



REQUEST FOR PROPOSAL (RFP)
for
Supply, Installation and Maintenance of OLTs

Ref. No- APSFL/OLTs/227/2018-2022, Dated: 26/04/2022

Andhra Pradesh State FiberNet Limited

NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station,

Vijayawada – 520 013

Web address: www.apsfl.in

Email address: apsfl@ap.gov.in

Page left blank intentionally

Disclaimer

The information contained in this Request for Proposal document (“RFP”) or subsequently provided to Applicants, whether verbally or in documentary or any other form by or on behalf of the APSFL or any of its employees or advisers, is provided to Applicants on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the APSFL to the prospective Applicants or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the preparation of their Proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by APSFL. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant may require. This RFP may not be appropriate for all persons, and it is not possible for APSFL, its employees or advisers to consider the objectives, technical expertise and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each Applicant should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Applicants is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. APSFL accepts no responsibility for the accuracy or otherwise for any interpretation of the law.

APSFL, its employees and advisers make no representation or warranty and shall have no liability to any person including any Applicant under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

APSFL also accepts no liability of any nature whether resulting from negligence or otherwise, howsoever caused, arising from reliance of any Applicant upon the statements contained in this RFP. APSFL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP.

Issuance of this RFP does not imply that the APSFL is bound to select an Applicant or to appoint the Selected Applicant, as the case may be, for the RFP, APSFL reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The applicant shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations which may be required by the APSFL or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the Applicant and APSFL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Proposal, regardless of the conduct or outcome of the selection process

Table of Contents

REQUEST FOR PROPOSAL (RFP)	1
Disclaimer	3
Acronyms	7
1. Introduction	9
1.1 Invitation to Bid	9
1.2 Procedure for Bid Submission	9
1.3 Registration with e-Procurement platform	10
1.3.1 Digital Certificate Authentication	10
1.3.2 Deactivation of Bidders	10
a. Payment of Transaction Fee	11
b. Corpus Fund	11
c. RFP Document	11
d. Bid Submission Acknowledgement	11
1.4 Key Events & Dates	13
2. General Instructions to Bidder	18
2.1 Earnest Money Deposit (EMD)	18
2.2 Exit Management Plan	18
2.3 RFP Amendment	19
2.4 Pre-Bid Queries	19
2.5 Cost of Bidding	19
2.6 Site Visit	20
2.7 Language	20
2.8 Bid Prices	20
2.9 Bidder Representative	20
2.10 Bid Validity	20
2.11 Documents comprising the Bids	20
2.12 Modification and Withdrawal	22
2.13 Opening of Bids	22
2.14 Evaluation of Bids	22

2.15	<i>Bids Not Considered For Evaluation</i>	22
2.16	<i>Pre-Qualification</i>	22
2.17	<i>Award Criteria</i>	22
2.18	<i>Rectification of Errors</i>	22
2.19	<i>Contacting APSFL</i>	23
2.20	<i>APSFL's right to vary Scope of Work</i>	23
2.21	<i>APSFL's Right to accept /Reject</i>	23
2.22	<i>Signing of Agreement</i>	23
2.22.1	<i>Signing of Agreement</i>	23
2.22.2	<i>Discharge of Bid Security (EMD)</i>	23
2.22.3	<i>Expenses for the Agreement</i>	24
2.22.4	<i>Failure to abide by the Agreement</i>	24
2.23	<i>Performance Security</i>	24
2.24	<i>Rejection Criteria</i>	25
2.25	<i>Termination of Contract</i>	26
2.25.1	<i>Termination for default</i>	26
2.25.2	<i>Termination for Insolvency</i>	26
2.25.3	<i>Termination for Convenience</i>	27
2.26	<i>Execution of WorkOrder</i>	27
2.27	<i>Submission of Technical Solution and Approach Methodology</i>	27
2.28	<i>Liquidated Damages (LD)</i>	27
2.29	<i>Force Majeure</i>	28
2.30	<i>Arbitration</i>	28
3.	<i>ProjectBackground</i>	29
3.2	<i>ProjectType</i>	29
3.3	<i>Project Locations</i>	29
4.	<i>Scope ofWork</i>	30
4.1.	<i>Schedule of Requirement</i>	32
5.	<i>Technical Specifications</i>	32
6.	<i>Bid Evaluation Criteria andProcess</i>	41

6.1	<i>Pre-Qualification Criteria</i>	41
6.2	<i>Technical Evaluation Criteria:</i>	43
6.3	<i>Commercial Evaluation Criteria</i>	45
6.4	<i>Reverse Auction</i>	45
6.5	<i>Selection Process of Bidder</i>	46
7.	<i>Bid Submission Forms</i>	46
7.1	<i>Pre-Qualification Evaluation Forms</i>	46
	<i>Annexure A - Application Form</i>	47
	<i>Annexure B - Profile of Bidder/ Partners</i>	49
	<i>Annexure C – Declaration of Acceptance of Terms and Conditions in the RFP</i>	50
	<i>Annexure D – Undertaking on SoW Compliance and Unconditional Acceptance</i>	51
	<i>Annexure E – Pre-Qualification Compliance Documents</i>	52
	<i>Annexure F – Financial Turnover and Net worth of the Bidder</i>	53
	<i>Annexure G – Format for Past Experience of the Bidder</i>	54
	<i>Annexure H – Declaration regarding Clean Track Record</i>	55
	<i>Annexure I – Power of Attorney</i>	56
	<i>Annexure J – Board Resolution</i>	58
	<i>Annexure K – Document Verification Certificate</i>	59
	<i>Annexure L – Earnest Money Deposit (EMD) Format</i>	61
	<i>Commercial Forms</i>	62
	<i>Annexure M – Commercial Proposal Submission Form</i>	62
	<i>Annexure N – Commercial Bid Cost Components</i>	64
	<i>Annexure – O The bidder has to specify the following:</i>	65
7.2	<i>Other Forms and Formats</i>	70
	<i>Annexure P – Performance Bank Guarantee Format</i>	70
	<i>Annexure Q – Draft Contract Format</i>	71
	<i>Annexure R: Manufacturer Authorization Form</i>	73
	<i>Annexure S – Pre-Bid Queries Format</i>	74
9.	<i>Penalties and Payment Schedule</i>	75
9.1	<i>Service Level Agreements</i>	75

Service Level Agreement (SLA)	75
9.2 Project Milestone	77
9.3 Payment Terms	77
9.9 Deliverables	78

Acronyms

S. No.	Abbreviations	Full Form
1.	AMC	Annual Maintenance Contract
2.	APSFL	Andhra Pradesh State FiberNet Limited
3.	CPE	Customer Premise Equipment
4.	CST	Central Sales Tax
5.	EMD	Earnest Money Deposit
6.	EMI	Equated Monthly Installment
7.	GPON	Gigabit-capable Passive Optical Networks
8.	HDMI	High Definition Multimedia Interface
9.	INR	Indian Rupee
10.	IP TV	Internet Protocol Television
11.	ISP	Internet Service Provider
12.	LCD	Liquid Crystal Display
13.	LCO	Local Cable Operator
14.	LD	Liquidated Damages
15.	LED	Light Emitting Diode
16.	LoA	Letter of Award
17.	LoI	Letter of Intent
18.	MSO	Multiple System Operator
19.	NOC	Network Operations Centre
20.	OEM	Original Equipment Manufacturer

RFP for Supply, Installation and maintenance of OLTs

21.	OLT	Optical Line Transmitter
22.	PHC	Primary Healthcare Centre
23.	PoP	Point of Presence
24.	PSU	Public Sector Unit
25.	SD	Security Deposit
26.	SLA	Service Level Agreement
27.	SPOC	Single Point of Contact
28.	TPIP	Triple Play Internet Protocol
29.	TPRF	Triple Play Radio Frequency
30.	USB	Universal Serial Bus
31.	VAT	Value Added Tax
32.	WLAN	Wireless Local Area Network

1. Introduction

1.1 Invitation to Bid

Andhra Pradesh State FiberNet Limited (APSFL), a fully owned entity of the Govt. of Andhra Pradesh (AP), having its Registered Office at 3rd Floor, NTR Administrative Block, Pandit Nehru Bus Station, NH-65, Vijayawada-520001, Andhra Pradesh, India, invites responses (“Proposals”/ “Bids”) to this Request for Proposal (“RFP”) for “Supply, installation and maintenance of OLTs”.

The selected agency has to support APSFL in enhancing the enterprise connections viz., Offices, Schools, Departments, Government scheme etc across the state of AP, which includes delivery, testing and integration of GPON OLTs in AP Fiber Network.

Interested bidders are advised to study this RFP carefully before submitting the proposals in response to the RFP. Bidder / Agency on of a proposal in response to this RFP shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications

Interested bidders may download the RFP from www.apecurement.gov.in. Any subsequent corrigenda/clarifications shall also be made available on the same portal. Bid proposals must be received not later than time and date mentioned in the key events and dates. Bid proposals received, in part or full, after the deadline WILL NOT be considered in this procurement process.

To obtain first-hand information on the assignment, Bidders are encouraged to attend a pre-bid meeting. Attending the pre-bid meeting is optional.

1.2 Procedure for Bid Submission

The Bidder shall submit their response through bid submission process on e-Procurement platform at www.apecurement.gov.in.

The bidders shall submit their Pre-Qualification Bid and Commercial bid online in e-Procurement portal. The bidders shall upload the scanned copies of all the relevant certificates, documents etc., in support of their Pre-Qualification, and other certificates/documents with clear readability, in the e-Procurement website. The bidder should sign on all the statements, documents, certificates uploaded in the e-Procurement website, owning responsibility for their correctness/authenticity.

13 Registration with e-Procurement platform

For registration and online bid submission bidders may contact HELP DESK on www.apecurement.gov.in or <https://tender.apecurement.gov.in> .

1.3.1 Digital Certificate Authentication

The bidder shall authenticate the bid with the agency's Digital Certificate for submitting the bid electronically on e-Procurement platform and the bids that are not authenticated by digital certificate of the bidder, will not be accepted on the e-Procurement platform.

For obtaining Digital Signature Certificate, you may please contact: Andhra Pradesh Technology Services Limited, Vijayawada www.aps.gov.in/

(OR)

You may please contact any Registration Authorities of Certifying Authorities in India. The list of CAs is available in the link provided below.

<https://tender.apecurement.gov.in/DigitalCertificate/signature.html>

1.3.2 Deactivation of Bidders

Vide Ref GO Ms. No.174 – I&CAD dated 1-9-2008, if any successful bidder fails to submit the original BG towards Performance Security within stipulated time or if any variation is noticed in the uploaded documents, the successful bidder will be suspended from participating in the RFPs on e-Procurement platform for a period of 3 years. The e-Procurement system would deactivate the user ID of such defaulting bidder based on the trigger/recommendation by the RFP Inviting Authority in the system. Besides this, APSFL shall invoke all processes of law including criminal prosecution of such defaulting bidder as an act of extreme deterrence to avoid delays in the RFP process for execution of the development schemes taken up by the government. Other conditions as per RFP document are applicable.

a. Payment of Transaction Fee

It is mandatory for all the participant bidders from 1st January 2006 to electronically pay a prescribed non-refundable Transaction fee to M/s. APTS, the service provider through "Payment Gateway Service on E-Procurement platform". The Electronic Payment Gateway accepts all Master and Visa Credit Cards issued by any bank and Direct Debit facility/Net banking to facilitate the transaction. This is in compliance as per G.O.Ms. 13 dated 07.05.2006

b. Corpus Fund

As per GO MS No.4, user departments shall collect 0.04% of ECV (Estimated Commercial Value) with a cap of Rs.10,000/- (Rupees ten thousand only) for all works with ECV up to Rs.50 Crores, and Rs.25,000/- (Rupees twenty five thousand only) for works with ECV above Rs.50 Crores, from successful bidders on e-Procurement platform before entering into agreement/issue of purchase orders, towards e-procurement fund in favour of Managing Director, APTS. There shall not be any charge towards e-Procurement fund in case of works, goods and services with ECV less than and up to Rs.10 lakhs.

c. RFP Document

The bidder is requested to download the RFP document and read all the terms and conditions mentioned in the RFP Document and seek clarification if any from the RFP inviting authority. Any offline bid submission clause in the RFP document could be neglected.

The bidder has to keep track of any changes by viewing the Addendum/Corrigenda issued by the RFP inviting authority from time-to-time in the e-Procurement platform. The Department calling for RFPs shall not be responsible for any claims/issues arising out of this.

d. Bid Submission Acknowledgement

The bidder shall complete all the processes and steps required for Bid submission. The system will generate an acknowledgement with a unique bid submission number after completing all the prescribed steps and processes by the bidder. Users may also note that the bids for which an acknowledgement is not generated by the e-procurement system are treated as invalid or not saved in the system. Such invalid bids are not made available to the RFP Inviting Authority for processing the bids. The Government of AP is not responsible for incomplete bid submission by users.

- i. The bidders may contact the Helpdesk support of e-procurement portal (at www.apecurement.gov.in) for any further information / clarifications on e-procurement, and for all technical support required for bid submission.

RFP for Supply, Installation and maintenance of OLTs

- ii. The bidders need to register on the electronic procurement marketplace of Government of Andhra Pradesh i.e., <http://www.apecprocurement.gov.in>. On registration in the e-procurement marketplace they will be provided with a user ID and password using which they can submit bids online.
- iii. While registering on the e-procurement market place, the bidders need to scan and upload the required documents as per the RFP requirements on to their profile. The e-procurement marketplace provides an online self-service registration facility to all such Contractors who are already registered with respective participating departments for supply of specified goods and services.
- iv. In addition to the direct payment through any of the e-payment options in the e-procurement portal, the bidder may opt for Demand Draft (DD) towards the bid processing fee and EMD in the form of Bank Guarantee (BG). The bidder shall invariably upload the scanned copies of DD/BG in e-Procurement system and this will be the primary requirement to consider the bid as responsive. The Authority shall carry out the Technical bid evaluation solely based on the uploaded certificates/documents, DD towards EMD in the e-procurement system and open the price bids of the eligible and responsive bidders.

14 Key Events & Dates

1.	Name of the Authority	Managing Director Andhra Pradesh State FiberNet Limited
2.	Name of the Assignment	Supply, installation and Maintenance of OLTs
3.	Estimated value of the tender	INR 8,75,00,000 (Rupees Eight Crores Seventy Five lakhs only) Exclusive of taxes
4.	RFP Number	APSFL// OLTs/227/2018-2022 , Dated: 26.04.2022
5.	Place of availability of Tender Document (RFPs)	www.apecurement.gov.in http://apsfl.in/tenders/
6.	Place of submission of Bids	www.apecurement.gov.in
7.	Tender Document (RFP)	Request for Proposal Document
8.	Tender Type (Open/Limited/EOI/Auction/Single)	Open with Reverse Tender
9.	Tender Category (Services/Goods/works)	Goods
10.	Type/Form of Contract (Work/Supply/Auction/Service/Buy /Empanelment/Sell)	supply
11.	Re-bid submission before submission date/ last date of submission allowed by the Bidder (Yes/No)	No
12.	Is Offline Submission Allowed (Yes/No)	No
13.	Withdrawal Allowed (Yes/No)	No
14.	Is Multi Currency Allowed	No (Only Indian Rupees)
15.	Last date and time for receiving queries/clarifications	03/05/2022 at 03:00 PM No communication, in any form and for any reason, will be entertained post this date and time.

RFP for Supply, Installation and maintenance of OLTs

16.	Last date and time for submission of Proposal (Proposal Due Date)	<p>10/05/2022 at 03:00 PM</p> <p>The proposal is to be submitted on www.apeprocurement.gov.in on e-procurement portal.</p>
17.	Date and time of opening of Pre-qualification on e-procurement platform	<p>10/05/2022 at 05:00 PM</p> <p>Andhra Pradesh State FiberNet Limited NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station, NH -65, Vijayawada - 520001 Web address: http://www.apsfl.in Email address: apsfl@ap.gov.in</p>
18.	Date and time of opening of reverse auction	To be intimated to the qualified bidder of the previous stage
19.	Bid Processing Fee (Non - refundable)	<p>Bid Processing Fee (Non-refundable): INR 2,00,000/- (Two Lakhs Only, including GST)</p> <p>The tender processing fees can be paid through any of the e-payment options in the portal or in the form of Demand Draft issued by one of the Nationalized / Scheduled Banks in India drawn in favour of 'Andhra Pradesh State FiberNet Limited', payable at Vijayawada. Original DD must be submitted in APSFL office at Vijayawada before bid submission date.</p> <p>For further details regarding e-payment, please refer to e-Procurement portal at the above mentioned website or call e-procurement helpline.</p> <p>Note: It will be in the interest of the bidders to familiarize themselves with the e-Procurement system to ensure smooth preparation and submission of the tender documents. Online payments of Bid Processing Fee & EMD and uploading of documents are sequential.</p>

<p>20.</p>	<p>Bid Security / EMD (Refundable / Convertible)</p>	<p>Bid Security / EMD (Refundable / Convertible): INR 21,87,500/- (Twenty one lakhs Eighty seven thousand five hundred Only)</p> <p>The EMD amount can be paid directly through in the form of Bank Guarantee issued by one of the Nationalized / Scheduled Banks in India drawn in favour of 'Andhra Pradesh State FiberNet Limited', payable at Vijayawada.</p> <p>Or Online on eprocurement platform.</p> <p>Note: e-Procurement portal will deny submission of the bid without submitting the EMD. For further details regarding e payment, please refer to e-Procurement portal at the above mentioned website. Bid Security / EMD should be valid for a period of 180 (one hundred and eighty) days from bid submission Date. The Bid Security / EMD will be refunded to unsuccessful Applicant agencies within 30 (Thirty) days of successful Bidder furnishing the performance security. Original BG must be submitted in APSFL office at Vijayawada before bid submission date.</p> <p>The EMD (bid security) of the unsuccessful Bidder/s will be discharged / returned as promptly as possible. No interest will be payable by APFSL on the amount of the EMD (Bid Security).</p>
------------	--	---

RFP for Supply, Installation and maintenance of OLTs

21.	Performance Security	<p>Performance Security of 10% of the total Project cost shall be submitted and valid for 60 days beyond the date of completion including warranty period</p> <p>Performance Security shall be in the form of Bank Guarantee or Auto Renewal Fixed Deposit Renewal (FDR), issued by one of the Nationalized / Scheduled Commercial Banks in India drawn in favour of Andhra Pradesh State FiberNet Limited, payable at Vijayawada.</p> <p>Details of the Bank: Name of the Beneficiary: ANDHRA PRADESH STATE FIBERNET LIMITED Bank Name: Union Bank Bank Account Number: 060611100003785 IFSC code: UBIN0806064 MICR Code: 520011025 Branch Code : 000606 Branch Name: Main Branch, RR Apparao Street, Vijayawada, Andhra Pradesh</p>
23.	For any enquiries and clarifications, please contact:	<p>Andhra Pradesh State FiberNet Limited NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station, Vijayawada – 520001 Web address: http://www.apsfl.in Email: apsfl@ap.gov.in;</p>
24.	Validity of the Proposal	Bidder proposals shall remain valid for a period of 180 days from the bidsubmission date.
25.	Nature of Bid Process	<p>Two stage</p> <ol style="list-style-type: none"> a) Stage- I: Pre-Qualification Eligibility b) Stage – II: Technical Bid c) Stage- II: Commercial Bid

RFP for Supply, Installation and maintenance of OLTs

		d) Stage- III: Reverse Auction
26.	Method of Selection	As per Section 7 of this RFP
27.	RFP Tenure	a) Delivery phase: 60 days b) Warranty period : 5 years

Note: Proposals/Bids submitted without Bid Processing Fee and EMD shall be summarily rejected.

2. General Instructions to Bidder

2.1 Earnest Money Deposit (EMD)

- a. Bidders shall submit an EMD as per the Key Events & Dates along with their Bids.
- b. The EMD amount is interest free and will be refundable to the unsuccessful bidders without any accrued interest on it.
- c. The bid / proposal submitted without EMD, mentioned above, will be summarily rejected.
- d. The EMD may be forfeited:
 - i. If a bidder withdraws its bid during the period of bid validity.
 - ii. If the successful bidder fails to sign the contract and submit Performance Bank Guarantee within the stipulated period.
 - iii. In case, the documents submitted, or the information furnished by the bidder are found to be not genuine/false.
 - iv. In case the bidder does not tender for the work, after submission of Tender fees or EMD.

2.2 Exit Management Plan

- a. An Exit Management plan shall be furnished by bidder in writing to the Authority within 90 days from the date of signing this contract, which shall deal with at least the following aspects of exit management in relation to the contract and in relation to the project implementation and service level monitoring.
 - i. A detailed program of the transfer process that could be used in conjunction with a Replacement Service Provider including details of the means to be used to ensure continuing provision of the services throughout the transfer process or until the cessation of the services and of the management structure to be used during the transfer;
 - ii. Plans for provision of contingent support to Project and Replacement Service Provider for a reasonable period after transfer;
 - iii. Exit Management Plan in case of normal termination of Contract Period
 - iv. Exit Management Plan in case of any eventuality due to which Project is terminated before the Contract Period
 - v. Exit Management Plan in case of termination of Supplier
- b. Exit Management plan at the minimum adhere the following:
 - i. Three (3) Months of the support to Replacement Service Provider post termination of contract.
 - ii. Complete handover of the reports, documents and other relevant items to the Replacement Service Provider/Authority.
 - iii. Certificate of acceptance from authorized representative of Replacement Service Provider issued to supplier on successful completion of handover and knowledge transfer.

RFP for Supply, Installation and maintenance of OLTs

- iv. Tentative exit management schedule/Matrix is annexed
- c. Each Exit Management Plan shall be presented by the Service Provider to and approved by the Managing Director, APSFL or its nominated agencies.
- d. In the event of termination or expiry of contract, Project Implementation, or Service Level Monitoring, both PIA and Authority shall comply with the Exit Management Plan, and payment shall be made by APSFL only for the work done prior to termination notice, upon successful acceptance by Third Party Auditor (TPA)/ any agency / and personnel as appointed by APSFL.

During the exit management period, the Service Provider shall use its best efforts to deliver the services.

23 RFP Amendment

APSFL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bid Document by amendment. All the amendments made in the document would be published in the website www.apsfl.in and on the e-procurement platform. APSFL shall not be responsible if the Bidders do not get the individual intimates of such amendments. All such amendments shall be binding on all the Bidders. The Bidders are also advised to visit the aforementioned website on regular basis for checking any updates. APSFL also reserves the rights to amend the dates mentioned in this RFP for Bid process.

24 Pre-Bid Queries

APSFL may incorporate any changes in the RFP based on acceptable suggestions received in pre-bid queries. The decision of APSFL regarding acceptability of any suggestion shall be final in this regard and shall not be called upon to question under any circumstances. It may not be possible to answer questions which are received late. The responses to the queries shall be uploaded by way of hosting amendments/clarifications on the website i.e. (www.apsfl.in) in accordance with the respective clauses of the RFP.

No queries in any form and for any reason shall be entertained after the last date and time for submission of queries.

25 Cost of Bidding

The Bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/ presentations, preparation of proposal, in providing any additional information required by APSFL to facilitate the evaluation process, and in negotiating a definitive Service Agreement and all such activities related to the Bid process. This RFP does not commit APSFL to award a Contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award of Contract for implementation of Project.

2.6 Site Visit

The bidder may visit and examine sites at a time to be agreed with APSFL, and obtain all information at their own responsibility that may be necessary for preparing the Bid Document. The costs of visiting the site(s) shall be at Bidder's own expense.

2.7 Language

The proposal and all correspondence and documents shall be written in English. In case of accompanying literature or brochures etc., being in a language other than English, a certified translation should accompany the documents as a part of the RFP. All proposals and accompanying documentation will become the property of APSFL.

2.8 Bid Prices

- a. The Bidder shall indicate the price in the prescribed format only.
- b. The Bidder shall prepare the Bid based on details provided in the RFP. It must be clearly understood that the Scope of Work is intended to give the Bidder an idea about the order and magnitude of the work and is not in any way exhaustive and guaranteed by APSFL. The Bidder shall carry out all the tasks in accordance with the requirement of the RFP and due diligence and it shall be the responsibility of the Bidder to fully meet all requirements of RFP.
- c. Prices shall be quoted in Indian Rupees (INR), shall be exclusive of Goods and Service Tax (GST).

2.9 Bidder Representative

All documents of the bid may be signed by a nominated Competent Authority. All Certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, be signed by the competent Authority.

2.10 Bid Validity

The proposals shall be valid for a period of 180 days from the date of submission of Bids. On completion of the validity period, unless the Bidder withdraws proposal in writing, it will be deemed to be valid until such time that the Bidder formally (in writing) withdraws proposal. If required, beyond 180 days, the Bidder may be asked to extend the bid validity, on its consent.

2.11 Documents comprising the Bids

The bids prepared by the Bidder shall comprise of the following documents:

2.11.1 Documents to be uploaded as PQ Bid (To be uploaded only in “PQ Bid Folder” in the e-procurement platform)

All the below mentioned documents have to be uploaded in the “PQ” bid folder of the e-procurement platform. If the following documents are not found in the “PQ” bid folder, the bid shall be considered as non-responsive and may be rejected.

- 2.10.1.1 Annexure A – Application Form
- 2.10.1.2 Annexure B – Profile of Bidder/ Partners
- 2.10.1.3 Annexure C – Declaration of Acceptance of Terms and Conditions in the RFP
- 2.10.1.4 Annexure D – Undertaking on SoW Compliance and Unconditional Acceptance
- 2.10.1.5 Annexure E – Pre-Qualification Compliance Documents
- 2.10.1.6 Annexure F – Financial Turnover and Net worth of the Bidder
- 2.10.1.7 Annexure G – Format for Past Experience of the Bidder
- 2.10.1.8 Annexure H – Declaration regarding Clean Track Record
- 2.10.1.9 Annexure I – Power of Attorney issued in last 3 months
- 2.10.1.10 Annexure J – Board Resolution
- 2.10.1.11 Annexure K – Document Verification Certificate
- 2.10.1.12 Annexure L – Earnest Money Deposit (EMD) Format (only if bidder opts to submit in form of Bank Guarantee (BG), instead of direct online payment through e-procurement portal)
- 2.10.1.13 Copy of DD of Bid processing fees (only if bidder opts to pay as Demand Draft (DD), instead of direct online payment through e-procurement portal)
- 2.10.1.14 Annexure R: MAF/Self Declaration as OEM and TEC Certificate, MTCTC Certificate

2.11.2 Documents to be uploaded in TQ folder (To be uploaded online in “TQ Bid Folder”)

Annexure – O document have to be uploaded in the “TQ” bid folder of the e-procurement platform.

Whereas in Technical stage, APSFL will conduct sample testing and Acceptance for the OLTs.

2.11.3 Documents to be uploaded as Commercial Bid (To be uploaded only in “Commercial Bid Folder” in the e-procurement platform)

All the below mentioned documents have to be uploaded in the “Commercial” bid folder of the e-procurement platform. If the following documents are not found in the “Commercial” bid folder, the bid shall be considered as non-responsive and may be rejected.

RFP for Supply, Installation and maintenance of OLTs

2.10.2.1 Annexure M – Commercial Proposal Submission Form

2.10.2.2 Annexure N – Commercial Bid Cost Components

Note:

In case of any issue pertaining to the uploading of bid documents in e-procurement portal due to file size etc., the bidders are expected to take support from e-procurement. APSFL will not be responsible for incomplete bid submission by users.

2.12 Modification and Withdrawal

No proposal may be modified / withdrawn in the interval between the deadline for submission of proposals and the expiration of the validity period specified by the Bidder on the proposal form. In case the Bidder wishes to withdraw the Bid after the date of opening of the bids, the EMD of the Bidder shall be forfeited.

2.13 Opening of Bids

The Pre-Qualification Bids will be opened on the e-procurement platform on the date and time as specified in the RFP schedule.

2.14 Evaluation of Bids

- a. The Bids of only those Bidders, whose Bid Processing Fee and EMD are in order, only, will be accepted.
- b. Bidders need to fulfill all the Pre-qualification conditions mentioned in the RFP. The technical committee will examine the Bids to determine whether they are complete, whether the Bid format conforms to the RFP requirements, whether documents have been properly signed, and whether the Bids are generally in order.
- c. Bids of Bidders whose Pre-qualification proposal does not meet the set criteria shall be rejected forthwith.

2.15 Bids Not Considered For Evaluation

Bids shall be summarily rejected due to incomplete documentation or late receipt.

2.16 Pre-Qualification

The pre-qualification evaluation shall be done as mentioned in this RFP.

2.17 Award Criteria

The Authority will open the Price Bids of the bidders who have met the conditions as per the Pre-Qualification Criteria in this RFP. This will be further taken up for Reverse Auction (as mentioned in Section 7.3) to finalize the L1 bidder.

2.18 Rectification of Errors

Bidders are advised to exercise adequate care quoting the prices. No excuse for corrections in

the quoted price will be entertained after the proposals are opened. Errors in proposals will be corrected as per the unit rates quoted.

2.19 Contacting APSFL

Any effort by a Bidder to influence the Technical Evaluation and Tender Approval Committee in its decision on Bid evaluation, Bid comparison or contract award may result in disqualification of the Bidder's Bid and also forfeiture of Bid security.

2.20 APSFL's right to vary Scope of Work

APSFL may at any time, by a written order given to the Bidder, make changes to the Scope of the work.

If any such change causes an increase or decrease in the cost of or the time required for the Bidder's performance of any part of the work under the Agreement, whether changed or not changed by the order, an equitable adjustment shall be made in the Agreement Value or time schedule, or both, and the Agreement shall accordingly be amended. Any claims by the Bidder for adjustment under this Clause must be asserted within one (1) week from date of the Bidder's receipt of APSFL's order for change. The unit rate of each item quoted/accepted by the selected Bidder shall however not change.

2.21 APSFL's Right to accept /Reject

APSFL reserves the right to accept or reject any proposal, and to annul the bid process and reject all proposals at any time prior to award of work, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for APSFL's action.

2.22 Signing of Agreement

The signing of agreement for the project is as follows:

2.22.1 Signing of Agreement

APSFL notifies the successful Bidder that its proposal has been accepted and APSFL shall enter into an Agreement with the successful Bidder as per the Master Service Agreement prescribed in this RFP. The signing of agreement will constitute the formation of the Agreement.

2.22.2 Discharge of Bid Security (EMD)

Upon the successful Bidder's furnishing of Performance Security, APSFL will promptly return the EMD to each unsuccessful Bidder EMD within 30 days. The Bid security (EMD) of successful Bidder will be released, on receipt of the Performance Bank Guarantee.

2.22.3 Expenses for the Agreement

The incidental expenses of execution of Agreement shall be borne by the successful Bidder.

2.22.4 Failure to abide by the Agreement

Failure of the successful Bidder to agree with the Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event APSFL may forfeit the EMD/ Performance Bank Guarantee. The contract may be awarded to the next lowest bidder, or however deemed appropriate by the Authority.

2.23 Performance Security

- a. The successful Bidder shall have to submit a Performance Security within 15 days from the date of issuance of Letter of Award (LoA). Extension of time for submission of beyond 15 days and up to 30 days from the date of issue of LoA may be given by APSFL, who is competent to sign the contract agreement. However, a penal interest of 15% per annum shall be charged for the delay beyond 30 days, i.e. from 31st day after the date of issue of LoA. In case the Bidder fails to submit the requisite Performance Security even after 30 days from the date of issue of LoA, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against the contract. The failed Bidder shall be debarred from participating in re-tender for that work.
- b. The Performance Security shall be submitted by the successful Bidder after the LoA has been issued, but before signing of the contract agreement. The agreement should normally be signed within 15 days after the issue of LoA and the Performance Security shall also be submitted within this time limit. This Performance Security shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case, the time limit for completion of work gets extended, the contractor shall get the validity of Performance Security extended to cover such extended time for completion of work plus 60 days.
- c. The value of Performance Security to be submitted by the Bidder will not change for variation up to 25% (either increase or decrease). In case during the course of execution, value of the contract increases by more than 25% of the original contract value, an additional Performance Security amounting to 5% (five percent) for the excess value over the original contract value shall be deposited by the Bidder.
- d. The Performance Security shall be released after the physical completion of the work based on the 'completion certificate' issued by the competent authority stating that the Bidder has completed the work in all respects satisfactorily. The security deposit shall, however, be released only after the expiry of the defect liability period and after passing the final bill on 'No Claim Certificate' from the contractor.
- e. Whenever the contract is rescinded, the security deposit shall be forfeited and the Performance Security be encashed. The balance work shall be got done independently without risk and cost of the failed Bidder, the failed Bidder shall be debarred from

RFP for Supply, Installation and maintenance of OLTs

participating in the tender for executing the balance work. If the failed Bidder is a JV or a partnership firm, then every member/ partner of such a firm shall be debarred from participating in the tender for the balance work in his/ her individual capacity or as a partner of any other JV/ partnership firm.

- f. The Bank Guarantee should be from a Nationalized/Scheduled Commercial Bank acceptable to APSFL, in the format prescribed in Annexure P in section of this RFP, payable on demand, for the due performance and fulfillment of the Agreement by the Bidder.
- g. All incidental charges whatsoever such as premium, commission etc., with respect to the Performance Security shall be borne by the Bidder. The Performance Security shall be valid for 60 days post completion of the Payment terms as per RFP. However, no interest shall be payable on Performance Bank Guarantee.

2.24 Rejection Criteria

- a. The proposal of a Bidder is liable to be disqualified in the following cases or in case Bidder fails to meet the bidding requirements as indicated in this RFP:
 - i. Proposal not submitted in accordance with the procedure and formats prescribed in this document.
 - ii. During validity of proposal, or its extended period after last date and time for submission of Bids, if any, the Bidder increases the quoted prices.
 - iii. The Bidder proposing a “Conditional-Proposal”.
 - iv. Proposal is received in incomplete form.
 - v. Proposal is not accompanied by all the requisite documents.
 - vi. Information submitted in Qualification proposal is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the Agreement (no matter at what stage) or during the tenure of Agreement including the extension period if any.
 - vii. Bidder tries to influence the proposal evaluation process by unlawful means at any point of time during the Bid process.
 - viii. In case any Bidder submits multiple proposals or if common interests are found in two or more Bidders, the Bids are likely to be disqualified.
 - ix. Bidder fails to deposit the Performance Security prior to signing of the Agreement or fails to enter into an Agreement within 60 days of the date of issuance of LoA or within such extended period, as may be specified by APSFL.
- b. Bidders may specifically note that while evaluating the proposals, if it comes to APSFL’s knowledge expressly or implied, that some Bidders may have colluded in any manner whatsoever or otherwise joined to form an alliance resulting in delaying the processing of proposal then the Bidders so involved are liable to be disqualified for this Contract as well as for a further period of three years from participation in any of the RFPs floated by APSFL and their EMD shall be forfeited.

- c. Prevention of Collusion of Vendor: with a view to prevent collusion or the formation into a ring by vendor / Bidder, the following are issued;
 - i. Tender Schedules shall be issued till a date prior to the last date of submission of tenders.
 - ii. Once a vendor / Bidder buys a tender schedule he shall not be permitted to return the schedule after buying a tender schedule / document, if a vendor does not tender for the work, his EMD shall be forfeited (Cash or Bank Guarantee or Both).
- d. APSFL will reject a proposal for award if it determines that the Bidder recommended for award, or any of its personnel, or its agents or, Agencies and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the Contract.

2.25 Termination of Contract

Following clauses shall be applicable, in case of termination of contract:

2.25.1 Termination for default

APSFL may without prejudice to any other remedy for breach of contract, by written notice of default with a notice period of 7 days, sent to the Successful Bidder, terminate the contract in whole or part,

- i. if the Successful Bidder fails to deliver any or all of the goods within the time period(s) specified in the Contract, or fails to supply the items as per the Delivery Schedule or within any extension thereof granted by APSFL; or
- ii. if the Successful Bidder fails to perform any of the obligation(s) under the contract; or
- iii. if the Successful Bidder, in the judgement of APSFL, has engaged in fraudulent and corrupt practices in competing for or in executing the Contract.

In the event APSFL terminates the Contract in whole or in part, APSFL may procure, upon terms and in such manner as it deems appropriate, the goods and services similar to those and delivered and the successful bidder shall be liable to APSFL for any additional costs for such similar goods. However, the successful bidder shall continue the performance of the contract to the extent not terminated.

2.25.2 Termination for Insolvency

APSFL may at any time terminate the Contract by giving written notice with a notice period of 30 days, sent to the successful bidder, if the successful bidder becomes bankrupt or otherwise insolvent. In this event, the termination will be without compensation to the successful bidder, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to APSFL.

2.25.3 Termination for Convenience

APSFL may, by written notice, with a notice period of 30 days sent to the successful bidder, may terminate the Contract, in completely or in part, at any time for its convenience. The notice of termination shall specify that termination is for APSFL's convenience, the extent to which performance of work under the Contract is terminated and the date upon which such termination becomes effective. On termination, the successful bidder is entitled for compensation to the extent of work done till the date of termination.

2.26 Execution of WorkOrder

The successful bidder should nominate and intimate APSFL, a Manager as Single Point of Contact (SPOC), who should be responsible for effective delivery of work complying with all the terms and conditions. The successful bidder should ensure that the Manager fully familiarizes with the RFP Conditions, Scope of Work and deliverables.

2.27 Submission of Technical Solution and Approach Methodology

The bidder shall be required to submit the detailed technical solution document entailing minimum technical specifications of material mentioned in the RFP, design/ drawing document, detailed implementation approach methodology, etc. If in case, there is increase/ decrease in the technical specifications of material, prior approval needs to be taken from APSFL. APSFL reserve rights to cancel the bid, if in case the technical solution document is not in compliance with the requirements mentioned in the RFP.

2.28 Liquidated Damages (LD)

- a. Liquidated Damages will be levied as per the penalty and payment schedule subject to a maximum of 10% of the total value of the contract for non-fulfilment of delivery schedule. Any delay due to the Force Majeure conditions or delay not due to the successful bidder will be excluded from the delivery schedule.
- b. In the event of failure by the successful bidder to fulfil the delivery conditions, Tender Inviting Authority at its discretion may initiate any of the action(s) as given below:
 - i. Extension of time may be permitted to complete the work.
 - ii. Additional resources will be requested for speeding up the work.
 - iii. Liquidated Damages will be levied.
 - iv. Contract with the successful bidder may be terminated as per the Termination clause.
 - v. Any other action as may be deemed fit by Tender Inviting Authority in the best interest of the department.

2.29 Force Majeure

Neither Tender Inviting Authority nor the successful bidder shall be liable to the other for any delay or failure in the performance of their respective obligations except causes or contingencies beyond their reasonable control due to Force Majeure conditions such as:

- a. Any act of God such as lightning, earthquake, landslide, etc. or other events of natural disaster of rare severity. Meteorites or objects falling from aircraft or other aerial devices, travelling at high speeds.
- b. Fire or explosion, chemical or radioactive contamination or ionizing radiation
- c. Pandemic or Epidemic or plague. Act of war (whether declared or undeclared), threat of war, invasion, armed conflict or act of foreign enemy, unexpected call up of armed forces, blockade, embargo, revolution, riot, religious strife, bombs or civil commotion, sabotage, and terrorism.

2.30 Arbitration

In case of any dispute, the matter will be referred to a Sole Arbitrator to be appointed by APSFL in accordance with the "Arbitration and Conciliation Act 1996" and any amendments thereafter. The arbitration shall be held in Andhra Pradesh, India and in English.

Note: All General Conditions of Contract (GCC) and Special Conditions of Contract (SCC) as per Department of Roads and Buildings, Government of Andhra Pradesh are applicable for thisRFP.

3. ProjectBackground

3.1 Project Background

Andhra Pradesh State FiberNet Limited intends to provide the services through the AP Aerial Fiber Network to the households and the government offices (Departments/schools/hospitals etc), APSFL has finalized the standards & specifications for the Optical Line Termitter (OLTs) to enable the intended services such Triple Play - internet, telephone, IPTV or CATV & Value added services. The OLTs will be procured by APSFL based on the requirement/need of Government offices from the selected agency.

Government of Andhra Pradesh enterprise, aimed at providing internet connectivity and e-governance services to Govt. Office Unit / Institutions / Organizations in the state of Andhra Pradesh.

APSFL has planned to enhance the enterprise connections viz., Internet connectivity to Village Secretariat, Ward Secretariat, RythoBharosaKendrams, PHCs, YSR ArogyaSree and AP dairy. Also, APSFL is planning to enhance the domestic connections across AP. For enhancing the connectivity OLTs are required at various places.

3.2 ProjectType

The selected bidder shall supply, install and maintain **500 GPON OLTs** in AP Fiber Network.

3.3 Project Locations

The equipment shall be supplied at APSFL ware house, Tenali, Andhra Pradesh.

4. Scope of Work

The selected bidder shall supply **500Nos of OLTs** and suitable EMS to be integrated with NMS on NBI. At present, all the PoPs are provided with PT Inovação's OLT Model OLT1T0 with 8 GPON Ports capable of delivering VoIP, High Speed Internet, TV (IPTV and RF Overlay) of up to 1024 client premises (assuming a 1:128 Splitting ratio) from a single OLT chassis.

All the OLTs and ONTs supplied are managed through NMS/EMS (GUI) tool in terms of configuration, monitoring and incident management.

The OLT supplied should be capable of supporting multiple ONT's installed across various locations. The EMS proposed shall be configurable to monitor new OLTs proposed as per the requirements of APSFL. The EMS proposed should be capable of periodic SLA report generation as required by APSFL. The EMS proposed should support data porting.

The selected bidder is responsible to ensure seamless transition in case of new OLT/ PoP commissioning and ensure the proposed EMS integration with the existing NMS system.

The scope of work covers three phases as follows:

- a) Proof of Concept (PoC) /Testing Phase
- b) Delivery & Commissioning Phase
- c) Maintenance Phase

a) PoC (Testing & Acceptance Phase)

The qualified bidder(s) have to do proof of concept to showcase that the proposed solution (OLTs & EMS) addresses all the concerns related to interoperability and integration issues with the existing Network. The PoC shall demonstrate the following aspects:

- Showcase the capability of each OLT to support 1:128 connections per PON.
- Successful configuration and testing of two different OLTs within a given Ring & PoP
- Successful configuration and testing of proposed OLTs with different ONU/ONTs deployed
- Successful configuration and reporting of EMS
- SLA Management

The number of such installations required will be informed by APSFL at the time of calling for PoC. Testing will be done at APSFL lab as well as at the field as per requirement. The selected bidder(s) should complete PoC within 15 days from the date of submission of samples.

Interoperability and acceptance test certificate have to be submitted with duly signed by authorized APSFL representative. Format for the testing and acceptance certificate is as per the Annexure O.

b) Delivery & Commissioning Phase

The scope of work in this phase includes supply, installation and commissioning of required no. of OLTs against the work order issued on periodical basis by APSFL. It is the responsibility of the selected vendor to deliver at the designated locations. APSFL shall provide necessary infrastructure (rack, UPS, Earthing, Power etc) for successful installation and commissioning of the OLT. Necessary coordination & support including training to be provided to the APSFL team including current service providers.

As part of commissioning, it is the responsibility of the selected bidder to migrate existing connections onto the new OLTs and ensure seamless transition.

Bidder has to provide interoperable EMS tools to configure and monitor new OLTs supplied.

Selected bidder should undertake the following activities towards successful execution.

- i. Provide necessary training to APSFL staff and service providers regarding the technology, operations, trouble shooting and other aspects of the solution proposed.
- ii. Submit standard operating procedures (SOPs) w.r.t operations and troubleshooting mechanisms
- iii. Submit technical literature, data sheets, manuals and other documentation pertaining to OLTs.
- iv. SLA management

Installation & Commissioning of PoP:

- i. At present around 2445 PoPs are established across 13 districts of AP catering to the customers within 10km radius. Considering demand from urban areas with high population density and villages which are greater than 10kms away from the PoP APSFL plans to establish new PoPs in order to meet customer demand and ensure effective service delivery.
- ii. In case of new PoP installations, selected bidder is responsible to provide OLTs in order to commission the PoP
- iii. It is the responsibility of the APSFL to deliver the Sub-Station PoP equipment other than OLTs at the designated locations across the 13 districts of Andhra Pradesh.
- iv. The selected bidder has to commission the OLTs in new/old PoPs at the designated locations and ensure their integration with the EMS.
- v. Selected vendor is free to provide higher or better specifications in line with the current solution available to render smooth network operations. It is the responsibility of bidder to provide the recommendations to APSFL in case of any such modifications required and obtain approval.

RFP for Supply, Installation and maintenance of OLTs

- vi. It is the responsibility of the selected bidder to ensure IOT with the existing APSFL network elements

c) Maintenance Phase

After installation and commissioning of the OLTs, the selected bidder shall be solely responsible for support & maintenance for a period of 5 years from the date of commissioning as per SLA.

It is the responsibility of the selected bidder to deliver the OLT at the designated locations.

The selected bidder has to understand the current solution in place and propose accordingly.

4.1. Schedule of Requirement

S. No	Item description including Specification	UOM	Quantity (A)
1	GPON OLTs		500

5. Technical Specifications

OLT – 8 Port

OLT-8 PORT Technical Specifications		
SL. NO	Description	Details
1	GPON Interface	Ports: 8 SFP ports, G.984.2 compliant
		Standard: Fully ITU-T G.984.1-5 and G.988 compliant
		Line rate: Downstream: 2.488 Gbps; Upstream: 1.244 Gbps
		Connector: SFP Plug-in module; SC/UPC on SFP
		Link Budget: 28 dB Class B+ or 32dB Class C+; ITU G.984.2 Amd1 depending on SFP installed; 1:128 split
		Wavelength: Transmit: 1310+/-20nm; Receive: 1490+/-10nm
		Distance: up to 60 km (subject to optical budget)
		OLS/OTM: ITU-T G.984.2Amd2 incl. Rx and Tx power
		TC layer: AES (128-bit key) and FEC RS (255,239)
		DBA: DBRu mode 0 and mode 1 per G.983.4
		Remote ONT/ONU management, Automatic ONT ranging
		Support ITU-T G.984.4 ONT Management & Control Interface (OMCI)
		GEM port-IDs: 4K per PON port, Multicast GEM
T-CONT: 1-5, 1K per PON port, 8 queues per T-cont		
2	Ethernet Uplink Trunking Interfaces	10GE: 2x SFP+ ports; 802.3ae / 802.3z
		1GE: 4 x SFP/combo ports; 802.3 / 802.3u / 802.3z
3	Management Interfaces	Out-of-band: 1xRJ45, Out of band TMN-OS Interface

RFP for Supply, Installation and maintenance of OLTs

		Operating LEDs Indicator for system operating status including power, fault detection and booting state.
		In-Band: 1xRJ45
4	Switching	VLAN support: BBF TR.156 compliant; 1:1, N: 1, VBES/TLS;
		VLAN Models: VLAN per customer Model and VLAN per Service Model with VLAN Translation as required and priority mapping.
		Capacity: 72 Gbps Ethernet switching
		Performance: Full throughput non-blocking for all ports; 32K MACs; 4K VLANs; 1K multicast groups Packet Forwarding Rate of 65Mpps.
		Spanning Tree: STP (802.1d), RSTP (802.1w)
		VLAN Mapping: untagged, priority tagged, port based, 802.1q single tagged, 802.1ad (Q-in-Q) double tagged
		Multicast: IGMPv2 (RFC2236), IGMPv3 (RFC3376) &MLDv2 (RFC3810) snooping &proxy; RFC2933 IGMP MIB
		Forwarding: IPv4, IPv6, MAC-forced forwarding (RFC4562)
		Mirroring: SNI and PON port mirroring
		OAM: Port Stats, PMs for Access & Network Ports monitor ONT LoS Alarms , IEEE 802.1ag CCM,Loopback, Link Trace. Remote Diagnostics
5	Security	DHCPv4/6: DHCP (RFC2131/3315) snooping, filtering, relay
		DHCP Options: Option 82 (RFC3046)/43/37/18
		PPPoE: PPPoE Relay agent
		Binding: Port, MAC
		Protection: Broadcast / Multicast / DLF packet limit, IP antispoofing, MAC spoofing prevention, IP Source guard, Uplink Loop Detection
		802.1x MAC/port based authentication,Storm control for broadcast, multicast and unknown unicast packets
		DoS protection Outband management IP source guard Secure Shell (SSH) RFC 5905 NTP v4 or RFC 2030 SNTP v3 protocol for IPv6
		PON : AES, Rogue ONT ONU/ONT detection, isolation and mitigation, SN, Password. SN+Password Authentication, ONU Auto Registration & ONU
6	Protection	SNI:802.3ad Static Link Aggregation, G.8032 ERPSv1/v2, Flex Links
		GPON: G.984.1 Type B supported
7	Quality of Service	Classification: 8 priority queues per GEM port, 802.1p CoS, per port IP ToS/DSCP to 802.1p mapping/remarking/ preserving, Upstream Policing
		Traffic scheduling (SP, WRR, DWRR) , 8 queues support per port,Port rate limit with the ingress/egress shaping
		Queue mapping according to ingress/egress port, MAC, 802.1q, 802.1p, ToS/DSCP,IP SA/DA, TCP/UDP
		Access control lists based on port, MAC address, Ether type, IP SA/DA, IP multicast address, TCP/UDP
		Congestion: Back pressure (802.3x Flow Control)

RFP for Supply, Installation and maintenance of OLTs

		Scheduling: SP, WRR, SrTcm and TrTcm, 64kbps granularity, Egress Traffic Shaping
8	Management	Local: CLI via RJ-45 with multiple Privileges,
		Remote: AEMS, SNMP v1/v2c/3, Telnet, SSH
		ONT/ONUs: Managed over OMCI, VEIP and TR-069
		Authentication: Radius, TACACS+ management access authentication
		Monitoring: RMON, Temperature, CPU
		Alarms: Critical/ Major/Minor Severity; Alarm &Event logging, Local Alarm Storage, Syslog Logging
		Time Sync: NTPv4 (RFC5905)
9	Power	AC option: Dual, 94VAC to 250VAC, 50/60Hz
		DC option: Dual, -36VDC to -72VDC
		AC power supply is preferable in case of DC supply OEM's need to provide the DC To AC converters for OLT input power.
		Power: 70 to 80 Watts Nominal
10	Physical	Operating Temp: 0°C to 50 °C
		Storage Temp: -40 °C to 70 °C
		Humidity (N.C.): 5% to 95% RH
		Rack: 19 inch ANSI/ETSI standard rack
		Dimensions: 482.6mm (L) x 390mm (B) x 44 .45mm (H)
		Weight: <6Kg fully equipped
11	Multicast (IPTV)	IGMPv1/v2/v3, 8k L2 multicast entries, 8k L3 multicast entries,IGMP snooping/proxy/static join
		IPv6, IPPPoEv6 and ICMPv6 packet transparent capability, IPv6 Multicast transparent capability
		IPV6 MLD Multicast Listener Discovery it should also support
		IGMP v2/v3 snooping with proxy reporting, multicast, Uplink port should support multicast/Unicast, IPTV streams forwarding: 1024.
12	Training	root access and Tarining required.
13	Synchronism	SYNC-E, IEEE1588v2/PTP
14	Interoperability	OLT family system NMS assure layer 2 and layer 3 interoperability with the transport segment of the network, according to Rec BBF TR-156/247.
		NMS/EMS should support existing BSS/OSS solution with rest API interface. Network Management System for the offered equipment to provide the capabilities for configuration, operation, monitoring, remote monitoring, fault localization, and data storage.
15	EMC	Compliant with at ETSI EN 300 386 recommendation / or equivalent IEC/EN standards
16	Scalability	OLT equipment family system NMS are reliable modular Optical Line Termination (OLT) equipment specially devoted for fiber network infrastructures either Point-to-Point (P2P), Active Ethernet (AE) or Point-to-Multipoint (P2MP) FTTx Gigabit Passive Optical Network (GPON) architectures as well as assuring next generation PON technologies as XGPON-1 and NGPON2 (TWDM PON)
17	L2 layer	Services: 1:1, N:1 (TR-156i3), VLAN-ID conversion to GEM port-ID,

RFP for Supply, Installation and maintenance of OLTs

		Transparent: Add/change S-TAG and C-TAG, Load balancing LACP, Priority bits (p-bits) included in changes,
		Performance: GPON full wire speed
18	Layer 3	16k/8k routing entries for IPv4/IPv6 Static routing RIPv1/v2 OSPFv2 BGPv4 Virtual Router Redundancy Protocol (VRRP)
		IPv4-only, IPv4/IPv6 dual stack and IPv6-only operations as specified in RFC 4213
		IPv6 Addressing Architecture as specified in RFC 4291
		Supports IPv6 over Ethernet and IPv6 as specified in RFC 2464
19	ITU-T / IEEE RELATED SPAECIFICATIONS	ITU-T / IEEE RELATED SPAECIFICATIONS
		Shall comply to ITU-T/IEEE recommendations.
		ITU-T G.652: Characteristics of a single-mode optical fiber and cable.
		ITU-T G.757: Characteristics of a Bending Loss Insensitive Single Mode Optical Fiber and Cable for the Access Network
		ITU-T G.984.1: GPON General Characteristics.
		ITU-T G.984.2: GPON Physical Media Dependent (PMD) layer specification.
		ITU-T G.984.3: GPON Transmission convergence layer specification.
		ITU-T G.984.4: GPON ONT management and control interface specification.
		ITU-T G.987.1: XG-PON, General requirements.
		ITU-T G.987.2: XG-PON, Physical media dependent (PMD) layer specification.
		ITU-T G.987.3: XG-PON, Transmission convergence (TC) specifications
		ITU-T G.988: XG-PON, ONU management and control interface (OMCI) specification
		ITU-T G.698.3: Seeded WDM-PON
		ITU-T G.8261: Timing and Synchronization aspects in packet networks.
		ITU-T G.8262: Timing characteristics of synchronous Ethernet equipment slave lock.
		IEEE 802.1ad Provider Bridges
		IEEE 802.1ag Ethernet OAM
		IEEE 802.1D Spanning Tree Protocol
		IEEE 802.1p VLAN prioritization
		IEEE 802.1Q VLAN tagging
		IEEE 802.1w Rapid Spanning Tree Protocol of at least 8 ports, based on port-based, address-based, and round robin
		IEEE 802.1p VLAN prioritization.
		IEEE 802.1Q VLAN tagging.
		IEEE 802.3 10 Mbps Ethernet
		IEEE 802.3u 100 Mbps Fast Ethernet
		IEEE 802.3ad Ethernet Link Aggregation
		IEEE 802.3ae 10 Gigabit Ethernet
		IEEE 802.3z Gigabit Ethernet
		Shall support Stacked VLAN, VLAN switching

RFP for Supply, Installation and maintenance of OLTs

		IEEE 802.3x Flow Control
		IETF RFC 2131: DHCP
		IETF RFC 2132: DHCP Options and BOOTP Tenderer Extensions
		IETF RFC 2236: Internet Group Management Protocol, Version 2.
		IETF RFC 2933: Internet Group Management Protocol Management Information Base
		IETF RFC 3046: DHCP Relay Agent Info Option (Option 82)
		IETF RFC 3376: Internet Group Management Protocol, Version 3
20	Hardware features	Any other standards inter-related with all the above Specifications and any other standards deemed necessary by the bidder.
		OLT Hardware features
		The OLT shall be rack mountable and meet ETSI standards for indoor equipment requirement.
		The OLT shall be designed to Operate at 210- 250 V ac
		Dual Redundant Power supplies
		Operating temp 0 to 55 centigrade
		Fan is required for cooling the OLT to force airflow.
		The OLT shall provide one craft port for local configuration access.
		The OLT shall support one 10/100M Ethernet port for linking with EMS.
		The equipment must support a minimum splitting ratio of 32 splits or more.
21	GENERAL REQUIREMENTS	Compliant to the relevant ISO/ETSI industry quality standards (e.g. ISO 9000/9001), defining the quality system requirements for the design, development, production, delivery, installation and maintenance of product and services.
		The offered equipment shall be able to inter-work with the other user end equipment supplied by other vendors as per ITU-T specifications.
		The offered equipment shall support single fiber operation on standard SMF G.652, G.655 & G.657.
		The IGMP forwarding capabilities on OLT should be no less than 2000pps,
		The equipment shall support dual stack topology IPv4 and IPV6.
		Fan module- Status;ON;PRC;GPON ports;GBE ports; 10GbE ports power-P1,P2
		root access and Tarining required.
		EMS/NMS should support all types of OLT/ONU's
		OLT uplink and down link both should be support all network elements like Router/Switch/OLT..
		Cascading (OLT must support Cascading Mesh/ring/linear) device must support ethernet ring like G8032, must compactability with different OEM's.
		OLT should compatibility with different OEM's ONT's from day one.
		OLT and ONT shall support IOT compatibility with different OEM's.

RFP for Supply, Installation and maintenance of OLTs

	<p>During warranty period vendor shall perform repair and replacement(R & R) without additional costs to the client (APSFL), vendor shall supply necessary spares within in a short notice of time.</p>
	<p>The detail Downstream and Upstream QoS and traffic prioritization mechanism supported inclusive of the hardware queue available for each direction. A minimum of 8 hardware queues should be supported at both directions. The OLT should implement some queuing mechanism to manage the hardware queue such as SP, WRR, etc.</p>
	<p>Management System shall support bandwidth provisioning starting from 64 kbps granularity.</p>
	<p>Shall support port-mirroring function for trouble shooting, monitoring, and tracing purpose. The bidder shall explain the port-mirroring function mechanism in detail.</p>
	<p>Shall support basic OAM features such as loop back, remote diagnostic, CC and Link Trace complies with IEEE 802.1ag.</p>
	<p>Shall support Dynamic Bandwidth Allocation (DBA) mechanism to allow optimum bandwidth utilization on each PON interface. The detail implementation and capability of DBA mechanism should be explained in detail.</p>
	<p>Shall support port-mirroring function for trouble shooting, monitoring, and tracing purpose. The bidder shall explain the port-mirroring function mechanism in detail.</p>
	<p>DHCP, DHCP option 82/60/43/37/18, Static IP, PPPoE</p>
	<p>Shall support multiple service delivery of data, voice and video.</p>
	<p>Shall support IP policing at the network and subscriber end.</p>
	<p>Shall support unicast, multicast, bitstream, Mac Bridge, Univoip, Eth Bitstream services</p>
	<p>Shall Support PPOE/IPOE</p>
	<p>Shall support Ethernet 802.1p and IP TOS bit prioritization.</p>
	<p>Bidder should supply all the necessary licenses for full FCAPS management through GPON NMS for the supplied nodes. In case the devices need a new EMS to manage the devices, bidder has to factor in all the costs associated with hardware/software and licenses for the new EMS/NMS and the integration efforts to make it work with existing APSFL OSS/BSS and other IT systems.</p>
	<p>Shall support basic OAM features such as loop back, remote diagnostic, CC and Link Trace complies with IEEE 802.1ag.</p>
	<p>Shall support port-mirroring function for trouble shooting, monitoring, and tracing purpose. The bidder shall explain the port-mirroring function mechanism in detail.</p>

GPON EMS:

S.No.	Description
1	General:
	The management system shall be able to auto-discover the network including the network elements.
	The management system shall provide access using remote clients that use HTTP.
	The functionalities of the offered EMS system shall cover these management layers:
	Network Element Management Layer: This shall manage the Network Elements such as their configuration, alarms or performance.
	Network Management Layer: This shall manage end-to-end network connectivity, network level protection, network level paths and performance and other network level issues.
	The EMS must support a northbound interface.
2	Graphical User Interface:
	The offered EMS system shall employ Graphical User Interface that allows users to manage the network through a multilevel window. (i.e. Network and Sub networks Maps)
	The offered EMS system shall allow the Users to perform, but not restricted to, the following operations on the Network and Sub network Maps:
	View the alarm conditions of the OLT's, ONTs, MDUs,...
	View the performance parameters of an individual link.
	Zoom in and out on the Network Map including the ability to define a custom sub-network map.
	The graphical user interface shall provide a cascading menu and a graphical display of the shelf layout that allows users to move from shelf to board to port menus and execute
	The Graphical User Interface shall provide an End-to-end Network view that could span sub
3	Configuration Management:
	The offered EMS shall support managing ports (enable / disable).
	The offered EMS shall support the ability to perform a remote inventory.
4	Software Management: This shall include the ability to download software loads, activate new software loads, or get information about the active software load).
	The offered EMS shall provide the facility to perform backup & restore of the node configuration via non-volatile memory on the OLT or via the NMS database.
5	Fault Management: Users shall have the ability to define customizable alarms in terms of severity levels and filtering.

RFP for Supply, Installation and maintenance of OLTs

6	Alarms shall be consistent in terms of marking them with appropriate colors.
	There shall be mechanisms to provide for fault isolation.
	There shall be connectivity and loopback testing capability in all technologies to help isolate faults.
	There shall be alarm correlation to prevent a flood of alarms.
	Equipment alarms shall be localized up to the board and port level of a specific shelf of a specific node.
	The alarms shall be audible and/or bring up a pop-up window if appropriate.
	The EMS shall allow users to create a Trouble Ticket for any alarms. This trouble ticket should allow users to enter comments on that alarm.
	There shall be a provision to run diagnostics on network elements, cards or links manually.
	There shall be scheduler to run diagnostics at certain times and report problems as alarms.
	A scheduler shall also be available to collect performance metrics from network elements to the network management system.
7	Event Logging: There shall be a mechanism for alarms and logging including all user actions.
	The logging shall be customizable for specific types of events or alarms.
8	Performance Management: The management system shall provide the ability to set thresholds on performance metrics and generate alarms from these thresholds.
	The management system shall provide capacity planning reports that provide long-term traffic analysis to help in deciding whether to upgrade links or nodes.
9	Security Management: Illegal access to the management system shall be prevented; all users shall have a User Id and Password, which defines their access level with the management system.
	The offered EMS system shall allow for Domain creation and partitioning, each domain being a different access level of part of the network or different function.

RFP for Supply, Installation and maintenance of OLTs

	<p>It shall be possible to assign specific users to a particular domain, so the domain access can be restricted to the assigned users only.</p> <p>Users assigned to a specific Domain shall have different levels of authorization (i.e. different functions and privileges).</p> <p>Local access via the Local Craft Terminal to any managed Network Element or node shall be controlled by the network management system.</p>
10	<p>The management system shall be able to detect a Local Craft Terminal connection to any Network element or node.</p> <p>In the event of the management system crash, there shall be a way for the local craft terminal to still have access to the device.</p>
11	<p>MANAGEMENT FEATURES & FUNCTIONALITIES:</p> <p>Additions of OLT's/MDU's to the EMS shall not require any licenses as long as the maximum capacity of the proposed EMS is not reached.</p> <p>The EMS shall not require any licenses for the hosted CPE (ONT).</p> <p>The Local craft Terminal (LCT) license shall be of un-limited use</p> <p>Software updates including maintenance versions shall be free of cost for the next three years.</p> <p>The Network Management proposal shall include all the Hardware and software requirements including servers, work station, PC, system and third part software licenses and services.</p> <p>It should be possible to download software remotely, with or without EMS. For upgrade/downgrade purposes, the offered product should have active memory and standby memory for ease of upgrade/downgrade.</p> <p>It should be possible to downgrade a software in the offered system/ Network Element</p> <p>Bidder shall provide a matrix table showing the compatibility of different EMS versions with different OLT/MDU software versions and different Hardware versions.</p> <p>The offered management system shall be equipped with the XML, SNMP and TMF CORBA open and standard interfaces for easy integration. The bidder shall specify the management procedure and interface for the local and remote management of the offered system.</p> <p>All the related telecom industry supported standards shall be quoted to support the above.</p> <p>The OEM Should provide necessary hardwares,softwares & License for EMS/NMS installation.</p>

RFP for Supply, Installation and maintenance of OLTs

ONTs being used in the network for Triple Play Services Delivery

Company/Firm	Model Name	Model No.
DASAN	DASAN Enterprise	H660GW
DASAN	DASAN Domestic	H662V
PT	PT Enterprise	ONT7-RGW
PT	PT Domestic	ONT7-SFU(USB)
PT	PT Domestic	ONT7-SFU (w/o USB)
ZTE	ZTE	ZXHN F612

6. Bid Evaluation Criteria and Process

6.1 Pre-Qualification Criteria

The bidder should satisfy the following Pre-qualification criteria to be eligible for further evaluation under this RFP. The bidder should enclose documentary evidence for fulfilling the Eligibility in the Pre-qualification Bid. If a bidder fails to enclose the documentary proof for eligibility, their bid is liable to be rejected.

The following is the Pre-Qualification Criteria:

S. No.	Eligibility Criteria	Documents Required
1	The Bidder should be a Sole Proprietorship firm or a company registered in India under the Companies Act, 1956 / 2013 /LLP Act 2008 /Indian Partnership Act 1932, as amended from time to time, and should be in operation for at least the last 3 years as on the date of bid submission.	For Sole Proprietorship firm, following documents are required. a. Copy PAN b. Proof of address and contact details c. MAF/Self declaration as OEM d. TEC certificate, MTCTE certificate For other, following documents are required: e. Copy of valid Certificate of Incorporation from Registrar of Companies f. Copy of Corporate Identification Number (CIN) g. Copy of GST registration certificate h. Copy of PAN i. MAF/Self declaration as OEM j. TEC certificate, MTCTE certificate
2	The cumulative annual turnover of the Bidder (including its consortium members, if applicable) in the financial	Certificate from the Statutory Auditor of the Company mentioning year-wise annual turnover.

RFP for Supply, Installation and maintenance of OLTs

S. No.	Eligibility Criteria	Documents Required
	years, FY 2019-20, FY 2020-21, FY 2021-22 and current financial year, should be at least INR 13.12 Crores .	And, Copy of audited profit and loss statement highlighting the year-wise turnover. (As per the format enclosed as Annexure F)
3	Net Worth of the Bidder (including its consortium members, if applicable), for the financial years, FY 2019-20, FY 2020-21, FY 2021-2022 and current financial year, should be Positive as per the audited financial results.	Certificate from Statutory Auditor clearly stating the Net worth of the Bidder. Copy of audited profit and loss statement highlighting the year-wise Network (As per the format enclosed as Annexure F)
4	The bidder/ consortium shall have experience of supplying, commissioning and providing support services for OLTs of order value INR 2.62 Crore in last 3 FYs in India.	Purchase orders and Completion Certificate from the client on the letterhead of the client clearly mentioning the scope of work as per the format enclosed as Annexure G
5	The bidder should not have been blacklisted by any central or state Govt. department or PSU on the date of bid submission.	Bidder should submit an undertaking as mentioned in Annexure H in section 6.1 of the RFP, that it has not been blacklisted/debarred by any Govt. department or any PSU in India as on bid submission date.
6	All documents in the proposed bid, shall be signed by an authorized signatory, in whose name the Power of Attorney/ Board Resolution, should be duly issued.	For Pvt. Ltd. firms, a Board Resolution, as mentioned in Annexure J , of the RFP to be submitted. For others, the Power of Attorney, as mentioned in Annexure I , of the RFP to be submitted.
7.	Bidder to share the Document Verification Certificate	Certificate, on INR 100/- non-judicial stamp paper and duly notarized and stamp, to be enclosed along with the bid documents (as per the format enclosed as Annexure K)
8.	The technical compliance for the OLTs (Clause No. 8.1 - Sl.No 1 to 8) is to be	The bidder shall submit all the technical leaflets/technical literature/product

RFP for Supply, Installation and maintenance of OLTs

S. No.	Eligibility Criteria	Documents Required
	met without any deviation.	certifications etc. to confirm the technical compliance. The OEM should submit the compliance confirmation for each parameter for all the OLTs in their letterhead. If there is any deviation, the deviation should be spelt out by the bidder in the OEM letter head.

NOTE 1:

- a. Only the bids of those Bidders, who submit the prescribed Bid-processing fee and EMD, shall be considered for evaluation. The bids not accompanied with a valid Bid-processing fee and EMD as part of the proposal shall be summarily rejected.
- b. The bidders who met the Prequalification criteria, shall undergo Technical Evaluation.
- c. Bidders are required to provide the aforementioned information as per the formats provided along with the required supporting documents for each of the criteria mentioned above.
- d. Specifications and Amendments referred, should also be submitted with Supporting Docs along with the PQ Documents.

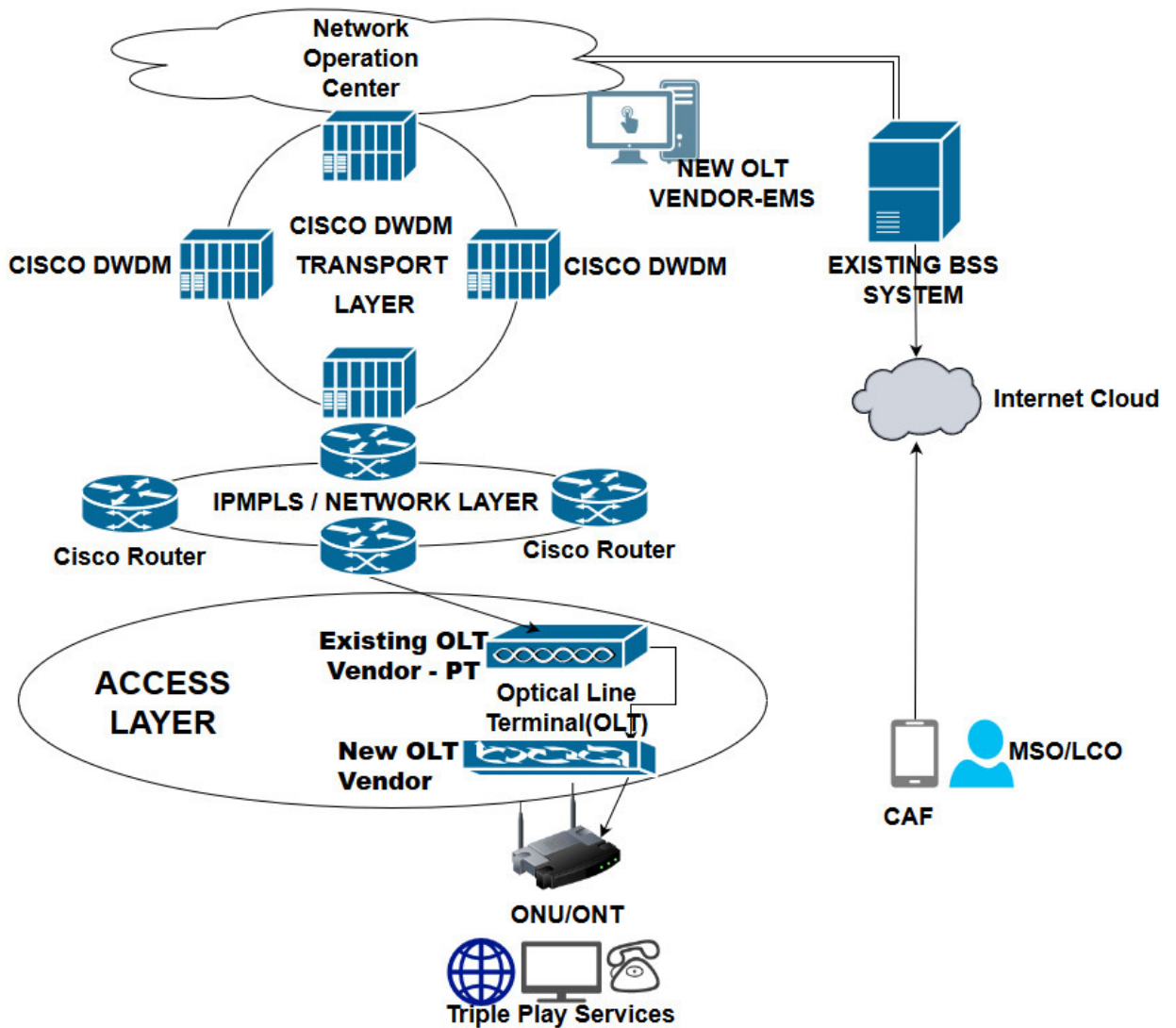
Post Tender Discussions at any cost and at any form will not be entertained.

Proposals without necessary supporting documents or without meeting the prescribed qualification criteria will be treated as non-responsive and will not be considered for further evaluation.

6.2 Technical Evaluation Criteria:

Bidder shall submit and offer **5 nos.** of returnable samples of the entire kit (including but not limited to OLT and other required accessories like interconnection cables) to APSFL, for testing, which will be tested in a lab as well as on the field as per requirements by APSFL. Bidder should submit samples of OLT as proposed with their feature test reports along with the bid. Testing of the samples should be completed within fifteen (15) days from the opening of Technical bid. In case bidder fails to submit the samples along with bid (or) fails to submit successful test reports within the stipulated time, such bids will be rejected and their financial bids will not be open.

Test Setup Diagram for IOT



The bidder has to submit Annexure-O in Technical bid.

The Financial bids of only those bidders who qualify in technical evaluation and complete the testing successfully with existing APSFL network will be opened.

6.3 Commercial Evaluation Criteria

- a. Financial bids submitted of only those bidders, who are qualified as per pre-qualification criteria shall be opened and are eligible for further evaluation.
- b. All the Pre-qualification qualified bidders shall be notified to participate in Commercial Bid opening process.
- c. Bidders quoting unrealistic cost shall be rejected straightaway by APSFL. Any bid found to have unsatisfactory response in the eligibility criteria as mentioned shall be rejected and shall not be considered for further evaluation.
- d. The commercial Bids for the Pre-Qualification qualified bidders shall be reviewed to determine whether the Commercial Bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at purchaser's discretion.
- e. Commercial Bids that are not as per the provided format in section 6.2 shall be liable for rejection.
- f. In case of computation error in commercial forms, the Technical/Evaluation Committee's decision in this regard shall be final and binding on all.

6.4 Reverse Auction

- a. APSFL will schedule the reverse auction on the website of Procurement.
- b. Only the qualified and whose financial bids are complying to the RFP requirements only will be permitted to participate in the reverse auction.
- c. The date and time will be intimated to the qualified bidders.
- d. Reverse auction will be conducted on the total price of the respective schedule, quoted by the bidder for the indicated quantities in the cost sheet.
- e. The amount quoted in the Bid will be considered for overall evaluation to arrive 'L1' bidder.
- f. The 'opening price' i.e. start price for Reverse Auction will be the L1 price quoted.
- g. The reverse auction will be conducted for the entire schedule. The bidder's screen will have provision for decrement of prices. In the bidder's screen the total price of his bid and the L1 Price at that instance will also be displayed.
- h. For the purpose of Reverse Auction, the minimum bid decrement will be Rs. 10,00,000/- (Rupees Ten lakhs only)
- i. The Bidders can modify the total price of the bid based on the minimum bid decrement or the multiples thereof, to displace a standing lowest bid and become "L1", and this will continue as an iterative process.
- j. The reverse auction shall be conducted for 3 Hours. If any bidder submits a bid in the last 15 min of the auction closing time, the auction time will

RFP for Supply, Installation and maintenance of OLTs

be automatically increased by 15 minutes. All bidders are required to submit their online bids during this period

- k. After the completion of the online reverse auction, the Closing Price (Final L1 Price) and the successful bidder shall be finalized. The bidder has to submit the breakup of the revised cost (post reverse auction) as per commercial bid format of RFP within 2 working days after completion date of the reverse auction to the Email address: apsfl@ap.gov.in.
- l. In case the bidder fails to submit the breakup of the cost quoted in the reverse auction, the quote shall stand cancelled and the EMD of the bidder will be forfeited.

6.5 Selection Process of Bidder

Evaluation of bids shall be done on Least Cost/Lowest Cost (L1) criteria as per the quotes submitted in reverse auction

Note: Post award of work, APSFL has the right to alter the quantity of allotment to the successful bidder.

7. Bid Submission Forms

7.1 Pre-Qualification Evaluation Forms

“All the forms in this section shall be uploaded as part of “PQ” Bid and in the “PQ” bid folder of the eprocurement platform. If the following documents are not found in the “PQ” bid folder, the bid shall be considered as non-responsive and may be rejected. Failure to submit any of the forms in this section shall lead to disqualification of the bidder.”

Annexure A - Application Form

(On Bidder's letterhead)

(Date)

To,

Managing Director,
Andhra Pradesh State FiberNet Limited
NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station,
NH -65, Vijayawada - 520001

Sub: **RFP for Supply, installation and maintenance of OLTs**

Ref: -----

Dear Sir,

With reference to your RFP Document dated -----, I/We, having examined all relevant documents and understood their contents, hereby submit our Proposal to provide Underground Optical Fiber Connectivity at the selected locations of Govt. Offices / Organizations / Institutions on Rate Contract.

- 1) All information provided in the Proposal and in the Appendices is true and correct and all documents accompanying such Proposal are true copies of their respective originals.
- 2) I/We shall make available to the Authority any additional information it may deem necessary or require for supplementing or authenticating the Proposal.
- 3) I/We acknowledge the right of the Authority to reject our Proposal without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.
- 4) I/We to the best of our knowledge certify that in the last three years, we or any of our Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Bidder, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.
- 5) I/We understand that you may cancel the Selection Process at any time and that you are neither bound to accept any Proposal that you may receive nor to select the selected supplier, without incurring any liability to the Bidders

RFP for Supply, Installation and maintenance of OLTs

- 6) I/We to the best of our knowledge certify that in regard to matters other than security and integrity of the country, we or any of our Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which would cast a doubt on our ability to undertake the Consultancy for the Project or which relates to a grave offence that outrages the moral sense of the community.
- 7) I/We to the best of our knowledge further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.
- 8) I/We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority and/ or the Government of India in connection with the selection of Supplier or in connection with the Selection Process itself in respect of the above mentioned Project.
- 9) I/We agree and understand that the Proposal is subject to the provisions of the RFP document. In no case, shall I/We have any claim or right of whatsoever nature if our Proposal is not opened or rejected.
- 10) I/We agree to keep this offer valid for 180 days from the Proposal Due Date specified in the RFP.
- 11) I/We agree and undertake to abide by all the terms and conditions of the RFP Document. In witness thereof, I/We submit this Proposal under and in accordance with the terms of the RFP Document.

Yours faithfully,

(Signature, name and designation of the authorized signatory)

(Name and seal of the firm)

Annexure B - Profile of Bidder/ Partners

(To be submitted by Bidder)

S. No.	Particulars	Details
1	Name of the Company	
2	Year of incorporation	
3	Nature of the Company (Registered Company)	
4	Registered Office Address	
5	Office Telephone Number	
6	Fax Number	
7	Contact Person	
8	Name	
9	Telephone Number	
10	Email Address	
11	Local presence at Andhra Pradesh, if any	
12	Office Address	
13	Office Telephone Number	
14	Fax Number	
15	Registration Details	
16	Permanent Account Number	
17	GST Registration Number	
18	Service Tax Registration Number	
19	Banker's Name, Address and Account Number	
20	No. of Technical Staff employed	

Witness:
 Signature -----
 Name -----
 Address -----
 Date -----

SUPPLIER:
 Signature -----
 Name -----
 Designation -----
 Company Seal
 Date -----

Annexure C – Declaration of Acceptance of Terms and Conditions in the RFP

(To be submitted by Bidder)

To,

[Date]

Managing Director
Andhra Pradesh State FiberNet Limited
NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station,
NH -65, Vijayawada - 520001

Sub: **RFP for Supply, installation and maintenance of OLTs**

Ref: -----

Sir,

It is to certify that the RFP document – Ref: -----, Dated xx/xx/xxxx is carefully read & understood and all the sections and clauses are COMPLIED UNCONDITIONALLY AND UNEQUIVOCALLY. There is no deviation from the terms and conditions of the RFP. We also hereby confirm that the solution proposed by us will meet the project requirements.

Yours faithfully,

(Signature, name and designation of the authorized signatory)

(Name and seal of the firm)

Note: A copy of this form should be returned along with the Bid duly signed

Witness:

Supplier:

Signature -----

Signature -----

Name -----

Name -----

Address -----

Designation -----

Company Seal -----

Date -----

Date -----

Annexure D – Undertaking on SoW Compliance and Unconditional Acceptance

To
Managing Director
Andhra Pradesh State FiberNet Ltd.
3rd Floor, NTR Administrative Block, Pandit Nehru Bus Station, NH-65,
Vijayawada – 520001, Andhra Pradesh,
India.

Subject: Undertaking on SoW Compliance and Unconditional Acceptance with reference to
RFP No. -----

We, M/s _____, based at _____ hereby confirm our compliance to the requirements outlined in Section 4 - Scope of Work (SoW) of the above referenced RFP. By way of this compliance undertaking, we confirm that we have adequate capability and experience to perform the services outlined in the SoW, as per the requirements defined in the RFP.

We confirm our unconditional acceptance of full responsibility of providing services in accordance with the Terms and Conditions and Scope of work of this RFP.

For M/s _____

Authorized Signatory (duly signed and stamped)
Name
Designation

RFP for Supply, Installation and maintenance of OLTs

Annexure E – Pre-Qualification Compliance Documents

The bidder should attach following checklist for compliance with important criterion along with the bid to be submitted:

S. No.	Item	Complied (Yes/ No)	Remarks
1.	Bid Processing Fee		
2.	EMD		
3.	Application Form		
4.	All pages of bid are numbered, signed by authorized signatory and bids are sealed properly		
5.	Incorporation certificate, PAN, CIN, GST		
6.	Proof of authorized signatory (Power of Attorney/ Board Resolution)		
7.	Profile of the Bidder		
8.	Financial Turnover and Net worth of the Bidder along with Balance Sheets and Profit & loss statements.		
9.	Previous experience of shall have experience of supplying, commissioning and providing support services for OLT Boxes as mentioned in PQ criteria		
10.	Self-Declaration Certificate (Certificate to be enclosed in the bid duly signed by the authorized signatory on its letterhead) regarding blacklisting by any central or state Govt. department or PSU on the date of bid submission.		
11.	MAF / Documentary proof for manufacturing goods		
12.	TEC Certificate, MTCTC Certificate		
13.	Technical compliance		
14.	Undertaking for Unconditional Acceptance of Terms and Conditions of the RFP		
15.	Document Verification Certificate		
16.	Power of Attorney/Board resolution		

Annexure F – Financial Turnover and Net worth of the Bidder
(To be submitted by Bidder)

Annual Turnover of the Bidder

Criteria	Sub Criteria	FY	Total Financials
Financial Capability	Turnover from business activities	FY 2019-20	
		FY 2020-21	
		FY 2021-22	
		Current FY	
Net worth	Measured as paid-up capital plus free reserves	FY 2019-20	
		FY 2020-21	
		FY 2021-22	
		Current FY	

Documentary Proof Required:

- Statutory Auditor / CA Certificate clearly specifying the turnover for the specified years.
- Audited P&L and Balance Sheets highlighting the Turnover and Network for each FY

Annexure G – Format for Past Experience of the Bidder

Please provide citations as per the Qualification / Technical criteria in the format provided below. The relevant documentary proofs need to be attached.

Project Title (Attach separate sheet for each Project)			
Name of Client		Address	
Type of Client (Govt./PSU/Others)		Order Value of the Project(in Crores)	
Duration of the Assignment		Start Date (month/year):	
		End Date (month/year):	
Referrals(Client side): Provide one referral only	Name		
	Designation		
	Contact Number		
	E mail Id		
Brief Description of the Project			

Documentary Proof Required:

- Copy of Work order
- Certificate of successful operation by the client

RFP for Supply, Installation and maintenance of OLTs

Annexure H – Declaration regarding Clean Track Record

To, [Date]
Managing Director
Andhra Pradesh State FiberNet Limited
NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station,
NH -65, Vijayawada – 520001

Sub: **RFP for Supply, installation and maintenance of OLTs**
Ref: -----

Sir,

I/We hereby declare that my company has not been debarred / black listed as on Bid submission date by any State Government, Central Government, Central & State Govt. Undertakings / Organizations and by any other Quasi Government bodies / Organizations, and any other major Enterprise / Organizations in India for non-satisfactory past performance, corrupt, fraudulent or any other unethical business practices.

Yours faithfully,

(Signature, name and designation of the authorized signatory)
(Name and seal of the firm)

Note:

- **Submission of this Annexure is mandatory along with the bid. Failure to submit this Annexure may lead to disqualification.**

Annexure I – Power of Attorney

Sample form of Power of Attorney for signing the Application & Bid

(On INR 100.00 Non judicial Stamp Paper and duly notarized and Stamp)

KNOW ALL MEN BY THESE PRESENTS,

We _____ (name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr. / Ms. (name), _____ son/daughter/wife of and presently residing at _____, who is presently employed with us and holding the position of _____, as our true and lawful attorney (hereinafter referred to as the “Attorney”) to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our application for qualification and submission of our bid for the Project proposed by the M/s _____ (the “Andhra Pradesh State FiberNet Limited”) including but not limited to signing and submission of our bid in connection with RFP No. ----- for supply, installation and maintenance of OLTs released by APSFL, including the Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the APSFL in all matters in connection with or relating to or arising out of our bid for the said Project and/ or upon award thereof to us and/or till the entering into of the Agreement with the APSFL.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

The power of attorney shall be effective from _____ and will continue to be valid binding and unforgettable till the attorney Mr./Ms. _____ ceases to be in the employment of the company unless otherwise withdrawn earlier by the company. This power of attorney will supersede any power of attorney issued earlier prior to the date of execution. In case this Power of Attorney is withdrawn for any reasons, APSFL shall be pre intimated.

IN WITNESS WHEREOFF for and on behalf of M/s _____ Mr./Ms. _____ Managing director of the company has set his hands with company seal on the day of _____ Month of _____ year _____ and at _____.

For _____ (Authorised Signatory of the company)
(Signature, Name, Designation, Address and emblem of the office seal)

- 1.
- 2.

RFP for Supply, Installation and maintenance of OLTs

Accepted (Authorised Signatory of the company)
(Signature in Duplicate, Name, Title and Address of the Attorney)

Witnesses:

1. (Notarized)
- 2.

Notes:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favor of the person executing this Power of Attorney for the delegation of power here-under on behalf of the Bidder.
- In case the Application is signed by an authorized signatory / Partner, a certified copy in the regard should be enclosed in lieu of the Power of Attorney.
- **Submission of this Annexure is mandatory along with the bid. Failure to submit this Annexure may lead to disqualification.**

Annexure J – Board Resolution

Board Resolution (Suggested format)

(To be printed on organization letter head)

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED AT THE MEETING OF THE BOARD OF DIRECTORS of (Company Name) HELD ON (Date) AT (Address)

RESOLVED THAT the company has decided to authorize, Mr. / Ms. to sign and submit all the necessary applications, annexure, and other documents to be submitted by the company in connection with RFP ----- for “RFP for Supply, installation and maintenance of OLTs”. The acts done and documents shall be binding on the company, until the same is withdrawn by giving written notice thereof.

Specimen Signatures of Authorised Signatory:

(Signature)

RESOLVED FURTHER THAT, a copy of the above resolution duly certified as true by designated director/ authorised signatory of the company be furnished to APSFL as may be required from time to time in connection with the above matter.

For the Organization,

(Seal & Signature)

Name:

Designation:

Note:

- **Submission of this Annexure is mandatory along with the bid. Failure to submit this Annexure may lead to disqualification.**

Annexure K – Document Verification Certificate

FORMAT FOR CERTIFICATE TO BE SUBMITTED / UPLOADED BY TENDERER ALONGWITH THE TENDER DOCUMENTS

(On INR 100.00 Non judicial Stamp Paper and duly notarized and stamped)

I _____(Name and designation)** appointed as the attorney/authorize dsignatory of the tendere r(including its constituents), M/s_____ (hereinafter called the tenderer) for the purpose of RFP supply, installation and maintenance of OLTs ” as per the tender No.----- of APSFL, do hereby solemnly affirm and state on the behalf of the tenderer including its constituents as under:

1. I/We the tenderer(s) am/are signing this document after carefully reading the contents.
2. I/Wethetenderer(s)also accept all the conditions of the tender have signed all the pages in confirmation hereof.
3. I/We here by declare thatI /we have downloaded the tender documents from APSFLwebsite<http://apsfl.in/tenders/> or AP procurement website www.apeprocurement.gov.in. I/we have verified the content of the document from the website and there is no addition, no deletion or no alteration to the content of the tender document. In case of any discrepancy noticed at any stage i.e. evaluation of tenders, execution of work or final payment of the contract, the master copy available with the APSFL shall be final and binding uponme/us.
4. I/we declare and certify that I/we have not made any misleading or false representation in the forms,statements and attachments in proof of the qualification requirements.
5. I/We also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
6. I/We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted byus.
7. I/We understand that if the certificates regarding eligibility criteria submitted by us are found to be forged /false or incorrect at any time during process for evaluation oftenders, it shall lead to forfeiture of the tender EMD besides banning of business for a period of up to five year. Further, I/we (*insert name of the tenderer*)** _____and all my/our constituents understand that my/our offer shall be summarilyrejected.
8. I/We also understand that if the certificates submitted by us are found to be false/forged

RFP for Supply, Installation and maintenance of OLTs

or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD and Performance guarantee besides any other action provided in the contract including banning of business for a period of up to five year.

SEAL AND SIGNATURE OF THE TENDERER

Place:

Dated:

Note:

- **Submission of this Annexure is mandatory along with the bid. Failure to submit this Annexure may lead to disqualification.**

Annexure L – Earnest Money Deposit (EMD) Format

(To be executed in Rs.100/- Stamp Paper)

To,
The Managing Director,
Andhra Pradesh State FiberNet Limited,
3rd Floor, NTR Administrative Block,
Pandit Nehru Bus Station,
NH – 65, Vijayawada – 520013

Bank Guarantee No:
Amount of Guarantee:
Guarantee covers from:
Last date for lodgement of claim:

This Guarantee executed by _____ (Banker's Name & Address) having our Head Office at _____ (address) (hereinafter referred to as "Bank") in favour of Andhra Pradesh State FiberNet Limited NTR Administrative Block, 3rd Floor, Pandit Nehru Bus Station, NH -65, Vijayawada – 520013 India (hereinafter referred to as "Beneficiary") for an amount not exceeding Rs. _____/- (Rupees _____ Only) as per the request of M/s. _____ having its office address at _____ (hereinafter referred to as "Bidder") against RFP reference no ----- of M/s. Andhra Pradesh State FiberNet Limited (APSFL). This guarantee is issued subject to the condition that the liability of the Bank under this guarantee is limited to a maximum of Rs. _____/- (Rupees _____ Only) and the guarantee shall remain in full force up to _____ (date) and cannot be invoked otherwise by a written demand or claim by the beneficiary under the Guarantee served on the Bank before _____ (date).

ANDWHEREAS it has been stipulated by you in the said ORDER that the Supplier shall furnish you with a Bank Guarantee by a Scheduled/Nationalized Bank for the sum specified therein as EMD towards bid submission.

ANDWHEREAS we have agreed to give the Bidder a Guarantee.

THEREFORE, we (Bankers address), hereby affirm that we are Guarantors and responsible to you on behalf of the Bidder for Rs. _____/- (Rupees _____ Only) and we undertake to pay you, upon your first written demand without any demur, cavil or argument, any sum or sums within the limit of Rs. _____/- (Rupees _____ Only) as aforesaid, without your needing to prove or show grounds or reasons for your demand or the sum specified therein. We will pay the guaranteed amount notwithstanding any objection or dispute whatsoever raised by the Bidder.

This Guarantee is valid until _____.

Place:

Date:

Signature and seal of Guarantors (Bank)

Commercial Forms

Annexure M – Commercial Proposal Submission Form

Dated:

To
.....
.....
.....
.....
.....

Sir/ Madam,

Subject:“ RFP for Supply, installation and maintenance of OLTs

Reference: RFP No: -----

We, the undersigned SUPPLIER, having read and examined in detail all the RFP in respect of “RFP for Supply, installation and maintenance of OLTs” do hereby propose to provide services as specified in the RFP number -----

1. PRICE ANDVALIDITY

- a. All the prices mentioned in our Bid are in accordance with the terms & conditions as specified in the RFP. The validity of bid is 180 days from the date of opening of theRFP.
- b. We are an Indian Firm and do hereby confirm that our prices excludes all taxes. However, all the taxes are quoted separately under relevant sections and shall be applicable as per actuals.

2. We have studied the laws relating to Indian Income Tax Department and hereby declare that all income tax, surcharge on Income Tax, Professional and any other Corporate Tax, withholding tax as applicable under the law, shall be paid by us.

3. EARNEST MONEY DEPOSIT (EMD)

We have enclosed an EMD for a sum of **Rs. 21,87,500/-(In Words – Rupees Twenty one Lakhs Eighty Seven thousand five hundred Only)**. This EMD is liable to be forfeited in accordance with the provisions of the**Section II - General Instructions to Bidders**.

4. TENDER PRICING

We further confirm that the prices stated in our bid are in accordance with your Instruction to Bidders included in RFP.

5. QUALIFYING DATA

We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our Bid, we agree to furnish the same in time to your satisfaction.

6. BID PRICE

We declare that our Bid Price is for the entire scope of the work as specified in Scope of Work. These prices are indicated in Bid Submission Formats attached with our Financial Bid as part of the Bid Response and the price quoted in the reverse auction, as mentioned in the Clause no: 2.7 of the RFP.

7. CONTRACT PERFORMANCE GUARANTEE BOND

We hereby declare that in case the Contract is awarded to us, we shall submit the Bank Guarantee for Contract performance in the prescribed format given in RFP.

We hereby declare that our Bidis made in good faith, without collusion or fraud and the information contained in the Bidis true and correct to the best of our knowledge and belief. We understand that our Bid is binding on us and that you are not bound to accept a Bid you receive.

We confirm that no deviations are attached here with this financial offer.

Thanking you,

Yours faithfully,

(Signature of the SUPPLIER)

Printed Name
Designation Seal.

Date:

Place:

Business Address:

Witness:
Signature -----
Name -----
Address -----
Date -----

Supplier:
Signature -----
Name -----
Designation -----
Company Seal-----
Date -----

Annexure N – Commercial Bid Cost Components

Price Bid for RFP for Supply, installation and maintenance of OLTs.

S.No.	Description	Unit cost (Rs.)	Qty	Total Cost
1	GPON OLTs		500	
Total cost (in words)				

Note:

- a. Prices in Financial Bid should be quoted in the provided format.
- b. All prices should be quoted in Indian Rupees and indicated in both figures and words.
- c. In case there is discrepancy between words and figures, the amount in words shall prevail.
- d. APSFL reserves the right to reject the bid, which are not submitted in the prescribed format

Instructions to fill the Financial Bid:

- a. Bidder should provide all prices as per the prescribed format under this Annexure. Bidder should not leave any field blank.
- b. All the prices are to be entered in Indian Rupees ONLY (%age values are not allowed).
- c. All the prices quoted in the Financial Bids shall be exclusive of applicable taxes and levies.
- d. APSFL reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated.
- e. For the purpose of evaluation of Financial Bids the APSFL shall make appropriate assumptions to arrive at a common bid price for all the Bidders. This however shall have no co-relation with the Contract value or actual payment to be made to the Bidder.
- f. The soft copy of the financial bid should be uploaded online. The financial bid formats shall be provided in company's letter of the lead bidder duly signed and stamped

Annexure – O

The bidder has to specify the following:

Date:

Product Version:

Manufacturer:

Purpose: Commercial / Enterprise

S.No	Test case	Remarks
	Infrastructure	
1	Checking of input power supply(AC) with voltage loss	
2	Checking of input power supply(DC) with voltage loss	
3	Checking of proper earthing of the equipment room	
4	Checking of proper cooling of the equipment room	
5	Checking of proper room room protection from environmental factors and proper security	
6	Two Power cards are available in ZTE OLT both Source A and source B supporting only DC power supply	
	Instalaltion	
7	OLT and supported elements installation with proper screwing as per site plan	
8	Power cable terminations with standard lugs and insulated tape	
9	OLT and supporting nodes earthing	
10	Checking of proper cable routings(Power, DATA-Optical and ethernet)	
11	Standard labeligs for OLT, supported nodes and all cable terminations as per APSFL standards	
12	Antistatic wrist wrap installation for each OLT and placing of torubleshooting(Console, ethernet) cables at each olt location	
13	Connectivity diagram,Manuals and troubleshooting documents need keep at OLT location	
	Equipment	
14	Verfication input power supply(DC) and there should not be any deviations as per the standards	
15	Voltage loss should be less than 1v between power source and at OLT input power termination	
16	checking of self cooling by FAN modules(All fans should work in if fan module have more that 1 fan)	
17	All un used SFP's should be closed with proper CAP's to dust into the equipment	
18	Checking the functionality of all PON ports, Uplink ports(GE,FE ports), FAN's, power modules,SFP modules	

RFP for Supply, Installation and maintenance of OLTs

19	Input power source ,Power modules and fan modules redundancy need to be checked	
20	MCB load test need be checked	
21	Services should not be interrupted/ QOS should not be degraded due to OLT temprature/any other issues(i.e The necessary cooling mechanisms need to be implemented as per field conditions of the network APSFL.	
22	PON redundancy need be checked with service(i.e services should not be interrupted and should shift automatically other standby pon)	
23	The OLT version/operationg system/applications need to be recovered in case if any software/hardware currepted	
24	All types of OLT's need to be tested with full load as per project(The services and Qos should not be degraded)	
25	All types OLTmodels should support both B+ and C+ PON modules	
26	Equipment should support OTA Features	
	Functionailty	
26	Testing of HSI services with all vendor nodes and ONU	
27	Testing of IP TV services with all vendor nodes and ONU	
28	Testing of Telephone	
29	Interoperability with multivender nodes,supporting modules(including SFP) and network elements and test results need be submitted	
30	Testing of HSI at each GP and mandal location as per APSFL requirement(1Gig/10Gig UP & Down)	
31	OLT and it's functionality,services need to be tested in cascading with multivendor equipments(OLT's, routers, etc)	
32	Each PON port should support 1:128 split ratio and services should not be disturbed with 72 hrs in full usage	
33	OLT should support all topologies	
34	OLT and supporting nodes(including INAS/other etc) should supported IPv4/IPv6 and need to be tested	
35	OLT Dyamic bandwidth allocation polocies need to verified with full load services(tripple play and HSI , etc)	
36	OLT should support all kinds packages and profiles with services as per APSFL requirement	

RFP for Supply, Installation and maintenance of OLTs

37	All present and upcoming OLT's, EMS/NMS, should support provisioning functionality of APSFL BSS including all packages and profiles , billing and reporting	
38	OLT and ONT's should be tested with Status Reporting DBA (SR-DBA) and Non-Status Reporting DBA (NSR-DBA)	
39	OLT and Ont's should handle burst traffic without lossing of quality of services	
40	The equipment should comply and should satisfy with ITUT standards, TRAI,GOVT guidelines and APSFL unified lincenses and upcoming licenses without additional costs to the APSFL	
41	All OLT's should support standard secured version/operating system without violating security standards(i.e India and global)	
42	The EMS/NMS should run in active and standby mode(Inlcuding databases,alarm monitoring, performance reporting, user access for all network nodes without losing connectivity)	
43	ALL kind of network fucntionalites should be tested(Including MPLS P2P,L2 VPN, L3 VPN)	
44	EMS/NMS and OLT's should support all kinds of backup and restore functionality without depending on version or other aspects. And the functionality should work without any data,services effects,quality issues	
45	Equipment should support ZTC Zero touch functionality	
	Software and Hardware	
46	EMS/NMS should support multivendor operating systems and databases over NFV/standard hardware servers without depending on hardware version specific	
47	EMS/NMS should support all kinds of FCAPS(Fault, configuration, accounting, performance, security) and multiple users, multiuser logins	
48	The solution should not be under control of any version specific and any present/required/upcming features/futures updrades(including software/hardware) should not be any additional costs to the APSFL	
49	All copies of software with manuals(hard and softcopy) should be provided to the APSFL	

RFP for Supply, Installation and maintenance of OLTs

50	All softwares/hardware should be licensed(i.e should not be any Freeware/community license)	
51	Licensed(Lifetime-corporate version) Antivirus need to be installed, tested and should be regular updates should be happen without additional costs to APSFL	
52	All the OLT's should be displayed in the EMS/NMS in the topology view for each specific district and all together as per User rights	
53	The solution should not be under control of any version specific and any present/required/upcoming features/futures upgrades(including software/hardware) should not be any additional costs to the APSFL.	
54	The EMS/NMS should support and SMS and email alerts for all kinds events(APSFL)	
55	Mobile Application Lo New CAF Loading & CAF Suspension & Resume	
	DASH board	
56	EMS/NMS and all the OLT's need to be ingrated with BSS dashboard and APSFL central NOC dashboard as per APSFL standards	
57	All the events need to be updated in BSS dashboard and APSFL central NOC dashboard	
58	There should not be any delays while any event updation in the dashboard	
59	The future updates/migrations need to be done without any additional costs to the APSFL.	
	APSFL packages and profiles testing	
59	ILL services also need be supported from OLT 1G/10G port directly to the customer	
60	APSFL Services: Mentioned in APSFL services tab	
61	APSFL Uplink and downling: Mentioned in APSFL download speeds and uplink speeds	
62	Addons services: Box PON change,Box exchange, Box/service terminate, Bulk suspension, Package plan chnage,IPTV packages and channels add/modify/delete, VOD, fax	
	Negative Test Cases	
	Test cases Services Restore time	
63	OLT Uplink Down (Services restored after 5 sec)	
64	MPLS Router UpLink (Services restored after 6 sec)	

RFP for Supply, Installation and maintenance of OLTs

65	OLT PON link removed physically (Services restored after 15 sec)	
66	OLT PON Link through EMS (Services restarted after 28 sec)	
67	OLT Reboot time (2min 37sec)	
68	Fiber Twist (Services restored after 6 sec)	
69	Optical power -28db (Services are running)	
70	Power cords(2) (working)	
71	OLT cold restart (2min 21sec)	
72	Optical power -31db (Services are running)	
73	ONU patch cord (Services restored after 40 sec)	

7.2 Other Forms and Formats

Annexure P – Performance Bank Guarantee Format

(To be submitted by the successful bidder on Rs.100/- stamp paper)

In consideration of APSFL (“Authority”), having agreed to accept from _____ “successful bidder”, a Performance Bank Guarantee as maybe modified from time to time wherever necessary under the terms and conditions of the Agreement entered into by the said successful bidder in respect of work for execution of Underground Optical Fiber at Selected Locations of Government Offices / Institutions / Organizations on Rate Contract, RFP No. -----under APSFL for the due fulfilment of the terms and conditions of the said Agreement under APSFL, on production of a Bank Guarantee for Rs.__(Rupees _____ only),we _____ “Bank” _____ branch, hereby undertake the guarantee to pay immediately to APSFL, on demand in writing by APSFL, an amount of Rs. _____ (Rupees _____) without any reservation and recourse against any loss or damage caused to or suffered by APSFL by reason of any breach by the successful bidder of any of the terms and conditions of the said agreement under the said Authority. We _____ Bank, further agree that the guarantee hereby contained shall remain in full force and effect during the period that will be taken for the performance of the said Agreement under the APSFL and that it shall be in enforcement until all the dues of APSFL under or by virtue of the said Agreement under the APSFL have been fully paid and their claims satisfied or discharged or until the said Authority certifies that the terms and conditions of the said Agreement under the APSFL have been fully and properly carried out by the successful bidder and accordingly discharges the guarantee subject. This bank guarantee is valid until _____ (date) and APSFL shall have no rights under this guarantee after _____ (date).

We _____ Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the APSFL in writing.

Dated _____ day of _____ 2022.

Place:

Date: Signature and seal of Guarantors (Bank)

Annexure Q – Draft Contract Format

THIS AGREEMENT made the _____ day of _____ 20XX

BETWEEN

The **APSFL** (hereinafter referred to as “the Purchaser”) which expression shall unless repugnant to the context or meaning thereof mean and be deemed to include its authorized agents, representatives and permitted assigns of the First Part.

AND

The Party _____ (hereinafter referred to as “the SUPPLIER”) which expression shall unless repugnant to the context or meaning thereof mean and be deemed to include their successors and permitted assigns having its registered office at _____ of the Second Part.

WHEREAS

The Purchaser had invited Bids vide their Tender _____ (hereinafter referred to as “RFP”) for “Selection of agency for execution of Underground Optical Fiber at Selected Locations of Government Offices / Institutions / Organizations on Rate Contract”.

- (a) The SUPPLIER had submitted its proposal dated _____ (hereinafter referred to as the ‘Bid’) for the provision of such services in accordance with its proposal as set out in its Bid and in accordance with the terms & conditions of the RFP and this Contract.
- (b) The Purchaser has agreed to select the SUPPLIER for the provision of such services and the SUPPLIER has agreed to provide services as are represented in the RFP, including the terms & conditions of this Contract, the Schedules and Annexure attached hereto and in accordance with the terms & conditions of the RFP and in terms of the discussions, negotiations and clarifications in relation to the implementation of the scope of work
- (c) In consideration of the foregoing and the mutual covenants and promises contained herein and other good and valuable consideration the receipt and adequacy of which is hereby acknowledged, the parties intending to be bound legally.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- (d) In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of the Contract referred to.
- (e) The following documents shall be deemed to form and be read and construed as part of this Agreement viz:
 - i. the Scope of Work
 - ii. the General Conditions of the Contract

RFP for Supply, Installation and maintenance of OLTs

- iii. Approach Paper on methodology and work plan for performing the assignment
 - iv. Copy of RFP, financial proposal as submitted by the SUPPLIER and as amended pursuant to the post bid negotiations
 - v. Format of bank guarantee for Performance Security.
 - vi. the Service Level Agreement (SLA)
 - vii. the Purchaser's Notification of Award.
- (f) In consideration of the payments to be made by the Purchaser to the SUPPLIER as hereinafter mentioned, the SUPPLIER hereby covenants with the Purchaser to provide the Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
- (g) The Purchaser hereby covenants to pay the SUPPLIER in consideration of the provision of the Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written

Signed, Sealed and Delivered by the said _____ (For the Purchaser in the presence of: _____ (WITNESS)

Signed, Sealed and Delivered by the said _____ (For the Bidder) in the presence of: _____ (WITNESS)

Annexure R: Manufacturer Authorization Form

To

The Managing Director,

Andhra Pradesh State FiberNet

Limited, 3rd Floor, NTR

Administrative Block,

Pandit Nehru Bus Station, NH – 65, Vijayawada – 520013

Sir,

We hereby authorize M/s to undertake to submit a Bid, and subsequently negotiate & sign the contract with APSFL for the Tender No: for product manufactured by us. We hereby extend our full warranty for the goods offered for supply by the above firm against this tender.

We also undertake to provide timely supplies as per terms of tender and as agreed mutually and also to provide a trouble free and continuous support either directly or through our authorized distributors/dealers under our supervision during the said support period.

(Signature of authorized Personnel)

Note: Competent authority of the Manufacturer should issue the letter of authority individually for each bidder separately.

RFP for Supply, Installation and maintenance of OLTs

Annexure S – Pre-Bid Queries Format

All enquiries from the Bidders relating to this RFP must be submitted to the Managing Director, APSFL. These queries should be e-mailed to apsfl@ap.gov.in. The queries should necessarily be submitted in the following Format:

S. No.	Section No.	Page no.	Content of the RFP requiring clarification	Clarification Sought

9. Penalties and Payment Schedule

9.1 Service Level Agreements

Service Level Agreement (SLA)

The selected vendor (s) has to maintain the equipment that are commissioned and provide warranty period of five (5) years from the date of commissioning as per the terms & conditions in the tender and to meet the SLA as stated below: The SLA will be calculated on quarterly basis and the SLA parameters are as given below:

Specification of Severity Levels and Penalties during the business hours (08:00 hrs to 17:00 hrs). The time will be calculated from the time the problem is reported by the helpdesk of NOC of AP Fiber grid /from the time Equipment are handed over at the service centre.

- i. The average downtime (fault restoration time) of faulty Equipment will be taken as reference for define the severity level and the penalty.
- ii. The Equipment failures, which results in non-availability of services/interruption of services/performance issues, will be treated as down time and the same will be calculated for all the faulty Equipment and if the downtime is within 6 Hours, the failures shall be treated as Severity Level 1.
- iii. The Equipment failures, which results in non-availability of services/interruption of services/performance issues, will be treated as down time and the same will be calculated for all the faulty Equipment and if the average down is beyond 6 Hours and within 12 hours, the failures shall be treated as Severity Level 2
- iv. The Equipment failures, which results in non-availability of services/interruption of services/performance issues, will be treated as down time and the same will be calculated for all the faulty Equipment and if the average down is beyond 12 hours and within 24 hours, the failures shall be treated as Severity Level 3
- v. The Equipment failures, which results in non-availability of services/interruption of services/performance issues, will be treated as downtime and the same will be calculated for all the faulty Equipment and if the average down is beyond 24 hours, the failures shall be treated as Severity Level 4.
- vi. Partial restoration of failures resulting in deteriorated functioning of the system shall not be treated as rectification, under any circumstances and the down time till the proper restoration of failure shall be counted in full.
- vii. The SLA will be calculated on quarterly basis and the SLA parameters are as given below: The penalties to be imposed for the restoration of different

RFP for Supply, Installation and maintenance of OLTs

severity levels of faults are defined below.

Severity Level	MTTR	Calls closure Target (measured quarterly)	Penalty
Level 1	Up to 6 Hours	>95%	1 % of cost of Equipment (number of unresolved tickets – 5% of total tickets reported in the time period)
Level 2	Beyond 6 hours & Up to 12 hours (98% of the tickets raised)	>98%	1.5% of cost of Equipment (number of unresolved tickets – 2 % of total tickets reported in the time period)
Level 3	Beyond 12 hours and up to 24 hours	>99.99%	2 % of cost of Equipment (number of unresolved tickets – 1 % of total tickets reported in the time period)
Level 4	Beyond 24 hours		Replacement of the equipment

For the purpose of calculating SLA, the following faults or outage hours shall be excluded:

- i. Periods where the APSFL/customer is inaccessible to confirm the status of the system after fault clearance by the vendor.
- ii. Periods where the failure of any components or equipment belonging to APSFL/Customer.
- iii. The time lost in attending to a complaint due to delay in entering APSFL's/customer's premises shall not be considered as a down time The SLA document will be reviewed for any changes/amendments that are deemed necessary by APSFL during the warranty period.

9.2 Project Milestone

Milestone	Activity Description	Timelines
	Signing of Contract	T
Milestone - 1	Supply of 166Nos of OLTs	T+20 Days
Milestone - 2	Supply of 166Nos of OLTs	T+40Days
Milestone - 3	Supply of 168Nos of OLTs	T+ 60Days

9.3 Payment Terms

- The successful bidder shall be entitled to raise invoices (along with all supporting documents), as per below stated milestones. APSFL shall release payments against all valid invoices, subject however to satisfactory acceptance of the deliverables as per the scope of work.
- APSFL shall release 80% payment against each milestone after successful delivery, submission of Acceptance test report, Handedover certificate, certification from Authority and all related documents.
- APSFL shall release remaining 20% payment after the completion of warranty period or on submission of equalant amount of Bank guarantees valid for the entite warranty peiod.

Note:

- a. All payments shall be released after certification of delivery, installation and acceptance testas per the Deliveables
- b. All payments shall be made in Indian rupees only(INR).
- c. Payment shall be released against the invoices raised by supplier on providing all relevant documents timely, including acceptance testing report duly signed and approved by APSFL / APSFL authorized agency / or its nominated representativeand are complete in all respect and subsequentapproval.
- d. Payment shall be subject to deductions of any amount for which the supplier is liable under the RFP conditions. Further, all payments shall be made subject to deduction of applicable taxes and other Government levies likeTDS (Tax Deduction at Source)and etc., as per the current Income-TaxAct.
- e. All payments shall be released only after deducting the all SLA Penalties as applicable.

RFP for Supply, Installation and maintenance of OLTs

9.4 Penalty

The following penalties shall be imposed on the supplier if the supplier does not adhere to the timelines as mentioned in the RFP.

S. N	Description	Penalties
1.	Delay in supply and delivery of materials as per Milestone (M1)	10% of the cost of undelivered material as per M1 for delay beyond the milestone timelines
2.	Delay in supply and delivery of materials as per Milestone (M2)	10% of the cost of undelivered material as per M1 & M2 for delay beyond the milestone timelines
3.	Delay in supply and delivery of materials as per Milestone (M3)	10% of the cost of undelivered material as per M1,M2 &M3 for delay beyond the milestone timelines

9.5 9.9 Deliverables

- I.Original Tax invoice
- II.Signed delivery challan
- III.Acceptance test report from Technical section
- IV.Handed over certificate from Warehouse manager
- V.Certification from Authority.
- VI.Warranty cards
- VII.Bank Garuantee (if applicable)