blocks			
2	Dimensions(mm)	The dimension of cabinet should be 800W X 42UX 1200D.			
3	Enclosure	Indoor IP54 Enclosure.			
4	Load carrying capacity (Kgs.)	1000			
5	Plinth height (mm)	100mm			
6	Doors and locking system	Front single glass and rear 1.5 mm thick sheet steel double door with PU Foamed Seal (Gasketing inside the doors) with removable galvanized rectangular frame with holes on a 25 mm DIN pitch pattern with 3-point locking system.			
		The hinges and retainers should be copper nickel chrome plated with SS hinge pins. The doors should be swapped to LH if required with door opening angle 130 deg to VDI.			
7	Panel Sizes (mm.)	Top panel made of 1.5 mm thick sheet steel			
		Bottom panel made of 1.5 mm thick sheet steel			
		Side panels in Single walled construction with PU foamed (Gasketing)			
8	Regulatory Compliances	IP54 to EN60529, ISO 9001, 14001, 45001 comply with EIA 310, DIN 41494 and IEC 297 standards.			



<b>INDOOR 42U AC RACKS SPECIFICATIONS FOR DATA CENTER SITE</b>					
<b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
<b>Sr. No.</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance (Yes-No)</b>	<b>Deviation</b>	<b>Ref Page No</b>
9	Painting	The cabinet must be Nano ceramic coated, Electro phoretic (EC) dip coat priming 10 to 15 Microns average and then powder coated to RAL 7035 textured Pure Polyester (PP) to 80 to 120 Microns average			
10	Angles	2 pairs of L type 19" angles to be provided at front and rear for mounting the equipment's on 23X73 (maxim) punched sections:			
11	Earthing	Earthing to be done for the entire cabinet with 4 sq mm earthing cables.			
12	Cable Manager	5 nos of Horizontal 1U cable manager			
13	Limit Switches	1 Door Operated limit switch to be provided at front or rear door.			
14	Hardware	Captive hardware (pack of 20): 1 pack.			
15	For Front and rear door	2 nos of Ergo form S handles with key insert and pad locking arrangement is required per panel (one on front door and another on rear door).			
16	LED Light	1 no. Of 230V AC LED Lamp.			
17	1U blanking plate	34 nos of 1 U blanking plate to be provided.			
18	Earth bar	1 no. Earth bar 15X5X500 mm long with 10 nos of M6 pretapped holes and screws with insulators.			
19	Cable Entry	Bottom Cable entry			
<b>Cooling unit</b>					
20	Make	Rack and Cooling Unit Make must be same.			
21	Cooling unit output	2300 Watts or Greater at L35L35			
		1800 Watts at L35L50			
22	Rated Power inputs	Less than 1.05Kw			



<b>INDOOR 42U AC RACKS SPECIFICATIONS FOR DATA CENTER SITE</b> <b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
Sr. No.	Parameter	Specifications	Compliance (Yes-No)	Deviation	Ref Page No
	Rated operating voltage	110 V - 240 V, 1~, 50 Hz-60 Hz - 380 V - 480 V, 3~, 50 Hz-60 Hz			
23	Air throughput	More than 1240 m3-h			
24	Refrigerant-cooling	R134a			
25	Seasonal energy efficiency ratio (SEER)	Lower than 6.2			
26	Condensate evaporation	Cooling unit shall supply with Electric condensate evaporation and 12mm Condensate hose for access water			
27	Remote monitoring	<p>IoT Remote Monitoring device: The IoT interface is a central component for the intelligent networking of cooling solutions or sensors for monitoring physical ambient conditions. Should support a wide range of interfaces and protocols, it should to collate and transmit data to superordinate IT systems or to systems for the local monitoring of machine statuses.</p> <p>The IoT interface is quickly and conveniently configured and commissioned via the integral Web server, no programming required.</p> <p>Device Interface:                      2 x RJ45 CAN bus                      1 x Micro USB type B (device) for USB 2.0                      1 x Micro-SD memory card slot for SD 2.0                      1 x USB 2.0 high-speed functions (EHCI)                      1 x acknowledgement button                      1 x push-in spring connection terminal for NTC sensor                      2 x RJ45 jack for RS 485 interface (climate control unit interface)</p>			



<b>INDOOR 42U AC RACKS SPECIFICATIONS FOR DATA CENTER SITE</b> <b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
Sr. No.	Parameter	Specifications	Compliance (Yes-No)	Deviation	Ref Page No
		Remote monitoring solution should support remote control of the cooling unit. it shall real time monitor the temperature of cooling unit, external ambient temperature and Temperature with humidity real time status inside of the rack. it shall supply with water leak detection sensor. the solution should be configured with rack rear door automatic opening system for the emergency or event of cooling failure, unavailability of electricity or overheat above the standard threshold limits.			
28	Intelligent PDU with remote management and individual power slot on/off function	<p>Compact power distributor for deployment in IT server and network enclosures. Vertical/horizontal installation using the supplied universal brackets for common IT racks. Robust aluminium housing with permanently mounted output slots, IEC 60320/C13 or IEC 60320/C19 as well as CEE 7/3 (earthing-pin). The fuse circuits and phases are colour-coded for multiphase PDU variants.</p> <p>The PDU managed has extensive measurement and switching functions for the current and power monitoring of each output slot. The integral TFT colour display enables the basic configuration setting and quick access to the electrical consumption data. Two Gigabit network interfaces and the integrated Web server allow remote access and data transmission using various protocols like IPv4 / IPv6, integral web server, HTTP, HTTPS, SSL, SSH, NTP, Telnet, TCP/IP v4 und v6, DHCP, DNS, NTP, Syslog, SNMP v1, v2c und v3, Traps, OPC-UA, Modbus/TCP, FTP/SFTP (update/file transfer).</p> <p>Measurement per phase or infeed, output slot</p>			



<b>INDOOR 42U AC RACKS SPECIFICATIONS FOR DATA CENTER SITE</b>					
<b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
<b>Sr. No.</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance (Yes-No)</b>	<b>Deviation</b>	<b>Ref Page No</b>
		<p>Measurement accuracy <math>\pm 1</math> % to IEC/EN 62 053-21</p> <p>Adjustable limit values (warning/alarm) for current, voltage, output, individually setting for each output slot</p> <p>The consumption parameters can be forwarded to a DCIM software via SNMP, OPC-UA, Modbus/TCP. For monitoring the ambient parameters, up to 16 sensors (for example temperature / humidity / smoke / leakage / access)</p> <p>Technical specifications of PDU                      Input voltage range (L/N/PE): 230 VAC, 50-60Hz                      Input current: 16A                      No. of phases: 1                      Number of slots type IEC 60320/C13 (total): 12                      Number of slots type IEC 60320/C19 (total): 4                      No. of circuit breakers: - Hydraulic-magnetic protective circuit-breaker: 16 A                      Slots individually switchable: Yes                      Connector PDU input: IEC 60309 / CEE (L+N+PE, 6h)                      Values recorded (per phase): Voltage (V), current (A), frequency (Hz), Active power (kW), active energy (kWh) apparent power (kVA), apparent energy (kVAh), reactive power (var), power factor, Crest factor for single-phase, Neutral conductor current measurement                      Measurement accuracy: 1 %                      Display: TFT, RGB 128x128 pixels                      USB port for firmware update and data logging functions: Yes                      CAN bus interface: RJ45, for connecting 16 sensors                      Digital input: 1                      Alarm relay: 48 V DC/2 A                      Acoustic signal encoder                      Serial interface: RS232                      Conformity: CE</p>			



<b>INDOOR 42U AC RACKS SPECIFICATIONS FOR DATA CENTER SITE</b>					
<b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
<b>Sr. No.</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance (Yes-No)</b>	<b>Deviation</b>	<b>Ref Page No</b>
		Standards: Safety: EN 62368 EMV: EN 55022 / B EN 61000-4-2 EN 61000-4-3 EN 61000-6-2 EN 61000-6-3 Low Voltage Directive: 2014/35/EU EMC Directive: 2014/30/EU			
29	Protection category to EN 60529-10.91	IP 55 Internal circuit			
30	Approvals	UL + C-UL- FTTA			
31	Certificates	EAC			
32	Temperature range	-40 °C...+70 °C			



<b>SPECIFICATION FOR HUB ROOM 24U AC INDOOR RACKS FOR REMOTE LOCATIONS</b> <b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
Sr. No.	Parameter	Specifications	Compliance (Yes - No)	Deviation	Ref Page no.
<b>Specifications for 24U rack</b>					
1	Frame Structure	<b>Basic frame:</b> Frame of sturdy frame section construction, consisting of 9 x folded rolled hollow frame section punched in 25mm DIN pitch pattern. All profile edges are radiused. The corners are stiffened with welded 3 Axis corner blocks			
2	Dimensions (mm)	The dimension of cabinet should be 800W X 24UX 1000D.			
3	Enclosure	Indoor IP54 Enclosure.			
4	Load carrying capacity (Kgs.)	1000			
5	Plinth height (mm)	100mm			
6	Doors and locking system	Front single glass and rear 1.5 mm thick sheet steel double door with PU Foamed Seal (Gasketing inside the doors) with removable galvanized rectangular frame with holes on a 25 mm DIN pitch pattern with 3-point locking system.			
		The hinges and retainers should be copper nickel chrome plated with SS hinge pins. The doors should be swapped to LH if required with door opening angle 130 deg to VDI.			
7	Panel Sizes (mm.)	Top panel made of 1.5 mm thick sheet steel			
		Bottom panel made of 1.5 mm thick sheet steel			
		Side panels in Single walled construction with PU foamed (Gasketing)			
8	Regulatory Compliances	IP54 to EN60529, ISO 9001, 14001, 45001 comply with EIA 310, DIN 41494 and IEC 297 standards.			
9	Painting	The cabinet must be Nano ceramiccoated, Electro phoretic (EC) dip coat priming 10 to 15 Microns Average and then powder			



<b>SPECIFICATION FOR HUB ROOM 24U AC INDOOR RACKS FOR REMOTE LOCATIONS</b>					
<b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
<b>Sr. No.</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance (Yes - No)</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		coated to RAL 7035 textured Pure Polyester (PP) to 80 to 120 Microns.			
10	Angles	2 pairs of L type 19" angles to be provided at front and rear for mounting the equipment's on 23X73 (maxim) punched sections:			
11	Earthing	Earthing to be done for the entire cabinet with 4 sq. mm earthing cables.			
12	Cable Manager	5 nos of Horizontal 1U cable manager			
13	Limit Switches	1 Door Operated limit switch to be provided at front or rear door.			
14	Hardware	Captive hardware (pack of 20): 1 pack.			
15	For Front and rear door	2 nos of Ergo form S handles with key insert and pad locking arrangement is required per panel (one on front door and another on rear door).			
16	LED Light	1 no. Of 230V AC LED Lamp.			
17	1U blanking plate	14 nos of 1 U blanking plate to be provided.			
18	Earth bar	1 no. Earth bar 15X5X500 mm long with 10 nos of M6 pretapped holes and screws with insulators.			
19	Cable Entry	Bottom Cable entry			
<b>Cooling unit</b>					
<b>20</b>	Make	Rack and Cooling Unit Make must be same.			
<b>21</b>	General	Energy-efficient Side -mounted cooling units with integral e-Comfort controller, Ri Nano coating on the condenser and electrical condensate evaporation.			
22	Cooling unit output	1000 Watts at L35L35			
		600 Watts at L35L50			
23	Rated Power inputs	Less than 0.59Kw			
25	Condensate evaporation	Cooling unit shall supply with Electric condensate evaporation and 12mm Condensate hose for access water			



<b>SPECIFICATION FOR HUB ROOM 24U AC INDOOR RACKS FOR REMOTE LOCATIONS</b>					
<b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
<b>Sr. No.</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance (Yes - No)</b>	<b>Deviation</b>	<b>Ref Page no.</b>
26	Remote Monitoring	<p>IoT Remote Monitoring device: The IoT interface is a central component for the intelligent networking of cooling solutions or sensors for monitoring physical ambient conditions. Should support a wide range of interfaces and protocols, it should to collate and transmit data to superordinate IT systems or to systems for the local monitoring of machine statuses.</p> <p>The IoT interface is quickly and conveniently configured and commissioned via the integral Web server, no programming required.</p> <p>Device Interface:</p> <ul style="list-style-type: none"> <li>2 x RJ45 CAN bus</li> <li>1 x Micro USB type B (device) for USB 2.0</li> <li>1 x Micro-SD memory card slot for SD 2.0</li> <li>1 x USB 2.0 high-speed functions (EHCI)</li> <li>1 x acknowledgement button</li> <li>1 x push-in spring connection terminal for NTC sensor</li> <li>2 x RJ45 jack for RS 485 interface (climate control unit interface)</li> </ul> <p>Remote monitoring solution should support remote control of the cooling unit. it shall real time monitor the temperature of cooling unit, external ambient temperature and Temperature with humidity real time status inside of the rack. it shall supply with water leak detection sensor. the solution should be configured with rack rear door automatic opening system for the emergency or event of cooling failure, unavailability of electricity or overheat above the standard threshold limits.</p>			
27	Intelligent PDU with remote management and	Compact power distributor for deployment in IT server and network enclosures. Vertical/horizontal installation using the supplied universal brackets for common IT racks. Robust aluminium			



<b>SPECIFICATION FOR HUB ROOM 24U AC INDOOR RACKS FOR REMOTE LOCATIONS                      MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
Sr. No.	Parameter	Specifications	Compliance (Yes - No)	Deviation	Ref Page no.
	individual power slot on/off function	<p>housing with permanently mounted output slots, IEC 60320/C13 or IEC 60320/C19 as well as CEE 7/3 (earthing-pin). The fuse circuits and phases are colour-coded for multiphase PDU variants.</p> <p>The PDU managed has extensive measurement and switching functions for the current and power monitoring of each output slot. The integral TFT colour display enables the basic configuration setting and quick access to the electrical consumption data. Two Gigabit network interfaces and the integrated Web server allow remote access and data transmission using various protocols like IPv4 / IPv6, integral web server, HTTP, HTTPS, SSL, SSH, NTP, Telnet, TCP/IP v4 und v6, DHCP, DNS, NTP, Syslog, SNMP v1, v2c und v3, Traps, OPC-UA, Modbus/TCP, FTP/SFTP (update/file transfer).</p> <p>Measurement per phase or infeed, output slot                      Measurement accuracy <math>\pm 1\%</math> to IEC/EN 62 053-21                      Adjustable limit values (warning/alarm) for current, voltage, output, individually setting for each output slot</p> <p>The consumption parameters can be forwarded to a DCIM software via SNMP, OPC-UA, Modbus/TCP. For monitoring the ambient parameters, up to 16 sensors (for example temperature / humidity / smoke / leakage / access)</p> <p>Technical specifications of PDU                      Input voltage range (L/N/PE): 230 VAC, 50-60Hz                      Input current: 16A                      No. of phases: 1                      Number of slots type IEC 60320/C13 (total): 12</p>			



<b>SPECIFICATION FOR HUB ROOM 24U AC INDOOR RACKS FOR REMOTE LOCATIONS</b>					
<b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
<b>Sr. No.</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance (Yes - No)</b>	<b>Deviation</b>	<b>Ref Page no.</b>
		Number of slots type IEC 60320/C19 (total): 4 No. of circuit breakers: - Hydraulic-magnetic protective circuit-breaker: 16 A Slots individually switchable: Yes Connector PDU input: IEC 60309 / CEE (L+N+PE, 6h) Values recorded (per phase): Voltage (V), current (A), frequency (Hz), Active power (kW), active energy (kWh) apparent power (kVA), apparent energy (kVAh), reactive power (var), power factor, Crest factor for single-phase, Neutral conductor current measurement Measurement accuracy: 1 % Display: TFT, RGB 128x128 pixels USB port for firmware update and data logging functions: Yes CAN bus interface: RJ45, for connecting 16 sensors Digital input: 1 Alarm relay: 48 V DC/2 A Acoustic signal encoder Serial interface: RS232 Conformity: CE Standards: Safety: EN 62368 EMV: EN 55022 / B EN 61000-4-2 EN 61000-4-3 EN 61000-6-2 EN 61000-6-3 Low Voltage Directive: 2014/35/EU EMC Directive: 2014/30/EU			
28	Rated operating voltage	230 V, 1~, 50 Hz-60 Hz			
29	Air throughput	More than 680 m3-h			
30	Refrigerant-cooling	R513a			
31	Protection category to	IP 55 Internal circuit			



<b>SPECIFICATION FOR HUB ROOM 24U AC INDOOR RACKS FOR REMOTE LOCATIONS</b>					
<b>MAKE: RITTAL, VERTIV, HOFFMAN AND APC by SCHNEIDER</b>					
<b>Sr. No.</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance (Yes - No)</b>	<b>Deviation</b>	<b>Ref Page no.</b>
	EN 60529-10.91				
32	Approvals	UL + C-UL- FTTA			
33	Certificates	EAC			
34	Temperature range	Bearing: -40 °C...+70 °C			

### Workstation and LFDs

<b>SECTION 8</b>					
<b>SPECIFICATIONS FOR WORKSTATION HP/DELL + LFD'S - SAMSUNG/SONY/PANASONIC/LG</b>					
<b>Sr. No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
1	<b>WORKSTATION MINIMUM REQUIRED SPECS ARE DEFINED</b>				
a	CPU	Minimum - Intel Core i7 13 <sup>th</sup> generation or higher @3.0 GHz or better with turbo boost technology. Min 8MB cache or above and 8 cores.			
b	Mother Board	With Intel® C622 Chipset or higher			
c	Memory	Should be loaded 32 GB DDR4 Non-ECC Memory			
d	Drive Controllers	Integrated SATA 6 Gb/s controller, RAID 0, 1,			
e	Hard Drives	1 TB PCIe® NVMe™ M.2 SSD			
f	Removable	It should have support for removable boot drive.			
g	Keyboards	Wireless Keyboard			
h	Mouse	Wire Mouse			
i	Graphics Cards	NVidia with dual display integration option and minimum 12GB Video Memory			
l	RAID	Supported			
k	Network Adapter (NIC)	10/100/1000Base-T			
l	Sound Card	Inbuilt sound card			
m	DVD writer	DVD+/-RW			



<b>SECTION 8</b>					
<b>SPECIFICATIONS FOR WORKSTATION HP/DELL + LFD'S - SAMSUNG/SONY/PANASONIC/LG</b>					
Sr. No	Parameter	Specifications	Compliance Y/N	Deviation	Ref Page no.
n	Monitor	27" 4KD Display with table stand			
o	Bays/Slot	1 PCIe 3 x4 (x16 connector); 1 PCIe 3 x4 (x4 connector); 1 PCIe 3 x1 (x4 connector); 1 PCIe 5 x16 (x16 connector); 1 M.2 2230 PCIe 3 X1 for WLAN (1 M.2 2230 slot for WLAN and 3 M.2 2280 slots for storage)			
p	Ports	Front 4 SuperSpeed USB Type-A 10Gbps signalling rate (1 charging); 1 universal audio jack Rear 1 audio-in; 1 audio-out; 1 RJ-45; 2 DisplayPort™ 1.4; 2 SuperSpeed USB Type-A 10Gbps signalling rate; 1 SuperSpeed USB Type-A 5Gbps signalling rate; 3 USB Type-A 480Mbps signalling rate  1 HDMI.			
q	Operating system	Windows 11 Pro for Workstations (64 bit)			
r	Security and BIOS Features	System should be supplied with Solenoid Hood Lock. System should have individual USB port ON/OFF control from the BIOS. Should support Memory Change Alert, Thermal Alert, System / Emergency ROM Flash Recovery with Video and Removable Device and Boot control Should support Drive Lock feature for selected SATA drives from system BIOS.			
t	Energy Certifications	Energy Star certified configuration			
<b>LFD: SAMSUNG/SONY/PANASONIC/LG</b>					
	H-Scanning Frequency	Should be in the band of 30 - 81KHz			
	Maximum Pixel Frequency	Minimum 148.5MHz			
	V-Scanning Frequency	Should be in the Band 48 - 75Hz			
<b>PANEL</b>					
	Diagonal Size	55"			
	Type	60Hz LED BLU			
	Resolution	3840 x 2160 4K			
	Brightness	Minimum 350nit			



<b>SECTION 8</b>					
<b>SPECIFICATIONS FOR WORKSTATION HP/DELL + LFD'S - SAMSUNG/SONY/PANASONIC/LG</b>					
<b>Sr. No</b>	<b>Parameter</b>	<b>Specifications</b>	<b>Compliance Y/N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
	Contrast Ratio (Dynamic)	Minimum 100,000:1 in AV Mode			
	Viewing Angle (Horizontal/Vertical)	Minimum 178 / 178°			
	Display Color	Minimum 16.7M			
	Color Gamut	72.00%			
	Contrast Ratio	Minimum 4,000:1			
	<b>INPUT</b>				
		3xHDMI, 2xUSB, 1xRJ45,1xRFIn			
		Stereo Mini Jack Connectivity			
	<b>OUTPUT</b>				
	Audio	Stereo Mini Jack			
	External Control	RS232C (In / Out), RJ45			
	<b>GENERAL FEATURES</b>				
	<b>Special</b>	Built in Speaker (10 watts + 10 watts), Plug and Play (through USB), PIP / PBP, Narrow Bezel, Light Weight, Wi-Fi <sup>1</sup> Support, Miracast, Bluetooth. Mirroring, Sound Mirroring, Support for HDR 10+ for video and Dolby for audio			

### Specifications of earthing

<b>SPECIFICATIONS FOR EARTHING</b>					
<b>Sr. No</b>	<b>Parameter</b>	<b>Specification</b>	<b>Compliance Y-N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
<b>1</b>		The complete work of Earthing must be completed on SITC Basis			
1.1		<b>EARTHING TYPE</b>			
a		Chemical - with a life span of 10 years			
1.2		<b>PIT DEPTH</b>			
a		3000 mm			
1.3		<b>PIT DIA</b>			
a		15" inches			



<b>SPECIFICATIONS FOR EARTHING</b>					
<b>Sr. No</b>	<b>Parameter</b>	<b>Specification</b>	<b>Compliance Y-N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
1.4		<b>CHEMICAL TO BE USED and MEHTODOLOGY of DEPLOYING THE SAME</b>			
a		Once the Pit is ready the same should loaded with 2 x 25 Kg. of moisture booster and the same should be treated with water for a period of at least 5 days			
1.5		<b>CHAMBER DEPLOYMENT</b>			
a		After this the PIT should be covered with readymade RCC pit with 15" x 15" GI cover- Heavy duty PVC chamber with locking PVC door & 2nos hole at upper side with copper bar for loading of connection			
1.6		<b>INTERGRATING THE COPPER PIPE</b>			
a		Any Pipe or Cable with minimum of 63mm dia should be Nut bolted to RCC PIT cover and from there the earthing must be extended to the server and Hub Rooms			

### Specifications of Stabilizers

<b>SPECIFICATIONS FOR STABALIZERS</b>					
<b>MAKE: BELTRONICSPower, AUTOMATIC ELECTRIC, JINDAL RECTIFIERS, HEMA ELECTRIAL</b>					
<b>Sr. No</b>	<b>Parameter</b>	<b>Specification</b>	<b>Compliance Y-N</b>	<b>Deviation</b>	<b>Ref Page no.</b>
<b>1</b>		Single Phase Voltage Regulator Digital			
1.1	Input	170 to 270V			
a	Output	230V+-1%			
1.2	Capacity	<b>5 KVA</b>			
a	Other Features	Should facilitate High Voltage and Low Voltage cut-off with time delay sensor			
1.3	Warranty	<b>5 years</b>			

## **On-Site Network Operating Centre**

- The Successful bidder should deploy on-site resource and setup inhouse NOC for management, configuration, troubleshooting, SLA monitoring/management, call management etc. of SD-WAN devices and all transport media(s) (MPLS, Internet links etc.) of all the service providers terminating (or proposed to be terminated) on the CPEs during the entire period of the contract. This includes additional CPEs / links procured either from the bidder and/or alternative service provider during the entire period of the contract.
- All the reports as specified in the RFP should be able to be generated from the NMS tool / SD-WAN analytics.
- Bidder on-site resource will monitor the links and Bidder must have their own Network Operation Centre for proactive monitoring the MPLS VPN links.
- Bidder should submit reports like Uptime, Bandwidth utilization, Link error, latency, etc. on daily / monthly basis and as per the GMDCs requirement. All the locations are to be monitored as per SLA.

## **OEM Implementation Service**

Bidder to consider OEM Implementation services while submitting the commercial Proposal. Design & Implementation for proposed entire SDWAN solution should be done by OEM Person only.

## **Technical Resource**

- The on-site engineer should carry out configuration / policy / AppQoS policy / tuning as per GMDCs operational requirements.
- The on-site engineer should create user defined application profiles, change encryption method, change AppQoS policy, change NGFW policy, application etc. as and when required by the GMDC.
- The on-site engineers would be required to ensure that logs are pushed to C- SOC for monitoring/analysis. Further, the engineer should coordinate and close all the incidents raised by C-SOC team pertaining to SD-WAN and connectivity.
- GMDC is subject to various IS audits, the on-site engineers should ensure the closure of observations pertaining to SD-WAN & connectivity. In case of connectivity from other service providers, coordinate with them for closure.
- The on-site engineer should coordinate with all the MPLS & ILL service providers and local GMDC officials / FM Support during shifting / termination of office premises, troubleshooting etc. Contact branches/offices/end users for identifying the issue and troubleshooting.
- The on-site engineer should coordinate with GMDCs team for troubleshooting of connectivity issues.
- Responsible for all technical issues concerning the network. Point of contact for all network technical queries and fault resolution.
- Shall have the primary responsibility for ensuring a smooth network functioning without congestion, downtime etc.
- Escalation and coordination with L3 and above engineers at the bidders NOC for resolving issues pertaining to SD-WAN and MPLS. Coordination with alternative MPLS ILL service provider NOC for resolving issues pertaining to connectivity.

## **Inventory Management**

- The on-site engineers should maintain complete inventory of SD-WAN CPE, MPLS links, IP address schema, contact details, escalation matrix etc., of all the locations. Further, they are required to maintain low level and high-level network diagram. The list must be updated as and when changes happen and reviewed periodically (at least once half yearly).



- The detailed inventory should be submitted to GMDC and it should be updated/ reviewed, as and when any changes happen to the network or periodically at least once in half year.
- Monitoring of links (including third party and Internet links procured locally and additions thereof at all the locations/offices. Call logging, follow-up and escalation for restoration of failed links with respective service providers.
- SLA management of links from all service providers.
- First level troubleshooting LAN & WAN connectivity issues at the locations.
- In the event of failure of Internet link, the engineer must intimate the designated Official in the branch. The follow-up with Internet service provider would be undertaken by the branch officials.
- Any technical assistance required by other service provider(s) for MPLS / Internet links etc. must be extended by the engineers.
- Coordinate with field engineers at the locations during PM of CPE and links.
- The engineers deployed must submit daily, weekly, monthly reports covering all the combinations as specified in Reports and analytic section of SD-WAN technical specifications and on the uptime/downtime of all the links terminating on the CPEs at all the locations.
- During DR operations the engineers should ensure that all the locations/offices of the GMDC access the DR site for carrying out operations. Any coordination required with other service providers (MPLS, Internet etc.) must be carried out by bidder's on-site engineers.
- In case of disaster at GMDC's data center and if required by the GMDC, the service provider will move /provide L2 staff member(s) at alternate site to manage the operations on temporary basis till the data center at Mumbai is made operational. However, GMDC will bear expenditure on actual towards to & from journey of the key staff members of the service provider for the said purpose and make stay arrangement at GMDC's guest house or similar other location for them.
- GMDC may due to business requirement require shifting of the engineers from one location to other permanently, which would be within or outside the current location. The service provider must arrange to provide / shift the resources to the new location.
- In case the shifting is within the current location (intercity), no additional cost whatsoever would be paid. However, if the shifting is outside the current location, cost as per the contracted rate would be paid

### Minimum Number of Resources

- The minimum number of resources required, and service window would be as follows:

	Resource	Days of Week & Shift	
	<b>L2 (Post FAT and NOC Setup)</b>	a) Days – Monday to Saturday NOC Shifts: 10am to 6pm	01 Engineers for General Shift. He will support in odd hours in case any critical event along with all the reporting and coordination with L1 Engineers.



	<b>L1 (Post FAT and NOC Setup)</b>	b) Days – Monday to Sunday 24x7 NOC c) Shifts: 7am to 2 pm; 2pm to 10 pm, 10pm to 7am (Next day)	01 Engineers for each Shift  Successful bidder should consider additional resources to manage the weeks offs and unplanned leave.
	<b>Project Manager (During Project implementation)</b>	Days – Monday to Saturdays  Office Hours: 9:30am to 5:30pm	

- GMDC may during the period of contract increase the number of engineers based on the contracted rate.
- All the resource to be deployed at **GMDC, Ahmedabad Office**. The GMDC NOC would be setup at GMDC, Ahmedabad.
- In addition to providing services as per the above-mentioned service window, the bidder is required to provide services on Sundays /Holidays in case of urgent requirement of the GMDC without any extra cost.



## SECTION - 7 UNPRICED BOQ FOR MAKE MODEL DETAILS

The bidder needs to provide all the details as mentioned below.

<b>UNPRICED BILL OF MATERIALS FORMAT FOR MAKE MODEL DEFINATION</b>					
<b>Sr_ No</b>	<b>Description</b>	<b>UOM</b>	<b>Qty</b>	<b>MAKE</b>	<b>MODEL</b>
01	<b>COMPONENTS To be Installed at CO, Ahmedabad</b>				
1.1	<b>Supply</b>				
A	Dual SDWAN setup for HA functionality including all software Licenses and subscriptions along with Security Licenses as per the specifications for 5 years	Set	01		
B	Switches as per the specifications	Nos	01		
C	Racks for Data Center with 5 years comprehensive warranty charges as per the specifications for Hosting all above boxes and UPS	Set	01		
1.2	<b>NOC Component at CO, Ahmedabad</b>				
A	Workstations with Monitor as per the specification	Set	02		
B	Workstation without Monitor as per the specifications	Nos	01		
C	Display for NOC and dashboarding as per the specifications	Nos	01		
D	UPS with 5 years comprehensive warranty charges	Set	1		
1.3	<b>COMPONENTS To be Installed at OCI</b>				
A	SDWAN Solution Virtual Appliance in HA at OCI Environment for termination of ISP links (MPLS & ILL) at Mumbai	Set	01		
B	SDWAN Solution Virtual Appliance in HA at OCI Environment for termination of ISP links (MPLS & ILL) at Hyderabad	Set	01		
1.4	<b>COMPONENTS To be Installed at OCI IAAS / OEM SAAS</b>				
A	Management. Monitoring, Orchestration and Analytic devices with required Virtual Appliance IAAS / SAAS along with all software and License Subscription for 5 years. If on OEMs cloud then Connectivity charges should be included.	Set	01		



<b>UNPRICED BILL OF MATERIALS FORMAT FOR MAKE MODEL DEFINATION</b>					
<b>Sr_ No</b>	<b>Description</b>	<b>UOM</b>	<b>Qty</b>	<b>MAKE</b>	<b>MODEL</b>
B	IT Asset and Service Management Module along with necessary IAAS cloud Service. bidder to give the IAAS costing for 5years	Set	1		
B1	Device Licenses for NMS and Monitoring	Nos	300		
B2	Device Licenses for asset management	Nos	300		
B3	Helpdesk Licenses agent activation for Service Management	Nos	5		
<b>02</b>	<b>COMPONENTS To be Installed at REMOTE SITES</b>				
2.1	<b>Supply</b>				
A	Dual SDWAN devices for HA functionality including all software Licenses and subscriptions along with Security Licenses as per the specifications for 5 years	Set	23		
B	Single Set SDWAN devices for functionality including all software Licenses and subscriptions along with Security Licenses as per the specifications for 5 years (Devices where only one Internet Link will be terminated location no. 27-33 in the location list)	Set	07		
C	Switches as per the specifications	Nos	30		
D	UPS for Remote Location with 5 years comprehensive warranty charges	Set	30		
E	Racks for Remote Location with 5 years comprehensive warranty charges as per the specifications for Hosting all above boxes and UPS	Set	30		
F	Stabilizer as per the Specifications with all accessories required for Installation and commissioning	Set	30		



## SECTION -8 PRICED BOQ FOR TECHNICAL DETAILS OF TOOLS, MANPOWER DETAILS

The bidder needs to submit the price bid online in the format as mentioned below:

<b>PRICED BILL OF MATERIALS FORMAT (TO BE SUBMITTED ONLINE)</b>							
<b>Sr_ No</b>	<b>Description</b>	<b>UOM</b>	<b>Qty</b>	<b>UNIT PRICE</b>	<b>TOTAL WITHOUT TAX</b>	<b>GST %AGE</b>	<b>TOTAL WITH TAX</b>
01	<b>COMPONENTS To be Installed at CO, Ahmedabad</b>						
1.1	<b>Supply, Installation, Testing and Commissioning.</b>						
A	Dual SDWAN setup for HA functionality including all software Licenses and subscriptions along with Security Licenses as per the specifications for 5 years	Set	01				
B	Switches as per the specifications	Nos	01				
C	Racks for Data Center with 5 years comprehensive warranty charges as per the specifications for Hosting all above boxes and UPS	Set	01				
1.2	<b>NOC Component at CO, Ahmedabad</b>						
A	Workstations with Monitor as per the specification	Set	02				
B	Workstation without Monitor as per the specifications	Nos	01				
C	Display for NOC and dashboarding as per the specifications	Nos	01				
D	UPS with 5 years comprehensive warranty charges	Set	1				
1.2	<b>Services for at CO, Ahmedabad</b>						
A	O&M and FMS services along with deputation of engineer on site for a period of 5 years from the date of installation completion.  NOC Manpower to be considered as per the	Per Quarter	20				



<b>PRICED BILL OF MATERIALS FORMAT (TO BE SUBMITTED ONLINE)</b>							
<b>Sr_ No</b>	<b>Description</b>	<b>UOM</b>	<b>Qty</b>	<b>UNIT PRICE</b>	<b>TOTAL WITHOUT TAX</b>	<b>GST %AGE</b>	<b>TOTAL WITH TAX</b>
	specifications						
<b>1.3</b>	<b>COMPONENTS To be Installed at OCI</b>						
A	SDWAN Solution Virtual Appliance in HA at OCI Environment for termination of ISP links (MPLS & ILL) Mumbai	Set	01				
B	SDWAN Solution Virtual Appliance in HA at OCI Environment for termination of ISP links (MPLS & ILL) Hyderabad	Set	01				
<b>1.4</b>	<b>COMPONENTS To be Installed at OCI IAAS / OEM SAAS</b>						
A	IT Asset and Service Management Module along with necessary IAAS cloud Service. bidder to give the IAAS costing for 5years	Set	01				
A.1	Device Licenses for NMS and Monitoring	Nos	300				
A.2	Device Licenses for asset management	Nos	300				
A.3	Helpdesk Licenses with 05 agent activation for Service Management	Nos	05				
<b>02</b>	<b>COMPONENTS To be Installed at REMOTE SITES</b>						
<b>2.1</b>	<b>Supply, Installation, Testing and Commissioning.</b>						
A	Dual SDWAN devices for HA functionality including all software Licenses and subscriptions along with Security Licenses as per the specifications for 5 years	Set	23				
B	Single Set SDWAN devices for functionality including all software Licenses and subscriptions along with Security Licenses as per the specifications for 5 years	Set	07				



<b>PRICED BILL OF MATERIALS FORMAT (TO BE SUBMITTED ONLINE)</b>							
<b>Sr_ No</b>	<b>Description</b>	<b>UOM</b>	<b>Qty</b>	<b>UNIT PRICE</b>	<b>TOTAL WITHOUT TAX</b>	<b>GST %AGE</b>	<b>TOTAL WITH TAX</b>
	(Devices where only one Internet Link will be terminated location no. 27-33 in the location list)						
B	Switches as per the specifications	Nos	30				
C	UPS for Remote Location with 5 years comprehensive warranty charges along with Earthing as per specification	Set	30				
D	Racks for Remote Location with 5 years comprehensive warranty charges as per the specifications for Hosting all above boxes and UPS	Set	30				
E	Stabilizer as per the Specifications with all accessories required for Installation and commissioning	Set	30				

While offering the costs the bidder should include following factors:

- OEM Implementation Service: Bidder to consider OEM Implementation services while submitting the commercial Proposal. Design & Implementation for proposed entire SDWAN solution should be done by OEM Person only.
- The cost of all tools and other things that will be required during the project execution
- All the passive components like Patch cords/UTP Cables (Fiber +Copper) etc. as per the requirement of installation should be taken in the cost.
- Manpower costs
- Travel costs including boarding lodging etc
- Any cost of hardware additionally required by the bidder for completing the implementation and installation
- Documentation costs (03 sets to be provided)
- Training Costs for GMDC team. Bidder to arrange Certification program for 03 GMDC engineers For SDWAN and IT ASSET and IT SERVICE MANAGEMENT
- For O&M at remote site bidder to consider separate manpower other than the manpower deployed at NOC.



**SECTION-9 ANNEXURES**

**Annexure – I - Format of Earnest Money Deposit in the form of Bank Guarantee (On Non-judicial Stamp paper to be submitted along with submission of bids)**

..... (Name of the Bank)  
Address.....Guarantee No.....  
A/C Messer's..... (Name of bidder)  
Date of Expiry..... Limit to liability (currency & amount)  
.....  
Invitation For RFP No..... dated.....( bidding document )  
For..... (Name of Facilities)

**Subject:** Earnest Money Deposit Bank Guarantee.  
Date.....20

To,  
General Manger (IT),  
Gujarat Mineral Development Corporation Ltd.  
132 Ft Ring Road, Near University Ground  
Vastrapur, Ahmedabad.  
Bank Code:

Dear Sir,

In consideration of Gujarat Mineral Development Corporation (hereinafter called "GMDC") which expression shall unless repugnant to the subject of context include his successors and assigns having agreed to exempt M/s..... (herein after called "bidder") from demand under the terms and conditions of "Technical Bid Document" ( hereinafter called the said "Bidding Document") issued by the GMDC vide RFP No.\_\_\_\_\_for the work\_\_\_\_\_ ( Name of the facilities ) from Earnest Money Deposit (EMD) of Bid for the due fulfilment by the bidder of the terms and conditions contained in the said Bidding Document on production of Bank Guarantee for INR \_\_\_\_\_( \_\_\_\_\_ only ) ( figure in words).

1. We the \_\_\_\_\_ ( Name of Bank ) hereinafter referred to as "Bank" having our registered office at \_\_\_\_\_ ( address of Bank ) do hereby undertake and agree to indemnify and keep indemnified GMDC to extent of INR \_\_\_\_\_( \_\_\_\_\_ only ) ( figures in words ) against any losses, damage cost, charges and expenses caused to or suffered by or that may be caused or suffered by GMDC by reason of any breach or breaches by the bidder of any of the terms and conditions contained in the said Bidding Document and unconditionally pay the amount claimed by GMDC on demand and without demur to the extent aforesaid.
2. We \_\_\_\_\_ (Name of Bank) do hereby undertake to pay the amounts due and payable under the guarantee without any demur merely on a demand by you stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by you by reason of any breach by the said bidder of any of the terms or conditions contained in the said Bidding Document by reason of the bidder's failure to fulfil the conditions of said Bidding Document. Any such demand 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 INR \_\_\_\_\_.
3. We \_\_\_\_\_ ( Name of Bank ) further agree that GMDC shall be the sole judge of and as to whether the bidder has committed any breach or breaches of terms and conditions of the said Bidding Document and the extent of loss, damages, costs, charges and expenses caused to or



suffered by or that may caused to or suffered by GMDC on account hereof to the extent of the Bid Security required to be deposited by the bidder in respect of the said document and the decision of GMDC that the bidder has committed such breach or breaches and as to the amount or amounts of loss, damages, costs, charges, and expenses caused to or suffered by or that may be caused to or suffered by GMDC shall be final and binding on us.

4. We \_\_\_\_\_ (Name of Bank) further agree that guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance on the said Bidding Document and that it shall continue to be enforceable till you certify that terms and conditions of the said Bidding Document have been fully and properly carried out by the said bidder and accordingly discharge the guarantee. Unless a demand or claim under this guaranteed is made on us in writing on or before the (date) \_\_\_\_\_ we shall be discharged from all liability under this guarantee.
5. We \_\_\_\_\_ ( Name of Bank ) further agree with you that you have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Bidding Document or to extend time of performance by the said bidder from time to time or to postpone for any time or from time to time any of the powers exercisable by you against the said bidder and to forbear or enforce any of the terms and conditions relating to the said Bidding Document and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said bidder or for any forbearance act or omission on your part or any indulgence by you to the said bidder or any such matter or thing whatsoever under the law relating to sureties would but for this provision have effect of so relieving us.
6. It shall not be necessary for GMDC to proceed against the bidder before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank, notwithstanding any security which GMDC may have obtained from the bidder at this time when proceeding are taken against Bank hereunder be outstanding or unrealized.
7. We \_\_\_\_\_ (Name of Bank) further undertake to unconditionally pay the amount claimed by GMDC merely on demand and without demur to the extent aforesaid.
8. We, the said Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of GMDC in writing and agree that any change in the constitution of GMDC or the bidder or the said Bank shall not discharged our liability hereunder dated \_\_\_\_\_ day of \_\_\_\_\_ 20 . \_\_\_\_\_ for \_\_\_\_\_ ( Name of Bank )

**Yours faithfully**

**For.....(Name of the Bank)**

**Please note the following details for Compulsory e-confirmation for Bank Guarantee through ICICI Bank through SFMS under our:**

**Gujarat Mineral Development Corporation Limited (GMDC)  
132 Ft Ring Road, Near University Ground Vastrapur, Ahmedabad. Bank Name: ICICI Bank Ltd  
IFS Code: ICIC0000024**

**UIC GMDC530265584 for Field 7037 MT760**



**Annexure – II: Performance Bank Guarantee Format**

(To be stamped in accordance with Stamp Act)

**Format for Bank Guarantee for Performance Security**

**Name of the Bank:**

**Address:**

**Guarantee No :**

**Name of Service Provider: M/s \_\_\_\_\_**

**Date of Expiry :**

**Limit to liability: Rs \_\_\_\_\_/- (Rupees \_\_\_\_\_ only)**

**Ref:** Tender bearing No. \_\_\_\_\_

**Subject: Bank Guarantee towards Security Deposit.**

Date.....20\_\_

To  
General Manger (Information Technology),  
Gujarat Mineral Development Corporation limited  
Khanij Bhavan,  
132 Ft Ring Road, Near Gujarat University Ground, Vastrapur,  
Ahmedabad 380052.

Dear Sir,

In consideration of Gujarat Mineral Development GMDC (hereinafter called "GMDC") which expression shall unless repugnant to the subject of context include his successors and assigns having agreed to exempt **M/s \_\_\_\_\_** (hereinafter called "Managed Service Provider") from demand under the terms and conditions of "Technical Bid Document" ( hereinafter called the said "Bidding Document") issued by the GMDC vide Tender \_\_\_\_\_.

**The present** Bank Guarantee is towards Security Deposit (SD)/Performance Security of Bid in terms of Clause No. \_\_\_\_\_ of Part – \_\_\_\_\_of the afore-said bidding document for the due fulfillment by the Service Provider of the terms and conditions contained in the said Bidding Document on production of Bank Guarantee for **Rs \_\_\_\_\_/- (Rupees \_\_\_\_\_ only)**

- 1) We the \_\_\_\_\_ (Name of the Bank) hereinafter referred to as "Bank" having our registered office at \_\_\_\_\_ do hereby undertake and agree to indemnify and keep indemnified GMDC to extent of **Rs \_\_\_\_\_/- (Rupees \_\_\_\_\_ only)** against any losses, damage cost, charges and expenses caused to or suffered by or that may be caused or suffered by GMDC by reason of any breach or breaches by the Manged Service Provider of any of the terms and conditions contained in the said Bidding Document and unconditionally pay the amount claimed by GMDC on demand and without demur to the extent aforesaid
- 2) We \_\_\_\_\_ (Name of the Bank) do hereby undertake to pay the amounts due and payable under the guarantee without any demur merely on a demand by you stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by you by reason of any breach by the said Manged Service Provider of any of the terms or conditions contained in the said Bidding Document by reason of the Manged Service Provider's failure to perform according to the terms and conditions of said Bidding Document. Any such demand 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 \_\_\_\_\_/- (Rupees \_\_\_\_\_ only).**

- 3) We \_\_\_\_\_ (Name of the Bank) further agree that GMDC shall be the sole judge of and as to whether the Managed Service Provider has committed any breach or breaches of terms and conditions of the said Bidding Document and the extent of loss, damages, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by GMDC on account hereof to the extent of the Bid Security required to be deposited by the Managed Service Provider in respect of the said document and the decision of GMDC that the Managed Service Provider has committed such breach or breaches and as to the amount or amounts of loss, damages, costs, charges, and expenses caused to or suffered by or that may be caused to or suffered by GMDC shall be final and binding on us.
- 4) We \_\_\_\_\_ (Name of the Bank) undertake to pay to the GMDC any money so demanded notwithstanding any dispute or disputes raised by the said Managed Service Provider (s) in any suit or proceeding pending before any forum of law 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 said Service Provider (s) shall have no claim against us for making such payment.
- 5) We \_\_\_\_\_ (Name of the Bank) further agree that guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance on the said Bidding Document and that it shall continue to be enforceable till you certify that terms and conditions of the said Bidding Document have been fully and properly carried out by the said Service Provider and accordingly discharge the guarantee. Unless a demand or claim under this guaranteed is made on us in writing on or before the (date) \_\_\_\_\_ we shall be discharged from all liability under this guarantee thereafter.
- 6) We \_\_\_\_\_ (Name of the Bank) further agree with you that you have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Bidding Document or to extend time of performance by the said Service Provider from time to time or to postpone for any time or from time to time any of the powers exercisable by you against the said Service Provider and to forbear or enforce any of the terms and conditions relating to the said Bidding Document and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Service Provider or for any forbearance act or omission on your part or any indulgence by you to the said Service Provider or any such matter or thing whatsoever under the law relating to sureties would but for this provision have effect of so relieving us. The Bank further agrees that in case this guarantee is required for a longer period, the bank may extend the same.
- 7) We \_\_\_\_\_ (Name of the Bank) further undertake to unconditionally pay the amount claimed by GMDC merely on demand and without demur to the extent aforesaid.
- 8) We, the said Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of GMDC in writing.
- 9) This Guarantee will not be discharged due to the change in the constitution of the Bank or the said Service Provider.
- 10) The Bank has under its constitution power to give this guarantee \_\_\_\_\_ and Mr. \_\_\_\_\_ who has signed it on behalf of the Bank have authority to do so.

Yours faithfully

For.....

(Name of the Bank)

Notwithstanding anything contained hereinabove



- 
- (I) Our liability under this Bank Guarantee shall not exceed **Rs \_\_\_\_\_/- (Rupees \_\_\_\_\_ only)**
- (II) This Bank Guarantee is valid up to \_\_\_\_\_ (Date).
- (III) We are liable to pay the guarantee amount or any part thereof under this bank Guarantee only and only if you serve upon us a written claim or a demand on or before \_\_\_\_\_(Date).
- (IV) This bank guarantee is operative only when accompanied with SFMS advice from us.

Yours faithfully

For \_\_\_\_\_(Name of the Bank)



**Annexure – III: Earnest Money Deposit & RFP Fee Details**

Sr. No.	Item	Amount (In Rs.)	Name of the Bank & Branch	Demand Draft No.
2	RFP Fee			
1	Earnest Money Deposit (E.M.D.)			



**Annexure IV - RFP LETTER FORM**

**From**

**(Registered name and address of the BIDDER.)**

Date:

To,  
The General Manager- IT  
Gujarat Mineral Development Corporation  
Khanij Bhavan  
132 ft Ring Road, Ahmedabad

**Sir,**

Having examined the RFP documents, we the undersigned, offer to Services as detailed in the bidding document ( as enclosed) in response to T/E number .....dated .....

we undertake to:

maintain validity of the RFP for a period of 6 months from the last date of RFP submission as specified in the bidding document or extended. The same shall remain binding upon us and may be accepted at any time before the expiration of that period.

Offer services during the bid period in conformity with the bidding documents (and as amended from time to time).

Complete the Service delivery execution within the time frame as defined in the RFP documents (and as amended from time to time)

execute all contractual documents and provide all securities & guarantees as required in the RFP document (and as amended from time to time).

until a formal Contract is prepared and executed, this RFP, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract on us.

Dated this \_\_\_\_\_ day of \_\_\_\_\_.

Signature

**(in the capacity of)**

**Duly authorized to sign RFP for and on behalf of**

Witness:

**(Signatures with name and designation), Address:**



## Annexure V – DECLARATION FOR NON-BLACKLISTING

On letter head of the Bidder)

DATE:

To,  
The General Manager (IT),  
Gujarat Mineral Development GMDC Ltd.,  
"Khanij Bhavan", 132 ft. Ring Road,  
University Ground, Vastrapur,  
Ahmedabad-380015

Dear Sir,

I/we here by solemnly declare that

1. The Bidder or its directors have not been blacklisted by any Government Organization, in last 3 years from the date of submission of RFP.
2. We have not put any condition in our offer with respect to RFP No. \_\_\_\_\_,
3. We have accepted all the terms and conditions, including Annexure, Corrigendum if any, as specified in the RFP Document No. \_\_\_\_\_ unconditionally.

I/we here by further declare that, if the declaration is found untrue, the GMDC shall be entitled to take any action against us severally and/or individually or our Bidder/GMDC in this regard in any manner that may be deemed fit by GMDC.

Yours faithfully,

\_\_\_\_\_  
Signature and Stamp of the Bidder



**Annexure VI Work Experience details -as mentioned in the Pre- qualification criteria**

<b>Experience in supply, installation commissioning and maintenance for SDWAN Solutions</b>							
<b>Sr. no</b>	<b>Name of the Organization</b>	<b>Address of execution</b>	<b>Start Date of the Project</b>	<b>Completion Date of the Project</b>	<b>Scope of Work Description in Brief as per the definition in PQ and QCBS tables</b>	<b>Value of The Project in Rs.</b>	<b>Supporting PO and Completion Certificate attached or not</b>
1							
2							
3							
4							
5							
6							

**Annexure VII Financial Strength of the BIDDER**

<b>Financial Year</b>	<b>Turn Over in Lakhs of Rupees</b>	<b>System Integration Turnover in LACS</b>	<b>Audited Accounts submitted? (Yes/No) and Supporting Auditor Certificate for Security Services Turnover submitted (YES/NO)</b>
<b>2020-2021</b>			
<b>2021-2022</b>			
<b>2022-2023</b>			

**Note: Please fill this form and attach the audited Annual Accounts for the last three financial years along with the Auditor Certificate confirming the System Integration Turnover**



**Annexure VIII Manpower Details on BIDDER Roll**

<b>Sr. No.</b>	<b>Name of Certified Professional</b>	<b>Date of Joining the Organization</b>	<b>Designation</b>	<b>Experience Details in years</b>	<b>CERTIFICATION DETAILS</b>	<b>Details of Projects handled with Brief Scope of work for each project</b>
1						
2						
3						
4						
5						

## Annexure IX – Bank List

### Annexure I.

Finance Department, GR. No.: FD/MSM/e-file/4/2023/0057/D.M.O.

Date: 21/04/2023

(A) Guarantees issued by the following banks will be accepted as SD/EMD on permanent basis:

❖ **All Nationalized Banks**

(B) Guarantees issued by the following Banks will be accepted as SD/EMD for the period up to March 31, 2024. The validity cut-off date in the GR is with respect to the date of issue of Bank Guarantee irrespective of the date of termination of Bank Guarantee.

Sr No	Name of Banks	Sr No	Name of Banks
1	AXIS Bank	17	Kotak Mahindra Bank
2	AU Small Finance Bank	18	South Indian Bank
3	Bandhan Bank	19	Standard Chartered Bank
4	BNP Paribas	20	Tamilnadu Mercantile Bank
5	City Union Bank	21	Utkarsh Small Finance Bank
6	CSB Bank	22	The Kalupur Commercial Co-op. Bank
7	DBS Bank India Limited	23	Ahmedabad Mercantile Co-op. Bank
8	DCB Bank	24	Nutan Nagarik Sahakari Bank Ltd.
9	Equitas Small Finance Bank	25	Rajkot Nagarik Sahakari Bank Ltd.
10	FEDERAL Bank	26	Saraswat Co-Operative Bank Ltd
11	HDFC Bank	27	SVC Co-Operative Bank LTD.
12	HSBC Bank	28	The Gujarat State Co-operative Bank
13	ICICI Bank	29	The Mehsana Urban Co-Op. Bank Ltd
14	IndusInd Bank	30	The Surat District Co-Operative Bank Ltd
15	Karnataka Bank	31	The Surat People's Co-Op. Bank Ltd
16	Karur Vysya Bank	32	Saurashtra Gramin Bank

All the eligible banks are instructed to collect the original documents/papers of guarantee from the concerned tendering authority.



(S. Chhakchhuak)

Additional Secretary (Budget)  
Finance Department

-----XXXXX-----

Annexure X – Location addresses

<b>Sr No.</b>	<b>Location Address</b>
1	GMDC Akrimota Thermal Power Station Nani Chher, Taluka : Lakhpat, Dist. : Kutch
2	GMDC Lignite Project, Mata No Madh, Taluka : Lakhpat, Dist Kutch
3	GMDC Lignite Project, Umarsar, Taluka: Lakhpat, Dist Kutch
4	GMDC Lignite Project, Tadkeshwar, Taluka: Mandvi, Dist : Surat
5	GMDC Lignite Project, Rajpardi, Taluka: Jhagadia Dist Bharuch
6	GMDC Lignite Project, Budhel, Dist Bhavnagar
7	GMDC Lignite Project, Panandhro, Taluka: Lakhpat, Dist Kutch,
8	GMDC Bauxite Project, Gadhsisa, Taluka: Mandvi, Dist Kutch
9	GMDC Bauxite Project, Daban, AT & PO. Naniwamoti, Taluka Abadasa, Dist. Kutch
10	GMDC Bauxite Project, Kotra Roa, AT & PO. Nandra Taluka: Nakhtrana Dist Kutch
11	GMDC Bauxite Project, Ratadiya, AT & PO. Ratadia Taluka: Mandvi, Dist Kutch
12	GMDC Bauxite Project, Wandh Goniysar, AT & PO. Wandh, Taluka: Mandvi, Dist Kutch
13	GMDC Fluorspar Project, Kadipani, Taluka: Kawant, Dist: Vadodara
14	GMDC Manganese Project, Shivrajpur, Dist: Panchmahal
15	GMDC Bauxite Project, Bhatia, Taluka: Kalyanpur, Dist: Jamnagar.
16	GMDC Lignite Project Lakhpat Punrajpur Dist Kutch
17	GMDC Lignite Project Bharkhandham Dist Kutch
18	GMDC Lignite Project Damal Padia, Dist Bharuch
19	GMDC Lignite Project Valia, Dist Bharuch
20	GMDC Lignite Project Ghala, Dist Surat
21	GMDC Regional Corporate office Bhubaneswar Dist Khordra Odisha Pin code :751023
22	GMDC Biatarani West Coal Block office, Singhal Tower, Kanchan Bazar Road, Angul Town, Angul Odisha Pin code :759122
23	GMDC IDCO Plot no 5 Badmal, Industrial Growth Center, Jharsuguda Pin code :768105
24	GMDC Corporate Office (DC) Khanij Bhavan 132 - Ring Road, Vastrapur, Ahmedabad -52,
25	Oracle Cloud Infrastructure Data Center Mumbai
26	Oracle Cloud Infrastructure Data Center Hyderabad
27	Lathedi, Ta:Abdasa, Dist:Kutchh
28	Mota Gunda, Ta: Bhanvad, Dist: Devbhumi Dwarka
29	Vavaniya, Ta: Maliya Miyana, Dist: Rajkot.
30	Vasai, Ta:Dwarka, Dist : Devbhumi Dwarka.
31	Adodar, Ta: Porbandar, Dist: Porbandar.
32	Balambha, Ta:Jodiya, Dis: Jamanagar
33	Opposite of Nav vidhan school saint marry campus , Moduka road, Taluka - vichiya, District- Rajkot, Pin code- 360055.

## **ANNEXURE XI: CONTRACT AGREEMENT DRAFT**

THIS AGREEMENT is entered into on this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

### **BETWEEN**

Gujarat Mineral Development Corporation Ltd, a company incorporated under Indian Companies act, 1953 and having its corporate office at Khanij Bhavan, 132-Ring Road, Gujarat University Ground, Vastrapur, Ahmedabad- 380052 (hereinafter referred to as the "Authority/GMDC" which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors, and assigns) of ONE PART.

### **AND**

\_\_\_\_\_, having its registered office at \_\_\_\_\_, hereunder referred to as the "**Managed Service Provider (MSP)**" which expression shall unless repugnant to the context include its successors and permitted assigns, of the OTHER PART.

GMDC and the MSP are hereinafter individually referred to as "Party" and collectively as "Parties".

### **WHEREAS**

GMDC vide its Request for Proposal, dated \_\_\_\_ invited Bids from competent parties through transparent and competitive bidding process for **RFP Document for SITC and O&M of SDWAN Solution at Various Location of GMDC and OCI along with NOC** at GMDC HO

- A. as per the terms specified in RFP and this Agreement (hereinafter called the "**Project/ Work/ Assignment'**");
- B. Pursuant to the evaluation of the bids received, GMDC has accepted the bid of the MSP dated \_\_\_\_\_ as per the terms and conditions specified in RFP documents, subsequent Addendum and terms specified in this Agreement and issued a Work Order No. \_\_\_\_\_ dated \_\_\_\_\_ accepting the particular Bid Proposal.
- C. The MSP has accepted the Work order by its letter dated \_\_\_\_\_, requiring inter alia the execution of the Contract. GMDC hereby agrees to appoint and avail services of the Selection of MSP for providing SDWAN services on the terms, conditions and covenants hereinafter set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties (GMDC and MSP) hereto **hereby agree as follows:**

The following documents attached hereto shall be deemed to form an integral part of this Agreement:

This Agreement along with all Annexure/schedule hereto.

1. Request for Proposal Document issued by GMDC in its entirety including all its parts/sections, annexure, corrigendum, and Addendums thereto.
2. Work Order no. \_\_\_\_\_ issued on \_\_\_\_\_.
3. Scope of Work(SoW) provided in RFP SECTION. 3
4. Payment Terms provided in RFP SECTION 5.
5. Any relevant correspondence between the two parties that the signatories have agreed to include as part of the Contract for validating and clarifying any points in the Contract or by way of revised or improved understanding of any terms of the Contract as appended herein.

While all above documents are deemed to be part of the Agreement, in the event of any discrepancy / conflict in the terms of the above referred documents or interpretation thereof, the provisions of the more recent document, date wise, shall prevail over the older document.

## 1. GENERAL

### 1.1. Definition and Interpretation

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively ascribed to them hereunder:

**"Applicable Law"** means all the laws, acts, ordinances, rules, regulations, notifications, guidelines or bye-laws, in force and effect, as of the date hereof and which may be promulgated or brought into force and effect hereinafter in India, including judgments, decrees, injunctions, writs or orders of any court of record, as may be in force and effect during the subsistence of this Contract, including without limitation those laws/regulations applicable to the Project;

**"Applicable Clearances"** means all clearances, permits, no-objection certifications, exemptions, authorisations, consents, and approvals required to be obtained or maintained under Applicable Law, in connection with the Project during the subsistence of this Agreement;

**"Authority"** or **"GMDC"** means the Gujarat Mineral Development Corporation Ltd having its office at Khanij Bhavan, 132-ft. Ring Road, Gujarat University Ground, Vastrapur, Ahmedabad- 380052 and responsible for implementation of IT projects and shall include its authorized successors and assigns at all times [including without limitation its authorized representatives];

**"Contract"** means the Contract signed by the Parties and all the attached documents listed in Preliminary and the Annexures/schedules.

**"Contract Period"/" Agreement Period"** shall have a meaning specified in clause 2.4 of this Agreement.

**"Day"** means calendar day.

**"Dispute"** shall have a meaning specified in clause 12 of this Agreement.

**"Effective Date"** shall have meant specified in clause 2 of this Agreement.

**"Force Majeure"** shall have a meaning specified in clause 2.7 of this Agreement.

**"Insurance"** shall have a meaning specified in clause 3.12 of this Agreement.

**"Local Currency"** means Indian Rupees.

**"Liquidated Damages"** shall have a meaning specified in clause 8 of this section of this Agreement.

**"Managed Service Provider's (MSP) Event of Default"** shall have a meaning specified in clause 7.1 of this Agreement.

**"Obligations of the (MSP) Managed Service Provider"** shall mean Managed Service Provider's responsibilities specified in this Managed Service Provider Agreement with respect to the Project unless such responsibilities/obligations are waived by the Authority.

**"Obligations of the Authority"** shall mean Authority's responsibilities specified in this Managed Service Provider Agreement with respect to the Project unless such responsibilities/obligations are waived by the Managed Service Provider.

**"O&M Report"** shall have a meaning specified in Scope of Work of this Agreement.

**"Operation Period"** shall start on the date of issuance of Go Live Certificate and ends on Termination of the Agreement.

**"Operations and Maintenance"** shall include the activities as mentioned in Scope of Work of this Agreement.

**"Project Acceptance Certificate"/" Go Live Certificate"** means the certificate issued by the



Authority upon successful completion of SDWAN of existing on premises database to Cloud DC and it's related all services and testing as specified in RFP Section III.

**"Party"** means the "Authority".

**"Performance Security"** shall have a meaning specified in clause Bid Security clause of section 5 of this RFP document.

**"Personnel"** means professionals and support staff provided by the MSP assigned to perform the Services or any part thereof.

**"Managed Service Provider/MSP/Service Provider"** shall mean the person selected pursuant to this RFP for services associated to SDWAN Deployment as per the RFP scope.

**"Services"/ "Scope of Services/ Scope of Work"** means the work to be performed by the MSP pursuant to this Contract, as described in RFP SECTION 3;

**"Termination"** shall mean early termination of this Agreement pursuant to Termination Notice or otherwise in accordance with the provisions of this Agreement but shall not, unless the context otherwise requires, include expiry of this Agreement due to efflux of time in the normal course.

**"Termination Date"** shall mean the date specified in the Termination Notice or Notice of Termination as the date on which Termination occurs.

**"Termination Notice"** means communication issued in accordance with this Agreement by one Party to the other Party specifying intention of terminating this Agreement.

**"Termination Payment"** means the amount payable by the Authority to the Managed Service Provider upon early Termination.

**"Test"** means the Tests carried out by the Managed Service Provider to determine the conformity of the Project and Operations and Maintenance procedures to the requirements set in this Agreement.

**"Taxes and Duties"** shall mean all taxes, duties, fees etc. payable as per applicable laws in India in connection with the procurement, development, installation, operation, maintenance, and management of Project.

**"Scope of Work"** ("SoW") are the description of scope of Service to be performed by the MSP. Details are specified in RFP SECTION 3;

**"Third Party"** means any person or entity other than the "Authority", or the MSP.

All other/Remaining Definitions are specified in section III of RFP and elsewhere in the Agreement.

## **1.2. Principles of Interpretation**

- a. The table of contents, numbers, headings, and marginal headings in this Agreement are solely for the purpose of facilitating reference and shall not impact the construction or interpretation of this Agreement.
- b. Words importing Persons or Parties shall include firms, companies, corporations, trusts, associations, and any organizations having legal capacity to sue and be sued in their names.
- c. Words importing the singular also include the plural and vice versa where the context requires.
- d. Words importing one gender also include other gender.
- e. In case of ambiguities or discrepancies in this Agreement, the following shall apply:
  - (i) Between the Articles and the Schedules, the Articles shall prevail:
  - (ii) Between any value written in numerals and that in words, the latter shall prevail.



### **1.3. Relationship between Parties**

Nothing contained herein shall be construed as establishing a relation of master and servant or of agent and principal as between GMDC and the MSP. The MSP shall, subject to this Agreement, have complete charge of Personnel performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

### **1.4. Rights and Obligations**

The mutual rights and obligations of GMDC and the MSP shall be as set forth in the Agreement, in particular:

- (i) the MSP shall carry out the Services in accordance with the provisions of the Agreement; and
- (ii) GMDC shall make payments to the MSP in accordance with the provisions of the Agreement.

### **1.5. Governing Law and Jurisdiction**

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Ahmedabad shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

### **1.6. Language**

All notices required to be given by one Party to the other Party and all other communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

### **1.7. Table of Content and Heading**

The table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement.

### **1.8. Notices**

Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address specified hereunder.

If to Authority.

\_\_\_\_\_.

Gujarat Mineral Development Corporation Ltd, Ahmedabad  
If to MSP;

\_\_\_\_\_

### **1.9. Location**

The Works shall be executed at GMDC Corporate office Ahmedabad and all the locations mentioned in the annexure 10 Section 9. GMDC as per the requirement may increment or decrement the location count

### **Authorised Representative**

- a) Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the "Authority" or the MSP may be taken or executed by the officials specified hereunder.



- b) GMDC may, from time to time, designate one of its officials as GMDC Representative. Unless otherwise notified, GMDC Representative shall be: -----
- c) The MSP may designate one of its employees as MSP's Representative. Unless otherwise notified, the MSP's Representative shall be: -----

## **2. COMMENCEMENT, COMPLETION AND TERMINATION OF AGREEMENT**

### **2.1. Effectiveness of Agreement**

This Agreement shall come into force and effect on the date of this Agreement (the "Effective Date").

### **2.2. Commencement of Services**

The MSP shall commence the Services within a period of 15 days from the Effective Date, unless otherwise agreed by the Parties.

### **2.3. Termination of Agreement for failure to commence Services**

If the MSP does not commence the Services within the period specified in Clause 2.2 above, GMDC may, by not less than 1 (one) weeks' notice to the MSP, declare this Agreement to be null and void, and in the event of such a declaration, this Agreement shall stand terminated and the MSP shall be deemed to have accepted such termination.

### **2.4. Expiration of Agreement**

- a) Unless terminated earlier pursuant to Clauses 2.3 or 2.9 hereof, this Agreement shall, unless extended by the Parties by mutual consent as per the sub clause (b) hereunder, the Agreement shall remain in force for a period of **66 months** from the Effective Date. Upon Termination, GMDC shall make payments of all amounts due to the MSP hereunder for which milestone achieved/services delivered.
- b) Subject to the satisfactory performance of the MSP, the Authority may, at its sole discretion, extend this Contract Period beyond five years for an additional one year. In case of extension, the rates shall be revised with 10% escalation.
- c) In case, the execution of Scope of work delayed due to reasons attributable to the MSP then the Contract Period shall be extended suitably at no extra cost to GMDC and subject to recovery of Liquidated damages as per clause mentioned in the RFP Section 5 under the header Penalty Clause

### **2.5. Entire Agreement**

- a) This Agreement and the Annexes/ schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn; provided, however, that the obligations of the MSP arising out of the provisions of the RFP shall continue to subsist and shall be deemed to form part of this Agreement.
- b) Without prejudice to the generality of the provisions of Clause 2.5(a), on matters not covered by this Agreement, the provisions of RFP shall apply.

### **2.6. Modification of Agreement**

Modification of the terms and conditions of this Agreement, including any modification of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification made by the other Party.

### **2.7. Force Majeure**

- Force majeure is herein defined as any cause which is beyond the control of the successful Bidder or the GMDC as the case may be which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affect the performance of the contract, such as:



- Natural phenomena such as floods, draughts Cyclone, earthquake and epidemics, declaration of war.
- Acts of any government, including but not limited to war, declared or undeclared priorities, quantities, embargoes, providing either party shall within fifteen (15) days from the occurrence of such a cause notify the other in writing of such cases.
- The successful Bidder will advise, in the event of his having resort to this clause by a registered letter duly certified by the statutory authorities, the beginning and end of the cause of delay, within fifteen days of the occurrence and cessation of such Force Majeure condition. In the event of delay lasting over two months, if arising out of Force Majeure, the contract may be terminated at the discretion of the GMDC.
- For delay arising out of Force Majeure, the successful Bidder will not claim extension in completion date for a period exceeding the period of delay attributable to the causes of force Majeure and neither company nor the successful Bidder shall be liable to pay extra costs (like increase in rates, remobilization, advance, idle charges for labour and machinery etc.) provided it is mutually established that the Force Majeure conditions did exist.
- If any of the Force Majeure conditions exists in the place of operation of the Successful Bidder even at the time of submission of bid, he will categorically specify them in his bid and state whether they have been taken into consideration in their quotations.
- The Successful Bidder or the GMDC shall not be liable for delays in performing his obligations resulting from any force majeure cause as referred to and/ or defined above. The date of completion will, subject to the hereinafter provided, be extended by a reasonable time.

## **2.8. Suspension of Agreement**

GMDC may, by written notice of suspension to the MSP, suspend all payments to the MSP hereunder if the MSP shall be in breach of this Agreement or shall fail to perform any of its obligations under this Agreement, including the carrying out of the Services; provided that such notice of suspension (i) shall specify the nature of the breach or failure, and (ii) shall provide an opportunity to the MSP to remedy such breach or failure within a period not exceeding 15 (fifteen) days after receipt by the MSP of such notice of suspension.

## **3. OBLIGATIONS OF THE MSP**

### **3.1. General**

#### **3.1.1 Standard of Performance**

The MSPs shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods. The MSPs shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to GMDC, and shall at all times support and safeguard GMDC's legitimate interests in any dealings with Sub-MSPs or Third Parties.

#### **3.1.2 Scope of Work**

The scope of Work to be performed by the MSP is specified in the RFP SECTION 3. The MSP shall provide the Deliverables specified therein in conformity with the technical specifications specified in Section 6 within the time schedule stated in Section 3 of the RFP document.



### **3.1.3 Applicable Laws**

The MSP shall perform the Services in accordance with the Applicable Laws and shall take all practicable steps to ensure that any Sub-MSP, as well as the Personnel and agents of the MSP and any Sub-MSP, comply with the Applicable Laws.

### **3.2. Conflict of Interest**

The MSP shall not have a Conflict of Interest and any breach hereof shall constitute a breach of the Agreement.

#### **3.4.1 MSPs not to Benefit from Commission, Discounts etc.**

The remuneration of the MSPs pursuant to Payment Terms specified in RFP SECTION 5 hereof shall constitute the MSP's sole remuneration in connection with this Contract or the Services and, the MSPs shall not accept for their own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations hereunder, and the MSPs shall use their best efforts to ensure that any Sub-MSPs, as well as Personnel and agents of either of them, similarly shall not receive any such additional remuneration.

#### **3.4.2 MSPs and Affiliates not to engage in Certain Activities**

The MSP shall hold the GMDC's interest paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their corporate interests.

The clause shall not prohibit the MSP to serve competing clients and clients with potentially conflicting interests as well as counterparties in merger, acquisition and alliance opportunities. However, in such cases the MSP agrees to a professional responsibility to maintain the confidentiality of Client information.

### **3.3. Confidentiality**

The MSPs agree that themselves, their Sub-MSPs and the Personnel of either of them shall not, either during the term or after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract or GMDC's business or operations without the prior written consent of GMDC, provided however that this clause shall not apply to any information (a) which already forms part of the public domain; or (b) which is received from a third party; or (c) which is independently developed; or (d) which is required to be submitted to any regulatory, statutory or governmental authority.

### **3.4. Whitelist of IP address**

The MSP shall maintain and provide a list of specific IP addresses or IP address ranges (the "Whitelist") or authentication credentials defined after consulting GMDC and only these IP addresses/address ranges/credentials are authorized to access or interact with authority's systems, networks, services, or data (collectively referred to as "Services"). MSP shall throughout the contract period acknowledge that only IP addresses/address ranges/authentication credentials explicitly listed in the Whitelist shall be permitted access to the Services. Any IP address not listed in the Whitelist shall be denied access.

- a) MSP shall comply with all the applicable laws, regulations, and industry standards related to the use of the Whitelist, including but not limited to data security, privacy, and confidentiality requirements.
- b) MSP shall take all necessary measures to ensure the security and integrity of the authorized IP addresses listed in the Whitelist and shall promptly notify Company of any unauthorized access or suspected breaches.



- c) Authority reserves the right to update or modify the Whitelist at its discretion, with reasonable notice to MSP. MSP shall promptly implement any necessary changes to remain in compliance with the updated Whitelist.
- d) MSP shall also acknowledge that any attempt to access the Services using IP addresses not listed in the Whitelist constitutes a material breach of this Contract Condition and may result in immediate termination of the Agreement, legal action, or other remedies as specified in the Agreement Clause 2.8 or 2.9.
- e) MSP to agree for treating the Whitelist and related information as confidential and proprietary to GMDC, and shall not disclose or share this information with any third parties without prior written consent from GMDC.

### **3.5. Liability of the MSP**

- a) The MSP's liability under this Agreement shall be determined by the Applicable Laws and the provisions hereof.
- b) The MSP shall, subject to the limitation specified in Clause 3.3, be liable to GMDC for any direct loss or damage accrued or likely to accrue due to deficiency in Services rendered by it.
- c) Notwithstanding anything to the contrary, the aggregate maximum liability of the MSP under this Contract shall not exceed the fees received by the MSP under this Contract (including all types of liabilities).
- d) The Services in this assignment shall not be deemed investment, legal, regulatory, tax, accounting, or other regulated advice. MSP does not supplant the Client's management or other decision-making bodies. While the MSP does not guarantee results, it agrees to make the best efforts to achieve the same. GMDC remains solely responsible for its decisions, actions, use of the Deliverables and compliance with applicable laws, rules, and regulations. Neither party shall be responsible for any lost profits. Beyond the limits of liability set in the Agreement, neither party will be liable for any indirect, consequential, incidental, punitive or special damage.

### **3.6. Accounting, Inspection and Auditing**

- (i) The MSPs shall keep accurate and systematic accounts and records of the work performed by it under the Contract including details of all invoices raised and payments received and shall make the same available to GMDC as and when requested by GMDC.
- (ii) Any such inspection shall be subject to prior notice and conducted within reasonable office hours and limited to working papers and files relating to the assignment. Nothing herein shall obligate the MSP to disclose to Authority any documents or other material relating to the profitability or internal profit and loss/balance sheets associated with MSP's business, payroll information, or information or material that constitute, in the opinion of MSP's legal counsel, legally privileged documents or information that MSP is bound to maintain as confidential by written obligation to a third party.

### **3.7. MSPs' Actions requiring Authority's prior Approval.**

The MSPs shall obtain GMDC's prior approval in writing before taking any of the following actions:

- (i) appointing such members of the Personnel as specified in Scope of Services not proposed as part of its Proposal;
- (ii) entering into a subcontract for the performance of the Services as per provision of RFP.
- (iii) any other action that may be specified by GMDC during the course of this Contract.

### **3.8. Reporting Obligations**

The MSPs shall submit to GMDC the reports and documents specified in TOR specified in RFP SECTION III, within the time periods set forth in the said Clause.



### **3.9. Documents Prepared by the MSPs to be the Property of GMDC**

- (i) All plans, drawings, specifications, designs, documents, reports, frameworks, software, databases, content and any other documents prepared by the MSPs solely in performing the Services under this Contract shall become and remain the property of GMDC, and the MSPs shall, not later than upon termination or expiration of this Contract, deliver all such documents to GMDC, together with a detailed inventory thereof.
- (ii) Any pre-existing Intellectual Property Right (IPR) developed by the MSP independent of the Contract, including know-how, questionnaires, assessments, modules, courses, frameworks, software, algorithms, databases, content, models, industry perspectives, designs, etc. ("MSP Tools"), for which the MSP at the time of signing of this Agreement has a legal right, or otherwise, if it does not have a legal right, which would meet the commonly used tests and criteria for IPR identification will be and remain owned by the MSP including any and all derivative works, modifications or enhancements of the same made before, during, and after the Contract. To the extent the Deliverables under this Contract include any MSP Tools, the MSP hereby grants GMDC a non-exclusive, non-transferable, non-sub licensable, worldwide, royalty-free license to use and copy the MSP Tools solely as part of the deliverables. GMDC agrees that, without MSP's prior written permission, it will not, or permit any third party to (a) access, copy or reverse engineer any MSP Tool or Deliverable, or (b) remove or circumvent security or technological safeguards, including notices, digital protection mechanisms, metadata, watermarks, or disclaimers provided with any MSP Tool or Deliverable,

### **3.10. Equipment and Materials Furnished by GMDC**

Equipment and materials made available to the MSPs by GMDC, or purchased by the MSPs with funds provided by GMDC, shall be the property of GMDC and shall be marked accordingly. Upon termination or expiration of this Contract, the MSPs shall make available to GMDC an inventory of such equipment and materials and shall dispose of such equipment and materials in accordance with GMDC's instructions. While in possession of such equipment and materials, the MSPs, unless otherwise instructed by GMDC in writing, shall insure them at the expense of GMDC in an amount equal to their full replacement value.

### **3.11. Accuracy of Documents**

- (i) The MSP shall be responsible for accuracy of the documents drafted and/ or vetted and data collected by it directly or procured from other agencies/authorities, estimates and all other details prepared by it as part of these services. Subject to the provisions of Clause 3.6, it shall indemnify GMDC against any inaccuracy in its work which might surface during implementation of the Project, if such inaccuracy is the result of any negligence or inadequate due diligence on part of the MSP or arises out of its failure to conform to good industry practice. The MSP shall also be responsible for promptly correcting, at its own cost and risk, the documents including any re-survey / investigations.
- (ii) Notwithstanding anything, the MSP will have no obligation to independently verify information provided by GMDC or their service providers.
- (iii) Authority acknowledges and agrees that MSP shall not provide professional legal, accounting, or tax advice.

### **3.12. Insurance to be taken out by the MSP**

- (i) The MSP shall procure and maintain, at its own cost, Professional Liability Insurance or other appropriate insurance required as per the Good Industry Practice or MSP's own standard practices during the Contract Period insurance (the "Insurance"). At the Authority's request, the MSP shall provide evidences of insurance covers or a certificate of all insurances maintained on request of Authority.
- (ii) The MSP shall indemnify the Authority for any liability pertaining to loss of any life, health, accidents, travel, and any other losses to its personnel including sub MSP/specialist deployed by the MSP to perform scope of work specified under this Contract.
- (iii) The Authority undertakes no responsibility in respect of any life, health, accident, travel, and other



insurance which may be necessary or desirable for the Personnel of the MSP or its sub-contractors / sub MSPs / specialists associated with the MSPs for the purposes of the Services, nor for any member of any such person.

- (iv) The Managed Service Provider shall raise regular invoices for payment of Service Charges as specified in Section 5 of the RFP document and submit it to Authority.

## **4 MSP'S PERSONNEL**

### **4.1. General**

The MSP shall employ and provide such qualified and experienced Personnel as specified in Section 6 clause Minimum no. of Resources of the RFP to carry out the Services.

### **4.2. Deployment of Personnel**

- (i) The designations, names and other particulars of each of the MSP's Key Personnel required in carrying out the Services should be defined as described in Annexure VIII of the Section 9 of RFP document.
- (ii) The Key Personnel listed as per the Agreement are hereby approved by GMDC.
- (iii) If the MSP hereafter proposes to engage any person as Professional Personnel, it shall submit to GMDC the details for the same and shall be provided at no extra cost to GMDC.
- (iv) MSP shall team onsite at GMDC premises for NOC management and operations services as mentioned in the RFP.

### **4.3. Substitution of Personnel**

GMDC expects all the Key Personnel as specified in the Proposal NOC services as per the defined scope to be deployed. GMDC will not consider any substitution of Key Personnel except under compelling circumstances beyond the control of the MSP. Such a substitution shall be subject to equally or better qualified and experienced personnel being provided to the satisfaction of GMDC.

### **4.4. Working hours, Overtime, Leave etc.**

The working hours and leaves of the deployed Personnel will be as per the MSP policy provided the MSP shall support GMDC as and when required during the contract period and maintain SLAs as specified in this Agreement. Any leave taken by any Personnel for a period exceeding 7 days shall be subject to the prior approval of GMDC, and the MSP shall ensure that any absence on leave will not delay the progress and quality of the Services.

### **4.5. Staffing**

- a) The person designated as the defined RFP roles of the MSP's Personnel as specified in Technical score criteria shall be responsible for the coordinated, timely and efficient functioning of the Personnel.
- b) The team will be deployed full time for the project during the Contract Period.

### **4.6. Sub-MSPs**

Sub-contracting is not permitted as per the clause mentioned in the RFP.

## **5 OBLIGATIONS OF GMDC**

### **5.1. Payment**

In consideration of the Services performed by the MSP under this Agreement, GMDC shall make to the MSP such payments and in such manner as is provided in Clause 6 of Section VIII of this Agreement.

### **5.2. Documents and Other Support**

GMDC will provide all necessary information/documents/data upon signing of Non-Disclosure Agreement (NDA),



## **6 PAYMENT TO THE MANAGED SERVICE PROVIDER (MSP)**

Authority shall make payment to MSP as per the terms specified in SECTION 6 of RFP.

## **7 EVENT OF DEFAULT**

### **7.1 MSP Event of Default**

Following events shall constitute an Event of Default by Managed Service Provider (the "Managed Service Provider's Event of Default") unless such event has occurred as a result of a Force Majeure Event:

- a) If Managed Service Provider fails to undertake the services associated to SDWAN Supply, Operations and Maintenance services post migration within the timeline as mentioned in the RFP, without valid response or any reasons attributed to breach on part of Authority.
- b) If the Managed Service Provider fails to furnish Performance Security as per the terms of the agreement.
- c) If Managed Service Provider fails to complete the SDWAN works beyond the additional reasonable time granted by GMDC.
- d) The MSP fails to remedy any breach hereof or any failure in the performance of its obligations / breaches with 30 days of receipt of such notice from GMDC.
- e) The MSP is in Material Breach of this Agreement or has by an act of commission created circumstances that have a Material Adverse Effect on the performance of its obligations and has failed to cure the same within 30 days of notice thereof by the Authority.
- f) In case of pre-decided Liquidated Damages or Damages due to breach in Service Levels together exceeds the 10% of Contract Price.
- g) In the event of repeated non-deployment/ absence of manpower for unreasonable time then it shall be considered MSP's Event of Default. Non-remedy of such default in a reasonable time given by the Authority shall lead to Termination.
- h) Authority may at any time terminate the Agreement by giving written notice to Managed Service Provider without any compensation to Managed Service Provider, if Managed Service Provider becomes bankrupt or otherwise insolvent or in case of dissolution of firm or winding up of the company, provided that such termination will not prejudice any other rights of the Authority
- i) Managed Service Provider suspends or abandons the operations and/ or implementation of SDWAN project without the prior consent of Authority, provided that the Managed Service Provider shall be deemed not to have suspended/ abandoned operation if such suspension/ abandonment was
  - (i) as a result of Force Majeure Event and is only for the period such Force Majeure is continuing, or
  - (ii) is on account of a breach of its obligations under this Agreement by Authority or
  - (iii) suspension on account of failure of component and systems provided by other suppliers.
- j) the MSP fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 12.2 hereof.
- k) any document, information, data, or statement submitted by the MSP in its Proposals, based on which the MSP was considered eligible or successful, is found to be false, incorrect or misleading.
- l) Managed Service Provider repudiates this Agreement or otherwise evidences an intention not to be bound by this Agreement.
- m) If Managed Service Provider fails to protect the security of Cloud DC systems/Project and database.



- n) If Manage Service Provider or any of its staff members are found to be involved in fraudulent and corrupt practices specified in Section VI Clause 8 of RFP.
- o) If Manage Services Provider fails to perform its scope, responsibilities and obligations specified in this Agreement repetitively and such breaches not cured/rectified in Remedial Period granted by the Authority.

### **7.2. Authority Event of Default**

Following events shall constitute an Event of Default by Authority (the "Authority Event of Default") unless such event has occurred as a result of a Force Majeure Event

- a) GMDC fails to pay any money due to the MSP pursuant to this Agreement and not subject to dispute pursuant to Clause 12 hereof within 45 (forty-five) days after receiving written notice from the MSP that such payment is overdue; OR GMDC repeatedly fails to make any payments due to the Service Provider within period specified in this Agreement without any valid reason.
- b) The Authority repudiates this Agreement or otherwise evidences an intention not to be bound by this Agreement.
- c) Authority or any Governmental Agency is in Material Breach of this Agreement or has by an act of commission created circumstances that have a Material Adverse Effect on the performance of its obligations by the MSP and has failed to cure the same within 30 days of notice thereof by the MSP.
- d) Any representation made or warranties given by the Authority under this Agreement is found to be false or misleading.
- e) If the Authority fails to perform repetitively any other responsibilities and obligation(s) specified in this Agreement.
- f) GMDC fails to comply with any final decision reached as a result of arbitration pursuant to Clause 12.2 hereof.

### **7.3. Termination due to Event of Default**

- (a) Without prejudice to any other right or remedies which the Authority may have under this Contract, upon occurrence of Service Provider Event of Default, the Authority shall be entitled to terminate this Contract by issuing a Termination Notice to the Service Provider; provided that before issuing the Termination Notice, the Authority shall by a notice inform the Service Provider of its intention to issue such Termination Notice and grant 30 (thirty) days or reasonable period to the Service Provider to remedy the default ("Remedial Period/Cure Period") and/or make representations, and may after the expiry of such Remedial Period on non-remedy of breach/default at the satisfaction of the Authority within the Remedial Period, whether or not it is in receipt of such representation, or repeated failure to remedy the default/breach, the Authority issue Termination Notice providing 15 days' time stating the intention of the termination (the "Termination Notice") and then terminate the Contract.
- (b) In the event of termination due to the MSP Event of Default, Authority shall have the right to;
  - i. Invoke/encash and retain the Performance Guarantee amount in full.
  - ii. Take over the Project
  - iii. The authority shall have the right to appoint another MSP and transfer the entire Project components or part of the Project components to any replacement MSP selected by the Authority in its sole discretion.
  - iv. The authority shall not be liable to pay any termination payment to the MSP in respect of such termination.
- (a)

## **8 LIQUIDATED DAMAGES AND PENALTY**

### **8.1. Performance Security**

- (a) For securing the due and faithful performance of the obligations of the MSP under this agreement, during the Agreement Period, the MSP, has in terms of the RFP and letter of award furnished to GMDC the required Performance Security dated \_\_\_\_ of amount \_\_\_\_ drawn in favour of "\_\_\_\_\_" from \_\_\_\_ Bank in the form of Bank Guarantee/DD and valid till \_\_\_\_ and admissible and payable at Ahmedabad branch, the receipt & veracity of which, is hereby acknowledged by GMDC (the "Performance Security").
- (b) The MSP shall maintain a valid and binding Performance Security for a period of three months after the expiry of the Contract Period ("Validity Period"). The MSP shall ensure that the Performance Security shall subsist in full force and effect in terms hereof, throughout the Contract Period and thereafter until expiry of three months from end of Contract Period. In case Contract Period is extended then the MSP shall have to renew Performance Security for a period of extended Contract Period.
- (c) GMDC shall be entitled to forfeit and appropriate the amount of the Performance Security in whole or in part:
- i. In the event GMDC requires to recover any sum due and payable to it by the MSP including but not limited to Damages; and which the MSP has failed to pay in relation thereof; and
  - ii. In the event of the MSP's breach and if such breach is not cured with the remedial period as per the terms of the Agreement.
  - iii. If the MSP fails to purchase, renew and maintain in full force and effect, any or all of the insurances required under the Contract as per provisions of this Agreement.
  - iv. Upon such encashment and appropriation from the Performance Security, the MSP shall, within 15 (fifteen) days replenish, in case of partial appropriation, to its original level the Performance Security and in case of appropriation of entire Performance Security to provide a fresh Performance Security and the MSP shall, within the time so granted replenish or furnish to GMDC a fresh Performance Security as aforesaid, failing which the same shall constitute a MSP's breach and entitle Authority to terminate this Contract in terms hereof.
  - v. On the performance and completion of the Contract by expiry of its term in all respects the Performance Security shall be returned to the MSP without any interest, provided the MSP is not in default of the terms hereof and there are no outstanding dues of GMDC with the MSP.

### **8.2. Liquidated Damages**

#### **8.2.1 Liquidated Damages for implementation delay**

For delay in implementation the Liquidated damages as defined in Liquidated Damages section 6 of the RFP will be applicable

#### **8.2.2 Encashment and appropriation of Performance Security**

GMDC shall have the right to invoke and appropriate the proceeds of the Performance Security, in whole or in part, without notice to the MSP in the event of breach of this Agreement or for recovery of liquidated damages specified in this Clause 8.2.

### **8.3. Penalty for Deficiency in Services**

In addition to the liquidated damages not amounting to penalty, as specified in Clause 8.2, warning may be issued to the MSP for minor deficiencies on its part. In the case of significant deficiencies in Services causing adverse effect on the Project or on the reputation of GMDC and such deficiencies not cured within the reasonable cure period granted by the Authority then Authority may initiate penal actions as permitted under law



## **9 SECURITY OF INFORMATION GENERATED FROM PROJECT**

The Managed Service Provider shall take all necessary steps to ensure security, safety, confidentiality and integrity of data and keep Authority informed of all such steps taken from time to time.

### **9.1. Reliability of Information**

The Managed Service Provider undertakes to guarantee the authenticity of information submitted to Authority as a part of MIS Report any other information demanded by Authority during the Contract period.

### **9.2. Integrity of Information**

The system shall have routine checks for the verification of integrity of information. Errors detected will be automatically corrected, in order to prevent propagation of invalid data across the database. If there is interruption in communication, the part of the system affected shall be repaired immediately and record the error.

### **9.3. Security and Encryption of Information Stored and other database**

- a) The Managed Service Provider shall take all other necessary measures to protect the database generated from the Project.
- b) The Managed Service Provider shall take all necessary steps to ensure security, safety, confidentiality and integrity of Database and shall not share or transfer any information from the Database to any person except with prior written consent of Authority.
- c) The Managed Service Provider shall ensure that appropriate firewall is implemented to protect the Database and Project component from external access and outside connections.

## **10 OWNERSHIP OF PROJECT**

- a) In cases where the customized software is developed and installed exclusively for the Authority, the ownership of all such shall rest exclusively with Authority upon delivery and installation.
- b) The Software Licenses and Licenses for other proprietary, all third-party software license other than what GMDC has provided to fulfill the scope shall be transferred to the Authority upon delivery and installation. All such Software Licenses shall be taken in the name of Authority if taken by MSP.
- c) The License Period of proprietary software of the Managed Service provider or all third-party software procured for the purpose of the Project shall be similar to the Contract Period.
- d) Managed Service Provider shall exercise all due caution to protect and maintain the data created out of Project.
- e) Service Provider shall not share, sell or in any manner use the data created by Managed Service Provider out of this Project otherwise than in accordance with the terms of the Managed Service Provider Agreement.

## **11 FARENESS AND GOOD FAITH**

### **11.1. Good Faith**

The Parties undertake to act in good faith with respect to each other's rights under this Agreement and to adopt all reasonable measures to ensure the realization of the objectives of this Agreement.

### **11.2. Operation of Agreement**

The Parties recognize that it is impractical in this Agreement to provide for every contingency which may arise during the life of the Agreement, and the Parties hereby agree that it is their intention that this Agreement shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Agreement either Party believes that this Agreement is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but failure to agree on any action pursuant to this Clause shall not give rise to a dispute subject to arbitration in accordance with Clause 122 hereof.

## **12 DISPUTE RESOLUTION**

### **12.1. Amicable Solution**

- (a) Save where expressly stated otherwise in this Agreement, any dispute, difference or controversy of whatever nature howsoever arising under, out of or in relation to the Agreement including incompleteness of the Services/ Scope /Payment between the Parties and so notified in writing by either Party to the other (the "**Dispute**") in the first instance shall be attempted to be resolved amicably by GMDC and MSP in accordance with the procedure set forth in sub-article (b) below.
- (b) Either Party may require the Dispute to be referred to committee of two senior executives of each Authority and the MSP, for the time being for amicable settlement. Upon such reference, the committee shall meet at the earliest mutual convenience and in any event within 15 days of such reference to discuss and attempt to amicably resolve the Dispute. If the Dispute is not amicably settled within 15 (fifteen) days of such meeting between the two, either Party may refer the Dispute to an independent Dispute Review Expert (also referred to as adjudicator) who may be an impartial person of experience in legal / dispute matters and both parties mutually select Dispute Review Expert
- (c) Dispute Review Expert shall give a decision in writing within 28 days of receipt of Notification of the Dispute. Reimbursable expense pertaining to Dispute Review Expert shall be divided equally between GMDC and the MSP. Either Party may refer a decision of the Dispute Review Expert to the Arbitrators within 28 days of Dispute Review Experts written Decision as per the agreement. If neither party refers the dispute to the Arbitration within the next 28 days, the decision of Dispute Review Expert will be final and binding.

### **12.2. Arbitration**

#### **Arbitrators**

All questions, disputes, differences whatsoever which may at any time arise between the parties to this RFP and subsequent contract in connection with the RFP and subsequent contract or any matter arising out of or in relation there to, shall be referred to Sole Arbitrator as per the provisions of Arbitration and Conciliation Act, 1996 and subsequent amendment thereto and the venue of arbitration proceedings shall be at Ahmedabad only. The Language of the Arbitration shall be in English only

#### **Jurisdiction**

The matter related to any dispute or difference arising out of this RFP and subsequent contract shall be subject to the exclusive jurisdiction of Court at Ahmedabad only.

## **13 PROJECT HANDOVER**

### **13.1. Handing Over of Project**

Upon expiry of the Agreement by efflux of time and in the normal course or prior termination of this Agreement due to Event of Default or dissolution or insolvency or Force Majeure, the Managed Service Provider shall at the end of the Agreement Period or prior termination of this Agreement, as the case may be, hand over free from Encumbrances the peaceful possession of the assets including all Customized Software, Standard Software, database and all third party software licenses procured during the subsistence of this Agreement at no cost to Authority except in case of Termination due to Authority Event of Default or Force Majeure where in Authority shall make payments as specified in clause 8.3 or 2.7.10 of this agreement as the case may be.

### **13.2. Inspection and Removal of Bugs and Deficiency**

- a) The handing over process shall be initiated at least 3 months before the actual date of expiry of the Agreement Period in normal course or during the Notice Period in case of early termination by



a joint inspection by the Authority and the Managed Service Provider.

- b) The objective of this stage will be to conduct full tests of the functionality of each piece of Project as a whole, progressively, in order to identify faults, isolate them and rectify them in the most efficient manner in terms of cost and time before handing over to Authority.
- c) The Managed Service Provider shall be entitled to remove promptly any bugs or defects observed during the Tests in the Project Components. Such bugs and deficiencies shall be removed and cured respectively in a time period commensurate with type of bugs and defects.

**13.3. Recovery of Balance due of Authority from Managed Service Provider**

The dues payable to Authority by the Managed Service Provider on any account, if any, at the end of the Agreement shall be recovered by the Authority from the Performance Guarantee.

**ANNEXURE XII NON DISCLOSURE AGREEMENT (NDA) DRAFT**

**NON - DISCLOSURE AGREEMENT**

This Non-Disclosure Agreement ("Agreement"), dated this \_\_\_\_\_ ("Effective Date"), is made at Ahmedabad Gujarat India by and between: **Gujarat Mineral Development Corporation (GMDC having its corporate office at** Khanij Bhavan 132 - Ring Road, Vastrapur, Ahmedabad -380052, (hereafter referred to as "Disclosing Party", which expression shall, unless repugnant to the context or meaning thereof, mean and be deemed to include its successors and permitted assigns);

And

\_\_\_\_\_ (Contracting Party name to be entered) registered office \_\_\_\_\_ (Complete postal address to be entered) hereafter referred to as "Receiving Party", which expression shall,



unless be repugnant to the context or meaning thereof, mean and be deemed to include its permitted successors and permitted assigns).

The Receiving Party and the Disclosing Party are hereinafter collectively referred to as "Parties" and individually as a "Party"

WHEREAS the Disclosing Party for the past many years has been carrying on the business of mining and mineral processing for the last 5 decades and have several properties in Gujarat and PAN India.

WHEREAS Receiving Party-having \_\_\_\_\_ (Details of Business of the Contracting party) the Disclosing Party has requested the Receiving Party to provide certain services in the said field.

WHEREAS, during the course of discussions between the Parties relating to and for the purpose of availing the aforesaid services ("Purpose"), each party may disclose to the other information it may consider proprietary and confidential on a strictly confidential basis and on the terms and conditions set out below.

**NOW WITNESSETH THAT FOR, AND IN CONSIDERATION OF THE PREMISES, AND MUTUAL AGREEMENTS CONTAINED HEREIN, THE PARTIES AGREE AS FOLLOWS:**

**1. Definitions.**

1.1 "Confidential Information" shall mean any and all business, financial and technical information provided prior to the execution of this Confidentiality Agreement and to be provided after the execution of this Confidentiality Agreement by the Disclosing Party to the Receiving Party, including, without limitation, documents, business plans, product developments, blue prints, plans,



prototypes, maps, drawings, costs, margins, pricing, source code, object code, executable code, software, firmware, flowcharts, documentation, financial analysis, financial data, marketing plans, market data, project names, new product introductions, customer names, customer lists, customer data, product plans, parts lists, products, services, inventions, processes, schematics, diagrams, prototypes, models, inspection procedures, inspection data, test procedures, test data, test fixtures, manufacturing procedures, manufacturing plans, manufacturing data, manufacturing fixtures, production data, vendors lists, specifications, documentation, designs, drawings, research, development data, know-how, engineering data, engineering configuration information and any other information transmitted by the Disclosing Party, its subsidiaries and its respective businesses. Confidential Information may be in any form, including oral, written, electronic, optical, magnetic, digital, and/or in any other medium. The existence of this Confidentiality Agreement and its terms shall be considered Confidential Information. Confidential Information does not include information:

1. which becomes public knowledge during the term of this Confidentiality Agreement without breach of this Confidentiality Agreement by the Receiving Party;
- 2 disclosure of which is required by law or by order of a court of competent jurisdiction.

## 2. **Confidentiality Requirements.**

- 2.1 The Disclosing Party shall use reasonable efforts to mark Confidential Information as such by the use of an appropriate legend such as "CONFIDENTIAL" or "PROPRIETARY"; provided, however, that the failure by the Disclosing Party to so mark Confidential Information shall not result in a waiver of the protections afforded such Confidential Information by this Confidentiality Agreement.
- 2.2 All Confidential Information which is transmitted or communicated by the Disclosing Party shall in all cases be held in confidence by the Receiving Party and not disclosed to any third party unless written consent of the Disclosing Party is first obtained, except that, the Receiving Party has the right to disclose such information to its own employees and authorized representatives who need to know such information for the Purpose specified above (collectively, "Representatives"). It is understood that those Representatives to whom Confidential Information or portions thereof shall be



disclosed by a Disclosing Party as permitted hereunder will be informed of the proprietary nature of the Confidential Information and the existence of this Confidentiality Agreement and will be requested to comply with this Confidentiality Agreement and not to disclose the information embodied in the Confidential Information to any other individual or entity. The Receiving Party and the Representatives shall be jointly and severally responsible for any breach of this Confidentiality Agreement by the Receiving Party and / or its Representatives. The Receiving Party shall not use the Confidential Information for any purposes other than the Purpose specified above.

- 2.3 For the purpose of protecting Confidential Information received from the Disclosing Party hereunder, the Receiving Party shall use its best efforts commensurate with those it employs for the protection of corresponding information of its own, including as a minimum, alerting its Representatives of the confidential and sensitive nature of the Confidential Information of the Disclosing Party, disclosing to its Representatives only on a need-to-know basis and using appropriate safe-keeping procedures for Confidential Information of the Disclosing Party. The Receiving Party hereby agrees and acknowledges that upon the Disclosing Party's request and or at the time the Confidential Information or any part thereof are in the opinion of the Disclosing Party no longer required in connection with Purpose, the Recipient shall either (as specified by the Disclosing Party) return to the Disclosing Party all Confidential Information or shall certify to the Disclosing Party that all Confidential Information has been destroyed. If a Party is legally compelled to disclose any Confidential Information of the other Party (whether by oral question, deposition, interrogatory, request for documents, subpoena, civil investigative demand or similar process or by rule, regulation or other applicable law), such Party shall promptly notify the other Party of the same before any disclosure is made so that the other Party may, at its discretion, seek a protective order or other appropriate remedy or may waive compliance with the terms of this Confidentiality Agreement. If such protective order or other remedy is not obtained, or if such other Party waives compliance with the provisions hereof, then only that portion of the Confidential Information that it is legally required to be disclosed (as advised by a written opinion of counsel) shall be disclosed.

3. **No Implied Rights.**



- 3.1 No rights, obligations, representations or terms other than those expressly set forth herein are to be implied from this Confidentiality Agreement. In particular, without limitation:
- 3.1.1 This Confidentiality Agreement does not obligate either Party to disclose or receive any information to or from, or to engage in any transaction with, the other;
- 3.1.2 No license is hereby granted directly or indirectly under any patent, trademark, copyright, trade secret or know-how now held by, or which is or may be licensable by, the Disclosing Party.
- 3.2 Delivery of Confidential Information by the Disclosing Party hereunder is "as-is" and does not constitute a representation, warranty, assurance or inducement, express or implied, by the Disclosing Party as to the Confidential Information's adequacy, sufficiency, freedom from defects of any kind or fitness for any particular purpose, including, without limitation, any representation that use of the Confidential Information will not infringe any patent, copyright or other proprietary right of any third party, and the Disclosing Party shall incur no responsibility or obligation by reason of delivery of any information hereunder, except as specifically provided herein.

4. **Duration of Confidentiality Agreement and Confidentiality Period.**

- 4.1 The term of this Confidentiality Agreement shall be for a period of three years and shall commence as of the Effective Date and be valid upto **(04/04/2019)** (hereinafter "Term") and may be extended by mutual agreement of the Parties.
- 4.2 The duration of time for which the Receiving Party shall maintain received Confidential Information in confidence in accordance with the covenants herein shall end ten (10) years following the date of the expiration or early termination of the Term (the "Confidentiality Period").



- 4.3 All obligations arising under this Confidentiality Agreement shall survive any termination or expiration of this Confidentiality Agreement and any confidentiality obligations will remain in effect for the Confidentiality Period.
- 4.4 Upon written notice from one Party to the other Party, or upon expiration or early termination of the Term, a Receiving Party shall return or destroy, within sixty (60) days thereafter, all Confidential Information, together with all copies thereof. The return or destruction of Confidential Information may be by delivering all such Confidential Information that is fixed in one or more tangible media to the Disclosing Party, the certification in writing of the destruction of all Confidential Information and copies thereof to the Disclosing Party, or as directed by a written Notice from a Disclosing Party. Destruction, return or delivery in accordance with this provision shall include any other material containing and/or reflecting such Confidential Information and any copies, extracts, reproductions, duplications, replications, derivatives, and/or descriptions of such Confidential Information in whole or in part.
- 4.5 The Receiving Party warrants that it has full power and authority to enter into and perform its obligations under this Agreement. This Agreement is a legal, valid, and binding obligation of the Receiving Party and is enforceable against it in accordance with its terms.

## 5.0 **Rights and Remedies.**

- 5.1 The Parties hereby acknowledge and agree that, in the event of any breach of this Confidentiality Agreement, including, without limitation, the actual or threatened disclosure of Confidential Information without the express prior written consent of the Disclosing Party of such Confidential Information, such Disclosing Party will suffer irreparable harm and injury and no remedy at law will afford it adequate protection against, or appropriate compensation for, such injury. Accordingly, it is agreed that, in any such event, the Disclosing Party shall be entitled to seek specific performance of the other Party's obligations under this Confidentiality Agreement, as well as such further injunctive relief as may be granted by a court of competent jurisdiction.



- 5.2 Any unauthorized use or disclosure by the Representatives of the Receiving Party shall be deemed to be an unauthorized use or disclosure by the Receiving Party and the Receiving Party shall indemnify and hold harmless the Disclosing Party from and against any and all damages, losses, costs, expenses and attorneys' fees incurred as a result of such breach.

## 6.0 **Entire Confidentiality Agreement.**

6.1 This Confidentiality Agreement constitutes the entire Agreement and understanding of the Parties with respect to the subject matter hereof, and no representations or promises have been made that are not fully set forth herein.

6.2 All the notices or communications by one party to other party pursuant to this Agreement, except where expressly specified to the contrary, shall be sent in writing to the addresses as mentioned below:

- a. Disclosing Party **Gujarat Mineral Development Corporation, Khanij Bhavan, 132 feet Ring Road, Ahmedabad Gujarat India 380052**
- b. Receiving Party \_\_\_\_\_ (Postal address to be added)

A notice given in accordance with this clause is deemed to be received:

- (i) If hand delivered, on delivery;
- (ii) If sent by prepaid post, five (5) days after date of posting; or
- (iii) If sent by facsimile or email when the sender's facsimile system generates a message confirming successful transmission of the total number of pages of the notice or the email notification receipt is generated

6.3 Nothing in this Agreement is intended to confer any benefit on any third party or any right to enforce any term of this Agreement. The termination of this Agreement or the completion of the Purpose for any reason shall not affect the obligations set out in this Agreement. Neither party may assign its rights or delegate its duties or obligations under this Agreement without prior written consent of the other party. Any attempt to do so is void. This Agreement may not be modified or amended except by the mutual written agreement of the parties. No waiver of any provision of this Agreement shall be effective unless it is in writing and signed by the party against which it is sought to be enforced. The parties agree that this Agreement is the complete and exclusive statement of the agreement between the parties relating to the subject matter of the Agreement. This



Agreement supersedes all requests for proposals, proposals or other prior or contemporaneous agreements, oral or written, and all other communications between the parties relating to the subject matter hereof. If any provision of this Agreement is found by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable, the same shall not affect the other provisions hereof or the whole of this Agreement, but such provision shall be deemed modified to the extent necessary in the court's opinion to render such provision enforceable, and the rights and obligations of the parties shall be construed and enforced accordingly, preserving to the fullest permissible extent the intent and agreements of the parties herein set forth. Where this Agreement is to be, amongst others, admitted as evidence, for the purposes of legal proceedings of any nature in any forum, copies of this Agreement, certified to be true copies by authorized personnel of the parties shall be deemed original solely for such purpose.

If any dispute arises between the Parties hereto during the subsistence or thereafter, in connection with the validity e, interpretation, implementation or alleged material breach of any provision of the Agreement or regarding a question, including the questions as to whether the termination of the Contract Agreement by one Party hereto has been legitimate, both Parties hereto shall endeavour to settle such dispute amicably. The attempt to bring about an amicable settlement is considered to have failed as soon as one of the Parties hereto, after reasonable attempts [which attempt shall continue for not less than 30 (thirty) days], give 15 days' notice thereof to the other Party in writing. In the case of such failure the dispute shall be referred to a sole arbitrator. The law governing the arbitration proceeding shall be Indian Law and the place of arbitration shall be Ahmedabad Gujarat

7. Subject to Clause 7 above wherever judicial intervention is possible each Party submits to the exclusive jurisdiction of the courts in Ahmedabad.
8. If at any time, any provision of this Agreement is or becomes illegal, invalid or unenforceable in any respect under the law of any jurisdiction, that shall not affect or impair the legality, validity or enforceability in that jurisdiction of any other provisions of this Agreement or the legality, validity or enforceability under the law of any other jurisdiction of that or any other provision of this Agreement.
9. In the event any one or more of the provisions of this Agreement is held to be unenforceable under applicable law:
  - (i) such enforceability shall not affect any other provision of this Agreement;
  - (ii) this Agreement shall be construed as if said unenforceable provision had not been contained therein; and
  - (iii) the Parties shall negotiate in good faith to replace such unenforceable provision by such as gives effect nearest to that of the provision being replaced, and



preserves the Parties commercial interests under this Agreement.

10. This Agreement may be executed by the Parties in separate counterparts each of which when so executed and delivered shall be an original, but all such counterparts shall together constitute one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

**Gujarat Mineral Development Corporation (Name of the Receiving Company)**

**Signature:**

**Signature:**

**Name:**

**Name:**

**Title:**

**Title:**

**Date:**

**Date:**