

Clarification Note

Request for Proposal (RFP) For Selection Of Last Mile Connectivity Agency (LMCA) On Service Model For Various Government Institutions Connectivity Through BharatNet Network

Reference No: **GFGNL/GFG/e-file/263/2024/0095/Commercial-Utilization Gujarat Fibre
Grid Network Limited (GFGNL)**

21th October 2024



Issued By :
Gujarat Fibre Grid Network Limited (GFGNL)
A Government of Gujarat Company
Block No: 6, 5th Floor, Udyog Bhavan, Sector-11,
Gandhinagar 382010

Fact Sheet:

#	Particular	Details
8.	Last date for submission of Bid/proposal	18/09/2024 08/10/2024 18/10/2024 22/10/2024 24/10/2024 at 06:10 pm 03:00 pm
11.	Submission of Integrity Pact, EMD, RFP Document Fee and Letter of Authorization	21/09/2024 11/10/2024 18/10/2024 22/10/2024 24/10/2024 at 04:10 pm (Date of submission of online bid + 4 working Days) for physical copy

1 Annexure XI : Integrity Pact

Gujarat Fibre Grid Network Limited, Dept. of Science & Technology, Government of Gujarat, hereinafter referred to as "The Principal".

And

.....hereinafter referred to as "The Bidder/Contractor"

Preamble

The principal intends to award, under laid down organizational procedures, contract/s for The principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its Bidder(s) and/or Contractor(s).

In order to achieve these goals, the principal may appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1: Commitments of the Bidder(s)/ Contractor(s)

1. The Bidder(s) / Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - a. The Bidder(s) / contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of the principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, to obtain in exchange any advantage or during the

execution of the contract.

- b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s) /Contractors will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals, and business details, including information contained or transmitted electronically.
 - d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative must be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" shall be annexed and marked as Annexure.
 - e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
2. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3: Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings".

Section 4: Compensation for Damages

1. If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.
2. If the Principal has terminated the contract according to Section 3, or if the principal is entitled to terminate the contract according to Section 3, the principal shall be entitled to demand and recover from the Contractor penalties of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5: Previous Transgression

1. The Bidder declares that no previous transgressions occurred in the last three years

with any other company in any country conforming to the anti-corruption approach or with any other public sector enterprise in India that could justify his exclusion from the tender process.

2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process for action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

Section 6: Equal treatment of all Bidders/Contractors/Subcontractors.

1. The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the principal before contract signing.
2. The principal will enter into agreements with identical conditions as this one with all Bidders, contractors and subcontractors.
3. The principal will disqualify from the tender process all Bidders who do not sign this Pact or violate its provisions.

Section 7: Criminal charges against violation Bidder(s)/ Contractor(s)/Sub contractor(s).

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the principal has substantive suspicion in this regard, the principal will inform the same to the Chief Vigilance Officer.

Section 8: Independent External Monitor/Monitors

1. The principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairman, ITD.
3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of the principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.
4. The principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he/she will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
6. The Monitor will submit a written report to the Chairman, ITD within 8 to 10 weeks from the date of reference or intimation to him by the principal and, should the occasion arise, submit proposals for correcting problematic situations.
7. Monitor shall be entitled to compensation on the same terms as being extended to / provided

- to Independent Directors on the ITD Board.
8. If the Monitor has reported to the Chairman ITD, a substantiated suspicion of an offence under relevant IPC/PC Act, and the Chairman ITD has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
 9. The word 'Monitor' would include both singular and plural.

Section 9: Pact Duration

This pact begins when both parties have legally signed it. It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders & months..... the contract has been awarded.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Chairman of ITD.

Section 10: Other provisions

1. This agreement is subject to Indian Law, Place of performance and jurisdiction is the Registered Office of the Principal, i.e., New Delhi.
2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
3. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & on behalf of the principal)
Contractor) (Office Seal)

(For & On behalf of Bidder/
(Office Seal)

Place..... Date

Witness 1:
(Name & Address)

Witness 2:
(Name & Address)

Technical Specifications

1.1 P2P & P2MP unlicensed radio

Sr. No.	Parameters	Minimum Specifications
1.	Operating frequency band	5.X GHz
2.	Distance support	P2P / P2MP - Up to 10Km P2P – Minimum 10 Km aerial distance without any distortion on specified signal strength, throughput, performance and other qualitative connectivity aspects.

Sr. No.	Parameters	Minimum Specifications
		<p>P2MP – Ensuring 360⁰-degree radius coverage with multiple MIMO sectorial antennas coverage of minimum 5 Km aerial radius without any distortion on signal strength, throughput, performance and other qualitative connectivity aspects.</p> <p>*Bidder has to optimize the hardware (radio & Antennas based on the site feasibility)</p> <p>For P2MP , client end radio/PoE/IDU Device should be from same OEM of PoP/base station Radio/PoE/IDU Device for better network availability</p>
3.	Throughput support	Dedicated Minimum 100 Mbps per P2P link with atleast P2P radio backplane capacity of minimum 500Mbps , Base station Throughput for P2MP link: Minimum 1 Gbps with appropriate backplane capacity.
4.	Ports	2 x 10/100/1000BaseT Ethernet (Auto negotiation) Both Port 10/100/1000 Base T Ethernet (RJ45)(Auto negotiations) at PoE/IDU port for one WAN and one LAN
5.	VLAN support	802.1Q, Q-in-Q, Access, Trunk, Transparent, and management VLAN, QoS
6.	Security	System should support WPA-PSK Encryption (Security: System should support AES 128/256 Encryption.) Radios should support IPv4 & IPv6
7.	Electrical requirement	Power over Ethernet (PoE) injector
8.	Compliance	The Equipment should be type approved by WPC. NSDTS* and MTCTE certified.
9.	Management	System should be remotely manageable
10.		System should have GUI interfaces
11.		System must provide alarm and control capabilities via Simple Management Protocol (should support SNMPv3) this should be following but not limited, Power Issue(Utility),Equipment- coldStart, warmStart, linkDown, linkUp, authenticationFailure, and link utilization, performance, latency,etc.
12.		Automatic Channel selection immediately switches to the best suitable channel in case of interference/dynamic auto optimization of channel and bandwidth. Various radio interference mitigation technic.
13.		Software upgrade to system should be done through the network remotely.
14.		Operating Temperature support : -10 degrees C to +60 degrees C (in installed condition)
15.	Environment requirements	Working Humidity support: between 10% - 95%, non-condensing at all operating temperatures
16.		It should be IP67 and wind survivability for minimum 150 Kmph
17.		System should be suitable to withstand continuous exposure to rain and sunlight.
18.	Protection	Radio system should have built in surge protection mechanism.(upto 2KVA)
19.	Latency	<5 ms(for P2P link) 8-10 ms (for P2MP Link)

Sr. No.	Parameters	Minimum Specifications
20.	Additional features/Advance Technology support	<ul style="list-style-type: none"> The final alarm/alert or message sent by a device before it shuts down or loses power or power shut down alert , GPS-Real time synchronization, For better link security Link password/RADIUS authentication suggested. Wall /Pole/Mast Mount facilities For P2P/P2MP 160MHz once approved by regulated authority DoT/TRAI shall be provided to tenderer without any SW licenses or restrictions and additional cost to GFGNL Wi-Fi Product is not allowed, SSID should not be broadcasted, only OEM radio should be seen SSID.
21.	Product Lifecycle	7 years

Note:

- Bidder will be solely responsible to SITC of a separate MCB(main circuit breaker) for P2MP/P2P base station radio for better network uptime.

1.2 P2MP unlicensed band radio with 120⁰ degree coverage

Sr. No.	Parameters	Minimum Specifications
1.	Operating frequency band	5.X GHz
2.	Distance support	<p>P2MP – Minimum 3 Km aerial distance coverage without any distortion on specified signal strength, throughput, performance, and other quantitative connectivity aspects with 120⁰-degree coverage with Sectorial antenna.</p> <p>For P2MP , client end radio/PoE/IDU Device should be from same OEM of PoP/base station Radio/PoE/IDU Device for better network availability</p>
3.	Throughput support	Dedicated Minimum 100 Mbps per wireless link throughput with atleast P2MP base station radio backplane capacity of minimum 500Mbps
4.	Ports	2 x 10/100/1000BaseT Ethernet (Auto negotiation) Both Port 10/100/1000 Base T Ethernet (RJ45)(Auto negotiations) at PoE/IDU port for one WAN and one LAN connectivity
5.	VLAN support	802.1Q, Q-in-Q, Access, Trunk, Transparent, and management VLAN, QoS
6.	Security	System should support WPA-PSK Encryption (Security: System should support AES 128/256 Encryption.) Radios should support IPv4 & IPv6
7.	Electrical requirement	Power over Ethernet (PoE) injector
8.	Compliance	The Equipment should be type approved by WPC. NSDTS and MTCTE certified.
9.	Management	System should be remotely manageable
10.		System should have GUI interfaces
11.		System must provide alarm and control capabilities via Simple Management Protocol (should support SNMPv3) this should be following but not limited,

Sr. No.	Parameters	Minimum Specifications
		Power Issue(Utility),Equipment- coldStart, warmStart, linkDown, linkUp, authenticationFailure, and link utilization, performance, latency,etc.
12.		Automatic Channel selection immediately switches to the best suitable channel in case of interference/dynamic auto optimization of channel and bandwidth. Various radio interference mitigation technic.
13.		Software upgrade to system should be done through the network remotely.
14.	Environment requirements	Operating Temperature support : -10 degrees C to +60 degrees C (in installed condition)
15.		Working Humidity support: between 10% - 95%, non-condensing at all operating temperatures
16.		It should be IP67 and wind survivability for minimum 150 Kmph
17.		System should be suitable to withstand continuous exposure to rain and sunlight.
18.	Protection	Radio system should have built in surge protection mechanism.(upto 2KVA)
19.	Latency	8-10 ms (for P2MP Link)
20.	Additional features/Advance Technology support	<ul style="list-style-type: none"> The final alarm/alert or message sent by a device before it shuts down or loses power or power shut down alert , GPS-Real time synchronization, For better link security Link password/RADIUS authentication suggested. Wall /Pole/Mast Mount facilities Wi-Fi Product is not allowed, SSID should not be broadcasted, only OEM radio should be seen SSID.
21.	Product Lifecycle	7 years

1.3 Mini GPON OLT 4 Port - Compatible with GFGNL Device – OLT, ONT, Switch,..etc.

Sl. No.	Parameter	Tender Specifications
1	Management Ports	1# 1G BASE-T Management port, 1#RJ45 CONSOLE port, 1#USB2.0, User friendly GUI Management
2	No. of Ports	2# 1GE / 10GE SFP base Ports, 4# GPON/PON Ports 2#Copper 10/100/1000M auto-negotiation 2x 1G (Optical) and 1 X (10/100/1000)RJ45 port auto negotiation 4X GPON/PON Ports
3	MAC	Support upto 16K MAC address
4	GPON Features	splitting ratio - 1:128 or better Transmission Distance - 20KM Performance - Upstream 1.244Gbps, Downstream 2.488Gbps Wavelength - RX 1310nm and TX 1490nm Connector - SC TYPE

Sl. No.	Parameter	Tender Specifications
		<p>Fibre support - Single Mode 9/125µm TX Power +4.5~+10dBm Rx Power: - 27 dBm SFP Compatible ,Class B+ and Class C+</p> <p>Compliant to ITU-T984.x standard OLT to Support Broadcast Storm Control The Mini-OLT shall have the option of power feed through AC power source and/or using AC to DC Adapter and operating at nominal 180V to 270 V AC voltage variation. The Mini-OLT shall be designed to have protection of power transient, power-surge and power blowouts. The equipment shall be adequately protected in case of voltage variation beyond the range as specified above and also against input inverse polarity</p>
5	Operation Temperature	0 °C to 60 °C
6	Physical Indicator	Power Indicator, system Indicator, port indicator (ACT/Link), PON port indicator, (power Consumption indicator-optional), over temperature sensors/indicator and shut down
7	Other	<ul style="list-style-type: none"> - Deployed indoor or in cabinets - Remote accessibility is required - As per TEC GR no. TEC-GR-FA-PON-002-02-NOV-18 or latest with all amendments - Static and dynamic IP allocation should be supported - DBA(Dynamic Bandwidth Allocation), Multicast,QoS,SNMPv2C/V3 support - On Day-01 fully loaded including SFP's of uplink 1G SFPs with patch cords
8	Safety standard	UL / IEC / MTCTE and NSDTS certified
9	Product Lifecycle	7 years

1.4 CPE (customer premise equipment) router – (Wi-Fi CPE)

Sr. No.	Parameters	Minimum Specifications
1.	No. of WAN port (1GE RJ45 port)	1 no.
2.	LAN Port (10/100 BaseT ports)	2 nos.
3.	Flash Memory	Minimum 64Mb
4.	Routing protocol	Static IPv4 routing, static IPv6 routing
5.	Management	SNMP V3, Remote management, should have facility to set password for local & remote login, TR-069 for more comprehensive management.
6.	Encapsulation	802.1q VLAN, PPPoE
7.	Wi-Fi support	802.11/ac/n/b/g
8.	Wireless security	WPA/WPA2, WPA-PSK Encryption
9.	Feature support	IPv6 support, Quality of Service (QoS), IPSEC, DHCP, IGMP V3, NAT and Firewall Services, WPC ETA (Equipment Type Approval) certificate
10.	Operation Temperature	0 to 50 °C
11.	Power input	230 V AC, 50-60 Hz
12.	Safety standard	UL / IEC / MTCTE and NSDTS certified

Technical Qualifications:

For wider competitive bidders participations.

#	Criteria	Max. Marks																						
-1	The Bidder should have average turnover during last 5 audited financial years (2019-20, 2020-21, 2021-22,2022-23 and 2023-24) from Telecom Services Network Service Planning and Delivery.	5																						
	<table border="1"> <thead> <tr> <th>Bidder's Participating In</th> <th>Average Annual Turnover(In Cr)</th> </tr> </thead> <tbody> <tr> <td rowspan="4">1 Zones</td> <td>>=7 Cr to < 8 Cr = 1 Marks</td> </tr> <tr> <td>>=8 Cr to < 9 Cr =2 Marks</td> </tr> <tr> <td>>=9 Cr to < 10 Cr = 3 Marks</td> </tr> <tr> <td>>=10 Cr = 5 Marks</td> </tr> <tr> <td rowspan="4">2 Zones</td> <td>>=14 Cr to < 15 Cr = 1 Marks</td> </tr> <tr> <td>>=15 Cr to < 16 Cr = 2 Marks</td> </tr> <tr> <td>>=16 Cr to < 17 Cr = 3 Marks</td> </tr> <tr> <td>>=17 Cr = 5 Marks</td> </tr> <tr> <td rowspan="4">3 Zones</td> <td>>=20 Cr to < 21 Cr = 1 Marks</td> </tr> <tr> <td>>=21 Cr to <22 Cr = 2 Marks</td> </tr> <tr> <td>>=22 Cr to <23 Cr = 3 Marks</td> </tr> <tr> <td>>=23 Cr = 5 Marks</td> </tr> <tr> <td rowspan="4">4 Zones</td> <td>>=28 Cr to < 29 Cr = 1 Marks</td> </tr> <tr> <td>>=29 Cr to < 30 Cr = 2 Marks</td> </tr> <tr> <td>>=30 Cr to < 31 Cr = 3 Marks</td> </tr> <tr> <td>>=31 Cr = 5 Marks</td> </tr> </tbody> </table>		Bidder's Participating In	Average Annual Turnover(In Cr)	1 Zones	>=7 Cr to < 8 Cr = 1 Marks	>=8 Cr to < 9 Cr =2 Marks	>=9 Cr to < 10 Cr = 3 Marks	>=10 Cr = 5 Marks	2 Zones	>=14 Cr to < 15 Cr = 1 Marks	>=15 Cr to < 16 Cr = 2 Marks	>=16 Cr to < 17 Cr = 3 Marks	>=17 Cr = 5 Marks	3 Zones	>=20 Cr to < 21 Cr = 1 Marks	>=21 Cr to <22 Cr = 2 Marks	>=22 Cr to <23 Cr = 3 Marks	>=23 Cr = 5 Marks	4 Zones	>=28 Cr to < 29 Cr = 1 Marks	>=29 Cr to < 30 Cr = 2 Marks	>=30 Cr to < 31 Cr = 3 Marks	>=31 Cr = 5 Marks
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Annexure-XII Clause Amendments

#	Original Clause	Revised Clause
1	<p>Bidder will have to supply license perpetual EMS (Element Management System) for each active components like but not limited to radios, router, switch, Li-Fi, Mini-OLT/ONT,CPE etc. used in network for entire contract duration so that required alarms can be monitored and also remotely monitor to know atleast the OFC Cut Issue, Power Issue(Utility),Equipment- cold Start, warm Start, link Down, linkUp, authentication Failure, latency, Jitter and Neighbor Loss status related performance parameters, Proactive alarms of each equipment from day-01 of device integration in network and mapped in Bidder's NMS on day-01.</p> <p>Bidder shall not provide any active equipment without proper native / licensed EMS. For Each family/category of active equipments the bidder has to provide single licensed EMS to avoid efforts on multiple integrations with GFGNL NMS.</p> <p>The EMS is / are for each Bidder has to provide all active elements and its network performance like but not limited to, Services, link performance-Availability(Up/Down) including reason of outage-</p>	<p>Bidder will have to supply license perpetual EMS (Element Management System) for each active components like but not limited to radios, router, switch, Li-Fi, CPE etc. used in network for entire contract duration so that required alarms can be monitored and also remotely monitor to know atleast the OFC Cut Issue, Power Issue(Utility),Equipment- cold Start, warm Start, link Down, linkUp, authentication Failure, latency, Jitter and Neighbor Loss status related performance parameters, Proactive alarms of each equipment, while for GPON/L2 network elements, " GPON(Mini-OLT/ONT) EMS should be able to provide network performance but not limited to link performance- Availability(Up/Down) including the reason of outage-alarm Management, Tx-Rx level ,Required OLT alarms can be monitored and also remotely monitor to know atleast the OFC Cut Issue, Power Issue(Utility),Equipment- cold Start, warm Start, link Down, linkUp, for OLT through GPON licensed EMS and integrate with GFGNL's NMS either through API or by providing suitable mechanism without any</p>

#	Original Clause	Revised Clause
	<p>alarm Management, Throughput, latency,packet drops, jitter,Tx-Rx level ,For Wireless (RSSI) etc. through EMS (preferably licencense based EMS) and EMS must be integrate with GFGNL's NMS either through API or by providing suitable mechanism without any additional cost to GFGNL.</p>	<p>additional cost to GFGNL from day-01 of device integration in network and mapped in Bidder's GFGNL's NMS on day-01.</p> <p>Bidder shall not provide any active equipment without proper native / licensed EMS. For Each family/category of active equipments the bidder has to provide single licensed EMS to avoid efforts on multiple integrations with GFGNL NMS.</p> <p>The EMS is / are for each Bidder has to provide all active elements and its network performance like but not limited to, Services, link performance- Availability(Up/Down) including reason of outage-alarm Management, Throughput, latency,packet drops, jitter,Tx-Rx level ,For Wireless (RSSI) etc. through EMS (preferably licencense based EMS) and EMS must be integrate with GFGNL's NMS either through API or by providing suitable mechanism without any additional cost to GFGNL.</p>
2	<p>Authorization letters, MAF (Annexure XXX) from all OEM/Vendors whose products are being quoted by the Bidder need to be attached in the bid.</p> <p>Copy of valid Mandatory Testing and Certification of Telecommunication Equipment(MTCTE)/ Type Approval Certificate or copy of Application for fresh MTCTE/TAC as applicable from each OEM whose products are being quoted by the Bidder.(only applicable to OFC, duct, radio, rack, media converter, router, switch)</p> <p>Copy of valid Mandatory Testing and Certification of Telecommunication Equipment(MTCTE)/Technical Specification Evaluation Certificate (TSEC) / Type Approval Certificate or copy of Application for fresh MTCTE/TSEC/TAC/AT certificate as applicable from each OEM whose products are being quoted by the Bidder (only applicable to OFC, duct, DWC & radio,GPON OLT & ONT-Functional and technical requirement of ONT Family shall be as per TEC/GR /TX/PON-02/01/ May 2013 or With latest).</p> <p>In order to meet the delivery timelines, the successful Bidder can procure and supply the material from one or more quoted OEMs in any combination.</p> <p>5.2 Self Certification on latest products with dates not older than a year.</p> <p>Note: Bidder should have valid Type Approval Certificate (TAC) from Telecom Engineering Centre (TEC) / WPC, New Delhi or Technical Specification Evaluation Certificate (TSEC) from Quality</p>	<p>Authorization letters, MAF (Annexure XXX) from all OEM/Vendors whose products are being quoted by the Bidder need to be attached in the bid.</p> <p>Copy of valid Mandatory Testing and Certification of Telecommunication Equipment(MTCTE)/ Type Approval Certificate or copy of Application for fresh MTCTE/TAC as applicable from each OEM whose products are being quoted by the Bidder.(only applicable to OFC, duct, radio, rack, media converter, router, switch)</p> <p>Or atleast having Class-I local category providing duly signed self-certifications on company letter head to comply TSEC/TAC For only applicable to Duct, Rack and DWC pipe</p> <p>Copy of valid Mandatory Testing and Certification of Telecommunication Equipment(MTCTE)/Technical Specification Evaluation Certificate (TSEC) / Type Approval Certificate or copy of Application for fresh MTCTE/TSEC/TAC/AT certificate as applicable from each OEM whose products are being quoted by the Bidder (only applicable to OFC, duct, DWC & radio,GPON OLT & ONT-Functional and technical requirement of ONT Family shall be as per TEC/GR /TX/PON-02/01/ May 2013 or With latest).</p>

#	Original Clause	Revised Clause
	<p>Assurance Circle, BSNL, Bengaluru, against the respective technical specifications of this RFP. In case any of the quoted models does not have TAC/ TSEC then it should be applied for TSEC to Quality Assurance Circle, BSNL, Bengaluru or to TEC/WPC, New Delhi for the model against the technical specifications, at least one day before the bid submission date. The registration number allotted for the TSEC purpose by Quality Assurance Circle, BSNL, Bengaluru or for TAC purpose by TEC/WPC, New Delhi shall be submitted along with the bid. However, only type approved/TSEC approved products as per above specifications shall be accepted which shall have to be obtained before supply.</p>	<p>In order to meet the delivery timelines, the successful Bidder can procure and supply the material from one or more quoted OEMs in any combination.</p> <p>5.2 Self Certification on latest products with dates not older than a year.</p> <p>Note: Bidder should have valid Type Approval Certificate (TAC) from Telecom Engineering Centre (TEC) / WPC, New Delhi or Technical Specification Evaluation Certificate (TSEC) from Quality Assurance Circle, BSNL, Bengaluru, against the respective technical specifications of this RFP. In case any of the quoted models does not have TAC/ TSEC then it should be applied for TSEC to Quality Assurance Circle, BSNL, Bengaluru or to TEC/WPC, New Delhi for the model against the technical specifications, at least one day before the bid submission date. The registration number allotted for the TSEC purpose by Quality Assurance Circle, BSNL, Bengaluru or for TAC purpose by TEC/WPC, New Delhi shall be submitted along with the bid. However, only type approved/TSEC approved products as per above specifications shall be accepted which shall have to be obtained before supply.</p>
3	<p>Bidders are hereby instructed to adhere to the stipulation of submitting a single OEM-Manufacturer Authorization Form (MAF) per technology for each bidding package. The bid covers two packages; each package has two zone. (i.e., Package-A has two Zones-Vadodara and Surat, Package-B has two Zones -Ahmedabad and Rajkot)The MAF provider must take measures to prevent or reduce the risk of OEM and technology failures. Only one MAF should be provided for each package, for instance, Package A (Zone - Surat and Vadodara) and Package B (Zone - Ahmedabad and Rajkot). The same product MAF shouldn't be submitted for both packages by an LMCA/SI. Two SI/LMCAs can provide one MAF. Non-compliance will lead to bid rejection. If a bidder participates for more than one package, only one MAF of a specific technology (wireline/wireless) per package should be submitted. For instance, if Bidder 'X' participates for all Four Zones, they must submit different MAFs for the appropriate product of a specific technology (wireline/wireless) per package. For Example, For the wireless technology, 'Y' OEM can participate in Package-A, whereas for Package B, a different wireless technology OEM partner is needed, else the bid will be disqualified.In</p>	<p>Bidders are hereby instructed to adhere to the stipulation of submitting a single OEM-Manufacturer Authorization Form (MAF) per technology for each bidding package. The bid covers two packages; each package has two zone. (i.e., Package-A has two Zones-Vadodara and Surat, Package-B has two Zones -Ahmedabad and Rajkot)The MAF provider must take measures to prevent or reduce the risk of OEM and technology failures. Only one MAF should be provided for each package, for instance, Package A (Zone - Surat and Vadodara) and Package B (Zone - Ahmedabad and Rajkot). The same product MAF shouldn't be submitted for both packages by an LMCA/SI. Two SI/LMCAs can provide one MAF. Non-compliance will lead to bid rejection. However, for broader participations for bid the System Integrator (SI) is flexible to choose the OEM, based on compliance and support capabilities. If a bidder participates for more than one package, only one MAF of a specific technology (wireline/wireless) per package should be submitted. For instance, if Bidder 'X' participates for all Four Zones, they must submit different MAFs for the appropriate</p>

#	Original Clause	Revised Clause
	<p>accordance with the RFP, the successful Bidder may procure and supply materials from any combination of the quoted OEMs to meet delivery timelines. If in case any combination arises at the financial stage where more than two zones (two zones from one package and one from another package) qualify for an OEM by two different LMCAs/SIs, GFGNL has the right to ask the selected LMCA/SI to change the OEM partner. This would be in accordance with the product/technology delivery as stated above. The selected SI/LMCA will be solely accountable for delivery and the submission of a revised MAF to GFGNL. And same has been also applicable to bidder who has applied, qualified and selected for single zone. Bidders are therefore urged to be meticulous in their compliance with these guidelines to ensure consideration in the evaluation process.</p> <p>The goal of this clause is to maintain transparency, encourage fair competition, and ensure that the government procures the best quality technology at the most competitive prices.</p>	<p>product of a specific technology (wireline/wireless) per package. For Example, For the wireless technology, 'Y' OEM can participate in Package-A, whereas for Package B, a different wireless technology OEM partner is needed, else the bid will be disqualified. In accordance with the RFP, the successful Bidder may procure and supply materials from any combination of the quoted OEMs to meet delivery timelines. If in case any combination arises at the financial stage where more than two zones (two zones from one package and one from another package) qualify for an OEM by two different LMCAs/SI's, GFGNL has the right to ask the selected LMCA/SI to change the OEM partner. This would be in accordance with the product/technology delivery as stated above. The selected SI/LMCA will be solely accountable for delivery and the submission of a revised MAF to GFGNL. And same has been also applicable to bidder who has applied, qualified and selected for single zone. Bidders are therefore urged to be meticulous in their compliance with these guidelines to ensure consideration in the evaluation process.</p> <p>The goal of this clause is to maintain transparency, encourage fair competition, and ensure that the government procures the best quality technology at the most competitive prices.</p>
4	<p>The LMCA shall carry out periodical maintenance of the network commissioned with such frequency that each customer is covered once in every month.</p>	<p>The LMCA shall carry out periodical maintenance of the network commissioned with such frequency that each customer is covered once in every Quarter at least as well on specific sites ask by tenderer.</p>

Price Bid(BOQ)

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)	
			Services - Active Infrastructure					
1	P2P wireless UBR link(both at PoP and Client end)	P2P	Installation, configuration, commissioning and acceptance testing of point to point UBR radio link both at customer and base radio setup including earthing, clamps, RF radio, antennas & electrical cables etc.	No.				
			Material Supply - Passive Infrastructure					
2		Misc.	Miscellaneous items required at customer location like MCB, electrical cable, earthing cable, PVC pipe, patch cord (optical & Cat 5) etc.	Lot				
				Material Supply - Active Infrastructure				
3		P2P	Point to point UBR radio set including earthing cable, lightening arrester, clamps/fixtures, RF radios, antennas & electrical cables etc.	Each				
			Any other Line Items suggested by Bidder					
4		Other	*****	**				
			Services - Active Infrastructure					
5	Point to Multipoint Base Station site radio Setup for overall Full 360°/comprehensive coverage	P2MP Base Station Radio	Installation, configuration, commissioning and acceptance testing of Base Station site radio for point to multipoint radio/s for 360 degree overall full / comprehensive Coverage link including earthing, clamps, RF & electrical cables, sectorial antenna/s, etc.(Note: Set is considered for 360	Set				

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
			degree comprehensive coverage at PoP end including all necessary antenna/s with other mentioned accessories, if any solution has multiple radios set unit price bidder has to multiply accordingly,i.e. for 3 radios with sectorial covering 360 degree comprehensive coverage then set unit price=3*each radio with antennas and accessories)				
			Material Supply - Passive Infrastructure				
6		Misc.	Miscellaneous items required at customer location like MCB, electrical cable, earthing cable, compass, PVC pipe, patch cord (optical & Cat 5) etc.	Lot			
			Material Supply - Active Infrastructure				
7		P2MP Base Station	Base Station site radio for point to multipoint radio link including earthing cable, clamps/fixtures, RF radios & electrical cables,Including Sectorial Antenn/s etc.	Set			
8		Switch for aggregation(if any case of multiple radio's for comprehensive coverage of 360 degree)	In Case of Any requirement of PoE Switch because of aggregation of multiple radios at base station to meet the eligibility then it shall be the part of Price BoQ	Ea			
			Any other Line Items suggested by Bidder				
9		Other	*****	**			
			Services - Active Infrastructure				

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
10	P2MP wireless UBR at client end radio setup	P2MP Client end Radio	Installation, configuration, commissioning and acceptance testing of Remote Station/Client site radio for point to multipoint radio link including earthing, clamps, RF & electrical cables etc.	Set			
			Material Supply - Passive Infrastructure				
11		Misc.	Miscellaneous items required at customer location like MCB, electrical cable, earthing cable, compass, PVC pipe, patch cord (optical & Cat 5) etc.	Lot			
				Material Supply - Active Infrastructure			
12		P2MP Client end Radio	Remote Station site radio for point to multipoint radio link including earthing cable, clamps/fixtures, RF radio including antenna & electrical cables,etc.	Set			
				Any other Line Items suggested by Bidder			
13		Other	*****	**			
	3 Mtr Wall Mount		Services - Passive Infrastructure for wireless link				
14			Installation of 3 mtr wall mount pole including required civil work & material required for same (excluding pole)	No.			
				Material Supply - Passive Infrastructure			
15			3 mtr pole including all required accessories of safety and clamps/etc.	No.			
				Any other Line Items suggested by Bidder			
16		Other	*****	**			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
			Services - Passive Infrastructure for wireless link				
17	6Mtr to 12 Mtr(6/9/12mtr) RTT/GBT/Mast		Installation of 6 mtr RTT/GBT/Mast including required RCC / foundation work & material required for same (excluding pole)	No.			
18			Installation of 9 mtr RTT/GBT/Mast including required RCC / foundation work & material required for same (excluding pole)	No.			
19			Installation of 12 mtr RTT/GBT/Mast including required RCC / foundation work & material required for same (excluding pole)	No.			
			Material Supply - Passive Infrastructure				
20			6 mtr RTT/GBT/Mast including all accessories,lightening arrester,etc.	No.			
21			9 mtr RTT/GBT/Mast including all accessories,lightening arrester,etc.	No.			
22			12 mtr mast/RTT/GBT/Mast including all accessories,lightening arrester,etc.	No.			
				Services - Passive Infrastructure for Structural aerial OFC laying			
23	Aerial Pole		Installation of new pole for aerial connectivity with all clamps and safety accessories with stability supports	No.			
			Material Supply - Passive Infrastructure				
24			Pole for aerial Connectivity including all accessories with safety standards and stability accessories	No.			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
			Services - Passive Infrastructure for wireless link				
25	>12 Mtr(More than 12 Mtr) GBT/Mast/RTT		Preparation of earthing pit for chemical earthing including supply of all required material for earthing & successfully achieving desired earth value as per RFP	Each			
26			Installation of > 12 mtr & <= 24 mtr mast including required RCC / foundation work & material required for same (excluding pole)	No.			
27			Installation of > 24 mtr mast including required RCC / foundation work & material required for same (excluding pole)	No.			
			Material Supply - Passive Infrastructure				
28			15 mtr GBT/Mast/RTT including all accessories,lightening arrester,etc.	No.			
29			18 mtr GBT/Mast/RTT including all accessories,lightening arrester,etc.	No.			
30			21 mtr GBT/Mast including all accessories,lightening arrester,etc.	No.			
31			24 mtr GBT/Mast including all accessories,lightening arrester,etc.	No.			
32			27 mtr GBT/Mast including all accessories,lightening arrester,etc.	No.			
33			30 mtr GBT/Mast including all accessories,lightening arrester,etc.	No.			
			Material Supply - Active Infrastructure				
34	Li-Fi / FSO link upto 5Km		Point to point Li-Fi / FSO link upto 5 Km set including earthing cable, lightening	Each			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
			arrester, clamps/fixtures, optical patch cord & electrical cables etc. including Installation, configuration, commissioning and acceptance testing of link including suitable height of pole/tower/mast/RTT				
			Services - Active Infrastructure				
35			SITC and acceptance of Point to point Li-Fi / FSO link upto 5 Km set including earthing cable, lightening arrester, clamps/fixtures, optical patch cord & electrical cables etc. including Installation, configuration, commissioning and acceptance testing of link including suitable height of pole/tower/mast/RTT	Each			
			Material Supply - Active Infrastructure				
36	Li-Fi / FSO link More than 5Km		Point to point Li-Fi / FSO link More than 5 Km set including earthing cable, lightening arrester, clamps/fixtures, optical patch cord & electrical cables etc. including Installation, configuration, commissioning and acceptance testing of link including suitable height of pole/tower/mast/RTT	Each			
			Services - Active Infrastructure				
37			SITC and acceptance of Point to point Li-Fi / FSO link upto 5 Km set including earthing cable, lightening arrester, clamps/fixtures, optical patch cord & electrical cables etc. including	Each			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)	
			Installation, configuration, commissioning and acceptance testing of link including suitable height of pole/tower/mast/RTT					
	VIP/Ad-Hoc Events On wireline		Any other Line Items suggested by Bidder					
38		Other	*****	**				
	VIP/Ad-Hoc Events On wireless upto 6 Mtr		Any other Line Items suggested by Bidder					
39		Other	*****	**				
	VIP/Ad-Hoc Events On wireless above 6 Mtr		Any other Line Items suggested by Bidder					
40		Other	*****	**				
	Wireline-12F UG		Services - Passive Infrastructure for underground OFC laying					
41			Excavation of trench/HDD/Manual Mauling/borring with 1 Mtr UG depth including HDPE-PLB duct laying, backfilling, compaction, reinstatement after laying of HDPE-PLB pipe and installation of protection mechanism (DWC pipe, RCC half round pipe etc. for the cases of low depth as per RFP)	Mtr				
42			OFC blowing in duct / pulling of any size of cable with size of less than or equal to 12F	Mtr				
				Services - Passive Infrastructure				
43				Splicing of fibre core with other fibre core including cable preparation of both cables and acceptance testing	Each fiber joint			
44			Installation of compass (WSC), FDMS/LIU/FoSC for fibre termination	No.				

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
			including splicing of up to 12 fibre cores with pigtailed and acceptance testing				
45			Installation of DWC pipe at / inside customer premise	Mtr			
46			Installation of PVC pipe at / inside customer premise	Mtr			
			Material Supply - Passive Infrastructure				
47			Optical fibre cable - 12F armoured	Mtr			
			compass (WSC), FDMS/LIU/FoSC for fibre termination	Ea			
48			HDPE - PLB duct	Mtr			
49			DWC pipe	Mtr			
50			RCC half round pipe	Mtr			
51			Miscellaneous items required at customer location like MCB, electrical cable, earthing cable, compass, PVC pipe, patch cord (optical & Cat 5) etc.	Lot			
			Any other Line Items suggested by Bidder				
52		Other	*****	**			
			Services - Passive Infrastructure for underground OFC laying				
53	Wireline-12F UG-MH/HH and route Indicator		<i>Installation of MH / HH</i>	No.			
54			<i>Installation of route indicator</i>	No.			
			Material Supply - Passive Infrastructure				
55			MH / HH (joint / loop chamber)	No.			
56			Route indicator	No.			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
			Services - Passive Infrastructure for Structural aerial OFC laying				
57	Wireline-12F Structural Aerial		Aerial cable laying on existing /new pole including required accessories like but not limited to Anchoring (Dead End) Assembly, Suspension Clamp Assembly, Adjustable Cable Storage Bracket, Stainless Steel Strap with Buckle and other items as per RFP Scope	Mtr			
			Services - Passive Infrastructure				
58			Splicing of fibre core with other fibre core including cable preparation of both cables and acceptance testing	Each fiber joint			
59			Installation of compass (WSC), FDMS/LIU/FoSC for fibre termination including splicing of up to 12 fibre cores with pigtails and acceptance testing	No.			
60			Installation of DWC pipe at / inside customer premise	Mtr			
61			Installation of PVC pipe at / inside customer premise	Mtr			
			Material Supply - Passive Infrastructure				
62			Optical fibre cable - 12F ADSS Aerial	Mtr			
63			DWC pipe	Mtr			
64			Compass(WSC)\, FDMS/LIU/FoSC for fibre terminations	Ea			
65		Miscellaneous items required at customer location like MCB, electrical cable, earthing cable, compass, PVC pipe, patch cord (optical & Cat 5) etc.	Lot				

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
			Any other Line Items suggested by Bidder				
66		Other	*****	**			
	6U Rack	Services - Passive Infrastructure	Services - Passive Infrastructure				
67			Installation of 6U wall mounted rack including supply of electrical cable for power connection, MCB and energizing the rack with electrical power	No.			
		Material Supply - Passive Infrastructure	Material Supply - Passive Infrastructure				
68			6U wall mounted rack including fan, power strip & cable manager	No.			
	3U Rack	Services - Passive Infrastructure	Services - Passive Infrastructure				
69			Installation of 3U wall mounted rack including supply of electrical cable for power connection, MCB and energizing the rack with electrical power	No.			
		Material Supply - Passive Infrastructure	Material Supply - Passive Infrastructure				
70			3U wall mounted rack including fan, power strip & cable manager	No.			
	1U Cantilever Shelves	Services - Passive Infrastructure	Services - Passive Infrastructure				
71			Installation of 1U Cantilever Shelves wall mounted rack including supply of electrical cable for power connection, MCB and energizing the rack with electrical power	No.			
		Material Supply - Passive Infrastructure	Material Supply - Passive Infrastructure				

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
72			1U Cantilever Shelves wall mounted rack including , power strip & cable manager	No.			
	L2 Switch - 8 Ports	Material Supply - Active Infrastructure	Material Supply - Active Infrastructure				
73			CPE (customer premise equipment) L2 manageable switch – 8 ports	No.			
		Service - Active Infrastructure	Service - Active Infrastructure				
74			Installation, Testing, Commissioning and acceptance of CPE (customer premise equipment) L2 manageable switch – 8 ports	No.			
	L2 Switch - 24 Ports	Material Supply - Active Infrastructure	Material Supply - Active Infrastructure				
75			CPE (customer premise equipment) L2 manageable switch – 24 ports	No.			
		Service - Active Infrastructure	Service - Active Infrastructure				
76			Installation, Testing, Commissioning and acceptance of CPE (customer premise equipment) L2 manageable switch – 24 ports	No.			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
	Mini OLT	Material Supply - Active Infrastructure	Material Supply - Active Infrastructure				
77			Fully loaded Mini OLT 4 Port OLT including all accessories SFP's and Patchcords,etc.	No.			
		Service - Active Infrastructure	Service - Active Infrastructure				
78			Installation,Testing, Commissioning and acceptance of Mini OLT	No.			
		Any other Line Items suggested by Bidder	Any other Line Items suggested by Bidder				
79		Other	*****	**			
	ONT From Mini OLT	Material Supply - Active Infrastructure	Material Supply - Active Infrastructure				
80			ONT at customer end including all accessories	No.			
		Service - Active Infrastructure	Service - Active Infrastructure				
81			Installation,Testing, Commissioning and acceptance of ONT /CPE	No.			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
		Any other Line Items suggested by Bidder	Any other Line Items suggested by Bidder				
82		Other	*****	**			
			Electricity Power Budget Consumptions(Notional Value at full load) At PoP/GP				
83	Total Notional electricity power Budget Consumptions(Notional Value at full load) At PoP/GP for 5 Years	Base Station Radio at GP in P2P Link with other PoE and other accessories if any	Total notional power electricity power Consumption Rate: At Base Station/GP/PoP End Overall Active devices power consumption in KWH (unit per hour) *(Multiply)Rs 12/- *(Multiply) 24Hour*(Multiply) *365 days*5 Years	LS			
84		P2MP Base Station radio with other Accessories	Total notional power electricity power Consumption Rate: At Base Station/GP/PoP End Overall Active devices power consumption in KWH (unit per hour) *(Multiply)Rs 12/- *(Multiply) 24Hour*(Multiply) *365 days*5 Years	LS			
85		Aggregation Switch for multiple P2MP Base Station radio's with other Accessories	Total notional power electricity power Consumption Rate: At Base Station/GP/PoP End Overall Active devices power consumption in KWH (unit per hour) *(Multiply)Rs 12/- *(Multiply) 24Hour*(Multiply) *365 days*5 Years	LS			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
86		Li-Fi at PoP/GP End Power Consumption	Total notional power electricity power Consumption Rate: At Base Station/GP/PoP End Overall Active devices power consumption in KWH (unit per hour) *(Multiply)Rs 12/- *(Multiply) 24Hour*(Multiply) *365 days*5 Years	LS			
87		Media Converter	Power Consumption of Media Converter at GP/PoP End in KWH (unit per hour) *(Multiply)Rs 12/- *(Multiply) 24Hour*(Multiply) *365 days*5 Years	Ls			
88		Mini OLT Power Consumptions	Total notional power electricity power Consumption Rate: At Base Station/GP/PoP End Overall Active devices power consumption in KWH (unit per hour) *(Multiply)Rs 12/- *(Multiply) 24Hour*(Multiply) *365 days*5 Years	LS			
89		Point to Multipoint Base Station site radio including antenna for 120 degree coverage	Total notional power electricity power Consumption Rate: At Base Station/GP/PoP End Overall Active devices power consumption in KWH (unit per hour) *(Multiply)Rs 12/- *(Multiply) 24Hour*(Multiply) *365 days*5 Years	LS			
90	Point to Multipoint Base Station site radio Setup for 120 degree coverage		Services - Active Infrastructure				
		P2MP Base Station Radio	Installation, configuration, commissioning and acceptance testing of Base Station site radio for point to multipoint radio for 120 degree Coverage link including earthing,	Set			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
91			lightening arrester, clamps, RF & electrical cables,sectorial antennas, etc.				
			Material Supply - Passive Infrastructure				
		Misc.	Miscellaneous items required at customer location like MCB, electrical cable, earthing cable, compass, PVC pipe, patch cord (optical & Cat 5) etc.	Lot			
			Material Supply - Active Infrastructure				
		P2MP Base Station	Base Station site radio for point to multipoint radio link including earthing cable, lightening arrester, clamps/fixtures, RF & electrical cables,Including Sectorial Antenn/s etc.	Set			
92			Any other Line Items suggested by Bidder				
		Other	*****	**			
93			Services - Active Infrastructure				
			Installation, configuration, commissioning and acceptance testing of a pair of Optical to Ethernet converter(s)(1 no. OtoE + 1 no. EtoO) including patchcords(cat-6/optical)	Pair			
			Material Supply - Active Infrastructure				
94	Media converter		Pair of Optical to Ethernet converter(s) (1 no. OtoE + 1 no. EtoO) including patchcords(cat-6/optical)	Pair			
95			Services - Active Infrastructure				
96	Wi-Fi CPE/router		Installation, configuration, commissioning and acceptance testing of Wi-Fi CPE (customer premise	No.			

Sr. No.	Financial Criteria Category	Type	Description	UoM	Unit Price (A)	Quantity (B)	Amount (Rs.) (Excluding Tax) (C=A*B)
			equipment) including patchcords(cat-6/optical)				
			Material Supply - Active Infrastructure				
97			Wi-Fi CPE (customer premise equipment) including patchcords(cat-6/optical)	Each			
			Supply and Services - Passive Infrastructure for wireless link				
98	Earthing Pit		Preparation of earthing pit for chemical earthing including supply of all required material for earthing & successfully achieving desired earth value as per RFP	Each			

Table - 01

Note:

1. It is mandatory for the Bidder, to submit the duly signed with time stamp soft copy on nProcure of price Bid(BOQ) only.
2. GFGNL has the rights to ask qualified bidder to submit the copy -in excel if required for evaluation and comparison of rate on e-mail after opening of financial bid on nProcure.
3. Each bidder must submit Priced BOQ –Annexure A, **only on the date of financial bid** opening in a sealed envelope.
4. Envelop of only L1 bidder of each package shall be opened and other bidder's envelopes shall be returned back to them in received sealed condition only after 180 days from the date of opening of financial bid.

5. All bidder must submit hard copy of Priced BOQ financial bid opening in a sealed envelope **only on the date of financial bid opening.**
6. Quantity for each line item in Column “A” to be filled by Bidder.
7. The financial bid details should be quoted in the financial bid format attached with the tender and upload online only. In any format if Bidder disclose the price other then On line financial bid on or before the opening of financial bid opening, bid will qualify for rejection.

Financial Bid

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
1	Wireless: SITC(Supply, Installation,Testing and Commissioning) and acceptance of P2P wireless UBR link(both at PoP and Client end) till last mile customer.This includes all types of integration of all necessary wireless accessories including but not limited to , antenna,elements of networking, Rack, earthing, , clamps, RF & electrical and networking cables/other accessories, configuration and services provisioning, testing,etc.	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 1 to 4	Ea	1687		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
2	<p>Wireless: SITC(Supply,Installation, Testing and Commissioning) and acceptance of Point to Multipoint Base Station site radio including antenna/s for overall Full/comprehensive coverage including but not limited to elements of networking, earthing, clamps, RF and electrical and networking cables/other accessories, configuration and services provisioning, testing, etc.</p> <p>Note: The Bidder is required to provide minimum 1 Gbps overall throughput at P2MP base station with 360 degree comprehensive coverage with single or combination of multiple radio with full stability of tower/pole/RTT/Mast to with stand weight/heavier load for public safety and optimized power and radio appropriate backplane capacity.</p>	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 5 to 9	Set	460		
3	<p>Wireless: SITC(Supply, Installation,Testing and Commissioning) and acceptance of P2MP wireless UBR at client end radio including antenna, all types of integration of all necessary wireless accessories including but not limited to , elements of networking, earthing, , clamps, RF & electrical and networking cables/other accessories,configuration and services provisioning, testing,etc.</p>	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 10 to 13	Ea	3937		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
4	3 Mtr Wall Mount SITC (Supply, Installation,Testing and Commissioning) and acceptance with all types of civil and service activities including but not limited to, earthing, lightening arresters, clamps and all other accessories(earthquake resistance,150 KMPH wind speed support, weather proof structure, lighting arrester with proper earthing will be must)	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 14 to 16	Ea	2100		
5	6Mtr to 12 Mtr(6/9/12mtr) RTT/GBT/Mast SITC (Supply, Installation,Testing and Commissioning) and acceptance with all types of civil and service activities including but not limited to,Foundation, earthing, lightening arresters, clamps and all other accessories, earthquake resistance,150 KMPH wind speed support, weather proof structure, Lighting arrester, aviation lamp, with proper earthing will be must. Note: i) For Wireless connectivity at GP/PoP end single tower will be use (based on the site Conditions /availability)for P2P as well as P2MP Connectivity or minimum 3 / 4 P2P connectivity can be explore, bidder has to take proper safety precautions and plan the RTT/Pole/Mast at GP based on the site feasibility With Appropriate loading capacity for the public and link safety by considering	Bidder has to quote the rate of 6 Mtr height and based on the actual installation and upon increase in any height beyond 6 Mtr up to 12 Mtr will be paid per meter in proportion to increase in height.	Ea	315		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
	weight of the quoted radio/ multiple radios, in case of 360 degree coverage.					
6	Pole for Aerial Connectivity SITC(Supply, Installation,Testing and Commissioning) and acceptance with all types of foundation activity,structure stability with 150 KMPH wind speed support,Foundation,safety standards, services/labour activities for structure aerial connectivity,etc.	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 23 to 24	Ea	30000		
7	>12 Mtr(More then 12 Mtr) GBT/Mast/RTT SITC(Supply, Installation,Testing and Commissioning) and acceptance with all types of civil and service activities including but not limited to,Foundation, earthing, lightening arresters, clamps and all other accessories, earthquake resistance,150 KPMPH wind speed, weather proof structure, Lighting arrester, aviation lamp, lighting arrester with proper earthing will be must. Note: i) For Wireless connectivity at GP/PoP end single tower will be use (based on the site Conditions /availability)for P2P as well as P2MP Connectivity or minimum 3 / 4 P2P connectivity can be explore, bidder has to take proper safety precautions and plan the RTT/Pole/Mast at GP based on the site feasibility With Appropriate loading capacity for the public and link safety by considering	Bidder has to quote the rate of 15 Mtr height and based on the actual installation and upon increase in any height beyond 15Mtr up to 30 Mtr will be paid per meter in proporation to increase in height.	Ea	2200		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
	weight of the quoted radio/ multiple radios, in case of 360 degree coverage. ii) Bidder has to quote the rate of 15 Mtr height and based on the actual installation and upon increase in any height beyond 15Mtr up to 30 Mtr will be paid per meter in proportion to increase in height.					
8	Wireless: SITC(Supply, Installation,Testing and Commissioning) and acceptance of point to point Li-Fi / FSO link upto 5Km including tower/pole/mast/RTT earthing cable, lightening arrester, clamps/fixtures, optical /cat-6 patch cord & electrical cables etc	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 34 to 35	Ea	18		
9	Wireless: SITC(Supply, Installation,Testing and Commissioning) and acceptance of point to point Li-Fi / FSO link More than 5Km including tower/pole/mast/RTT earthing cable, lightening arrester, clamps/fixtures, optical patch cord & electrical cables etc .	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 36 to 37	Ea	18		
10	VIP/Ad-Hoc Events: Establishment(SITC(Supply, Installation, Testing and Commissioning)) acceptance, Service(labour/transportation, etc.) and recovery(dismantle) Cost to maintain Tempory Connectivity during VIP / Major/ Ad-Hoc Events for Wireline on Fibre	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 38	Ea	200		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./- (B)	Total Amount (Rs./- (C=A*B) (Excluding Tax)
11	VIP/Ad-Hoc Events: Establishment SITC(Supply, Installation,Testing and Commissioning)) acceptance, Service(labour/transportation, etc.) and recovery(dismantle) Cost to maintain Tempory Connectivity during VIP / Major/ Ad-Hoc Events For Wireless (upto 6 mtr (Factorial))	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 39	Ea	200		
12	VIP/Ad-Hoc Events: Establishment(SITC(Supply, Installation,Testing and Commissioning))acceptance, Service(labour/transportation, etc.) and recovery(dismantle) Cost to maintain Tempory Connectivity during VIP / Major / Ad-Hoc Events For Wireless (above 6mtr (Factorial))	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 40	Ea	100		
13	Wireline: SITC(Supply, Installation,Testing and Commissioning) ,acceptance,digging/trench/HDD/Manual Mauling/borring,laying,pulling 12F UG OFC with 1mtr depth including junction point of Splicing activities, HDPE-PLB duct laying, backfilling, compaction, reinstatement after laying of HDPE-PLB pipe and installation of protection mechanism (DWC pipe, on-site PCC etc. for the cases of low depth as per RFP) ,Installation of compass (WSC),FDMS/LIU/FoSC for fibre termination including splicing of up to 12 fibre cores with	Bidder has to consider the UG guidelines mentioned in the UG OFC scope of RFP excluding MH/HH and route indicator	Mtr	1,05,000		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
	pigtails/patch cords at customer end including the earthing of network elements wherever applicable. This includes all types of integration of wireline accessories of networking and electrical cables/other accessories.					
14	Wireline: 12F UG OFC SITC and acceptance of MH/HH and Route indicators	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 53 to 56	No.	210		
15	Wireline: SITC(Supply, Installation,Testing and Commissioning),acceptance ,Laying,pulling 12F Structural Aerial OFC including Splicing activities laying, compaction, installation of protection mechanism (including but not limited to aerial drop cable installation accessories like Anchoring (Dead End) Assembly, Suspension Clamp Assembly, Adjustable Cable Storage Bracket, Stainless Steel Strap with Buckle ,Compass and FDMS/LIU/FoSC and other parameter of RFP scope) ,including earthing of all equipments.This includes all types of integration of wireline accessories of networking and electrical cables/other accessories.Installation of compass (WSC) for fibre termination including splicing of up to 12 fibre cores with pigtails at customer end including the earthing of network elements wherever applicable.This includes	Bidder has to consider the Structrual aerial guidelines mentioned in the Aerial OFC scope of RFP and mentioned the rate accordingly	Mtr	15,00,000		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
	all types of integration of wireline accessories of networking and electrical cables/other accessories.					
16	Structured CAT 6 LAN cabling work (including Supply, installation and Termination ,testing,acceptance of CAT6 cables, PVC flexible Pipes and accessories,including required cabling,conduiting, connector etc., RJ45, cat-6 patch cords, termination at work station along with I/O boxes, Face Plates, Casing and Capping, conduits, RJ-45/RJ-11 Connector and configuring node in network) upto 8 user end points	Bidder has to add Per user end point connections unit price, Payment will be released based on number of User activated port connectivity only	Per User End Points	1000		
17	Structured CAT 6 LAN cabling work (including Supply, installation and Termination ,testing,acceptance of CAT6 cables, PVC flexible Pipes and accessories,including required cabling,conduiting, connector etc., RJ45, cat-6 patch cords, termination at work station along with I/O boxes, Face Plates, Casing and Capping, conduits, RJ-45/RJ-11 Connector and configuring node in network) More than 8 user end points	Bidder has to add Per user end point connections unit price, Payment will be released based on number of User activated port connectivity only	Per User End Points	1000		
18	Supply, Installation, commissioning and acceptance testing of 6U wall mounted rack including supply of electrical cable for power connection, power strip, MCB and energizing the rack with electrical power	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 67 to 68	Ea	800		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
19	Supply, Installation, commissioning and acceptance testing of 3U wall mounted rack including supply of electrical cable for power connection, power strip, MCB and energizing the rack with electrical power	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 69 to 70	Ea	7500		
20	Supply, Installation, commissioning and acceptance testing of 1U Cantilever Shelves / 1U cantilever shelf including supply of electrical cable for power connection, power strip, MCB required to energizing the equipment with electrical power cable.	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 71 to 72	Ea	7500		
21	Supply, Installation, configuration, Testing, commissioning and acceptance testing of CPE (customer premise equipment – L2 manageable switch)including integration of all accessories and earthing of equipments - CPE (customer premise equipment) L2 manageable switch – 8 ports*	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 73 to 74	Ea	400		
22	Supply, Installation, configuration, Testing, commissioning and acceptance testing of CPE (customer premise equipment – L2 manageable switch)including integration of all accessories and earthing of equipments - CPE (customer premise equipment) L2 manageable switch – 24 ports*	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 75 to 76	Ea	300		
23	Supply, Installation, Testing, configuration, commissioning and acceptance testing of fully loaded Mini OLT fully loaded with all accessories	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 77 to 79	Ea	1000		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
24	SITC and acceptance of Electronics ONT with all required accessories and cabling required to enable the services	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 80 to 82	Ea	4000		
25	Total Notional electricity power Budget Consumptions(Notional Value at full load) At PoP/GP for 5 Years	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 83 to 89	Ea	1000		
26	Wireless: SITC(Supply,Installation, Testing and Commissioning) and acceptance of Point to Multipoint Base Station site radio including antenna for 120^o degree coverage including but not limited to,elements of networking,earthing, clamps, RF and electrical and networking cables/other accessories,configuration and services provisioning,testing, etc. Note: The Bidder is required to provide minimum backplane capacity of 500 Mbps at P2MP base station with 120 degree coverage with single radio for upto 3 Km of aerial distance with full stability of tower/pole/RTT/Mast to with stand weight/heavier load for public safety and optimized power and radio appropriate backplane capacity.	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 90 to 93	Set	196		
27	SITC and acceptance of media converter including service testing	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 94 to 95	Pair	1260		

#	Description	Unit Price Should be match with	UoM	Quantity (A)	Unit Rate (excluding tax) (Rs./-) (B)	Total Amount (Rs./-) (C=A*B) (Excluding Tax)
28	SITC and acceptance of Wi-Fi CPE at customer end including service testing	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 96 to 97	Ea	7500		
29	Preparation of earthing pit for chemical earthing including supply of all required material for earthing & successfully achieving desired earth value as per RFP	Unit Price Should be match with Total Sum of Price bid line items unit price From Sr. No. 98	Ea	375		
Total (A0) (INR)						

Table – 02

Note:

- The quantity mentioned above for all line items is notional for evaluation purpose only. Actual payment will be made to Bidder(s) based on number of locations/sites awarded by GFGNL and successfully connected by Bidder & certified by GFGNL.
- Bidder has to ensure to load the realistic unit rate in price BOQ-Table-01 and Table-02, bidder should not attempt any overload or under load price/rate in any of the line items as tenderer may place the order based on future requirements. Thus, realistic price is the basic expectations and bidder will be solely responsible on this. **Bidder has to ensure to match the unit price of Table-02 with related line items or formfactors mentioned in 3rd column of Table-02,i.e. “Unit Price Should be match with “ from Table-01.** Any observations from the tenderer on unnecessary price overload or underload or mismatch on ask may be the ground to initiate for bid rejection.
- The above-mentioned quantities are Notional value, payment will be given based on the actual feasibility and execution of the work.

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