



Request for Open Competitive Bid (OCB)
for
Selection of System Integrator for establishment of
Command & Control Centre, Sub Command Centres
including Web Applications Development for the
Director General AP State Disaster Response & Fire
Services Department, GoAP, Vijayawada

Tender Ref. No. ITC51-15021/1/2026-PROC-APTS, Dt. 19-01-2026

Issued by
ANDHRA PRADESH TECHNOLOGY SERVICES LIMITED
(Government of AP Undertaking)

(CERT-In Empanelled and ISO 9001:2015, ISO 27001:2013 Certified)
3rd Floor, R&B Building, Opp. Indira Gandhi Municipal Stadium,
MG Road, Labbipet, Vijayawada-520010, Andhra Pradesh, India.
Ph.0866-2468102 | md_apts@ap.gov.in | <https://www.aps.gov.in>

Disclaimer

The information contained in this Request for Proposal (“RFP / Bid Document”) or information provided subsequently to bidder(s) or applicants whether verbally or in documentary form by or on behalf of A.P. Technology Services Limited (“APTS”), is provided to the bidder(s) on the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided.

This RFP document is not an agreement and is neither an offer. The purpose of this RFP is to provide applicants who are qualified to submit the bids (“Bidders”) with information to assist them in formulation of their proposals (“Bids”). This RFP does not claim to contain all the information each Bidder may require. Each Bidder may conduct its own independent investigations and analysis and is free to check the accuracy, reliability and completeness of the information in this RFP. APTS makes no representation or warranty, express or implied, and shall incur no liability whatsoever under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFP. APTS may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this RFP.

The information contained in the RFP document is selective and is subject to update, expansion, revision and amendment. APTS does not undertake to provide any Bidder with access to any additional information or to update the information in this RFP or to correct any inaccuracies therein, which may become apparent. APTS reserves the right of discretion to change, modify, add to or alter any or all of the provisions of this RFP and/or the bidding process, without assigning any reasons whatsoever. Such change will be intimated or made accessible to all Bidders. Any information contained in this document will be superseded by any later written information on the same subject made available/accessible to all recipients by APTS.

APTS reserves the right to reject any or all the responses to RFPs / Bids received in response to this RFP at any stage without assigning any reason whatsoever and without being liable for any loss/injury that Bidder might suffer due to such reason. The decision of APTS shall be final, conclusive and binding on all the parties directly or indirectly connected with the bidding process.

No part of this document can be reproduced in any form or by any means, disclosed or distributed to any person without the prior consent of APTS except to the extent required for submitting bid and no more.

Contents

Section A – Schedule of Requirements.....	7
A.1. Introduction.....	7
A.2. Procurement Description	7
A.3. Bid Data Sheet:	7
Section B – Eligibility Criteria	10
B.1. Pre-qualification Criteria.....	10
B.2. Technical Evaluation Criteria	12
B.3. Evaluation of Financial Proposal.....	15
B.4. Final Evaluation of Bids using QCBS (Quality cum Cost Based Selection).....	16
Section C – Instructions for online bid submission:.....	17
C.1. Transaction Fee.....	17
C.2. Corpus Fund:.....	17
C.3. Procedure for bid submission	17
C.4. Other Conditions.....	18
Section D – Scope of Work and Technical Requirements.....	19
D.1. Introduction:.....	19
D.2. Project overview:.....	20
D.3. Major Components of the Project:.....	21
D.4. GIS based GPS tracking system:.....	22
D.5. Computer Aided Call Dispatch System:	22
D.6. Android/iOS based Mobile application for 101.....	25
D.7. Tablets in Vehicle with Screen protector and Rugged case:	26
D.8. GPS tracking device:	27
D.9. Web Application with dashboard for live monitoring of GPS devices:	29
D.10. Body Worn Cameras with Docking Station:	30
D.11. Licensed GIS Maps:.....	30
D.12. Application Server and Database Server:	31
D.13. Command Control Centre Hall:	32
D.14. Video Conferencing Facility:.....	32
D.15. Sub Command Centres:	33
D.16. General Conditions:	33
D.17. Detailed Specifications:	34
Section E – Instructions to Bidders	70
E.1. Definitions:	70
E.1. General:.....	72
E.2. Compliant Tenders / Completeness of Response	72
E.3. Compliance of Restrictions under Rule 144 (xi) of GFR 2017:	72
E.4. Code of integrity	74
E.5. Pre-Bid Meeting & Clarifications.....	75
E.6. Responses to Pre-Bid Queries and Issue of Corrigendum/Amendment.....	75
E.7. Right to Terminate the Process.....	76
E.8. RFP Document Fees	76
E.9. Earnest Money Deposit (EMD)/Bid Security.....	76
E.10. Bidding Procedure:.....	77

E.11. General Eligibility	77
E.12. Preferential Market Access Policy:.....	77
E.13. Authentication of Bids	78
E.14. Bid forms	78
E.15. Cost of bidding	78
E.16. Language	78
E.17. Venue & Deadline for Submission of bids.....	78
E.18. Late bids	78
E.19. Period of validity of bids	79
E.20. Modification and withdrawal of bids	79
E.21. General Business information:.....	79
E.22. Preparation of Pre-qualification bid:	79
E.23. Preparation of Technical Bid:	80
E.24. Preparation of Financial Bid:.....	80
E.25. Bid evaluation procedure:.....	81
E.26. Opening of bids:	82
E.27. Preliminary examination of Bids	82
E.28. EMD Validity:.....	83
E.29. Bid validity:.....	83
E.30. Seeking Clarifications on received bids.....	83
E.31. Evaluation of Pre-qualification bids:	84
E.32. Evaluation of Technical bids:.....	84
E.33. Evaluation of financial bids	84
E.34. Performance and productivity of the equipment	85
E.35. Contacting Purchaser	85
E.36. Purchaser's right to vary quantities at time of award	85
E.37. Purchaser ' right to accept any bid and to reject any or all bids.	85
E.38. Negotiation	85
E.39. Award Criterion:.....	85
E.40. Order Placing Authority	85
E.41. Notification of award	86
E.42. Performance security	86
E.43. Signing of contract	87
E.44. Corrupt, fraudulent and unethical practices.....	87
E.45. Conflict of Interest	89
Section F – General Conditions of Proposed Contract (GCC)	90
F.1. Application	90
F.2. Standards	90
F.3. Use of documents and information	90
F.4. User license and patent rights	90
F.5. Performance security	90
F.6. Manuals and drawings	91
F.7. Inspection and acceptance tests.....	91
F.8. Acceptance certificates	92
F.9. Packing	92
F. 10. Delivery and Installation period:.....	93
F.11. Delivery and documents	93

F.12. Insurance	94
F.13. Transportation	94
F.14. Hardware Installation	94
F.15. Incidental services	94
F.16. Spare parts	94
F.19. Warranty	95
F.20. Maintenance service	95
F.19. Payment	96
F.20. Prices	96
F.21. Change orders	96
F.22. Contract amendment	96
F.23. Assignment	97
F.24. Subcontracts	97
F.25. Delays in the supplier's performance	97
F.26. Liquidated damages	97
F.27. Taxes and duties	97
F.28. Licensing considerations	97
F.29. Protection against damages- site conditions:	97
F.30. Fail-safe procedure	98
F.31. Training:	98
F.32. Site Preparation and Installation:	98
F.33. Governing language	98
F.34. Applicable law	98
F.35. Notices	98
F.36. Termination for default	99
F.37. Force majeure	99
F.38. Termination for insolvency	99
F.39. Termination for convenience	99
F.40. Resolution of disputes	100
Section G – Special Conditions of Proposed Contract (SCC)	101
G.1. Delivery and Installation period:	101
G.2. LD for late deliveries/installations:	101
G.3. Maximum LD for late deliveries/ installation:	101
G.4. Service Level Requirements	101
G.5. Penalty for failure to maintain during warranty period for all items:	101
G.6. Payment Terms and Conditions	102
Section H – Annexures	104
Annexure I : Model Contract Form	104
Annexure II – Bid Security (EMD) BG Form	107
Annexure III – Performance Security BG Form	108
Annexure IV – Model Installation cum AT Report	109
Section I – Bid Forms	110
Bid Letter Form	110
Form P-1 - Bidder Information	111
Form P-2 – Bidder Turnover Details	112
Form P-3 - List of Major Customers	112

Form P-4 - Details of service centers in AP	112
Form P-5 - Declaration Regarding Clean Track Record	113
Form P6 – Undertaking in compliance with GFR Rule 144(xi)	114
Form P7 – Manufacturer’s Authorization Form.....	115
Form T 1 – Technical Compliance Statement	116
Form T 2 - Checklist.....	117
Form T3 – Model declaration form for undertaking of authenticity for IT Hardware Supplies	118
Cost Sheets - Form F1	119

Section A – Schedule of Requirements

A.1. Introduction

1. This tender call is issued on e-procurement market place at www.apecprocurement.gov.in. All the terms and conditions are to be read jointly as mentioned in the e-procurement market website and in this document.
2. APTS invites responses (“Tenders”) to this Request for Proposals (“RFP”) from OEMs Agencies/authorized Partners (“Bidders”) for the provision of Hardware as described in Section D of this RFP, “Scope of Work” (“Hardware supply”). APTS is the Purchaser for this Government procurement competition (“the Purchaser”).
3. Any contract that may result from this RFP Process will be issued for a term of <as per bid data sheet> (“the Term”) which would include the hardware supply, warranty and maintenance support.
4. The Purchaser reserves the right to extend the warranty and maintenance support term for a period or periods of up to <as per bid data sheet> with a maximum of <as per bid data sheet> such extension or extensions on the same terms and conditions, subject to the <Purchaser’s> obligations at law.
5. Proposals must be received not later than time, date and venue mentioned in the Bid Data Sheet. Proposals that are received after the deadline WILL NOT be considered in this procurement process.

A.2. Procurement Description

1. APTS on behalf of the Director General, APSDRFS Department, GoAP, Vijayawada invites bids from the interested parties for establishment of Command & Control Centre, Sub Command Centres including Web Applications Development for the Director General AP State Disaster Response & Fire Services Department, GoAP, Vijayawada.
2. The detailed scope of work and technical requirements are covered in Section -D.

A.3. Bid Data Sheet:

1.	Tender Reference No.	ITC51-15021/1/2026-PROC-APTS, Dt. 19-01-2026
2.	Tender Title	Establishment of Command & Control Centre, Sub Command Centres including Web Applications Development for the Director General AP State Disaster Response & Fire Services Department, GoAP, Vijayawada
3.	APTS contact person for all tender related queries	Sri K. Shyam Sunder Mobile: 9963029402 email: shyamsunder.k@gov.in
4.	User Department Name	A.P. State Disaster Response & Fire Services Department (APSDRFS), GoAP

5.	User Department Contact Person	T. Uday Kumar, Additional Director - Admin A.P. State Disaster Response and Fire Services Department, Vijayawada Mobile: +91 9154309830 Email: adfs.apfire@gmail.com
6.	Eligibility Criteria	As per Section B
7.	No. of Schedules	1
8.	Schedule wise Items and Quantity Details	Please refer Section D
9.	Technical Specifications	Please refer Section D
10.	Delivery/Installation Period permitted	Please refer Clause G.1.
11.	Bid calling date	19-01-2026
12.	Bid documents downloadable from	19-01-2026, 5PM
13.	Pre-bid Meeting Date and Time	23-01-2026, 12.30 PM
14.	Bid closing date/time	02-02-2026, 3.00 PM
15.	Pre-qualification bid opening date & time	02-02-2026, 3.30 PM
16.	Technical bid opening date and time	Will be intimated to pre-qualified bidders
17.	Commercial bid opening date and time	Will be intimated to technically qualified bidders.
18.	Evaluation Method	Schedule wise including taxes
19.	Selection criteria	Quality Cum Cost Based Selection (QCBS): 70:30
20.	Bid document can be downloaded from:	1. https://apts.gov.in/tenders.aspx 2. https://tender.apecurement.gov.in/login.html#
21.	Bid Document Fee	Rs.10,000/- to be paid through online through AP e-Procurement portal
22.	Mode of bid submission	Online
23.	Sample Items of offered devices	Not Applicable
24.	Address for submission of bids	Online: https://tender.apecurement.gov.in/login.html#
25.	Earnest Money Deposit (EMD)	Rs. 20,00,000/- (Rs. Twenty Lakhs only)
26.	Acceptable EMD Payment Modes	Challan/BG/Online Payment through AP Eprocurement Portal. Scanned copy of EMD document should be uploaded on e-Procurement website. The Original EMD should be submitted to APTS before 5 PM of next working day after bid closing day.
27.	EMD validity period	135 days from the bid opening date.
28.	Bid validity period	90 days from the bid opening date.

29.	Acceptable Banks for EMD BG/PBGs	Any Scheduled / Nationalized bank with atleast one branch in Vijayawada.
30.	EMD BG in favor of	The Managing Director, A.P. Technology Services Limited, Vijayawada
31.	Contract period	The contract period, from the date of signing of the agreement, includes 3 Years Warranty period. The contract may be extended for a further period of one year on mutually agreed terms & conditions.
32.	Contract signing authority	The Director General, A.P. State Disaster Response & Fire Services Department (APSDRFS), GoAP
33.	Contract signing time	Within 10 days from the date of receipt of Notification of Award (NoA)
34.	Warranty & AMC Period	Please refer Section D
35.	Variation in quantities	+/- 25%
36.	Period for furnishing performance security	Within 7 days from date of receipt of Notification of Award for the respective schedules.
37.	Performance Security Value	Successful bidder has to submit PBG for an amount of 10% of the Contract value in favor of “The Managing Director, A.P. Technology Services Limited” from any Nationalized / Scheduled Bank before signing of the contract.
38.	Performance security validity period	60 days beyond end of Warranty/AMC period.
39.	PBG in favor of	The Contract signing authority
40.	Payment, LD, SLA & Other Terms	Please refer Section G
41.	Conditional bids	Not acceptable and liable for rejection.

Section B – Eligibility Criteria

B.1. Pre-qualification Criteria

SN O	Parameter	Criteria	Supporting documents to submit
1.	Eligible Bidders	• Manufacturer or • Authorized representative of a manufacturer • and should be in business of manufacture and or supply and maintenance of the IT/Electronic/IT related equipment's for a minimum period of three (3) years in India as on bid calling date.	• Copy of Certificate of Incorporation • Copy of GST Registration • Copy of PAN
2.	AP GST Registration	• Bidder should have at least one office with GST Registration in any of the 26 districts of AP. • Billing/Invoice should be done from offices located in AP only. • In case, Bidder does not have office in AP as on bid submission date, should submit an undertaking in Pre-qualification bid, to open the office in AP and register for AP GST. • All Invoices should be raised with APGST Number only.	Copy of AP GST Registration Certificate or Undertaking to open office in AP with GST Registration to be submitted.
3.	Manufacturer's Authorization Form	The Bidder should submit the Manufacturer's Authorization Form (MAF) for the offered products / items as mentioned in the Technical specifications as per the format provided in Form P7, specific to this tender issued by OEM authorizing the bidder to submit the bid for tendering which is deemed as an agreement in between the bidder, OEM & Client for the support and spares till the warranty period.	Manufacturer's Authorization Form as per format provided in this document. In case of Manufacturer, self declaration to be submitted.
4.	Service Centre Requirements	The Bidder/OEM should have Service Support for the offered Products as mentioned in the Technical specifications in the state of Andhra Pradesh as on bid submission date.	The details are to be provided in Form P-4.

			In case Bidder/OEM does not have the service support as on bid submission date, bidder/OEM should give an undertaking in PQ bid to open the service centers as specified above and should submit the Service Centers / Franchise service center details before the due date of Delivery in case the contract is awarded. Failing which the Purchaser may forfeit the PBG and cancel the contract.
5.	Financial Turnover Criteria (IT/ITeS Segment)	The Bidder should have a minimum annual average turnover of Rs. 20,00,00,000/- (Rs. Twenty Crore only) in IT/ITeS Segment in the last three financial years i.e. 2022-23, 2023-24 & 2024-25 as below:	Audited Report/Certificate to be submitted. (Certificate from CA with UDIN is acceptable)
6.	Positive Net Worth:	The bidder should have positive net worth as on 31-03-2025.	Auditor Certificate to be submitted.
7.	Compliance	The bidder shall comply with all technical requirements and submit a duly filled Form T-1 indicating Compliance (Yes/No) with make, model, tender specifications and offered specifications, along with reference documents as proof of compliance	Required data sheets to be uploaded with the Technical Bid
8.	Project Experience Criteria 1	Bidder must have successfully completed IT/ITeS projects with Government (Central/State/PSUs/Government Company) in last 5 years from the date of bid submission as below: - Atleast One Project valuing not less than INR 10 Crores. - OR - Atleast Two Projects each valuing not less than INR 7.5 Crores.	Purchase Orders along with Completion Certificates from the client to be submitted
9.	Project Experience Criteria 2	The Bidder should have completed in implementation of Integrated Command Control Center (ICCC) with Central	Purchase orders along with work completion

		government / State Government or PSU related as per below criteria in the last five financial years from the date of bid submission	certificates from the client to be submitted
10.	Clean Track Record	The bidder should submit/give declaration stating that they are not debarred/blacklisted by any State Government, Central Government, Central & State Govt. Undertakings/enterprises/Organizations and by any other Quasi Government bodies/Organizations in India for non-satisfactory performance, corrupt & Fraudulent or any other unethical business practices in Form P5. If the bidder is debarred/ blacklisted as mentioned above, such bidder becomes ineligible to participate in the bidding process. In-case of any concealing of information relating to blacklisting or pending of cases as mentioned above or submission of fake information/fake documents, APTS reserves the right to cancel the work order/contract allotted, apart from forfeiting APTS reserves the right further to take penal action on the bidder.	

Note:

1. Consortium bids not permitted.
2. Relevant documents in support of above eligibility criteria should be furnished.
3. Please refer Clause No.E.3. Regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

B.2. Technical Evaluation Criteria

1. Bidders who meet the pre-qualifications / eligibility requirements would be considered as qualified to move to the next stage of Technical and Financial evaluations.

2. After pre-qualification stage bids shall be technically evaluated as per below criteria. Bidders need to submit the requisite supporting documentation to secure marks.
3. The bidder shall submit a duly authorized Manufacturer's Authorization Form (MAF), specifying the tender reference number and strictly in the prescribed format. The MAF shall be treated as a binding assurance between the Manufacturer, the Bidder, and the End User and shall be mandatory for project execution, completion, and future contractual obligations. Non-submission or submission of an MAF not conforming to the tender requirements shall render the bid non-responsive and liable for rejection.

S. No.	Technical Evaluation Criteria	Maximum Marks
<u>TQ1.0</u>	<u>Bidder's Strength</u>	<u>30</u>
TQ1.1	Average annual turnover based on audited balance sheets from IT/ITeS for the last 3 financial years (FY 2022-23, FY 2023-24 & FY 2024-25) as per below criteria: (Submit CA certificate with seal and sign)	16
	Equal to INR 20 Crores but Less Than or equal to INR 30 Crore	
	Greater than INR 30 Crores but less than or equal to INR 50 Crore	
	Greater than INR 50 Crores	
TQ1.2	Bidders having (Submit copy of valid certifications)	14
	CMMI Level 1/ 2	
	CMMI Level 3 or above	
	ISO 9001	
	ISO 27001	
	ISO 45001:2018	
<u>TQ2.0</u>	<u>Relevant Experience</u>	<u>30</u>
TQ2.1	The Bidder should have completed IT/ITeS Projects in with Central government / State Government or PSU related as per below criteria in the last five financial years from the date of bid submission (Submit work order and work completion certificate) as below:	15
	1 project of INR 10 Crores / 2 projects of INR 7.5 Crores up to INR 20 Crore	

S. No.	Technical Evaluation Criteria		Maximum Marks
	2 projects of INR 10 Crores / 4 projects of INR 7.5 Crores up to INR 20 Crore	Marks - 8	
	1 project of INR greater than 20 Crore	Marks - 10	
	2 projects of INR greater than 20 Crore	Marks - 15	
TQ2.2	The Bidder should have completed Project in implementation of Integrated Command Control Center (ICCC) with Central government / State Government or PSU related as per below criteria in the last five financial years from the date of bid submission		10
	1 project of INR greater than 10 Crore & up to 15 Crore	Marks - 7	
	1 project of INR greater than 15 Crore	Marks - 10	
TQ2.3	The Bidder should have technically qualified manpower resources on their pay roll as on bid submission date as below: (Self Certificate with Names, Designations & Qualification to be submitted from Competent Authority).		5
	Upto 100 no's	Marks - 3	
	Greater than 100 no's	Marks - 5	
<u>TQ3.0</u>	<u>Technical Presentation & PoC: Proposed Solutions / Resources, Approach and Methodology</u>		<u>40</u>
TQ3.1	Understanding of the project and proposed Solution along with a detailed report.		10
TQ3.2	Roadmap for implementation of project: - Criteria (Approach & Methodology)		15
	Approach & Methodology for proposed Solution	Marks - 5	
	Project Plan including effort planning and deliverables with timelines-	Marks - 5	

S. No.	Technical Evaluation Criteria		Maximum Marks
	Sustainability Plan- Risk & Risk mitigation plan and Project governance structure	Marks - 3	
	Change management & capacity building Plan Approach & Methodology for Implementation (should cover tasks & activities as per scope of work, and the detailed project execution of plan for completing it on time).	Marks - 2	
TQ3.3	Architectural Drawing and SLD (System Line Drawing) of the proposed solution as per scope of work.		15
	TOTAL		100

4. Qualification criteria for technical evaluation and progression to commercial evaluation stage- Bidder needs to score minimum 70 marks out of 100 marks for qualifying the technical stage.
5. Scoring shall be done by the technical evaluation committee on the technical presentation and document submitted for the above-mentioned Technical Qualification Criteria.
6. For TQ 3.0 - Marking for a given criteria will be given based upon sufficient expertise / competency / knowledge on said criteria and which is reflected during the presentation by bidder.

B.3. Evaluation of Financial Proposal

1. The commercial bids of only those bidders will be opened who have qualified the technical evaluation and reviewed to determine whether the commercial bids are substantially responsive.
2. Only fixed price financial bids indicating total price for all the services specified in this bid document will be considered.
3. The bid price will include all taxes and levies and shall be in Indian Rupees and mentioned separately.
4. Any conditional bid would be rejected.
5. Errors & Rectification: Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail".

6. The commercial bids for technically qualified bidders will be evaluated as per the evaluation criteria mentioned below.
7. Formula for evaluation of the financial proposal $F_{score} = 100 \times (F_{min} / F_{bid})$ Where, F_{min} is the lowest evaluated price proposal F_{bid} is the proposal quoted F_{score} is the final financial score calculated for the proposal.

B.4. Final Evaluation of Bids using QCBS (Quality cum Cost Based Selection)

1. The Bids received will be evaluated using Quality cum Cost Based Solution (QCBS), giving 70 percent weightage to the Technical Score and 30 percent weightage to the Financial Score.
2. The Bidder securing the highest Composite Bid Score will be adjudicated as the most responsive Bidder for award of the Project. The overall score will be calculated as below:

$$B_n = 0.7 \times T_n + 0.3 \times F_n$$

B_n = overall score of Bidder

T_n = Technical score of the Bidder (out of maximum of 100 marks)

F_n = Normalized financial score of the Bidder

3. In the event the bid composite bid scores are 'tied', the Bidder securing the highest technical score will be adjudicated as the Best Value Bidder for award of the Project.

Section C – Instructions for online bid submission:

C.1. Transaction Fee

All the participating bidders who submit the bids have to pay

1. An amount@ 0.03% (plus GST) of their final bid value online with a cap of Rs. 10,000/- for quoted value of purchase up to Rs.50 Crore (or)
2. An amount of Rs.25,000/- if the purchase value is above Rs.50crores plus GST applicable on transaction fee through online in favor of MD, APTS. The amount payable to APTS is nonrefundable.

C.2. Corpus Fund:

Successful bidder shall pay corpus fund in favor of MD, APTS through online (through AP e-Procurement Portal)

1. An amount @ 0.04% of the contract value with a cap of Rs.10,000/- (Rupees Ten Thousand Only) for contract value up to Rs.50 Crore (or)
2. An amount of Rs.25,000/- (Rupees Twenty-Five Thousand Only) for the contract value above Rs.50 Crore.

C.3. Procedure for bid submission

Bids shall be submitted online on <https://tender.apecurement.gov.in> platform

1. Bidders are requested to submit the bids after issue of minutes of the pre bid meeting duly considering the changes made if any, during the pre-bid meeting.
2. Bidders are totally responsible for incorporating/complying the changes/amendments issued if any during pre-bid meeting in their bid.
3. The participating bidders in the tender should register themselves free of cost on e-procurement platform in the website www.apecurement.gov.in.
4. Bidders can log-in to e-procurement platform in Secure mode only by signing with the Digital certificates.
5. The bidders who are desirous of participating in e-procurement shall submit their pre-qualification bids, technical bids, price bids as per the standard formats available at the e-market place.
6. The bidders should scan and upload the respective documents in Pre-Qualification and Technical bid documentation as detailed at relevant sections of the RFP including EMD.
7. Bidders should submit their responses as per the procedure specified in the e-Procurement portal being used for this purpose. Generally, the items to be uploaded on the portal would include all the related documents mentioned in this RFP, such as:
 - a. Tender Fee
 - b. EMD
 - c. Pre-qualification response

- d. Technical Proposal
 - e. Financial proposal
 - f. Additional certifications/documents Eg. Power of Attorney, CA certificates on turnover, etc.
8. However, each of the above documents must be uploaded in the format specified for this purpose and as per the specified folder structure in the e-Procurement portal.
 9. The bidders shall sign on all the statements, documents certificates uploaded by them, owning responsibility for their correctness/authenticity.
 10. The Prices should be quoted in online only. The Prices should not be indicated in the Pre-Qualification Proposal or Technical Proposal.
 11. The bidder must ensure that the bid is digitally signed by the Authorized Signatory of the bidding firm and has been duly submitted (freezed) within the submission timelines. The Purchaser will in no case be responsible if the bid is not submitted online within the specified timelines.
 12. All the pages of the Proposal document must be sequentially numbered and must contain the list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bidder's Proposal.

C.4. Other Conditions

1. After uploading the documents, the copies of the uploaded statements, certificates, documents, original Demand Drafts in respect of Bid Security (except the Price bid/offer/break-up of taxes) are to be submitted by the bidder to the O/o The Managing Director, APTS, Vijayawada as and when required.
2. When asked, failure to furnish any of the uploaded documents, certificates, will entitle in rejection of the bid.
3. If any of the certificates, documents, etc., furnished by the Bidder are found to be false / fabricated / bogus, the bidder will be disqualified, blacklisted, action will be initiated as deemed fit and the Bid Security will be forfeited.
4. APTS will not hold any risk and responsibility regulating non-visibility of the scanned and uploaded documents.
5. The Documents that are uploaded online will only be considered for Bid Evaluation.
6. Important Notice to Contractors, Suppliers and Department users
7. In the endeavor to bring total automation of processes in e-Procurement, the Govt. has issued orders vide G.O.Ms.No.13, dated 05.07.2006 permitting integration of electronic Payment Gateway of ICICI/HDFC/Axis Banks with e-Procurement platform, which provides a facility to participating suppliers / contractors to electronically pay the transaction fee online using their credit cards.
8. In case of consortium either the prime bidder or the consortium partner can purchase the bid document. The bid can be filed either with user ID of prime bidder or consortium partner.

Section D – Scope of Work and Technical Requirements

This section covers the following:

S. No	Item
1	Introduction
2	Project Overview
3	Major Components of the Project
4	GIS based GPS tracking system
5	Computer Aided Call Dispatch System
6	Mobile Application 101 for Tablet/Phone
7	Tablets in Vehicle with Screen protector and Rugged case
8	GPS tracking device
9	Web Application for live monitoring of GPS devices
10	Body worn Cameras with Docking Stations
11	Licensed GIS Maps
12	Application Server and Database Server
13	Command Control Centre Hall
14	Video Conferencing Facility
15	Sub Command Centres
16	General Conditions
17	Detailed Specifications

D.1. Introduction:

1. Andhra Pradesh State Disaster Response and Fire Services Department is the first responder in all types of emergencies like Fire Accidents, Natural and Man-made disasters, Rescue in Road Accidents, Drowning incidents and many more. The department with its 200 fire stations across the state has been attending to the emergency calls 24x7 in 365 days. The officers and personnel are highly trained and deeply motivated to serve the citizen in their distress times. The performance of the department is measured by its response time in attending the calls and saving lives & property of the citizen.
2. However, in the modern era, with the emerging challenges due to rigorous urbanization and concentration of population in urban areas, and increased usage of electricity in all daily activities, the department has to upgrade its capabilities using modern technologies. The main challenge is to provide services efficiently to citizens within a short span of time. Special efforts and surveillance are also required for fire prevention, avoidance of untoward incidents, and saving the lives of citizens during emergency situations. To do this efficiently, the response of fire personnel at the field level is crucial. To improve response and accountability, establishing command and control center with state-of-the-art features like Computer Aided Dispatch (CAD) systems for handling 101 calls, Active LED Screens, live tracking of fire emergency vehicles, GPS based shortest route guidance to drivers, Body worn cameras by field staff is highly essential. At present the existing Fire Emergency System -Dial 101 System is being

operational in a manual mode. This present system is to be upgraded to provide better services in emergency situations.

3. As part of this initiative, the control room shall be upgraded, and a GIS-based GPS tracking system will be implemented at the field level. This will involve providing Tablets and GPS tracking devices in Fire Vehicles and body-worn cameras to front end field staff. The senior officers from headquarters can interact and guide the field staff during major fires or disasters. This initiative will surely improve the response time of the department and also increase the accountability on the department personnel and gives scope to improve the performance for better service delivery to citizen.

D.2. Project overview:

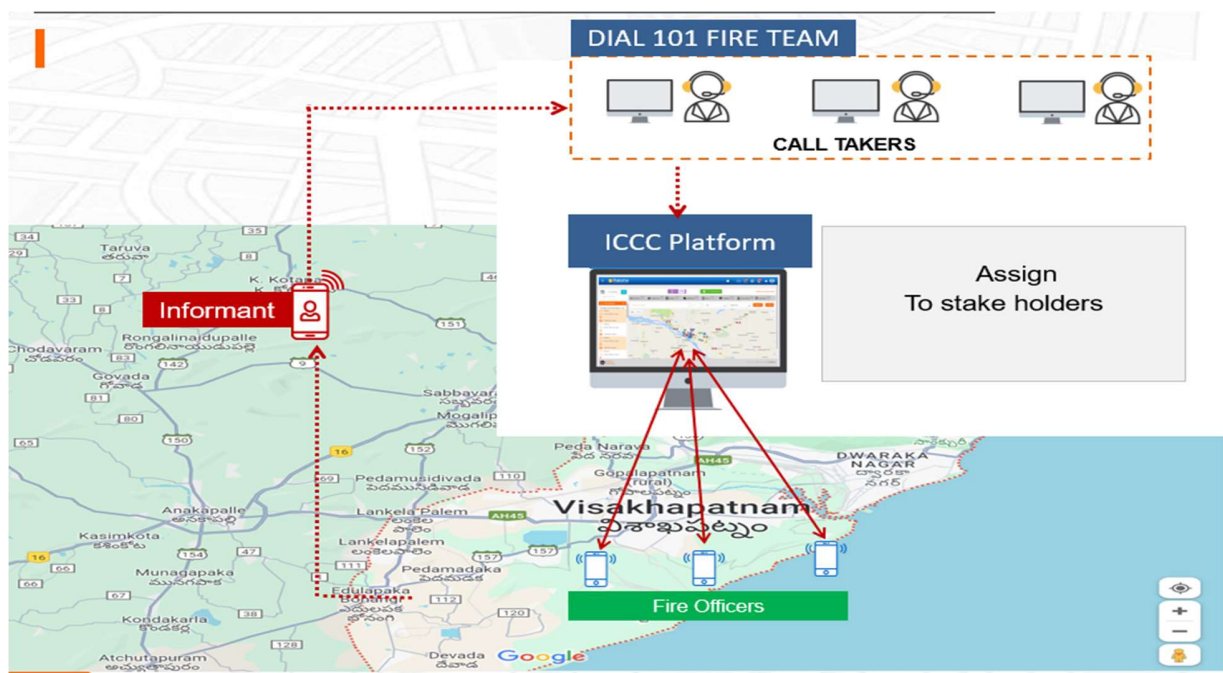
1. As part of the GIS-based GPS tracking system project, around 200 fire emergency vehicles will be provided with tablets for sharing emergency information and real-time monitoring. Each fire emergency vehicle will be fitted with GPS tracking devices featuring immobilizers, which will increase productivity and reduce unauthorized use.
2. An Android-based mobile application will be installed on tablets, facilitating tracking and the assignment of actionable emergency cases with victim details and locations from Dial 101 control rooms. A separate web-based application will be developed to monitor and assign distress calls received from Dial 101, with login access for individual units and a state-wide login for headquarters to oversee all 101 operations. This will also help in quickly locating victims and providing necessary services.
3. Additionally, a web-based application will be developed to monitor GPS devices, generating vehicle-specific stoppage and usage reports, geo-fencing, and entry-exit reports. The project will utilize the Internet of Things (IoT) to integrate all data into a tracking server for seamless monitoring, helping to reduce response times. All information will be stored on a dedicated storage server.
4. Key Features:
 - a. Locate and Monitor fleet of Vehicles from anywhere through an online secure platform via P.C, Tablet or Mobile.
 - b. Get Accurate & Reliable Data to analyse work done on Daily Basis.
 - c. Saves Costs & Optimize Utilization of resources.
 - d. Monitoring and Detailed analysis of vehicle's movement
 - e. Assigning distress call with in short span of time.
5. Benefits:
 - a. Centralized tracking of vehicles & personnel.
 - b. Reduction in response time in reaching scene of incident.
 - c. Increase in response, relief and rescue during emergencies.
 - d. Improvement in citizen happiness index on Fire services.

D.3. Major Components of the Project:

S.No.	Major Component	Sub Components
1	Command Control Center At Fire Head Quarters, Vijayawada Hall Size: (14 x 6 mtrs or 46' x 20' = 920 sq. ft)	Active LED Screen - minimum size 14' x 7.5' Resolution - less than 1.6 mm Controller, CPU, DSP, Processor, Encoder, Decoder and supporting cables etc., Work stations - 4 nos with 10 lines with CAD system Monitoring station - 5 seater with table top mic system Sophisticated Audio system Supervisory officer station - 1 no. Facility Management Service Supporting Hardware like UPS, Invertor etc., Supporting Infrastructure (flooring, ceiling, lighting, furniture, HVAC etc.,)
2	Sub Command Centers (40 nos)	Good configuration PC HD Webcam with Microphone Wireless network equipment (router) Power backup (UPS) Lighting Strome/Flasher in each fire station (200 nos)
3	Video Conferencing Hall at Fire Head Quarters, Vijayawada Hall Size: (10 x 6 mtrs or 33' x 20'=660 sq.ft)	Active LED Screen - minimum size 160" Resolution - less than 2.0 mm Sophisticated audio & mic system with one automatic content monitor Two 65" Monitors Supporting Infrastructure (flooring, ceiling, lighting, furniture, HVAC etc.,)
4	Tabs in Fire Vehicles	200 nos of tablets to be used in fire vehicles along with network connectivity
5	Body worn Cameras	50 nos of Body worn cameras and 13 no. of docking stations along with network connectivity
6	GPS Device to Vehicles	400 nos of GPS devices to be fitted to all fire vehicles, officer vehicles along with network connectivity.
7	Software for Managing and Integration	Comprehensive Dashboard with Data Analytics and AIML features Licensed GIS Maps Software application with capability To integrate CCC with vehicle GPS tracking, Tabs, Cameras, Drones etc., To integrate CCC with manpower Body worn Cameras, Tabs., POC sets etc., To enable 2-way visual/audio communication between field and CCC To develop fire call reports Data Analytics reports Mobile App for Citizen/Department Officials

D.4. GIS based GPS tracking system:

1. GIS is computer-based software designed to handle maps and various details on those maps. Data generated by GPS is spatial data referenced to Earth, specifically coordinates expressed in latitude and longitude.
2. To monitor fire personnel and vehicle movements in the field, a GIS-based GPS tracking system is highly efficient. This system involves installing a GPS tracking device to vehicles and installing the 101 mobile application on tablets used in the field, making it easier to track all fire emergency vehicles. It also helps assess the presence of personnel and vehicles at incident locations, aiding in the planning of their mobilization for activities. All emergency response vehicles will be equipped with GPS tracking devices for live tracking and to record the total route details.
3. For detailed vehicle tracking and performance improvement, GPS devices in vehicles will remain enabled at all times. To facilitate this, GPS devices with immobilization features should be used. Additionally, all tracking data and live streaming from body-worn cameras will be displayed on a video wall for real-time monitoring and comprehensive oversight.
4. Basic Architecture:



D.5. Computer Aided Call Dispatch System:

CAD System Architecture



1. The proposed Computer-Aided Dispatch (CAD) system shall adopt a modular, extensible, and secure architecture suitable for mission-critical emergency response operations. All software components to be hosted on the cloud server with required fire walls and security features.
2. At present the existing 101 call centre is operational in manual manner this system will be upgraded by developing the call takers module and call dispatcher module, by using the digital technology in the calls handling process the following are the benefits.
 - a) Streamline call management, enabling faster and more efficient handling of incoming and outgoing calls.

- b) Digital call handling systems offer detailed analytics and reporting on call volume, wait times, call durations, and other metrics. This data helps organizations assess performance, identify trends, and make data-driven decisions to improve service.
 - c) Digital call handling systems can easily scale to accommodate changes in call volume and adapt to new technologies
 - d) Digital call handling often includes features such as call recording, call forwarding, and automated responses, which can enhance communication and ensure important information is not missed.
- 3. Call taker Module: The Call Taker Module in a Dial 101 system is a crucial component of emergency response and management systems. Dial 101 is often associated with emergency services of fire related, and the Call Taker Module helps in efficiently handling emergency calls.
- 4. Functions of the Call Taker Module:
 - a) Handles incoming emergency calls, allowing call takers to receive and manage calls from individuals in distress or reporting emergencies.
 - b) Gathers essential information from the caller, such as their location, nature of the emergency, and other relevant details. This is crucial for dispatching the appropriate resources.
 - c) Utilizes technology to automatically identify the caller's location, which helps in quickly directing emergency services to the right place.
 - d) Records all relevant details of the call, including timestamps, caller information, and the nature of the emergency.
 - e) Communicates with dispatchers to ensure that the appropriate emergency services (fire) are sent to the scene.
 - f) Provides real-time updates and communication with field units, allowing call takers to relay information and instructions as the situation unfolds.
 - g) Interfaces with other systems such as Computer-Aided Dispatch (CAD) and Geographic Information Systems (GIS) to provide a seamless flow of information.
 - h) Generates reports and documentation of calls, which can be used for analysis, auditing, and improving emergency response processes.
- 5. Call Dispatcher Module: The Call Dispatcher Module in fire services is essential for efficiently managing and coordinating emergency responses, all the emergency related calls will be assigned to filed level vehicles through this call dispatcher module.
- 6. Functions of Call Dispatcher Module:
 - a) Receives and manages information from call takers. It helps in organizing and prioritizing incidents based on urgency and resource availability.
 - b) Determines and dispatches appropriate fire services, including fire engines, personnel, and equipment, to the incident location. This involves evaluating the severity of the emergency and ensuring that the right resources are sent.

- c) Monitors the location and status of fire trucks and personnel in real-time. This allows dispatchers to track the progress of units, ensure timely arrivals, and adjust resources as needed.
 - d) Facilitates communication and coordination with other emergency services, such as medical and police units, to ensure a unified response to complex incidents.
7. A web-based application to be developed to dispatch the actional fire related emergency calls and monitor all the tablet devices across the state. The call dispatcher module should be capable of monitoring all the devices as per jurisdiction and able to assign the actionable cases to the nearby GPS fitted fire vehicle. It should be capable of showing vehicle movement status and live location continuously, capable of auto update of assigned case progress in web console which would be updated by the field level officers and same should be stored in database. It should contain provision to show case details i.e. case id, case type, victim number, Victim name, Victim address etc. and status of all actionable cases carried out by field level officers.
8. Integration with other command centres:
- a) 121 Call Centre,
 - b) State Police Command Centre,
 - c) State Command & Control Centre and
 - d) SDMA Command Centre
9. It should generate the following reports with the data stored in database.
- a) Fire Incident Report
 - b) Fire Attendance Report
 - c) Action taken details report
 - d) Location Summary report on time stamp
 - e) Active / In active devices status
 - f) Custom reports based on requirement.
 - g) Device wise report / Search

D.6. Android/iOS based Mobile application for 101

1. An Android/iOS based mobile application to be developed for tracking purpose. This app runs on a tablet device (GPS enabled) and communicates with Dial-101 dispatchers over GPRS. It should provide an integrated Google Map that can display the needy person's location/ trace and other vehicle's location.
2. It pushes the device real-time location information to server at regular intervals. Also, it should accept the emergency case which could be assigned through web-based application. After completion, it should send acknowledgement/case status in return.



3. It should be capable of collecting basic details at victim and displaying all case related information – i.e. case id, case type, victim number, Victim name, Victim address etc. and current location on the screen in a simple and readable format.
4. It should contain provision to update the Status like Available, Away, Attending to cases, On Break, etc. of the Fire personnel. In case of poor or no network connectivity, transactions will be stored internally and synchronized once the device is connected. It should be capable to configure and update.
5. Fire Station wise logins should be created to access the application. Also, live location will be monitored continuously through a web based application for assigning emergency situations.
6. The developed mobile application based on android system would support all versions of operating systems. The Fire personnel can easily trace the location of victim and there is high possibility to route enabling option to reach incident location.

D.7. Tablets in Vehicle with Screen protector and Rugged case:

1. Tablets to be provided to all the field level vehicles in order to address the emergency situations. To enhance the navigation in order to reach victims quickly, these tablets will be installed with 101 mobile app to all the Emergency Vehicles. By providing 101 mobile app, two-way communication would be possible and immediate collection of details such as evidence, images and videos can be done easily and same to be sent to control rooms from distress location. By using it, distress person details and their location would send to field level officers effortlessly. It could be helpful to reach the location and provide efficient services without any delay.
2. Screen Protector for Tablet: To protect the Tab from mechanical Damages, Screen protector is to be required. It should be promised almost 100% clarity and perfect touch sensitivity.



3. Rugged case for Tablet: Rugged case provides best all-round protection to tablet from any kind of impacts and mechanical damages. It should be durable and compatible for a mounting device to hold. It prevents scratching on the plastic shell of the tablet. The rugged cases which are more flexible made with silicon or plastic manufactured by renowned companies should be provided to all tablets.



D.8. GPS tracking device:

1. The GPS Tracking Devices are used to find the location of the vehicle. At present there are No GPS Tracking Devices have been fitted to the Fire Vehicles to know the exact location and response at units. This feature will help in reducing the response time while attending emergencies.



2. The device in SOC/SOM with built in GNSS/IRNSS/4G and capable of managing the Ignition system, Speed, Idling and Parked condition. Both Active (when a mobile network is available, and a tracking device is connected it transmits data to a server) and Passive (when the network is not available the device stores data in its internal memory and will transmit stored data to the server later when the network is available again) tracking abilities with Position accuracy <5 meters is available.
3. These devices are capable to work on the in-built battery in the absence of Power from Vehicle battery. If any attempt by driver or any other personnel to tamper the device concerned authorities may be alerted.
4. GPS Device features:
 - a) Program over the Air (POTA) feature which will update the new features automatically.
 - b) Auto restart feature with built-in watchdog timers and intelligence.
 - c) Auto recover feature in case of device / network hanging.
 - d) On demand status verification from remote server.
 - e) It will be suitable for end-to-end remote operating device via GSM/GPRS.
 - f) Configuration over the air feature through which all the GPS devices operational settings will be configured.
 - g) It will operate on both GSM and GPRS Technologies.
 - h) The unit capable for continuous working for 24 hours every day in the vehicle.
 - i) The unit have internal memory to record at least 4000 locations points in case of non-availability of communication channel.
 - j) 24*7 real time position tracking of vehicles.
 - k) The periodicity of data transmission from the device will be configured based on status of the vehicle. (Sleep or Active)
 - l) The unit comprises of built in GNSS/IRNSS/GSM module, GSM/GNSS/IRNSS antenna, battery backup, internal memory etc.
 - m) Capable of working over large range of temperature and humidity conditions.
 - n) The GPS locations are transmitted at every 10 seconds (This can be configurable).
 - o) Types of alerts can be provided below.

- Alert if vehicle is stationary for a longer time,
- Alert if the unit is detached from the vehicle,
- Alert if Vehicle starts without GPS enabling,
- Over speed detection and alarming,
- Vehicle low battery alert
- Engine On/Off detection
- Vehicle Idling/parking detection
- Vehicle Power disconnect alert
- Device tampering alert

D.9. Web Application with dashboard for live monitoring of GPS devices:

1. A web-based application to be developed to view and monitor easily. It acts as an interface between the user and the server. Users can easily access and get customised reports from the application from any computer /mobile phone/tab connected to the Internet in a standard browser. Login credentials will be created for 400 units and for state wise to access the application.
2. The web application should show all the details of vehicles and their movements in various colours such as green, blue and violet depends on the vehicle status i.e. running condition, stationary on condition and off condition respectively. Vehicle wise search facility should also be provided in the application.

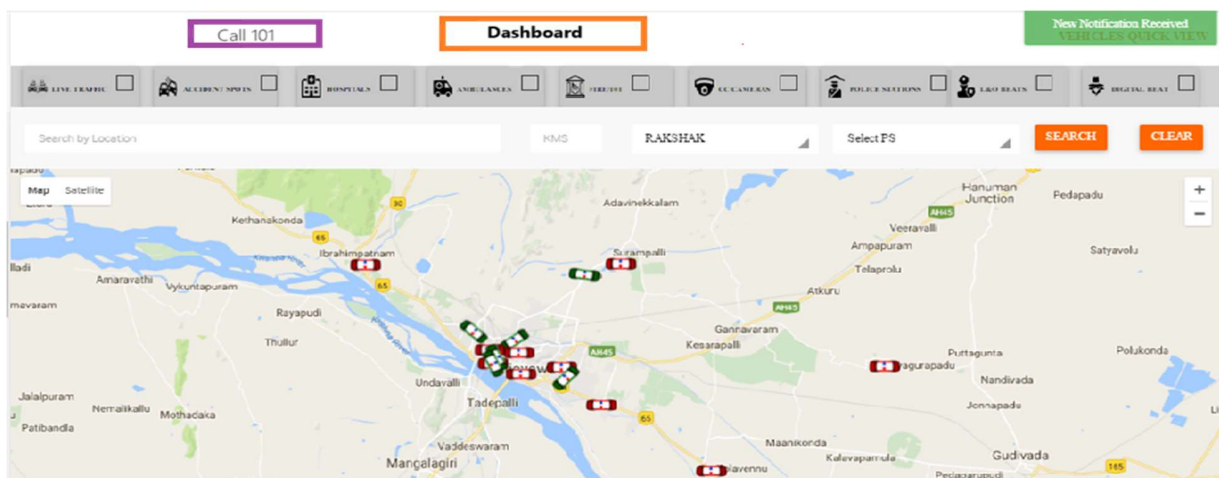


Fig: Web application for live monitoring

3. The following reports will get from application.
 - a) Reports generation between the time bound
 - b) Vehicle wise reports generation
 - c) ON/OFF position of vehicles
 - d) Distance Travelled reports

- e) Unit wise vehicles report
- f) Vehicle wise search option will be available to trace the location easily.

D.10. Body Worn Cameras with Docking Station:

1. Body-worn cameras combined with dock stations streamline the process of recording, storing, and managing footage, which supports the effective use of this technology in various field level applications. The body worn cameras will be utilised in the field level operations and the live feed of the cameras will be monitored at 101 control room. Total 50 nos of Body Worn Cameras and 13 docking stations to be provided at important fire stations in the state.
2. Advantages of having Body worn cameras:
 - a) The footage of body worn camera can be crucial for documenting incidents, providing evidence in investigations.
 - b) Body-worn cameras can enhance accountability by capturing interactions in real-time, which helps ensure that actions taken by officers are recorded. This transparency can build public trust and provide an objective record of events.
 - c) Recorded footage can be used for training purposes, allowing officers to review their performance and learn from real-life scenarios. It can also be useful for assessing compliance with departmental policies and procedures.
3. Docking Station Functions: The docking station is essential for managing and maintaining the body-worn cameras. It typically serves several functions:
 - a) The docking station provides a convenient way to charge multiple cameras simultaneously.
 - b) It allows for the efficient transfer of recorded footage from the camera to a secure storage system, often with built-in encryption for data protection.
 - c) The docking station can help in organizing and indexing footage, making it easier to retrieve and manage evidence.
 - d) Docking stations facilitate software updates and maintenance for the body-worn cameras, ensuring they are functioning optimally.

D. 11. Licensed GIS Maps:

1. Geographical Information System maps use advanced analytical tools to explore at a scientific level of spatial relationships, patterns, and processes of cultural, biological, demographic, economic, geographic, and physical phenomena. Depends on the data estimation, the cost of maps should vary.
2. To provide better services to citizens and for immediate action purpose, distress person location is needed. By using licensed Google Maps, the distress person location will be shown on Maps accurately. Without the accurate location, services to distress person will be hampered.
3. Licensed Google Maps should be procured (pre-paid or post-paid) on yearly basis with huge number of clicks, cost may be decreased.

4. In GIS Maps, the following data is required to monitor freely.

- a) Basic Jurisdictional Maps (Fire Station Wise, Circle Wise, Sub-Division Wise, District Wise)
- b) Safe Places around incidence of Crime (Bus Shelter, ATMs, Hospitals, Schools, Colleges)
- c) Identification of shortest possible route from the place of incident to the place of rescue. (Emergency Services).
- d) Road network of National Highways, State Highways, District Roads, Panchayat Roads and Gravel Roads/Metal Roads.
- e) Bridges, Culverts, Temple's details.

D.12. Application Server and Database Server:

1. Two Application Servers & Database servers will be provided by the Department through AP State Data Center (APSDC) on cloud platform fulfilling all security measures. All 101 and Vehicles data will be stored in APSDC database server. One Application server would be utilized for hosting one mobile application and one web based application for call taking and dispatching.
2. Through web-based application, live position of the vehicles shall be monitored at unit head quarter level and could assign emergency cases very easily. At field level, Fire officers will be informed about victim's location through mobile application.
3. The application and database servers shall be utilized for GPS tracking devices monitoring which will be fitted to vehicles. The data of around 200 vehicles which were already fitted with GPS devices should be stored in database server in addition to the newly purchase GPS devices. So, the live location of all 200 vehicles fitted with GPS devices would be pushed to server for every ten seconds for live monitoring. The obtained data shall not be accessed by any other agency unless approval given by the Technical services team. It stores Vehicle position details for a period of last one month in the server hard disk/SAN storage.
4. A Web based application shall be developed on vehicle tracking and provided logins to unit wise to monitor the positions of all vehicles with stored data in our database. Tracking of vehicles will be effectively carried out with the help of Google Maps and the same details to be stored in Vehicle Tracking Server. Integration with Google Maps will be done through APIs. Access to the web application developed on Vehicle Tracking system shall contain login credentials. The accessibility should differ at unit head quarter and state headquarters. Vehicle location will be shown on map with an approximate accuracy of five metres.
5. The live tracking of vehicles and access to different reports would be available from the local and remote consoles/dashboards/Web Apps /Mobile app. The following reports will be obtained from the database server.
 - a) Vehicle Tracking Report
 - b) Vehicle wise stoppage Report
 - c) Consolidated report for fleet

- d) Customized reports and Dashboards as per requirement

D.13. Command Control Centre Hall:

1. **Active LED Screen:** The screen in command control room enhances the ability to monitor, analyze, and respond to various situations effectively, ensuring better management and coordination of critical operations. With LED Screen, large-scale visualizations can be displayed, giving operators a comprehensive view of the situation. This helps in understanding complex data and makes it easier to make quick, informed decisions and helps in managing incidents effectively by providing a clear, real-time overview. Detailed specifications are enclosed.
2. **Work Stations:** Command centre to have 4 work stations with dual monitors to receive and dispatch calls by the operators. The detailed specifications are enclosed.
3. **Audio/Video Systems:** Good PTZ camera to view the CCC operations remotely and to interact with field staff. Good Audio system with acoustics needed. The detailed specifications are enclosed.
4. **Monitoring Station:** The HOD & other senior officers shall monitor operations from CCC using Monitoring Station. 5 seater capacity with table top mic system shall be provided.
5. **Facility management service:** Two persons to manage and support the CCC operations technically and trouble shoot any issues immediately is required to be available during general shift in working days.
6. **Infrastructure:** The supporting infrastructure to operate CCC shall be provided like Flooring, Ceiling, Lighting, Curtain, Ambience and Air Conditioning for hall and hardware room.
7. **Network:** High speed bandwidth internet connection to be provide for 3 years along with wireless routers.

D.14. Video Conferencing Facility:

1. **Active LED Screen:** The screen in video conferencing room enables HOD and Senior Officers to interact with Regional, District & Station level officers in regular review meetings. Further, the HOD attends VCs conducted by Government from time to time.
2. **Conference Table:** Good size conference table to be provided as per room size with chairs, mikes etc.
3. **Audio/Video Systems:** Good PTZ camera to conduct VC is needed. The detailed specifications are enclosed.
4. **Automatic Content Monitor:** The HOD shall have a mechanised content monitor with good display size to view the presentations.
5. **65'' Screens:** Two screens of 65'' to be provided on two walls for better visibility to meeting attendees.

6. **Wireless Projection System:** The VC room shall be capable of allowing screen casting and wireless projection system for displaying content from any device like laptop, mobile and Desktop etc.,
7. **Infrastructure:** The supporting infrastructure to operate Video Conferencing shall be provided like Flooring, Ceiling, Lighting, Curtain, Ambience and Air Conditioning for hall and hardware room.

D.15. Sub Command Centres:

1. The Sub Command centres are key areas from where the middle level and senior officers will monitor the field operations effectively. These are linked to main CCC and Video Conferencing Room.
2. The sub command centres to have below items:
 - e) Good size AIO Desktop
 - f) Wide angle Webcam and microphone
 - g) UPS
 - h) Network Router
3. The number of sub command centres required are 40

District Offices	28
Zonal Offices	4
Regional Offices	2
Training Centre	2
ADFS, DFS	3
CCC Supervisor	1
TOTAL	40

D.16. General Conditions:

1. The component under Command Control Centre will include the following general conditions:
 - a) The installation of all hardware and development of required software solutions proposed under this component should be carried out by experienced Hardware engineers with through experience in installing command centres. The IT professionals should have through experience in software architecture, development, testing, deployment and maintenance as per IT industry standards and protocols.
 - b) Suitable number of developers to be deployed for this project at Fire Dept specified location. If not, at least the developers should be easily accessible to the departmental officers for regular briefing at nearby location. Suitable space will be provided by the department for developers for inhouse development.
 - c) The vendor should thoroughly handover all the software applications developed under this component to the department personnel as and when suitable.
 - d) Complete Knowledge Transfer (KT) of applications to be done.

- e) Proper Documentation for every application with both functional and technical details to be provided.
- f) All the Data & Source code of the Software rights shall be with the Department. The vendor has no right to claim the ownership of the source code of the software applications.
- g) Vendor to complete security audit including its expenditure of all the applications developed under this component.
- h) The SSL certification charges are in the vendor scope.
- i) Firewall to be provided for 3 years tenure under vendor scope.
- j) Any change requests made by the department from time to time shall be honoured by the vendor without charging additional amount for a period of 3 years.
- k) The expenditure incurred for any licensed software's are under the scope of vendor.
- l) Time to time updating of software versions and safety protocols to be managed by the vendor.
- m) The overall design should be preferably implemented using required minimum components thereby reducing the capital and operational expenditure.
- n) The application design features, sustainability and the hardware components together should achieve optimum results for the department in case of any scale up of technology, or surge in public response and usage in the citizen's services segment.
- o) Sufficient alternatives should be built in to address any breakdown or overload by redundancy features in cloud server services.
- p) Bidder should be prepared for any mid-course correction or after launch corrections or minor alterations in Design features that might become necessary due to public interest or due to the requirement of the department at no additional cost.
- q) Flexibility, Scalability and Interoperability should be the 'sine qua non' of this application.
- r) The Application should preferably incorporate simplified management and should enable fast deployment of resources.
- s) The training shall be imparted to the sufficient number of fire personnel to operate the CCC without the dependence of developer.

D.17. Detailed Specifications:

1. Customized Active LED Wall - 1 No.

Supply, Designing, Installation & Configuration of Active LED Wall with following specifications:

- a) Customized Active LED to cover a wall area of minimum 14 ft (W) × 7.5 ft (H),
- b) Pixel pitch of 1.6 mm or better
- c) Native resolution of 2912 × 1560 pixels.
- d) Brightness of at least 600 cd/m²
- e) Refresh rate of 3840 Hz,
- f) Aspect ratio of Native or better
- g) Wide viewing angle of 170° horizontally and vertically ensuring excellent color uniformity, image stability, and clear visibility from any direction.

- h) Each LED cabinet shall be constructed using a cabinet array configuration, total cabinets integrated into a seamless video wall.
- i) The LED display including control box with a rack-mountable design and dedicated power box, simplifying integration and installation. The power box shall ensure safe and stable operation at AC 220V, 50/60Hz supply.
- j) The LED modules shall feature GOB surface coating for enhanced protection against dust, moisture, and impact. The front surface shall conform to IP54 ingress protection and IK06 impact rating, making the system suitable for high-traffic or semi-public environments.
- k) All required power cables, CAT6 network cables, USB cables, audio cables, HDMI cables, and HDMI extender cables from the server/network rack to the respective display, control, and peripheral devices shall be supplied, laid, terminated, tested, and commissioned under the bidder's scope of work, ensuring complete end-to-end connectivity and fully functional system operation without any additional requirements from the client side.
- l) The complete meta wall mounting structure with required wall structure including panelling is under bidder scope only.
- m) The OEM shall have a registered office in India for a period not less than 10 years and shall not be blacklisted by any Central/State Government, PSU, or autonomous body.
- n) The OEM shall have a registered service centre within the state with qualified service engineers and at least 3 years of after-sales support experience.
- o) The OEM shall provide a dedicated 1800-series toll-free number and maintain an online ticketing portal for complaint logging, service tracking, and warranty verification.
- p) The bidder shall ensure that both the Active Display and Controller are supplied by a single OEM to ensure system compatibility and efficient maintenance.
- q) The OEM must be ISO9001,140001,45001,27001,50001. Display should have certifications like CB, CE, TUV, FCC, LVD and BIS.
- r) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM. The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

2. Video Wall Controller - 1 No.

Supply, Designing & Fixing of Video Wall Controller with the following specifications:

- a) 8×8 HDMI 2.0 Video Wall Controller designed for high-resolution signal switching, distribution, and display management applications such as command centers, digital signage, broadcasting, and conference room installations.
- b) The controller shall support up to 8 HDMI 2.0 inputs with embedded digital audio and 8 HDMI 2.0 outputs, allowing full matrix switching and video wall functionality.
- c) Each input and output shall support resolutions up to 4K@60Hz (4:4:4 chroma subsampling), ensuring ultra-high-definition image quality and minimal latency.
- d) The controller shall feature 8 analog audio inputs and 8 analog audio outputs, each through 3.5 mm L/R jacks, supporting both audio embedding on HDMI outputs and audio de-embedding from HDMI inputs.
- e) The system shall also include an independent 8×8 IR matrix, enabling remote control signal routing to different connected display devices.

- f) The video wall controller shall support advanced features such as custom video wall layouts, picture-in-picture (PIP) display, and scaling capabilities on outputs for flexible multi-screen arrangements.
- g) The device shall also support presentation switching mode, enabling dynamic assignment of audio and video sources for professional meeting or event applications. Built-in seamless switching technology shall ensure smooth source transitions without visual flicker or signal loss.
- h) The system shall be HDCP compliant, allowing playback of protected content, and shall include EDID management for each input and output to ensure compatibility with various source and display devices.
- i) Users shall be able to remotely adjust display settings such as contrast, brightness, and saturation through the management interface.
- j) The controller shall be fully IP- and RS-232 controllable, operable via front panel buttons, serial communication, or Windows-based configuration software providing a user-friendly graphical interface for easy setup. Once configured, the unit shall support standalone operation without continuous PC connection.
- k) The device shall support operation in environments with temperatures from 0°C to 40°C and humidity levels from 10% to 90% non-condensing.
- l) The unit shall support Ethernet (10/100/1000 Mbps) and RS-232 control interfaces, ensuring easy integration with third-party control systems.
- m) The equipment shall be supplied complete with all standard accessories, power cords, communication cables, software, and installation documentation.
- n) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- o) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

3. Work Stations - 4 Nos.

Supply, installation and configuration of Workstation with Dual displays with the following specifications:

- a) The system shall be a professional fixed-tower workstation with dual displays configured with a 14th Generation Intel® Core™ i7-14700 processor (or higher) with a minimum of 16 cores/ threads and turbo frequencies as per OEM standard.
- b) 16 GB DDR5 memory at OEM Supported Speeds (4400 MT/s or higher) (expandable to at least 128 GB)
- c) 1 TB PCIe NVMe SSD. Graphics shall be provided by a professional-grade discrete GPU (for example NVIDIA T1000 class or above) supporting 4K output and multiple display streams.
- d) The system shall allow multiple drives (M.2 NVMe + SATA) and support full-height PCIe Gen5 x16 expansion slots with OEM- supported graphics power budget suitable for professional GPU's.
- e) Latency-optimized chassis as per OEM workstation standards with internal cooling for sustained workloads shall be provided.
- f) The system shall include Windows 11 Pro pre-installed.

- g) UEFI secure-boot enabled, and management features such as TPM, chassis intrusion detection and remote management support.
- h) Display outputs shall be provided via the discrete professional GPU, supporting a minimum of two simultaneous 4K displays, using DisplayPort 1.4 / Mini DisplayPort 1.4 / HDMI adapters as supported by the OEM GPU configuration.
- i) The workstation shall be certified for professional workstation use, ISV-certified for major applications (CAD, CAM, 3D rendering) as per the brand's standard.
- j) The vendor shall supply 3 years onsite next business day (NBD) warranty, with the option to extend to 3 years.
- k) The tendered product shall be supplied with all items in the box: keyboard, mouse, power cable, mounting hardware (if any), and pre-loaded drivers.
- l) All required power cables, CAT6 network cables, USB cables, audio cables, HDMI cables, and HDMI extender cables to the VideoWall controller and peripheral devices shall be supplied, laid, terminated, tested, and commissioned under the bidder's scope of work, ensuring complete end-to-end connectivity and fully functional system operation without any additional requirements from the client side.
- m) The complete mounting structure with required wall structure including panelling is under bidder scope only.
- n) The system must comply with Indian regulations and standards for safety and energy (e.g., BIS/ISI or equivalent), and pass factory-built quality tests.
- o) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- p) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.
- q) The monitor shall be a 27-inch professional-grade display suitable for office productivity, control rooms, and corporate environments, featuring a Full HD resolution of 1920×1080 pixels with a 16:9 aspect ratio.
- r) The panel shall utilize IPS technology to provide wide viewing angles and consistent color reproduction across horizontal and vertical planes.
- s) The display shall incorporate LED backlighting with typical brightness of approximately 300 cd/m^2 , a contrast ratio of approximately 1000:1, and a response time of up to 8 milliseconds gray-to-gray, with a faster 5 ms mode to support smoother motion for video and presentation applications.
- t) Connectivity options shall include at least one DisplayPort 1.2 input, one HDMI input, and one VGA input, supporting HDCP compliance where applicable.
- u) The monitor shall not include integrated USB hubs or speakers and shall rely on external devices for additional functionality. The display shall be compatible with common operating systems for office use and shall support plug-and-play functionality.

4. Active LED Screen for VC Hall - 1 No.

Supply, Designing, Installation & Configuration of Active LED Wall with the following specifications:

- a) Minimum 160-inch All-in-One LED display, Full HD resolution of 1920×1080 pixels with less than 2.0-pixel pitch, Typical contrast ratio of 6,500:1, LED Lifetime: 100,000 Hours

- b) Ingress Protection Rating: IP54 (Front), Impact Protection Rating: IK06(Front)
- c) Maximum brightness of 600 nits, adjustable across at least 100 levels. Wide viewing angles of 170° (horizontal and vertical), enabling clear visibility from all positions., Dual integrated speakers of 18 W each.
- d) The unit shall feature All-in-One integration, combining power supply, control system, image stitching, and display functions within a single chassis.
- e) The system shall incorporate smart power-redundancy architecture, which automatically switches to a backup power path in the event of a power failure, ensuring uninterrupted display operation.
- f) The display shall support video resolutions from SVGA (800 × 600) up to Full HD (1080p @ 60 Hz) with horizontal scanning frequencies between 31 kHz and 94 kHz and vertical refresh between 56 Hz and 85 Hz.
- g) All required power cables, CAT6 network cables, USB cables, audio cables, HDMI cables, and HDMI extender cables from the server/network rack to the respective display, control, and peripheral devices shall be supplied, laid, terminated, tested, and commissioned under the bidder's scope of work, ensuring complete end-to-end connectivity and fully functional system operation without any additional requirements from the client side.
- h) The OEM shall have a registered office in India for a period not less than 10 years and shall not be blacklisted by any Central/State Government, PSU, or autonomous body.
- i) The OEM shall have a registered service centre within the state with qualified service engineers and at least 3 years of after-sales support experience.
- j) The OEM shall provide a dedicated 1800-series toll-free number and maintain an online ticketing portal for complaint logging, service tracking, and warranty verification.
- k) The OEM must be ISO9001,140001,45001,27001,50001. Display should have certifications like CB, CE, TUV, LVD,FCC, EMC Test report and BIS.
- l) The bidder shall ensure that both the Active Display and Controller are supplied by a single OEM to ensure system compatibility and efficient maintenance.
- m) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- n) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

5. 65” LFD Display - 2 Nos.

Supply, Designing, Installation & Configuration of 65” Display:

- a) 65 inches diagonal size
- b) 4K Ultra HD resolution (3840 × 2160 pixels)
- c) Aspect ratio of 16:9 providing crystal-clear visuals suitable for professional and continuous use.
- d) Minimum brightness of 500 nits
- e) Contrast ratio 5000:1
- f) Wide viewing angle of 178 degrees (horizontal and vertical)
- g) Response time of 6.5 milliseconds or better
- h) Supporting reliable 24×7 operations in both landscape and portrait orientations.
- i) Support wireless content casting through AirPlay, Miracast, and Chromecast for seamless connectivity with multiple devices.

- j) Minimum two (2) HDMI input ports
- k) Two (2) USB ports
- l) Integrated stereo speakers of 10 watts × 2 output
- m) Adjustable Wall mount should be supplied along with the Displays
- n) All required power cables, CAT6 network cables, USB cables, audio cables, HDMI cables, and HDMI extender cables from the server/network rack to the respective display, control, and peripheral devices shall be supplied, laid, terminated, tested, and commissioned under the bidder's scope of work, ensuring complete end-to-end connectivity and fully functional system operation without any additional requirements from the client side.
- o) The OEM shall have a registered office in India for a period of not less than 10 years, to ensure consistent product quality and prompt after-sales service support.
- p) The OEM must not be blacklisted by any Government department, Public Sector Undertaking, or autonomous body, and an undertaking to this effect shall be submitted on a ₹100 notarized stamp paper along with the tender bid.
- q) The OEM shall have a registered service centre within the state where the equipment is to be installed and shall have qualified service technicians and trained executives providing after-sales support for at least the last 3 years.
- r) The OEM shall provide a dedicated toll-free number (1800 series) and maintain an online ticketing or service portal for logging complaints, tracking service calls, and checking warranty status.
- s) Display should have minimum BIS certification.
- t) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM. The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.
- u) The OEM must be ISO9001,140001,45001,27001,50001

6. Digital Sound Processor - 2 Nos.

Supply, Installation and Configuration of Digital Sound Processor:

- a) Digital Sound Processor shall be featuring 12 analog mic/line inputs and 8 analog outputs with individual 48V phantom power control per input.
- b) The processor shall include configurable open-architecture signal processing, automatic gain control (AGC), noise cancellation (NC), and acoustic echo cancellation (AEC) processing for up to 12 independent channels.
- c) It shall provide a 48-channel, low-latency, fault-tolerant digital audio bus operating over standard Cat-5e cabling up to 100 m between compatible devices, extendable via fiber converters.
- d) Configuration, control, and monitoring shall be supported through software using a drag-and-drop interface with a comprehensive library of processing and logic objects.
- e) The DSP shall provide front-panel LED indication for signal present, clip, phantom power, and system status, along with a bi-directional locate function.
- f) It shall include 12 control inputs and 6 logic outputs for GPIO integration.
- g) The device shall operate on 100–240 V AC, 50/60 Hz power supply with consumption under 55 VA, and be housed in a 1U 19-inch rack-mountable chassis .

- h) The DSP shall include all accessories, cables, and mounting brackets as required for complete installation.
- i) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.
- j) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.
- k) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements.
- l) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- m) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

7. Ceiling Micro Phones - 4 nos.

Supply, Installation and Configuration of Ceiling Micro Phone with the following specifications:

- a) The system shall be a ceiling-mounted microphone array designed for premium audio capture in conferencing, meeting, and collaboration environments.
- b) The microphone shall feature 28 digitally controlled electret condenser capsules arranged in an array configuration, providing full 360-degree room coverage with intelligent adaptive beamforming technology that automatically detects and focuses on the active speaker's voice regardless of position within the room.
- c) The device shall support both digital (Dante) and analog (balanced line level) audio outputs, enabling flexible integration with DSPs, audio matrices, and conferencing systems.
- d) The ceiling microphone shall provide a frequency response of 160 Hz to 18 kHz, with a maximum sound pressure level of 104 dB SPL and a dynamic range of approximately 93 dB(A), ensuring clear and natural voice reproduction.
- e) The device shall cover areas up to 50–60 m² when mounted at a typical ceiling height of around 3 meters.
- f) The microphone shall include dual Dante ports (Primary and Secondary) for network redundancy and one analog 3-pin Phoenix terminal for legacy connectivity.
- g) All firmware updates and configuration changes shall be performed remotely via network connection without the need for physical access.
- h) The OEM or its authorized partner shall have a service center with support facilities within India.
- i) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.
- j) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements
- k) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- l) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

8. Wireless Handheld Microphones - 3 nos.

Supply, Installation and Configuration of Digital Wireless Handheld Microphone System with the following specifications:

- a) Professional-grade digital wireless handheld microphone system, suitable for vocal, speech, and presentation applications in conference halls, auditoriums, and meeting spaces.
- b) The system shall support an operating range of up to 30 meters (100 feet) under line-of-sight conditions, providing stable and clear audio transmission for both fixed and mobile use.
- c) The microphone system shall provide a wide audio frequency response from 30 Hz to 20 kHz (± 1 dB), ensuring natural and detailed sound reproduction suitable for speech and live vocals.
- d) The total harmonic distortion (THD) shall be less than 0.3%, and the system latency shall not exceed 2.9 milliseconds, ensuring real-time performance with minimal delay.
- e) For secure communication, the system shall incorporate 256-bit AES encryption, preventing unauthorized audio interception.
- f) Up to eight systems shall be operable simultaneously in the same environment without interference.
- g) The transmitter shall be a handheld type, incorporating a dynamic microphone capsule optimized for vocal clarity and feedback resistance.
- h) The receiver shall be a half-rack tabletop digital receiver equipped with balanced XLR and unbalanced 1/4-inch outputs for flexible connectivity with professional audio equipment.
- i) The receiver shall feature a high-contrast OLED display providing real-time system status, including signal strength, audio levels, battery indication, and pairing information.
- j) The system shall provide a dynamic range greater than 120 dB (A-weighted), ensuring clean signal reproduction with low noise and high headroom.
- k) The receiver shall operate with an external 12V DC power supply and shall be rack-mountable using an optional rack-mount kit.
- l) The system shall comply with CE, FCC, IC, and RoHS regulatory standards for safety and electromagnetic compatibility.
- m) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.
- n) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements.
- o) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- p) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

9. Gooseneck Microphone System - 2 nos.

Supply, Installation and Configuration of Wire Gooseneck Microphone System with the following specifications:

- a) Professional-grade gooseneck condenser microphone system designed for conference rooms, paging systems, and speech reinforcement applications.

- b) The unit shall feature a cardioid polar pattern providing focused pickup and high rejection of off-axis noise for clear and intelligible audio capture.
- c) The microphone shall operate on phantom power ranging from 9V to 52V DC.
- d) It shall include a 520 mm (20.5 inches) flexible gooseneck for precise positioning and a weighted table stand base with a shock-mounted connector to minimize handling noise and vibration.
- e) The microphone shall incorporate a momentary or push-to-talk switch with an integrated LED indicator for active status identification.
- f) The system shall be supplied with a fixed 2-meter cable terminated with an XLR connector, suitable for quick installation in desktop conferencing applications.
- g) The base dimensions shall be approximately 114 x 135 x 42 mm, and the total weight shall be around 0.7 kg (1.54 lbs).
- h) The product shall feature a durable matte black finish and rugged metal housing suitable for long-term professional use.
- i) The microphone shall be compliant with CE, FCC, and RoHS standards, ensuring international performance and safety compliance.
- j) The unit shall provide low handling noise, modular design, LED status indication, and professional-grade audio clarity, making it suitable for use in boardrooms, conference halls, and control centers.
- k) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.
- l) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.
- m) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements.
- n) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- o) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

10. Wireless Collaboration - 2 nos.

Supply, Installation and Configuration of Wireless Collaboration with the following specifications:

- a) Wireless collaboration, content sharing, and conferencing within meeting rooms, huddle spaces, and conference environments.
- b) The device shall allow multiple users to wirelessly connect and share content from their laptops, tablets, or smartphones onto a shared room display without the need for cables, dongles, or adapters.
- c) The system shall support enterprise-grade 4K UHD output and provide seamless integration with existing AV and conferencing systems.
- d) It shall operate on a secure, dual-network architecture, allowing simultaneous connection to both corporate and guest networks while maintaining full network isolation and data security.

- e) Support wired and wireless connectivity, including Gigabit Ethernet and Wi-Fi, ensuring flexibility in deployment across different meeting spaces.
- f) The platform shall enable multi-user collaboration, supporting simultaneous streaming of content from multiple devices with dynamic layout management on the shared display.
- g) Users shall be able to connect and share content using the Solstice app, web browser, AirPlay, Miracast, or HDMI input, ensuring compatibility across Windows, macOS, Android, iOS, and Chrome OS devices.
- h) The system shall also support touchback control on interactive flat panels, allowing presenters to control their shared content directly from the display.
- i) Include built-in support for room calendar integration, digital signage playback, and conference integration capabilities with platforms such as Microsoft Teams, Zoom, and Webex, enabling unified collaboration workflows.
- j) The hardware shall be compact, fanless, and suitable for 24/7 continuous operation, with HDMI video output, USB ports for peripherals, and network interfaces for LAN connectivity.
- k) The Enterprise shall be fully managed through Cloud, enabling administrators to monitor device health, apply firmware updates, configure network settings, and enforce security policies across multiple locations.
- l) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.
- m) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements.
- n) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- o) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

11. Video Conference Cameras for CCC and VC Halls - 2 Nos.

Supply, Installation and Configuration of Video Conference Camera with the following specifications:

- a) Premium-grade professional PTZ video conferencing camera designed for boardrooms, classrooms, and training environments.
- b) It shall feature an Ultra-HD imaging system capable of delivering video resolutions up to 4K at 30 frames per second.
- c) The camera shall incorporate a 4K CMOS sensor, ensuring outstanding image sharpness, color accuracy, and low-light performance.
- d) The system shall provide 15x HD lossless zoom, a 90° wide field of view, and mechanical pan and tilt capabilities of $\pm 90^\circ$ (pan) and $+50^\circ/-90^\circ$ (tilt) with whisper-quiet, smooth operation.
- e) It shall include autofocus, 3 camera preset positions, and a video mute/unmute LED indicator.
- f) The camera shall be equipped with auto-framing technology that automatically adjusts the lens to frame participants optimally, and with Wide Dynamic Range (WDR) to prioritize facial clarity and maintain natural skin tones even under varied lighting conditions.

- g) Connectivity shall be through a USB 3.0 Type-C interface for plug-and-play operation with Windows, macOS, and Chrome OS platforms, requiring no additional drivers.
- h) The camera shall be UVC compliant and compatible with all major video conferencing platforms including Microsoft Teams, Zoom, Cisco Webex, Google Meet, BlueJeans, GoToMeeting, BroadSoft, and other USB camera-supported applications.
- i) The camera shall support multiple installation options including tabletop, wall mount, or inverted installation, with automatic image correction when installed upside down.
- j) The Camera shall support firmware upgrades via the Logitech firmware tool for future feature enhancements.
- k) The power requirement shall be met through the included AC power adapter and power splitter assembly, and the system shall be constructed with high-quality materials suitable for continuous professional use.
- l) Included accessories must comprise power adapter, IR remote control, mounting brackets, and necessary cables.
- m) Bidder should consider wall mounting structure and fabrication for fixing video conference camera.
- n) The camera shall comply with CE, FCC, and RoHS certifications for safety and environmental standards.
- o) The PTZ system should be suitable for integration with video conferencing codecs and AV control systems.
- p) All firmware should be upgradeable through USB or network interface for future features.
- q) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.
- r) The OEM or its authorized partner shall have a service center in Andhra Pradesh with support facilities within India.
- s) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM. The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.
- t) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.
- u) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements.

12. Power Amplifier - 2 Nos.

Supply, Installation and Configuration of Power Amplifier System with the following specifications:

- a) 2-channel power amplifier designed for professional audio and installed sound applications.
- b) The system shall deliver 2×120 W output power (RMS) into 4/8 ohms or 70 V / 100 V constant voltage lines.
- c) The amplifier shall be suitable for background/foreground music systems, paging, and distributed audio installations.

- d) It shall feature DriveCore™ technology for high efficiency and reduced power consumption.
- e) The amplifier shall have balanced/unbalanced inputs on Euroblock connectors and RCA connectors for flexible connectivity.
- f) The amplifier shall support auto-standby mode for energy saving when no signal is present.
- g) It shall have front-panel volume controls for each channel with signal and peak LEDs for visual monitoring.
- h) Cooling: Convection-cooled, fan less operation for silent performance.
- i) The amplifier shall include protection circuits against short circuit, DC, thermal overload, and open circuit.
- j) The chassis shall be half-rack width, 1U height metal enclosure, suitable for rack or shelf mounting.
- k) The product shall include detachable power cord, Euroblock connectors, and rack-mount hardware.
- l) The amplifier shall be designed for continuous commercial operation and reliable performance in professional AV installations.
- m) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.
- n) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements.
- o) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- p) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

13. Speaker System - 16 Nos.

Supply, Installation and Configuration of Speaker System with the following specifications:

- a) Two-way professional loudspeaker designed for indoor and outdoor applications including background and foreground music, as well as public address and paging functions.
- b) The loudspeaker shall be of two-way passive configuration, offering wide frequency response, high speech intelligibility, and excellent sound clarity across varied acoustic environments.
- c) The loudspeaker shall have a frequency range of approximately 70 Hz to 20 kHz (–10 dB) and a frequency response of 100 Hz to 18 kHz (± 3 dB), providing balanced tonal performance.
- d) The system shall support a power handling capacity of 100 W continuous, 200 W program, and 400 W peak, ensuring reliable output during high-demand operation.
- e) The system sensitivity shall be 88 dB SPL (1 W @ 1 m) with a maximum SPL of 108 dB continuous and 114 dB peak, delivering high output levels with low distortion.
- f) The loudspeaker shall offer a nominal coverage pattern of $100^\circ \times 100^\circ$, ensuring consistent sound dispersion both horizontally and vertically.
- g) The internal passive crossover shall be set at approximately 3.0 kHz, ensuring smooth transition between low and high frequencies.

- h) The enclosure shall be constructed from high-impact molded material, weather-resistant, and UV-stabilized for long-term durability in outdoor environments.
- i) Input connections shall be provided via a screw-down terminal strip for secure and easy installation.
- j) The loudspeaker shall be supplied with an Invisiball® wall-mounting system or equivalent, enabling precise pan and tilt adjustment for optimal sound coverage.
- k) The proposed loudspeaker shall feature a compact, high-performance design with uniform coverage, robust weather-resistant construction, and integrated 70 V / 100 V multi-tap transformer with adjustable mounting bracket, making it ideal for professional audio installations in commercial and institutional environments.
- l) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.
- m) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements.
- n) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- o) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

14. Automation Controller - 1 No.

Supply, Installation and Configuration of Automation Controller with the following specifications:

- a) High-performance compact automation controller with control processor specifically designed for AV system integration, room automation, and centralized control applications in small to medium-sized installations.
- b) The controller shall provide intelligent management of connected devices such as displays, projectors, switchers, sensors, relays, and lighting systems through multiple control interfaces and communication protocols.
- c) The controller shall be powered by a Quad-core ARM-based processor to ensure fast logic execution and reliable real-time performance, supported by a minimum of 2 GB RAM and 8 GB onboard flash storage for storing configuration files, logic programs, and system data.
- d) It shall include a Gigabit Ethernet port (10/100/1000 Mbps, RJ45) for high-speed network communication, remote configuration, and monitoring capabilities.
- e) For device interfacing and control, the controller shall provide four bi-directional RS-232/RS-485 serial ports, two software-selectable IR/Serial control ports, and two configurable Digital I/O ports, enabling integration with a wide range of third-party AV and automation devices.
- f) The device shall function on 12V DC power input with a 2A external power supply, consuming approximately 15W under typical operation.
- g) The design shall feature fanless convection cooling, ensuring silent, reliable performance and extended lifespan in mission-critical installations.
- h) The controller shall comply with CE, FCC, and RoHS standards, ensuring adherence to international safety, electromagnetic compatibility, and environmental protection norms.
- i) The proposed automation controller shall combine compact design, high reliability, fanless operation, multi-protocol compatibility, and network expandability, making it ideal for

intelligent AV system automation, control, and integration in professional environments such as boardrooms, classrooms, and control centers.

- j) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.
- k) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements.
- l) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM. The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

15. Touch Panel - 1 No.

Supply, Installation and Configuration of 8 inch Touch Panel with the following specifications:

- a) High-performance 8-inch professional-grade touch panel, designed for flexible control, room scheduling, web kiosk, and conferencing integration in modern AV installations.
- b) The panel shall feature an 8" diagonal IPS TFT LCD display with a resolution of 1280 × 800 pixels (aspect ratio 16:10), brightness of approximately 350 cd/m², contrast ratio of ~800:1, and viewing angles of ±80° horizontal and vertical.
- c) The touch overlay shall be capacitive multi-touch supporting at least five (5) simultaneous touch points, with palm-rejection and wet-finger operation as required for reliable user interaction.
- d) The panel shall include dual side-mounted LED indicator strips (RGB, fully customisable) for visual status indication (e.g., room occupancy).
- e) For audio/visual and conferencing capabilities the panel shall incorporate a 5 MP front-facing HD camera (fixed-focus lens), dual built-in microphones, and two internal speakers (2 W each) to support videoconferencing and integrated control tasks.
- f) The unit shall support Power over Ethernet (PoE 802.3af, up to 15.4 W) via RJ-45 connector and include a USB Type-C or USB Type-A OTG port for firmware updates or auxiliary devices.
- g) It shall support RJ-45 Ethernet data (10/100/1000-capable) for network connection and remote management including mounting on wall, glass or VESA surfaces, as well as optional tabletop stand accessories.
- h) The panel's mounting flexibility shall include wall mount, glass mount (via adhesive pad), VESA mount, and tabletop use via optional stands.
- i) The panel shall carry CE, FCC Class B and CB certifications (or equivalent) and shall be backed by the manufacturer's minimum 3-year warranty from date of installation.
- j) The supply shall include the touch panel, the universal mounting plate (for wall/glass/VESA), adhesive pad for glass mounting, screws and template.
- k) The bidder shall include all necessary configuration, firmware loading, mounting, commissioning and integration with the AV control and scheduling systems as part of the scope.
- l) The bidder shall ensure OEM-backed technical assistance, firmware updates, and maintenance during the warranty period.

- m) The OEM shall confirm that the offered model is a standard commercial product, not nearing end-of-life, and shall provide all necessary certifications and compliance documents as per tender requirements.
- n) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- o) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

16. Accessories - 1 Lot

Supply, Installation and Configuration of all types of Accessories:

- a) 4-Port USB Sharing Switch, enabling four computers to share four USB devices simultaneously or selectively.
- b) The unit shall support USB 3.2 Gen 1 data transfer speeds up to 5 Gbps with full hot-plugging capability and OS compatibility across Windows, macOS, and Linux.
- c) It shall provide LED indicators for port and communication status, support RS-422/RS-485 remote control, and include over-current protection on each port.
- d) The device shall feature a metal chassis, wall-mountable design, DC 9–24 V power input, and firmware upgrade capability for future updates.
- e) The system shall also include a professional-grade 4x4 HDMI Matrix Switcher, designed for routing ultra-high-definition signals across multiple sources and displays.
- f) The switcher shall support 4K@60 Hz (4:4:4), HDR10, 3D, and a maximum bandwidth of 18 Gbps, compliant with HDCP 2.2/1.4. It shall feature EDID management (Auto/Manual/Copy), audio de-embedding, and support for all major digital audio formats.
- g) Control shall be available via RS-232, IR, TCP/IP, and front-panel interface with OLED display.
- h) The unit shall operate on 12 V DC, with low power consumption and fanless design, suitable for rack or tabletop installation.
- i) Additionally, the system shall include high-quality USB 3.2 Gen 1 and HDMI cables and extenders for professional AV and conferencing applications.
- j) USB cables shall support data rates up to 5 Gbps, feature Type-A Male to Type-A Female connectors, and be available in lengths up to 10 meters (extendable to 50 meters with active repeaters).
- k) HDMI 4K extenders shall support CAT6 or Fiber transmission up to 50 meters or more, with full EDID support and plug-and-play functionality.
- l) All cables and accessories shall be RoHS-compliant, durable, and supplied complete with necessary connectors for installation.

17. Dash Board (Integration Software) and Mobile App - 1 No

Designing of Dash Board Integration Software with the following features/functions:

- a) Centralized Integrated Command Dashboard Software, providing a unified interface for real-time viewing, control, monitoring, and coordination of multiple types of connected equipment, devices, and data sources from different field units.
- b) The dashboard shall allow seamless integration of various client-side data inputs, including GPS trackers, CCTV or surveillance feeds, body-worn camera video, vehicle-mounted

cameras, and optionally drones or other monitoring devices, thereby providing a consolidated operational view across one or multiple display screens as required.

- c) The platform shall provide live situational awareness by overlaying field assets and user positions on Google Maps or equivalent mapping services, supporting geo-location visualization, movement tracking, and historical playback of data.
- d) The dashboard shall support two-way communication (audio/video/data) between the command center and field personnel and be compatible with IP-based, mobile, and tablet interfaces, ensuring access from any authorized device through a secure login.
- e) The system architecture may be cloud-based, on-premises, or hybrid, as per the project requirement, ensuring data security, scalability, and redundancy.
- f) The GPS tracking devices shall support continuous data transfer to the central cloud server, with optional offline data caching during network downtime, and configurable report generation (daily, weekly, or monthly) accessible through the dashboard interface.
- g) The dashboard software shall also support mobile and tablet-based access, allowing command officials to view live maps, alerts, and video streams in real-time.
- h) The proposed setup shall include a Zoom Video Conference License (or equivalent) for up to 100 users, integrated with the Command Dashboard for seamless collaboration, live coordination, and remote conferencing between field units and command center officials over the three-year operational period.
- i) The entire solution shall operate as a unified command and communication ecosystem, integrating live visual feeds, GPS tracking, AI analytics, and video conferencing to enable real-time decision-making and operational efficiency.
- j) All hardware, software, connectivity, licenses, and accessories required for full functionality—including routers, SIM cards, cables, mounts, and relevant integration components—shall be supplied by the system integrator.
- k) The system architecture shall be modular and scalable, supporting future expansion in terms of additional cameras, GPS units, or user licenses without requiring a major redesign of the core platform.

18. 42U Network Rack - 1 No.

Supply and fixing of 42U Network Rack with the following specifications:

- a) 42U (800x1000) floor standing rack cabinet suitable for installation of standard 19-inch IT and networking equipment.
- b) The rack shall be fabricated from heavy-duty CRCA steel with powder-coated finish and designed for floor mounting with adequate load-bearing capacity.
- c) It shall be provided with lockable front and rear doors, removable side panels, adjustable mounting rails, and proper ventilation through perforated or vented doors.
- d) The rack shall have top and bottom cable entry provisions and shall support fan mounting for effective cooling.
- e) Necessary accessories such as mounting hardware, earthing kit, adjustable leveling feet, castor wheels, and basic cable management shall be included.
- f) The 42U rack shall be supplied with an internal rack-mountable Power Distribution Unit (PDU) having Indian round pin socket outlets suitable for IT equipment.

- g) The PDU shall be provided with multiple output sockets and an inbuilt MCB for overload and short-circuit protection, along with an adequate length power cable for safe and reliable power distribution inside the rack.
- h) The complete 42U rack system shall be suitable for use in control rooms, data centers, and communication rooms, ensuring organized equipment installation, safe power distribution, and ease of maintenance.
- i) It Includes Front Perforated Door & Rear Divide Perforated Metal Door Floor Standing Cabinet including 2 Fans with Tray, 1U Horizontal Cable Manager, Plastic Loops-1No, Earthing Kit, Mounting Hardware, 1U Fixed Shelf, 6 Amp MCB , 2.5 Mtr Cable Length Vertical
- j) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- k) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

19. 21 U Network Rack - 1 No.

Supply and Fixing of 21 U Network Rack with the following specifications:

- a) 21U (600x600) floor standing rack cabinet suitable for housing active and passive networking, IT, and communication equipment, conforming to standard 19-inch rack mounting requirements.
- b) The rack cabinet shall be fabricated from high-quality SPCC/CRCA cold-rolled steel and shall be finished with anti-corrosive powder coating, making it suitable for continuous indoor operation in control rooms, data centers, and communication rooms.
- c) The cabinet shall be designed for floor mounting and shall have adequate mechanical strength and load-bearing capacity to support fully populated network and IT equipment.
- d) The rack shall be provided with a lockable toughened glass front door and a lockable metal or perforated rear door, both mounted on heavy-duty hinges with an opening angle of up to 180 degrees for ease of installation and maintenance.
- e) Removable side panels with locking provision shall be provided to allow access to equipment and cabling from all sides.
- f) The rack shall be compatible with standard 19-inch equipment and shall include adjustable vertical mounting rails to accommodate various equipment depths.
- g) The cabinet shall be designed with top and bottom cable entry facilities for organized routing of power and data cables and shall include provision for ventilation and fan mounting to ensure proper heat dissipation during continuous operation.
- h) The rack shall be supplied with adjustable leveling feet and heavy-duty castor wheels to allow both mobility and stable positioning at site. All necessary accessories such as mounting hardware, earthing kit, and basic cable management provisions shall be included as part of the supply.
- i) The 22U floor standing rack shall be suitable for structured cabling systems, networking equipment, servers, and power accessories, ensuring safe housing, organized installation, ease of maintenance, and long-term reliable operation as required under the scope of the tender.
- j) It includes Front Glass Door & Rear Perforated Door Floor Standing Cabinet including 2 Fans with Tray, 1 no 1U Horizontal Cable Manager with Plastic Loops, RAL 9005.

- k) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- l) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

20. 15KVA Online UPS - 1 No.

Supply, installation and configuration of 15KVA Online UPS with the following specifications:

- a) 15 kVA Online UPS, designed for critical applications requiring uninterrupted, clean, and stable power.
- b) The UPS shall have a three-phase input and single-phase output(3:1) configuration and shall be supplied complete with batteries, interconnecting cables, and installation accessories.
- c) The UPS shall operate on an internal DC bus voltage of 288 V DC, achieved using 24×12 V sealed maintenance-free (SMF) batteries connected in series, and shall include a minimum 12 A integrated charger for optimal battery management and quick recharge capability.
- d) The supplied battery bank shall comprise 24 nos. of 12 V, 100 Ah SMF batteries, capable of delivering a minimum of 90 minutes backup at the rated connected load.
- e) Pure sine-wave output with total harmonic distortion (THD) $\leq 3\%$ under linear load
- f) Efficiency $\geq 90\%$, Output power factor ≥ 0.8 or better.
- g) The system shall include comprehensive protection and indication for AC input failure, battery discharge, battery low, overload, short-circuit, and inverter fault conditions.
- h) The UPS shall support intelligent communication interfaces including RS-232/USB ports, and be compatible for centralized monitoring and management.
- i) Audible and visual alarms shall be provided for all critical operating states.
- j) The scope of supply shall include complete installation, inter-battery cabling, termination accessories, commissioning, and submission of documentation including manufacturer datasheets, single-line diagrams, battery layout, and test reports.
- k) The UPS and batteries shall comply with relevant IS/IEC standards for safety, performance, and electromagnetic compatibility (EMC) and be suitable for continuous operation in local environmental conditions.
- l) The bidder shall confirm in the technical bid all key parameters including input/output voltage and frequency range, inverter waveform, THD, efficiency, crest factor, overload capacity, operating temperature, and humidity tolerance.
- m) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- n) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

21. 1KVA Online UPS - 40 Nos.

Supply, installation and configuration of 1KVA Online UPS with the following specifications:

- a) 1 kVA Online UPS with inbuilt batteries compliance with IEC 62040-3 or equivalent international standards.

- b) The UPS shall have a minimum input power factor of 0.99 and a minimum output power factor of 0.9, delivering an output capacity of not less than 1000 VA / 900 W.
- c) The output waveform shall be pure sine wave, with selectable output voltage of 220 V / 230 V / 240 V AC and voltage regulation within $\pm 1\%$. Output voltage total harmonic distortion shall be $\leq 2\%$ for linear loads under both mains and battery operation, and transfer time from mains to battery shall be zero milliseconds.
- d) The UPS shall be designed to operate over a wide input voltage range of minimum 100 VAC to 300 VAC and shall accept input frequency ranges of 45–55 Hz and 54–66 Hz, ensuring compatibility with unstable utility power and generator supplies.
- e) The system shall include inbuilt protections such as over-voltage protection, over-temperature protection, input surge protection, inrush current limiting, short-circuit protection, and automatic fault recovery.
- f) The UPS shall be compatible with generator operation with minimum generator sizing of 2.2 times the UPS rated capacity.
- g) The UPS shall incorporate an inbuilt battery system with a nominal DC voltage of approximately 24 V, equipped with intelligent battery management, battery capacity calculation, and controlled charging with adjustable charging current up to 1.5 A.
- h) The equipment shall be suitable for critical applications such as IT servers, networking and storage equipment, security and surveillance systems, industrial automation, laboratory instruments, telecom, ATM, and signaling systems.
- i) The UPS shall be capable of operating in ambient temperatures ranging from 0°C to 40°C, with relative humidity up to 95% non-condensing, and shall produce an audible noise level of less than 40 dB at 1 meter.
- j) The UPS shall be provided with RS-232 communication interface and a communication slot to support optional network management, Modbus, or dry-contact interface cards. Input connection shall be through a suitable rated IEC connector, and the UPS shall provide minimum four IEC 10A output sockets. The enclosure shall be compact and suitable for floor or desktop installation.
- k) The UPS shall comply with applicable IS/IEC standards for safety and electromagnetic compatibility.
- l) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- m) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

22. L3 Managed PoE switch - 1 No.

Supply, Installation and Configuration of L3 Managed PoE switch:

- a) The proposed system shall comprise an integrated enterprise-class networking solution designed to provide high-performance switching, dual load balancing, and centralized cloud-based management for critical environments such as Command and Control Centers or Data Control Rooms.
- b) The solution shall include a 24-Port Gigabit Stackable Layer 3 Managed PoE+ Switch, featuring advanced routing, redundancy, and security functionalities to ensure stable, high-capacity network performance.

- c) The switch shall be equipped with 24 Gigabit RJ45 PoE+ ports compliant with IEEE 802.3af/at standards, along with 4 numbers of 10G SFP+ uplink slots for high-speed backbone connectivity to core switches or servers.
- d) It shall support an aggregate PoE power budget of up to 720 W, capable of powering multiple network-connected devices such as IP cameras, access points, and VoIP phones.
- e) The system shall be provided with dual redundant, field-replaceable power supplies to ensure high availability and continuous operation (additional power supply cost, if any, to be quoted separately).
- f) The switch shall support Layer 3 dynamic routing protocols including RIP, OSPF, ECMP, VRRP, PIM-DM, and DHCP Server/Relay for efficient traffic management and intelligent segmentation.
- g) Comprehensive network security features such as Access Control Lists (ACLs), Port Security, Denial-of-Service (DoS) Defense, and IEEE 802.1X Authentication shall be incorporated to protect the network from unauthorized access and cyber threats.
- h) The proposed solution shall also include an Enterprise VPN Router supporting enterprise-grade WAN connectivity, equipped with a minimum of two 10 GE SFP+ ports (one dedicated WAN and one configurable as WAN/LAN) and capable of supporting up to ten WAN ports for flexible link aggregation and failover.
- i) The router shall support dual load balancing and automatic failover for uninterrupted internet connectivity, along with high-security VPN technologies including IPsec, PPTP, and L2TP for secure remote access and site-to-site communication.
- j) The router shall allow centralized configuration and monitoring through a unified Cloud Controller Platform, enabling administrators to manage routers, switches, and wireless access points under a single dashboard.
- k) The integrated network architecture shall ensure redundant routing and switching paths, seamless failover between WAN links, and centralized cloud-based management for all connected devices.
- l) It shall provide full compatibility with enterprise-class access points, ensuring unified policy enforcement, efficient traffic distribution, and optimized network performance.
- m) The complete solution shall be supplied with all necessary mounting accessories, modules, SFP transceivers, power cables, licenses, and comprehensive documentation including user manuals and warranty papers.
- n) The offered equipment and solution shall carry a minimum of 3 years comprehensive warranty covering hardware, firmware, software updates, and controller access.
- o) The system shall be suitable for mission-critical 24×7 operations in high-reliability environments demanding dual WAN load balancing, advanced Layer 3 performance, and enterprise-grade manageability.

23. Motorised Display - 1 No.

Supply, Installation and Configuration of Motorised Display:

- a) Motorised ultra-thin TFT monitor lift unit suitable for flush mounting into the conference table.
- b) The housing and front panel shall be made of high-grade aluminium alloy with a brushed anodized finish, ensuring durability and aesthetic appearance.

- c) The system shall include a Full HD (1920×1080) TFT/LED display of size 21.5 inches (approx.), with wide viewing angle and anti-glare glass protection.
- d) The lifting mechanism shall be motorised, driven by a dual synchronous motor with a silent gear transmission system for smooth and quiet operation (<30 dB noise level).
- e) The screen shall automatically tilt to an ergonomic viewing angle (0–60°) when raised and retract fully into the table when not in use. The system shall feature anti-pinch protection, soft start/stop motion, and auto power ON/OFF synchronized with the lift movement.
- f) Control shall be possible through touch button on top panel, wireless remote control, and RS-232/RS-485 interface for integration with central control or automation systems.
- g) The lift shall provide HDMI, VGA, and USB input ports for easy signal connectivity.
- h) The complete system shall operate on 110–240 V AC, 50/60 Hz, and shall include all necessary accessories, control modules, and power cables for installation and commissioning.
- i) The supplier shall provide factory-built units, fully tested prior to dispatch, with all cut-out and mounting details for integration into conference furniture.

24. Telephone System - 1 No.

Supply, installation and configuration of an IP PBX Telephone System with the following specifications:

- a) Unified communication platform integrating voice, video calling, video conferencing, video surveillance, web meetings, data, analytics, mobility, facility access, and intercom functions over a centralized network.
- b) Consist of twelve IP landline telephones connected to one IP-based PBX system supporting a minimum of four input trunks and up to twenty concurrent lines, with CAD-supported call handling and enterprise-grade reliability.
- c) Each IP telephone shall support a minimum of two SIP accounts and two simultaneous lines and shall provide built-in five-way audio conferencing capability to enable efficient internal and external conference calls.
- d) The system shall support centralized call management, call routing, conferencing, and future scalability, and shall be fully configured, integrated, and commissioned by the bidder to deliver a complete and operational IP telephony solution.

25. Firewall- 1 No.

Supply & Configuration of Firewall with the following specifications/functions:

- a) A Next Generation Firewall appliance shall be of enterprise-grade design incorporating a dual-core architecture with a dedicated network processing unit to ensure high performance, low latency, and efficient traffic handling under peak load conditions.
- b)]The appliance shall be equipped with dedicated management I/O ports and a high-density port architecture, supporting maximum port scalability with future expansion capability.
- c) The firewall shall include local storage or SSD for log retention, reporting, and system operations.

- d) The firewall appliance shall meet stringent performance requirements, including high firewall throughput, firewall IMIX performance, NGFW throughput, IPS throughput, threat protection throughput, SSL inspection throughput, IPsec VPN throughput, and support for a large number of concurrent connections and new session establishment per second.
- e) The appliance shall support a sufficient number of IPsec VPN tunnels and be capable of handling secure site-to-site and remote access VPN traffic without performance degradation.
- f) The NGFW shall be capable of full stateful packet inspection and shall allow firewall policy configuration based on multiple parameters including network, protocol, user, user groups, applications, and services.
- g) The solution shall not impose fixed zone-to-interface mapping, allowing any interface to be configured into any security zone as per design requirements.
- h) The firewall shall support Geo-IP based traffic control to block or allow traffic originating from specific countries.
- i) The firewall shall include a fully integrated Intrusion Prevention System (IPS) with the capability to create and deploy custom IPS signatures and policies.
- j) It shall be capable of identifying and blocking command-and-control (C&C) communications, malicious domains, botnet traffic, and unwanted web categories.
- k) The solution shall support URL filtering, web category enforcement, custom web category creation, and keyword-based web monitoring with the ability to upload custom keyword lists for logging, reporting, or blocking purposes.
- l) The appliance shall support advanced deep packet inspection on a port-agnostic basis and shall be capable of inspecting encrypted traffic including TLS 1.1, TLS 1.2, and TLS 1.3.
- m) The firewall shall enforce inspection policies based on certificate validity, protocol version, cipher strength, issuer trust, and name mismatch conditions.
- n) Application filtering and control shall be supported to allow granular visibility and enforcement over application traffic.
- o) The NGFW shall support Advanced Threat Protection (ATP) using multi-layered techniques such as DNS analysis, application flow control, firewall intelligence, and zero-day threat detection to prevent communication with malicious servers.
- p) The appliance shall support comprehensive High Availability (HA) configurations including Active-Active and Active-Passive modes.
- q) The solution shall provide comprehensive logging and reporting capabilities, including per-appliance reporting and integration with external syslog servers.
- r) Compliance reports for standards such as HIPAA, SOX, PCI, FISMA, and CIPA shall be supported, with report export available in HTML, PDF, and Excel formats.
- s) The appliance shall support minimum three expansion slots for future port density increase and shall be capable of supporting multi-gig copper interfaces such as 2.5 Gigabit Ethernet.
- t) The firewall shall be supplied with dual hot-swappable, auto-ranging internal power supplies from day one to ensure uninterrupted
- u) The solution shall be supplied with a comprehensive three year subscription license, covering firewall services, gateway antivirus, anti-malware, DPI SSL inspection, web filtering, application control, zero-day protection, botnet and C&C protection, advanced threat protection, intrusion prevention system, 24×7 OEM support, security updates, software updates, and advanced exchange warranty for the entire subscription period.

- v) The firewall shall support storage of at least two firmware versions simultaneously and allow rollback to a previous firmware version directly from the GUI without requiring firmware re-upload.
- w) The firewall shall be manageable via graphical user interface (GUI), command line interface (CLI), and centralized management console without any additional licensing cost.
- x) The firewall OEM product or product family shall possess MTCTE certification from TEC, and the operating system family shall have at least one Common Criteria EAL4+ certification or equivalent Indian certification.
- y) The OEM shall have an established Technical Assistance Center (TAC) presence in India and shall provide a defined escalation matrix for support.
- z) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- aa) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

26. Internet Connectivity= 2 Nos.

- a) Two independent High-speed broadband internet connections with a minimum dedicated bandwidth of 200 Mbps, ensuring stable and uninterrupted connectivity to ensure uninterrupted internet availability on a 24×7 basis for office operations, cloud access, and video conferencing applications.
- b) The two ISP links shall be sourced from separate service providers with independent last-mile connectivity to avoid single points of failure and ensure high availability. The setup shall support automatic or manual failover to maintain continuous internet access in the event of outage or degradation on one link. The service shall include necessary networking equipment, configuration, and monitoring support to ensure stable performance, low latency, and reliable uptime. The internet service shall be enterprise-grade, offering symmetrical upload and download speeds with a minimum uptime guarantee of 99%.
- c) The service shall include public static IP allocation, router configuration, and bandwidth monitoring support.
- d) The broadband connection shall be provided and maintained for a period of three years, including all necessary networking hardware, cabling, and service-level support from the Internet Service Provider (ISP).

27. AC, Ceiling and Acoustics - 2 Lots for CCC and VC Hall

Supply, Designing & Fixing of AC, Ceiling and Acoustics:

- a) LED ceiling lights of suitable power rating as per site conditions.
- b) Fixtures shall preferably be recessed or semi-recessed, coordinated with ceiling grids, AC diffusers, and panels for uniform placement.
- c) The contractor shall provide all necessary clips, suspension hooks, junction boxes, and wiring for a complete and functional installation.
- d) Ceiling-mounted cassette type air conditioners shall be provided in different capacities as per site requirements, featuring 4-way air flow distribution for uniform cooling.
- e) The units shall operate on Single Phase 230V AC ±10%, 50Hz, and include all required refrigerant piping, drain piping, cables, and mounting brackets.

- f) Control shall be via wireless remote with a timer ON/OFF programming option. The timer switcher shall be compatible with both air conditioning and lighting circuits.
- g) Ceiling acoustic treatment shall be provided above or below the false ceiling as required, using mineral fiber tiles, polyester panels, or rock wool slabs with fabric or perforated finish in white or light tones.
- h) The false ceiling shall accommodate lights, AC diffusers, and fire sensors as applicable.
- i) Wall acoustic panels shall be installed on all sides or selected partitions as directed, with a fabric finish and concealed or neat visible fixing. Edges shall be finished neatly, with acoustic sealant applied if required.
- j) Curtains may be roller, vertical blinds, or fabric drapes depending on window type, made of blackout or dim-out fabric.
- k) Curtain rods or channels shall be powder-coated aluminum or steel, with all accessories included.
- l) A 1 Ton Split Type Air Conditioner suitable for indoor office/commercial environments.
- m) The unit shall be of high-efficiency inverter type with energy-saving capabilities, providing precise temperature control and uniform air distribution through 4-way airflow.
- n) The AC must include a timer switcher for automated ON/OFF operation and programmable scheduling to optimize energy consumption.
- o) Noise levels shall be minimal for comfortable occupancy.
- p) All installation works shall include necessary copper piping, insulated refrigerant lines, electrical connections, mounting hardware, and commissioning to ensure full operational functionality.
- q) Floor carpet shades shall coordinate with walls and furniture, with neat finishing at all edges and cutouts; minor batch color variations are acceptable.

28. Furniture, Interiors & Accessories - 2 Nos. for CCC and VC Hall

Supply, Designing & Fixing of Furniture, Interiors & Accessories:

- a) The scope shall also cover the safe dismantling and removal of existing furniture items from the designated area prior to installation of the new setup.
- b) The removed furniture shall be handled carefully and disposed of or relocated as directed by the client, ensuring no damage to the surrounding finishes or equipment during the process.
- c) The Chairperson's Chair shall be of high-back, ergonomic design, ensuring comfort and proper posture support during long hours of use.
- d) It shall include soft cushioning or PU foam filling, with upholstery in leather, leatherette, or high-quality fabric, depending on the final selection and interior coordination.
- e) The color shade shall be finalized during execution to match the table, wall, and flooring theme.
- f) The chair shall preferably include adjustable seat height, back tilt mechanism, and swivel design with chrome-plated or nylon five-star base and caster wheels.
- g) A headrest may be provided based on the final design selection. Executive Chairs for senior staff and management-level personnel shall be of medium-back or high-back model, selected as per table height and office layout.

- h) These chairs shall be ergonomic, featuring hydraulic lift adjustment, five-wheel base, and tilt-lock mechanism for enhanced comfort.
- i) Upholstery shall be of mesh or cushioned type with breathable back support, ensuring long-term durability.
- j) Armrests may be fixed or adjustable, with smooth and stable operation.
- k) The overall design and color shall harmonize with the main chair and workstation furniture.
- l) Office Chairs for general working staff shall be of standard ergonomic design, either fixed or revolving type, depending on workstation arrangement.
- m) Upholstery shall be durable fabric or mesh, in color tones matching the overall office theme.
- n) Chairs may have non-marking castors or static legs as suitable for the flooring type. Armrests are optional depending on desk spacing.
- o) While height and tilt adjustments are not mandatory, basic seating comfort and stability must be ensured.
- p) One custom-designed curved table suitable for five participants shall also be included in the scope. All the above works and installations shall be applicable to the Command Control Center and Conference Room areas as per the sizes and layouts specified in the tender documents and drawings.
- q) All furniture items and related accessories supplied under this contract shall be covered under a comprehensive warranty period of minimum three years. The warranty shall cover defects related to structural integrity, material quality, and workmanship.

29. Facial Access Control System - 2 Nos.

Supply, Installation and Configuration of Facial Access Control System:

- a) Facial recognition-based biometric attendance and access control terminal designed for high-performance operation in industrial and commercial environments.
- b) The unit shall feature an 8-inch IPS LCD touch display with a high-brightness, anti-glare screen for clear visibility in all lighting conditions.
- c) It shall employ a dual-core ARM Cortex processor ensuring fast and stable performance, with a recognition speed of ≤ 0.5 seconds per user.
- d) The device shall have a facial ID capacity of 1,00,000 users, a maximum user database of 1,00,000, and a log storage capacity of at least 2,00,000 records.
- e) The terminal shall support multiple communication interfaces, including Wi-Fi, TCP/IP, and USB connectivity, for flexible data transfer and integration with centralized attendance or access management software.
- f) The device shall be designed with industrial-grade construction and shall comply with IP66 protection rating, making it suitable for both indoor and semi-outdoor installations.
- g) The system shall offer stable and reliable performance under varying environmental conditions, with high accuracy in facial recognition even under low-light or dynamic backgrounds.
- h) It shall support configurable access control modes and be compatible with standard electromagnetic locks, exit switches, and door sensors.
- i) The equipment shall include all necessary accessories, power adapters, mounting brackets, and communication cables for complete installation and integration.

- j) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- k) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

30. Fire Alarm System - 1 No.

Supply, Installation and Configuration of Fire Alarm System:

- a) The Fire Alarm Control Panel (FACP) shall be a conventional type with a minimum of 4 zones, expandable if required.
- b) Each zone shall support smoke detectors, heat detectors, and manual call points with Class B wiring configuration.
- c) The panel shall operate on 230V AC, 50Hz mains power and shall include an inbuilt SMPS power supply with automatic charging for 24V DC standby batteries (2 × 12V, 7Ah sealed lead-acid batteries) capable of providing at least 24 hours standby followed by 30 minutes of alarm operation.
- d) The panel shall be provided with a clear LCD display, LED indications for Fire, Fault, Power, System ON, and Low Battery conditions, along with tactile keypad controls.
- e) The system shall include conventional photoelectric smoke detectors and/or combination photoelectric smoke cum heat detectors suitable for early fire detection.
- f) Detectors shall operate on 9–33V DC, be low-profile in design, and provided with dual LEDs for 360-degree visual indication. The detectors shall indicate normal condition by blinking LEDs and alarm condition by steady LEDs.
- g) Heat detection shall be fixed temperature and rate-of-rise type, with alarm activation around 59°C or rapid temperature rise.
- h) Detectors shall be mounted on standard bases and spaced as per NBC recommendations.
- i) Manual Call Points (MCPs) shall be conventional, resettable or break-glass type, operating on 24V DC, and shall provide visual LED indication during alarm conditions.
- j) MCPs shall be installed at all exits, staircases, and strategic locations as per fire norms. The MCP enclosure shall be robust, clearly marked, and easily accessible. Electronic sounders/hooters shall be provided for audible alarm indication.
- k) The sounders shall operate on 24V DC, be wall or ceiling mountable, and capable of producing a minimum sound level of approximately 90–100 dB at 1 meter.
- l) Sounders shall have a fire siren tone suitable for emergency evacuation and shall be evenly distributed to ensure audibility throughout the protected area. The system shall include all necessary cabling, conduits, accessories, junction boxes, end-of-line resistors, and terminations.
- m) Wiring shall be done using FRLS copper cables laid in PVC conduit or casing as per site conditions and standards. Each zone circuit and notification circuit shall be properly terminated with end-of-line devices to ensure fault monitoring.

31. All-In- One PC with Accessories - 40 Nos.

Supply, installation and configuration of All in One PC:

- a) All-in-one desktop with a 68.58 cm (27-inch) display.

- b) Full HD (1920×1080) resolution
- c) 13th Generation Intel® Core™ processor intel i7, 16 GB (2×8 GB) DDR5 at 5200 MT/s 512 GB or 1 TB M.2 PCIe NVMe SSD
- d) Graphics shall either use integrated Intel® Iris® Xe Graphics or include a discrete NVIDIA® GeForce® MX570A (2 GB GDDR6) option for enhanced performance.
- e) Wi-Fi 6E (Intel® AX211 2×2) and Bluetooth on board.
- f) I/O ports shall include:
 - g) 3 × USB 3.2 Gen1 (5 Gbps)
 - h) 1 × USB 3.2 Gen2 (10 Gbps)
 - i) 1 × HDMI-out
 - j) 1 × HDMI-in
 - k) 1 × RJ45 Ethernet
 - l) 1× Global Headset Jack;
- m) Side: 1 × USB Type-C Gen2 (10 Gbps).
- n) Power shall be supplied via an external AC adapter: 90 W adapter for Intel® Graphics variant; 130 W adapter for NVIDIA® Graphics variant.
- o) The system shall be supplied with pre-installed Microsoft Windows Wireless keyboard & mouse Accessories, cables, shall be included.
- p) The supply shall include a wired or wireless keyboard and mouse set, and a suitable 4Gb graphics card.
- q) An integrated HD Webcam cum Microphone attachable at the top of the PC for attending video conferencing calls shall be provided.
- r) The entire system shall be supplied with all required installation accessories, cables, licenses, and configuration support to ensure complete operational readiness at the time of deployment.
- s) The system and accessories shall be covered under a minimum 3 years comprehensive onsite warranty from the OEM, including all parts, labor, and service support during the warranty period.
- t) The system shall be supplied with a pre-installed licensed Microsoft Windows operating system, wired or wireless keyboard and mouse, integrated HD webcam with built-in microphone mounted at the top of the unit.
- u) All necessary accessories, cables, licenses, installation, and configuration support shall be included to ensure full operational readiness at deployment.
- v) The bidder shall provide an OEM Manufacturer Authorization Form (MAF).

32. Lighting Strobe for Fire Stations - 200 Nos.

Supply, Installation and Configuration of Lighting Strobe:

- a) The lighting strobe/flasher shall be a high-intensity visual signaling device designed for emergency alert, warning, and indication applications.
- b) The unit shall operate on a voltage range of 110–240V AC or 12/24V DC, with low power consumption and high luminous efficiency.
- c) The flasher shall feature high-brightness LED or xenon strobe technology providing a minimum flash rate per minute, with a visibility distance of at least 100 meters in clear conditions.

- d) The unit shall support continuous or pulse flashing mode and allow for synchronization with alarm panels, fire systems, or other signaling circuits and RS-232 serial communication for remote ON/OFF control, flash rate adjustment, and monitoring by centralized control systems.
- e) It shall also give a loud sound signal to alert the staff and option to have different alarm sounds.
- f) It shall be available in multiple color options (Red, Blue, Amber, Green, White) and equipped with clear lens protection to maintain optical performance.
- g) The strobe shall be designed for wall or surface mounting and include all necessary mounting accessories.

33. Facility Management Services - 1 Person

Facility Management Services for a period of 3 years:

- a) Facility Management Services (FMS) for a period of three years from the date of system commissioning, ensuring complete monitoring, operation, and maintenance of all installed equipment.
- b) Qualified General Engineers with relevant technical backgrounds shall be deployed to manage day-to-day operations, perform preventive and corrective maintenance, and maintain proper system records and performance reports.
- c) The engineers shall ensure smooth functioning of power, HVAC, lighting, networking, safety, and audiovisual systems, and coordinate with OEMs for any major repairs or warranty support.
- d) All necessary tools, testing equipment, and consumables shall be provided by the contractor.
- e) Regular inspections, timely fault resolution, and monthly reports shall be part of the service to ensure reliable and efficient facility operation throughout the three-year project period.

34. Body Worn Camera - 50 Nos.

Supply, Installation and Configuration of Body Worn Cameras with the following specifications:

- a) The Body Worn Camera System (BWCS) shall be a single integrated device comprising a camera, rechargeable battery, and associated components.
- b) The recording unit shall be capable of capturing clear, high-definition colour video, audio, and still photographs from the officer's point of view.
- c) The camera shall be designed for comfortable wearing on the body, mounted securely on the shoulder, shirt front, or pocket using an ambidextrous clip or attachment that ensures stability during movement.
- d) The camera shall feature an 8 Megapixel CMOS image sensor and an auto-focusing lens with a wide field of view ranging from 120° to 139°.
- e) It shall support full HD video recording with a resolution of 1920 x 1080 pixels at a minimum frame rate of 30 fps.
- f) The device shall be equipped with day and night functionality through infrared LEDs providing clear recording up to a minimum of 10 meters in complete darkness.

- g) The camera shall include a 2-inch colour LCD display for playback and configuration and shall support automatic flash triggering.
- h) The system must allow capturing photographs during video recording and support date, time, and GPS coordinate stamping on all videos and photographs.
- i) The camera shall provide a pre-event recording feature of at least 30 seconds prior to pressing the recording button.
- j) Supported image formats shall include JPEG, video output in MP4 format, and video compression formats shall include MPEG-4 / H.264 / H.265 with audio compression in MP3 format.
- k) The video compression frame rate shall be up to 30 fps. The total weight, including the battery and carrying case, shall not exceed 150 grams.
- l) The camera shall be supplied with suitable mounting clips (pocket, Molle, chest, or shoulder mounts), cables, adapters, and an extra battery.
- m) The system shall include security features preventing any user-level deletion, editing, or overwriting of recorded videos or photographs. Configuration and video management shall be carried out only through dedicated management software provided by the OEM.
- n) The software shall enable the administrator to back up and transfer data from multiple devices, perform searches based on device, user, time, or filename, and configure all operational settings including real-time clock adjustments.
- o) The camera shall have inbuilt storage of 128 GB, expandable up to 512 GB via microSD memory card.
- p) Data transfer shall be through a USB 3.0 interface.
- q) The device shall be powered by rechargeable Li-ion cells with a minimum capacity of 3000 mAh, providing at least 8 hours of continuous video recording backup and a full recharge time of up to 4 hours.
- r) A separate battery charger shall be included in the supply.
- s) The camera shall be IP67-rated for dust and water protection and capable of operating in temperatures ranging from -30°C to +60°C and humidity levels up to 90% (non-condensing).
- t) The system shall carry a minimum OEM on-site warranty of 3 years.
- u) The supply shall also include a 8-channel Docking Station for simultaneous data backup and device recharging.
- v) The docking station shall support two storage disks (each up to 12 TB, minimum 10 TB usable capacity) and be equipped with an integrated 7-inch touch screen display (1024×600 resolution) for monitoring and management.
- w) The docking station shall be suitable for 24x7 continuous operation.
- x) All products must be supported with valid NABL/ILAC-accredited or Central Government laboratory test reports proving conformity to the specifications.
- y) Test report numbers, dates, and laboratory details shall be provided at the time of supply.
- z) The complete solution shall be centrally managed using OEM-supplied centralized monitoring software and backed by comprehensive on-site OEM support for a period of three years, along with 4G data connectivity and internet for 3 years for seamless operation and real-time monitoring.
- aa) OEM R&D must be registered with DSIR - India. Proof needs to submit.
- bb) OEM should have been established in India at least for 12 years with same firmware name, its presence should be supported with brand registration certificates like TM, COI, etc.

- cc) OEM should have a manufacturing facility in India for 7+ years to support Make in India.
- dd) BIS certificate with factory address in India is mandatory.
- ee) OEM must provide a certificate that the proposed model of CCTV products must not become obsolete within a period of 3 years in case it gets EOL due to technology advancement then OEM will support the equivalent or higher model.

35. GPS Devices - 400 Nos.

Supply, Installation and Configuration of GPS:

- a) GPS Vehicle Tracking Device designed for real-time location monitoring and fleet management.
- b) The device shall operate on RDA8955L hardware platform with supporting dual-band GSM/GPRS frequencies (850/1900 or 900/1800 MHz).
- c) It shall integrate GPS and BD positioning compatible with CoreStar 6228 and AT6558R chips, offering high sensitivity up to -165 dBm for accurate tracking.
- d) The tracker shall feature built-in antennas — a 25×25×2 mm ceramic GPS antenna and an onboard GSM antenna — with fast acquisition times (Hot Start <2 sec, Warm Start <15 sec, Cold Start <38 sec under open sky).
- e) It shall support 9–90V DC power input, ACC ignition detection, acceleration sensor, cut-off oil and power, and light tamper-proof protection. The unit includes LED indicators for power (red), GPS (blue), and GSM (green) status.
- f) The device shall store up to 999 backup location records, support UART communication interface, and feature a 55 mAh battery for backup. Software configuration shall be available via SMS commands or platform interface, supporting 10-second GPRS reporting intervals, always-connected operation, and monitoring through web or mobile application.
- g) Functional features include electronic fence, remote control oil and electricity, illegal wire-cut alarm, vibration and collision/rollover alerts, and real-time status display for GPS position, GSM signal strength, and battery level.
- h) The tracker shall provide reliable and continuous vehicle tracking for commercial and transport applications with complete integration capability to centralized monitoring platforms.

36. Tablets for Vehicles - 200 Nos.

Supply, Installation and Configuration of Tablets:

- a) Minimum 11-inch display screen
- b) Resolution of 2560 × 1600 pixels
- c) Octa-core processor (2.2 GHz or higher)
- d) Android 15 or higher with a user-friendly interface.
- e) At least 8 GB RAM and 256 GB internal storage, expandable up to 1 TB via a microSD card.
- f) Rear camera of minimum 8 MP resolution with autofocus and a front camera of at least 5 MP, capable of full HD (1080p) video recording.
- g) Minimum 7,000 mAh Li-ion battery supporting fast charging (15 W or higher).

- h) The device shall be supplied with OEM standard accessories, including power adapter, USB cable, and protective cover.
- i) It shall be compatible with the Centralized Monitoring Software of the Body Worn Camera System for remote access, playback, live streaming, and data management.
- j) Screen Protector for Tablet: To protect the Tab from mechanical Damages, Screen protector is to be provided.
- k) Rugged case for Tablet: Rugged case provides best all-round protection to tablet from any kind of impacts and mechanical damages. It should be durable and compatible for a mounting device to hold. It prevents scratching on the plastic shell of the tablet.
- l) Suitable Vehicle mount to hold the Tab firmly and able to absorb shocks from vehicle movement & bumps.

37. State wide Maintenance-1 Lot

State Wide Maintenance for a period of 3 years.

- a) For statewide operations covering a total of twenty-six districts, the bidder shall assign one dedicated and experienced resource responsible for coordination, rectification, and software maintenance services across all districts.
- b) This resource shall act as the single point of contact for statewide service activities, ensuring timely issue resolution, adherence to defined SLAs, minimal system downtime, and continuous operational availability during the contract period.

38. Power Surge & Earthing - 1 Lot

Supply & Installation of Power Surge & Earthing:

- a) A Power surge protection device designed to safeguard networking and IT equipment against transient voltage surges and electrical disturbances.
- b) The surge protection device shall be provided with a minimum of two RJ45 connectors for protection of data and network interfaces.
- c) The device shall be capable of handling a discharge current of not less than 10 kA and shall provide a voltage protection level of ≤ 1.5 kV to ensure effective suppression of surge energy.
- d) The maximum continuous operating voltage of the device shall be suitable for AC power systems in the range of approximately 275–320 V AC, and the unit shall feature a fast response time of ≤ 25 nanoseconds for rapid surge clamping.
- e) The surge protection device shall be suitable for DIN-rail mounting, allowing easy and secure installation within electrical panels or rack enclosures.
- f) The solution shall be supplied along with a complete earthing arrangement, including chemical earthing with proper grounding, to ensure effective dissipation of surge currents and safe operation of the power surge protection system.
- g) All accessories, interconnections, and installation materials required for proper grounding and surge protection shall be included as part of the scope of supply.

39. Network Accessories- 1 Lot

Supply and Installation of Network Accessories :

- a) All necessary network accessories required for a complete structured cabling system, such as I/O boxes, Cat6 patch cords, face plates, cable trays, cable managers, conduits, fasteners, and other associated accessories.
- b) All accessories shall be compatible with Cat6 cabling standards and suitable for installation in racks, work areas, and pathways.
- c) Cable trays shall be of adequate strength and size for structured cable routing and shall be properly supported and grounded.
- d) Patch cords shall be factory-terminated, tested, and suitable for high-speed data transmission.
- e) All network accessories shall be of good quality, durable, and suitable for organized, safe, and long-term network operation.

40. 24 Port Patch Panel - 2 Nos.

Supply and Installation of 24 Port Patch Panel :

- a) Cat6 24-port fully loaded patch panel suitable for installation in standard 19-inch rack cabinets.
- b) The patch panel shall be compliant with ANSI/TIA-568 and ISO/IEC standards and shall support Gigabit Ethernet performance.
- c) It shall be pre-loaded with Cat6 RJ45 keystone jacks, factory terminated and tested to ensure reliable performance.
- d) The patch panel shall be constructed with durable metal housing, provided with clear port numbering and cable management support at the rear for organized termination.
- e) The patch panel shall be suitable for structured cabling systems in data centers, control rooms, and network installations.
- f) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- g) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

41. CAT6 Network cable - 2000 Mtrs.

Supply and Laying of Cat6 Network Cable:

- a) Category 6 S/FTP double-jacket steel tape armoured external cables, conforming to ANSI/TIA 568.2-D, ISO/IEC-11801 Class E, and IEC 61156-5:2002 standards.
- b) The cable shall support IEEE 802.3an (10GBASE-T) applications and be tested up to 250 MHz to ensure compatibility with 1000Base-T and 1000Base-TX networks.
- c) Each cable shall consist of four twisted pairs of 23 AWG solid bare annealed copper conductors with polyethylene insulation, individually shielded with 100% AL/PET foil, and an overall braid of 40% tinned copper for enhanced electromagnetic compatibility and noise immunity.

- d) The construction shall include an inner PVC sheath, an ECCS tape armour, and a UV-stabilized PE outer jacket, providing mechanical protection and environmental durability for outdoor deployment.
- e) Electrical characteristics shall meet stringent parameters, including maximum conductor resistance of $93.8 \Omega/\text{km}$, insulation resistance of at least $5000 \text{ M}\Omega \cdot \text{km}$, and characteristic impedance of $100 \pm 15 \Omega$, ensuring high signal integrity and minimal crosstalk.
- f) The cable shall withstand high voltage testing of 2.5 kV DC for one minute and maintain performance across an operating temperature range of -20°C to $+60^\circ\text{C}$.
- g) In addition, the supply shall include 600 meters of 25 mm PVC conduit suitable for protecting and routing the cables in outdoor or exposed installations.
- h) The cable and conduit system shall provide durability, reliability, and long-term performance in harsh environments while ensuring compliance with applicable standards and best installation practices.
- i) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM.
- j) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

42. Ceiling routers - 2 Nos.

Supply and Configuration of Ceiling Routers:

- k) The wireless access point shall be a Wi-Fi 6 ceiling-mount type device capable of delivering an aggregate wireless throughput of approximately 3.0 Gbps, with dual-band operation supporting both 2.4 GHz and 5 GHz frequencies.
- l) The access point shall support high-efficiency Wi-Fi technologies to enable reliable connectivity for multiple concurrent users with improved throughput, reduced latency, and enhanced performance in high-density environments.
- m) It shall support 160 MHz channel bandwidth for higher data rates and seamless roaming to ensure uninterrupted voice and video sessions when users move across coverage areas.
- n) The device shall support mesh networking capability to allow flexible and extended wireless coverage without additional cabling.
- o) Centralized management through a cloud-based or on-premise controller via web interface and mobile application shall be supported for monitoring, configuration, and maintenance.
- p) The unit shall be powered through IEEE 802.3at PoE+ as well as optional DC power input, enabling flexible installation.
- q) The access point shall feature a slim, low-profile ceiling-mount design suitable for enterprise, institutional, and surveillance network deployments.

42. Wireless Routers - 40 Nos.

Supply and Configuration of Wireless Routers:

- a) The wireless router shall be a high-speed dual-band device capable of simultaneous operation on 2.4 GHz and 5 GHz frequency bands, designed for reliable connectivity in office and institutional environments.
- b) It shall support the latest IEEE 802.11 standards with backward compatibility to ensure seamless operation with existing wireless devices.

- c) The router shall provide high aggregate wireless throughput suitable for multiple concurrent users, with features to optimize bandwidth utilization, reduce latency, and enhance overall network performance.
- d) Integrated high-gain antennas shall ensure wide coverage and stable signal strength. The device shall include Gigabit Ethernet interfaces, with a minimum of one WAN port and multiple LAN ports for wired connectivity.
- e) Security features shall include advanced wireless encryption, firewall protection, guest network isolation, and access control mechanisms.

44. 24 Port Network Managed PoE Switch - 2 Nos.

Supply, Installation and Configuration of 24 Port Managed PoE switch:

- a) The switch shall be a Layer-2+ managed Gigabit Ethernet switch with a minimum of 28 ports, comprising $24 \times 10/100/1000$ Mbps RJ-45 PoE+ ports compliant with IEEE 802.3af/at standards and $4 \times$ Gigabit SFP uplink slots, supporting a minimum total PoE power budget of 384 W.
- b) The switch shall deliver a minimum switching capacity of 56 Gbps and a forwarding rate of at least 41 Mpps, with support for jumbo frames up to 9 KB and a MAC address table of not less than 16K entries.
- c) It shall support centralized and standalone management through web GUI, CLI (console, Telnet, SSH), SNMP, and RMON, along with cloud-based monitoring, zero-touch provisioning, and mobile application access.
- d) The switch shall provide advanced L2/L2+ features including VLAN (802.1Q, Voice VLAN, QinQ), link aggregation (LACP), STP/RSTP/MSTP, IGMP/MLD snooping, QoS with multiple priority queues, and static routing for efficient internal traffic management.
- e) Comprehensive security features such as ACLs, IP-MAC-Port binding, DHCP snooping, ARP inspection, 802.1X authentication with RADIUS, DoS protection, and storm control shall be supported.
- f) The unit shall be rack-mountable, operate on 100–240 V AC power, include dual cooling fans, and comply with CE, FCC, and RoHS certifications, suitable for enterprise and surveillance network deployments.

45. Network Video Recorder - 1 No.

Supply, Installation and Configuration of Network Video Recorder:

- a) The system shall be a 32-channel H.265 network video recorder supporting up to thirty-two IP cameras with a maximum resolution of 16 MP per channel and recording bandwidth of up to 256 Mbps in non-AI mode and 180 Mbps in AI-enabled mode.
- b) The NVR shall support intelligent analytics including face detection and recognition, smart motion detection, perimeter protection, people counting, heat map when used with compatible cameras, with support for multiple face databases accommodating up to 200,000 images.
- c) The recorder shall support up to four SATA hard disks of 16 TB each and shall be supplied with two numbers of 8 TB surveillance-grade hard disks, enabling multi-channel playback of up to sixteen channels and recording modes including continuous, motion, intelligent, and alarm-based recording.

- d) Audio input and output shall be supported through RCA ports with standard audio compression formats, along with alarm inputs and outputs supporting configurable alarm linkage actions.
- e) The NVR shall support mobile and centralized monitoring software, cybersecurity and abnormality alarms, and operate on 100–240 V AC power with low power consumption, suitable for continuous operation in standard indoor environments, and shall be supplied complete with all required accessories, licenses, and documentation for full system commissioning.
- f) OEM R&D must be registered with DSIR - India. Proof needs to submit.
- g) OEM should have been established in India at least for 12 years with same firmware name, its presence should be supported with brand registration certificates like TM, COI, etc.
- h) OEM should have a manufacturing facility in India for 7+ years to support Make in India.
- i) BIS certificate with factory address in India is mandatory.
- j) OEM must provide a certificate that the proposed model of CCTV products must not become obsolete within a period of 3 years in case it gets EOL due to technology advancement then OEM will support the equivalent or higher model.

46. IP Vandal Dome Camera - 4 Nos.

Supply, Designing, Installation & Configuration of IP Vandal Dome Camera:

- a) 2 MP dual-light vandal-resistant dome network camera designed for indoor and outdoor surveillance applications, featuring a minimum 1/2.7-inch progressive scan CMOS image sensor capable of delivering a maximum resolution of 1920 × 1080 pixels at up to 25/30 frames per second.
- b) The camera shall support advanced video compression formats including H.265, H.264, H.264H, H.264B, MJPEG, and intelligent streaming technology, and shall support quad-stream capability for optimized bandwidth usage.
- c) The device shall incorporate a fixed 3.6 mm lens, Wide Dynamic Range of at least 120 dB
- d) The camera shall provide an infrared illumination range of up to 50 meters and warm light illumination up to 30 meters, with smart IR functionality to prevent overexposure.
- e) Intelligent video analytics shall include perimeter protection features such as tripwire and intrusion detection, smart motion detection, motion detection with configurable zones, privacy masking, video tampering detection, audio detection, and security exception alarms.
- f) The camera shall incorporate a built-in microphone, support audio input and output with standard compression formats including G.711, G.726, PCM, and AAC, and shall support alarm input and output channels for external device integration.
- g) Network connectivity shall be through an RJ-45 10/100 Base-T Ethernet interface, supporting of protocols including ONVIF Profiles S, G, and T, SDK and API support for third-party integration.
- h) The camera shall support local storage via microSD card up to 512 GB, housing shall be metal construction with weatherproof and vandal-resistant ratings of at least IP67 and IK10.
- i) The camera shall comply with applicable international and national standards including ISO 9001, ISO 20000-1, CE, FCC, RoHS, BIS, and STQC compliance shall be supplied complete with all necessary mounting accessories.

- j) The bidder shall submit a valid Manufacturer Authorization Form (MAF) from the OEM. OEM should have been established in India at least for 10 years with same firmware name, its presence should be supported with brand registration certificates like TM, COI, etc.
- k) OEM should have a manufacturing facility in India for 5+ years to support Make in India. BIS certificate with factory address in India is mandatory.
- l) The OEM shall provide 3 years comprehensive warranty, ensuring availability of spares, repairs, and replacement support for the same period.

Section E – Instructions to Bidders

E.1. Definitions:

1.	Purchaser	Purchaser means the Andhra Pradesh Technology Services Limited (APTS) who is the procurement agency on behalf of the Government of Andhra Pradesh.
2.	APTS	The Andhra Pradesh Technology Services Ltd.
3.	User Department	The Department for which APTS is procuring the items
4.	HoD	Head of User Department
5.	End User/User	Ultimate recipient of goods and services
6.	e-Procurement website/Portal	https://tender.apecprocurement.gov.in/
7.	Online bid submission	Bids submitted through https://tender.apecprocurement.gov.in/
8.	NoA	Notification of Award synonymous with Letter of Award (LoA) or Letter of Indent (LoI)
9.	Bidder	Any firm offering the solution(s), service(s) and/or materials required in the tender call. The word vendor when used in the pre award period shall be synonymous with bidder and when used after award of the contract shall mean the successful bidder with whom APTS signs the contract for rendering of goods and services.
10.	Prime Bidder	A company/entity/firm part of the consortium wholly responsible for contractual obligations and act as Single Point of Contact for the contract management. May also be called as Lead Bidder.
11.	Consortium	A group made up of two or more entities or companies that submits bid together for implementation of contractual obligations. Entities that participate in a consortium may pool resources but are otherwise only responsible for the obligations that are set out in the consortium's agreement.
12.	Successful Bidder	Successful Bidder means the Bidder who succeeds in the tender process.
13.	Supplier/Vendor	The successful Bidder with whom APTS placed the purchase order and supplying the goods and services under this contract.
14.	District	District means the geographical division within the State of Andhra Pradesh. At present there are 13 Districts in Andhra Pradesh.
15.	Service Centre	Service Centre means the centre or place, wherein the bidder, inter-alia undertakes and performs the service activities relating to the items indicated in the tender. The service centre will include bidder's own service centre or authorized service centre.
16.	Authorized Service Centre	Authorized Service Centre means a Service Centre run by another party by entering into a valid commercial agreement with the bidder.
17.	Cost	Cost means the total cost to be incurred towards the purchase of items and also charges to be incurred towards maintenance of items during the warranty period.
18.	Day	A day means a calendar day

19.	Tender call or invitation for bids	The detailed notification seeking a set of solution(s), service(s), materials or any combination of them.
20.	Tender Document	Detailed document with instructions to bidders, scope of work and other tender terms and conditions synonymously also known as Tender/ Bid Document or Request for Proposal (RFP)
21.	Specifications	The functional and technical specifications or statement of work, as the case may be.
22.	Firm/Entity	A company, authority, co-operative or any other organization incorporated under appropriate statute as is applicable in the country of incorporation.
23.	Pre-qualification and Technical bid	That part of the offer that provides information to facilitate assessment by APTS, professional, technical and financial standing of the bidder, conformity to specifications etc.
24.	Financial Bid	That part of the offer, that provides price schedule, total project costs etc.
25.	Three Part Bid	The pre-qualification bid, technical and financial bids submitted in Physical to APTS / through eProcurement portal.
26.	Two Part Bid	The Technical bid (including Pre-Qualification) and financial bids submitted in physical to APTS / through eProcurement portal and their evaluation is sequential.
27.	Composite Bid	A bid in which the technical and financial parts are combined into one, but their evaluation is sequential.
28.	Goods and Services	The solution(s), service(s), materials or a combination of them in the context of the tender call and specifications.
29.	Goods	The word goods when used singly shall mean the hardware, firmware component of the goods and services.
30.	Maintenance Period	Period mentioned in bid document for maintaining the systems beyond warranty period.
31.	BG	Bank Guarantee
32.	PBG	Bank Guarantee submitted towards Performance Security
33.	EMD BG	Bank Guarantee submitted towards EMD/Bid Security
34.	Contract	The agreement entered into between the Purchaser and the vendor, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein
35.	Contract Price	The price payable to the vendor under the contract for the full and proper performance of its contractual obligations.
36.	Incidental Services	Those services ancillary to the supply of the goods and services, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other such obligations of the vendor covered under the contract.
37.	GCC	The General Conditions of Contract
38.	SCC	The Special Conditions of Contract

39.	Project Site	Where applicable, means the place(s) where goods/services are to be made available to user.
40.	Up Time	The time period when specified services with specified technical and service standards are available to user(s).
41.	Down Time	The time period when specified services with specified technical and service standards are not available to user(s).

E.1. General:

1. While every effort has been made to provide comprehensive and accurate background information and requirements and specifications, Bidders must form their own conclusions about the SI support required. Bidders and recipients of this RFP may wish to consult their own legal advisers in relation to this RFP.
2. All information supplied by Bidders may be treated as contractually binding on the Bidders, on successful award of the assignment by the Purchaser on the basis of this RFP.
3. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of the Purchaser. Any notification of preferred Bidder status by the <Purchaser> shall not give rise to any enforceable rights by the Bidder.
4. This RFP supersedes and replaces any previous public documentation & communications, and Bidders should place no reliance on such communications.

E.2. Compliant Tenders / Completeness of Response

1. Bidders are advised to study all instructions, forms, terms, requirements, appendices and other information in the RFP documents carefully. Submission of the bid / proposal shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.
2. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the bidder's risk and may result in the rejection of its bid.
3. Failure to comply with the requirements of this paragraph may render the Proposal non-compliant and the Proposal may be rejected. Bidders must:
 - a. Comply with all requirements as set out within this RFP.
 - b. Submit the forms as specified in this RFP and respond to each element in the order as set out in this RFP
 - c. Include all supporting documentations specified in this RFP

E.3: Compliance of Restrictions under Rule 144 (xi) of GFR 2017:

Restrictions on procurement from a bidder of a country which shares a land border with India.

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

- II. "Bidder" (Seller / Service Provider) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means: -
- a. An entity incorporated, established, or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established, or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established, or registered in such a country; or
 - d. An entity whose beneficial owner is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
- IV. The beneficial owner for the purpose of (iii) above will be as under:
1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means. Explanation—
 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;
 - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Any false declaration and non-compliance of the above would be a ground for immediate termination of the contract and further legal action in accordance with the laws.

E.4. Code of integrity

No official of a procuring entity or a bidder shall act in contravention of the codes which includes

1. prohibition of
 - i. Making offer, solicitation or acceptance of bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process.
 - ii. Any omission, or misrepresentation that may mislead or attempt to mislead so that financial or other benefit may be obtained or an obligation avoided.
 - iii. Any collusion, bid rigging or anticompetitive behavior that may impair the transparency, fairness and the progress of the procurement process.
 - iv. Improper use of information provided by the procuring entity to the bidder with an intent to gain unfair advantage in the procurement process or for personal gain.
 - v. Any financial or business transactions between the bidder and any official of the procuring entity related to tender or execution process of contract; which can affect the decision of the procuring entity directly or indirectly.
 - vi. Any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process.
 - vii. Obstruction of any investigation or auditing of a procurement process.
 - viii. Making false declaration or providing false information for participation in a tender process or to secure a contract;
2. Disclosure of Conflict of Interest
3. Disclosure by the bidder of any previous transgressions made in respect of the provisions of sub-clause (1) with any entity in any country during the last three years or of being debarred by any other procuring entity.
4. In case of any reported violations, the procuring entity, after giving a reasonable opportunity of being heard, comes to the conclusion that a bidder or prospective bidder, as the case may be, has contravened the code of integrity, may take appropriate measures

E.5. Pre-Bid Meeting & Clarifications

1. Pre-bid meeting with the prospective Bidders will be conducted on <Date & time> at <Address of the Venue>. Please refer to Bid Data Sheet in Section A for details.
2. The Bidders will have to ensure that their queries for Pre-Bid meeting should reach to
3. <Name, Address, Fax and email id of the Nodal Officer> by post, facsimile or email on or before <Date & time> as mentioned in Bid Data Sheet in Section A.
4. The queries should necessarily be submitted in the following format in excel sheet only:

S. No.	Page No. of RFP	Clause No. of RFP Document	Content of RFP requiring Clarification(s)	Points of Clarification /Amendment with justification
1.				
2.				
3.				
4.				
5.				
6.				

5. Purchaser shall not be responsible for ensuring that the Bidders' queries have been received by them. Any requests for clarifications post the indicated date and time may not be entertained by the Purchaser.
6. The concerned person will respond to any request for clarification of bidding documents which it receives no later than bid clarification date mentioned in the notice prior to deadline for submission of bids prescribed in the tender notice.
7. No clarification from any bidder shall be entertained after the close of date and time for seeking clarification mentioned in tender call notice. It is further clarified that APTS shall not entertain any correspondence regarding delay or non-receipt of clarification from APTS.
8. Bidders who purchased bid document only will be allowed to participate in the pre-bid meeting to seek clarifications on the bid, if any.
9. The pre-bid meeting will be conducted either in physical presence mode or through online virtual meeting tools. Interested bidders should send email request to APTS contact person for receiving the online meeting link.
10. All correspondence should be with APTS contact person only.

E.6. Responses to Pre-Bid Queries and Issue of Corrigendum/Amendment

1. The Nodal Officer notified by the Purchaser will endeavour to provide timely response to all queries. However, Purchaser makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does Purchaser undertake to answer all the queries that have been posed by the Bidders.
2. At any time prior to the last date for receipt of bids, Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by a corrigendum/amendment.

3. The Corrigendum (if any) & clarifications to the queries from all Bidders will be posted on the websites mentioned in bid data sheet.
4. Any such corrigendum shall be deemed to be incorporated into this RFP.
5. In order to provide prospective Bidders reasonable time for taking the corrigendum/amendment into account, < Purchaser> may, at its discretion, extend the last date for the receipt of Proposals.

E.7. Right to Terminate the Process

1. Purchaser may terminate the RFP process at any time and without assigning any reason. Purchaser makes no commitments, express or implied, that this process will result in a business transaction with anyone.
2. This RFP does not constitute an offer by Purchaser. The Bidder's participation in this process may result Purchaser selecting the Bidder to engage towards execution of the contract.

E.8. RFP Document Fees

1. RFP documents have been made available to be download without any fee from the websites mentioned in Bid Data Sheet.
2. RFP document fees (if any, as mentioned in the Bid Data Sheet) should be submitted along with the bidder's proposal.
3. RFP document fee paid is non refundable.
4. RFP document fee can be paid through online through eprocurement portal along with submission of bid.
5. Proposals received without or with inadequate RFP Document fees shall be rejected.

E.9. Earnest Money Deposit (EMD)/Bid Security

1. The bidder shall furnish, as part of its bid, a bid security for the amount and validity period as specified in the Bid Data Sheet.
2. The bid security is required by Purchaser to:
 - a. Assure bidder's continued interest till award of contract and
 - b. Conduct in accordance with bid conditions during the bid evaluation process.
3. The bid security shall be paid through Challan/Bank Gurantee(BG)/Online Payment (through AP Eprocurement Portal) in Indian rupees. Bank Guarantee shall be issued by a reputable bank scheduled in India and having at least one branch office in Vijayawada.
4. The format for EMD Bank Guarantee is enclosed at Annexure II.
5. The EMD amount is interest free and will be refundable to the unsuccessful Bidders without any accrued interest on it.
6. The bid / proposal submitted without EMD as mentioned above, will be summarily rejected.
7. Incase bid submission/opening date is extended after bidder has obtained the EMD BG, bidder should submit an undertaking, along with BG, to extend the BG validity suitably if required.
8. Unsuccessful bidder's bid security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity prescribed by Purchaser.

9. The successful bidder's bid security will be discharged upon the bidder signing the contract, and furnishing the performance security,
10. The bid security may be forfeited:
 - a. if a bidder withdraws its bid during the period of bid validity or
 - b. in the case of a successful bidder, if the bidder fails:
 - i. to sign the contract in time; or
 - ii. to furnish performance security.

E.10. Bidding Procedure:

1. This tender call is issued on e-procurement market place at www.apecprocurement.gov.in.
2. All the terms and conditions are to be read jointly as mentioned in the e-procurement market website and in this document.
3. Bid offers are to be made in three parts namely, "Prequalification bid", "Technical bid" and "Financial bid" and in the formats provided in the bid document. All the documents are to be uploaded as per the documents in the corresponding section in eProcurement Website.

E.11. General Eligibility

1. This invitation for bids is open to all firms within India who are eligible to do business in India under relevant Indian laws as is in force at the time of bidding subject to meeting the pre-qualification criterion.
2. Bidders marked/considered by Purchaser to be ineligible to participate for non-satisfactory past performance, corrupt, fraudulent or any other unethical business practices shall not be eligible.
3. Bidder/Consortium Member debarred/ blacklisted by any Central or State Govt. / Quasi –Govt. Departments or organizations as on bid calling date for non-satisfactory past performance, corrupt, fraudulent or any other unethical business practices shall not be eligible.
4. Breach of general or specific instructions for bidding, general and special conditions of contract with Purchaser or any of its user organizations may make a firm ineligible to participate in bidding process.
5. Bidders who are having bad past track record with the User Department/Purchaser in respect of fulfilling contractual obligations are ineligible to participate in bidding process.

E.12. Preferential Market Access Policy:

G.O. Ms. No. 22, dt. 28-11-2015 issued by ITE&C Department & G.O. Ms. No. 9, Dt. 25-02-2021 issued by Industries & Commerce Department (copies can be obtained from URL: <http://goir.ap.gov.in/Reports.aspx>) are applicable for this tender. Bidders eligible for the benefits under preferential market access policy can apply by submitting all the relevant document proofs.

E.13. Authentication of Bids

Bid Proposal should be accompanied by a power-of-attorney in the name of the signatory of the Proposal. In case of e-Procurement, a copy of the same should be uploaded under the relevant section/folder on the eProcurement portal. Furthermore, the bid must also be submitted online after being digitally signed by an authorized representative of the bidding entity.

E.14. Bid forms

1. Wherever a specific form is prescribed in the bid document, the bidder shall use the form to provide relevant information. If the form does not provide space for any required information, space at the end of the form or additional sheets shall be used to convey the said information.
2. For all other cases the bidder shall design a form to hold the required information.

E.15. Cost of bidding

1. The Bidder shall be responsible for all costs incurred in connection with participation in the RFP 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 Purchaser to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.
2. Purchaser will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

E.16. Language

Bid Proposal should be filled by the Bidders in English language only. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Bidders. For purposes of interpretation of the documents, the English translation shall govern.

E.17. Venue & Deadline for Submission of bids

1. The bidders shall submit all the bids i.e., Pre-Qualification, Technical and Financial Bids on e-Procurement website only .
2. Bids must be submitted not later than the bid submission date and time specified in the Bid Data Sheet.
3. The Purchaser may, at its discretion, extend this deadline for the submission of bids by amending the tender call, in which case all rights and obligations of the Purchaser and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

E.18. Late bids

1. Bids submitted after the due date & time will not be accepted by the eProcurement Portal and hence will automatically be rejected.
2. AP Eprocurement Portal Server Time will only be considered for bid submission due date and time.

3. Bidders are advised to submit the bids well before the due date and time to avoid last minute technical issues if any. The Eprocurement Portal provides separate dedicated folders for each login created for maintaining and storing their generic documents for easy uploading in to the bid. The commercial bid will be mandatorily encrypted on the portal. Hence the bidder can upload bid well in advance to avoid last minute delays.
4. Bids should be mandatorily submitted through AP Eprocurement Portal only. Other modes of bid submission is not acceptable in case bidder fails to submit the bid successfully on e-Procurement Portal.
5. The Purchaser shall not be responsible for any delay in the online submission of the proposal.
6. Any bid not submitted through online, before bid closing time will be rejected.

E.19. Period of validity of bids

1. Bids shall remain valid for the days or duration specified in the bid document, after the date of bid opening prescribed by Purchaser. A bid valid for a shorter period shall be rejected as non-responsive.
2. In exceptional circumstances, the Purchaser may solicit the bidders' consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security shall also be suitably extended. A bidder granting the request will not be permitted to modify its bid.

E.20. Modification and withdrawal of bids

1. No bid can be modified subsequent to the deadline for submission of bids.
2. No bid can be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity. Withdrawal of a bid during this interval will result in the forfeiture of its bid security (EMD).

E.21. General Business information:

The bidder shall furnish general business information to facilitate assessment of its professional, technical and commercial capacity and reputation.

E.22. Preparation of Pre-qualification bid:

It shall include the following information about the firm and its proposal.

1. Details of EMD submitted.
2. Details of RFP document fee paid
3. General information on the bidder's company in Form P-1
4. Details of Turnover in Form P-2 along with supporting documents
5. List of major customers in support of sales turnover in Form P-3 with supporting documents
6. Details of service centers in AP in Form P-4
7. Declaration regarding clean track record in Form-P5
8. Undertaking in compliance with GFR Rule 144(xi) in Form P6
9. Valid Certificates like BIS, ISO, Microsoft etc.

10. Manufacturer's authorization to participate in bidding process apart from such other documents like authorization certificate for dealing in the products for which bid is submitted. (Inc case of Manufacturers self declaration to be submitted) as per Form P7.
11. In case of Consortium
 - a. The consortium members should also submit all the required PQ criteria similar to prime bidder.
 - b. Original Consortium MoU/Agreement if applicable

E.23. Preparation of Technical Bid:

It shall include the following information about the products offered and their technical features and specifications.

1. Technical Compliance Statement with Make, Model, Specifications mentioned in tender document and offered specifications in Form T-1.
2. Technical documents such as offered products' Brochures and Data Sheets in support of confirmation to technical specifications etc.
3. Copies of OEM Certifications and Product Certifications if any.
4. Detailed technical documentation, reference to various industry standards to which the products/services included in vendor's offer conform, and literature concerning the proposed solution
5. Check list in Form T-2
6. Signed unpriced Form F1.
7. Plan for in lab proof of concept, if required in tender call.
8. Plan for field demonstration if required in tender call
9. Detailed technical documentation, reference to various industry standards to which the goods and services included in vendor's offer conform, and other literature concerning the proposed solution. In particular, the vendors should identify areas in which their solution conforms to open standards and areas that are proprietary in nature. Justification about proprietary components in terms of functionality and performance should be given.
10. A statement about appropriateness of the product design and solution plan for operating conditions in India, including physical, infrastructure and human factors.
11. In the case of a bidder offering to supply goods under the contract which the bidder did not manufacture or otherwise produce, the bidder has been duly authorized by the good's manufacturer or producer to supply the goods in India.
12. A statement of the serviceable life of goods and services offered by the firm. Available sources of maintenance and technical support during the serviceable life. Available sources of spare parts, special tools, etc. Necessary for the proper and continuing functioning of the goods and services, for the serviceable life.
13. Other information, if any required in the bid document.

E.24. Preparation of Financial Bid:

The financial bid should provide cost calculations corresponding to each component of the project.

1. The financial bid is submitted through online Eprocurement Portal only.
2. Prices shall be quoted in Indian rupees.

3. The financial bid should provide cost calculations corresponding to unit price of each item of the respective schedules in Cost sheets.
4. The bidder shall indicate the unit prices (where applicable) and the total bid price of the goods/services it proposes to supply under the contract.
5. The bidder shall indicate the Basic Prices for the warranty period and taxes, duties etc. (if required) in the form prescribed. AMC should be separately shown for the years specified and taxes as per the financial bid format.
6. Bidder's separation of price components will be solely for the purpose of facilitating the comparison of bids by Purchaser and will not in any way limit the Purchaser's right to contract on any of the terms offered.
7. Prices quoted by the bidder shall be fixed during the bidder's performance of the contract and not subject to variation on any account unless otherwise specified in the tender call. A bid submitted with an adjustable price quotation will be treated as non-responsive and will be rejected.

E.25. Bid evaluation procedure:

1. Bids would be evaluated item wise.
2. Lowest quoted value will be arrived on item value.
3. Technical bid documentation should be in the prescribed format. If a vendor has any comment to offer about the procedural aspects of this tender, it should be intimated to APTS during the pre-bid meeting.
4. In case, the schedule or procedure of tender processing is revised, the same shall be communicated by telephone, fax, courier or e-mail as the case may be to all the vendors who have paid the tender document fee.
5. Bids will be in three parts (pre-qualification, technical and financial) or two parts (Pre-qualification & Technical bid together and financial) or composite bid (technical and financial bid together) as indicated in the tender call. For three part bids there will be three bid opening events, in two part bid there will be two bid opening events and in case of composite bids there will be only one bid opening event.
6. Following guidelines will generally be followed by Purchaser's officers at each such event. However, Purchaser may deviate from these in specific circumstances if it feels that such deviation are unavoidable, or will improve speed of processing and consequent project execution.
7. The bid opening and evaluation process will be sequential in nature. Means that bidder must qualify a particular stage to be eligible for next stage. Immediately after the closing time, the Purchaser's contact person shall open the Pre-qualification bids and list them for further evaluation.
8. If it is a manual tender- the Technical and financial bid covers shall be listed and put into a bag to be sealed according to Purchaser's procedure. The sealed bag of technical and financial bids shall be in custody of a designated officer for opening after evaluation of Pre-qualification bids. Thereafter, Technical bids of qualified bidders will be opened, keeping financial bid in sealed bag. Finally, financial bids of those bidders will be opened who are short listed in technical evaluation.
9. In case of composite bid – technical and financial bids combined together, first technical evaluation will be done followed by financial evaluation of only those bids, which have qualified in technical evaluation.

10. Any participating vendor may depute a representative to witness these processes.
11. The standard procedure, described here will stand appropriately modified, in view of special procedures of bid evaluation as mentioned in tender call or elsewhere in this bid document or Purchaser may deviate from these in specific circumstances if it feels that such deviation are unavoidable, or will improve speed of processing and consequent project execution.

E.26. Opening of bids:

1. Bids will be opened on the e-Procurement website at the scheduled time & date as specified.
2. Purchaser's contact person shall open the pre-qualification bid, after the bid closing time and list them for further evaluation. After evaluation of Pre-Qualification bids, the technical bids of only those bidders who qualify in Pre-qualification will be opened. Similarly, the financial bids of only those bidders who qualify in technical evaluation will be opened.
3. The bidders names, bid modifications or withdrawals, discounts, and the presence or absence of requisite bid security and such other details as the APTS officer at his/her discretion, may consider appropriate, will be announced at the opening.
4. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened (in case of physical submission).
5. Bids that are not opened and read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances. Withdrawn bids will be returned unopened to the bidders (in case of physical submission).
6. The bids submitted by telex/telegram/fax/e-mail etc. shall not be considered. No correspondence will be entertained on this matter.
7. The Purchaser shall not be responsible for any postal delay or non-receipt/ non- delivery of the documents. No further correspondence on the subject will be entertained.

E.27. Preliminary examination of Bids

1. Preliminary scrutiny will be made to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
2. Prior to the detailed evaluation, APTS will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations.
3. If a bid is not substantially responsive, it will be rejected by the APTS and may not subsequently be made responsive by the bidder by correction of the nonconformity.
4. Initial Bid scrutiny will be held and incomplete details as given below will be treated as non- responsive. If Proposals;
 - a. Are not submitted in as specified in the RFP document
 - b. Received without the Letter of Authorization (Power of Attorney)
 - c. Are found with suppression of details

- d. With incomplete information, subjective, conditional offers and partial offers submitted
 - e. Submitted without the documents requested in the checklist
 - f. Have non-compliance of any of the clauses stipulated in the RFP
 - g. With lesser validity period
5. All responsive Bids will be considered for further processing as below.
 6. < Purchaser> will prepare a list of responsive Bidders, who comply with all the Terms and Conditions of the Tender. All eligible bids will be considered for further evaluation by a Committee according to the Evaluation process define in this RFP document. The decision of the Committee will be final in this regard.
 7. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected. If the vendor does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail.
 8. Purchaser may waive any minor informality, nonconformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.

E.28. EMD Validity:

1. The EMD will be scrutinized first for the amount and validity period. The bids submitted with required EMD amount and validity only be considered for the evaluation. The bids submitted with insufficient EMD amount/validity will be treated as disqualified bids and those bids will not be considered for further evaluation.
2. The EMD should be submitted in the form of BG or through online payment only.
3. Scanned copy of EMD document should be uploaded on e-Procurement website. The Original EMD should be submitted to APTS before 5 pm of next working day after bid closing day or as specified in Bid Data Sheet.

E.29. Bid validity:

The offer submitted by the Bidders should be valid for minimum period of days as mentioned in Bid data Sheet from the date of submission of bid. If required, purchaser may ask the bidder to extend the bid validity along with the extension of the EMD validity. Failure to extend the bid validity and EMD validity will be treated as non-responsive and will not be considered for further evaluation.

E.30. Seeking Clarifications on received bids

During evaluation of the bids at any stage, Purchaser may, at its discretion, ask the bidder for clarification of its bid. The clarifications should be submitted within the time period specified. Failure to submit the parameters requested in the clarifications, Purchaser will treat that there is nothing to provide from bidder's end and APTS will proceed with evaluation as per submitted documents.

E.31. Evaluation of Pre-qualification bids:

The Pre-qualification bid documentation shall be evaluated in two sub-steps.

- a) Firstly, the documentation furnished by the vendor shall be examined prima facie to see if the technical skill base and financial capacity and other vendor attributes claimed therein are consistent with the needs of this project.
- b) In the second step, APTS may ask vendor(s) for additional information, visit to vendors site and/or arrange discussions with their professional, technical faculties to verify claims made in Pre-qualification bid documentation.

E.32. Evaluation of Technical bids:

Technical bid documentation shall be evaluated in two sub-steps.

- a) Firstly, the documentation furnished by the vendor shall be examined prima facie to see if the product /services offered, technical skill base and financial capacity and other vendor attributes claimed therein are consistent with the needs of this project.
- b) In the second step, APTS may ask vendor(s) for additional information, visit to vendors site and/or arrange discussions with their professional, technical faculties to verify claims made in technical bid documentation.
- c) Bidders who meet the pre-qualifications/eligibility requirements would be considered as qualified to move to the next stage of Technical and Financial evaluations.
- d) The Product offered should meet all the technical and functional specifications given in the section D “Scope of Work”. Non-compliance to any of the technical and functional specification will attract rejection of the proposal.
- e) Response except ‘Y’ or ‘N’ is not acceptable. If any Bidder provides response other than Y’ or ‘N’ the same will be treated as Not Available i.e. N.
- f) The lab proof of concept on demand may be organized either in APTS or in the vendor’s lab by mutual discussion. In case it is organized in APTS lab, APTS would make available generic hardware for this purpose. Application specific hardware and software will have to be brought in by the vendor.
- g) APTS will identify a part or segment of the proposed project site. The concerned bidder, on demand, should be able to demonstrate functional requirements as described in the specifications.

E.33. Evaluation of financial bids

1. Financial bids of those vendors who satisfy all phases of the pre-qualification and technical bid will only be opened. All other financial bids will be ignored.
2. Purchaser will assess the nature of financial offers and may pursue any or all of the options mentioned under financial bid.
3. Purchaser may at its discretion discuss with vendor(s) available at this stage to clarify contents of financial offer.
4. Bids will be evaluated item wise in each schedule.
5. Evaluation of Financial Bids will be including taxes.
6. Evaluation of financial bids will exclude and not take into account any offer not asked for or not relevant to the present requirements of user.
7. Evaluation of financial bid will take into account, in addition to the basic bid price, one or more of the following factors

- a. The projected costs for the entire contract period;
- b. Past track record of bidder in supply/ services and
- c. Any other specific criteria indicated in the tender call and/or in the specifications.

E.34. Performance and productivity of the equipment

Bidders shall state the guaranteed performance or efficiency in response to the specifications.

E.35. Contacting Purchaser

1. Bidder shall not approach Purchaser's officers outside of office hours and / or outside Purchase office premises, from the time of the tender call notice to the time the contract is awarded.
2. Any effort by a bidder to influence Purchaser officers in the decisions on bid evaluation, bid comparison or contract award may result in rejection of the bidder's offer and bidder may also be marked as ineligible for future bids. If the bidder wishes to bring additional information to the notice of the Purchaser, it should do so in writing.

E.36. Purchaser's right to vary quantities at time of award

1. Purchaser reserves the right at the time of award to increase or decrease the quantity, as indicated in tender call, from the quantity of goods and services originally specified in the specification without any change in unit price or other terms and conditions.
2. Purchaser reserves the right to place the repeat orders at the quoted price, in addition to the Quantity for which bid has been called for. However, this condition will not create any right to the bidder to demand such repeat order. During the validity of the contract period thereof, the bidder should be ready to supply any no. of devices as requested.

E.37. Purchaser ' right to accept any bid and to reject any or all bids.

Purchaser reserves the right to accept or reject any proposal, and to annul the tendering process / Public procurement process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for such decision.

E.38. Negotiation

APTS reserves its right to negotiate with the lowest quoted bidder including technical specifications.

E.39. Award Criterion:

Final choice of firm to execute the project shall be made on the basis of conformity to technical specifications, appropriateness of the product offered, capability of bidder to execute and service the project and appropriateness of financial offer from the point of view of cost-effectiveness over the entire maintenance period for the product/services.

E.40. Order Placing Authority

1. PURCHASER reserves the right not to place any supply / purchase order whatsoever, irrespective of finalization of the L1 bidder.

2. PURCHASER reserves the right to place purchase orders/ contracts as per RFP. The RFP / contract does not confer any right whatsoever on the bidder/ successful Bidder for demanding PURCHASER /any department to place order on them.

E.41. Notification of award

1. Prior to expiration of the period of bid validity, Purchaser will notify the successful bidder in writing, that its bid has been accepted.
2. In case the tendering process has not been completed within the stipulated period, Purchaser, may like to request the Bidders to extend the validity period of the bid.
3. Upon the successful bidder's furnishing of performance security, Purchaser will promptly notify each unsuccessful bidder and will discharge its bid security.
4. For each electronic product proposed to be procured, among all technically qualified bids, the lowest quoted price will be termed as L1 and the rest of the bids shall be ranked in ascending order of price quoted, as L2, L3, L4 and so on.
5. If L1 bid is of an eligible domestic manufacturer, the said bidder will be awarded full value of the order.
6. If L1 bid is not from an eligible domestic manufacturer, the value of the order awarded to L1 bidder will be the balance of procurement value after reserving specified percentage of the total value of the order for the eligible domestic manufacturer.
7. Thereafter, the lowest bidder among the eligible domestic manufacturers, whether L2, L3, L4 or higher, will be invited to match the L1 bid in order to secure the procurement value of the order earmarked for the eligible domestic manufacturer.
8. In case first eligible bidder (i.e. domestic manufacturer) fails to match L1 bid, the bidder (i.e. domestic manufacturer) with next higher bid will be invited to match L1 bid and so on. However, the procuring agency may choose to divide the order amongst more than one successful bidder as long as all such bidders match L1 and the criteria for allocating the tender quantity amongst a number of successful bidders is clearly articulated in the tender document itself.
9. In case all eligible domestic manufacturers fail to match the L1 bid, the actual bidder holding L1 bid will secure the order for full procurement value.
10. Only those domestic manufacturers whose bids are within 20% of the L1bid would be allowed an opportunity to match L1 bid.
11. Upon the successful Bidder's furnishing of Performance Bank Guarantee, Purchaser will notify each unsuccessful Bidder and return their EMD.

E.42. Performance security

1. On receipt of notification of award from the Purchaser, the successful bidder shall furnish the performance security in accordance with the conditions of contract, in the performance security form provided in the bidding documents or in another form acceptable to the Purchaser.
2. The Selected Bidder shall provide the Performance Bank Guarantee, within the period mentioned Bid Data Sheet from the date of Notification of award, for a value equivalent to <as mentioned in Bid data Sheet> of the total contract cost . The Performance Guarantee should be valid for a period of <as mentioned in Bid Data Sheet>.

3. The Performance Guarantee shall be kept valid till completion of the project and Warranty period.
4. The Performance Guarantee shall contain a claim period of 60 days from the last date of validity.
5. The selected Bidder shall be responsible for extending the validity date and claim period of the Performance Guarantee as and when it is due on account of non-completion of the project and Warranty period.
6. In case the selected Bidder fails to submit performance guarantee within the time stipulated, the Purchaser at its discretion may cancel the order placed on the selected Bidder without giving any notice.
7. Purchaser shall invoke the performance guarantee in case the selected Vendor fails to discharge their contractual obligations during the period or Purchaser incurs any loss due to Vendor's negligence in carrying out the project implementation as per the agreed terms & conditions.

E.43. Signing of contract

1. At the same time as the Purchaser notifies the successful bidder that its bid has been accepted, the Purchaser will send the bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties.
2. On receipt of the Contract Form, the successful bidder shall sign and date the contract and return it to the Purchaser.
3. Failure of the successful bidder to sign the contract, proposed in this document and as may be modified, elaborated or amended through the award letter, shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Purchaser may make the award to another bidder or call for new bids.

E.44. Corrupt, fraudulent and unethical practices

1. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, the Purchaser shall reject a Proposal without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, the Purchaser shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, inter alia, time, cost and effort of the Authority, in regard to the RFP, including consideration and evaluation of such Bidder's Proposal.

2. Without prejudice to the rights of the Purchaser under Clause above and the rights and remedies which the Purchaser may have under the LOI or the Agreement, if an Bidder or Systems Implementation Agency, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOI or the execution of the Agreement, such Bidder or Hardware Supplier shall not be eligible to participate in any tender or RFP issued by the Purchaser during a period of 2 (two) years from the date such Bidder or Hardware Supplier, as the case may be, is found by the Purchaser to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.
3. Purchaser will reject a proposal for award and also may debar the bidder for future tenders by the Purchaser , if it determines that the bidder has engaged in corrupt, fraudulent or unethical practices in competing for, or in executing a contract.
4. For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:
 - a. **“corrupt practice”** means
 - i. the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Purchaser who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOI or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Purchaser, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or
 - ii. save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Purchaser in relation to any matter concerning the Project;
 - b. **“fraudulent practice”** means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to detriment of the purchaser, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition;;
 - c. **“coercive practice”** means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;
 - d. **“undesirable practice”** means

- i. establishing contact with any person connected with or employed or engaged by Purchaser with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process;
or
 - ii. having a Conflict of Interest; and
- e. **“restrictive practice”** means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.
- f. **“Unethical practice”** means any activity on the part of bidder, which try to circumvent tender process in any way. Unsolicited offering of discounts, reduction in financial bid amount, upward revision of quality of goods etc. after opening of first bid will be treated as unethical practice.

E.45. Conflict of Interest

1. The Vendor shall disclose to Purchaser in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for the Vendor the Bidder’s team) in the course of performing the Service(s) as soon as practical after it becomes aware of that conflict.

Section F – General Conditions of Proposed Contract (GCC)

F.1. Application

These general conditions shall apply to the extent that they are not superseded by provisions of other parts of the contract.

F.2. Standards

The goods supplied under this contract shall conform to the standards mentioned in the specifications, and, when no applicable standard is mentioned, the authoritative standards appropriate to the goods' country of origin shall apply. Such standard shall be the latest issued by the concerned institution.

F.3. Use of documents and information

1. The vendor shall not, without prior written consent from Purchaser, disclose/share/use the bid document, contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the vendor in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
2. The Vendor shall not, without prior written consent of Purchaser, make use of any document or information made available for the project, except for purposes of performing the Contract.
3. All project related document (including this bid document) issued by Purchaser, other than the contract itself, shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Vendor's performance under the contract if so required by the Purchaser.

F.4. User license and patent rights

1. The Vendor shall provide licenses for all software products, whether developed by it or acquired from others. In the event of any claim asserted by a third party for software piracy, the vendor shall act expeditiously to extinguish such claim. If the vendor fails to comply and the Purchaser is required to pay compensation to a third party resulting from such software piracy, the vendor shall be responsible for compensation including all expenses, court costs and lawyer fees. The Purchaser will give notice to the vendor of such claim, if it is made, without delay.
2. The Vendor shall indemnify the purchases against all third party claims of infringement of patent, trademark or industrial design rights arising from use of the goods, software package or any part thereof.

F.5. Performance security

1. On receipt of notification of award, the Vendor shall furnish performance security to Purchaser in accordance with bid document requirement.
2. The proceed of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the supplier's failure to complete its obligations under the contract.

3. The performance security shall be denominated in Indian rupees or in a freely convertible currency acceptable to Purchaser and shall be in one of the following forms:
 - a. A bank guarantee or an irrevocable letter of credit, issued by a reputed bank located in India with at least one branch office in Vijayawada, in the form provided in the bidding document or another form acceptable to the Purchaser; or
 - b. A cashier's cheque or banker's certified cheque or crossed demand draft or pay order drawn in favor of the Purchaser.
4. The performance security will be discharged by the Purchaser and returned to the Vendor not later than thirty (30) days following the date of completion of all formalities under the contract and if activities, post warranty, by the Vendor is envisaged, following receipt of a performance guarantee for annual maintenance as per bid document.
5. In the event of any contract amendment, the vendor shall, within 15 days of receipt of such amendment, furnish the amendment to the performance security, rendering the same valid for the duration of the Contract.

F.6. Manuals and drawings

1. Before the goods and services are taken over by the user, the Vendor shall supply operation and maintenance manuals, (together with drawings of the goods and services where applicable).
2. The Vendor shall provide complete technical documentation of hardware, firmware, all subsystems, operating systems, compiler, system software and the other software.
3. The manuals and drawings wherever applicable shall be in English or Telugu.
4. At least one set of the manuals should be supplied for each installation sites.
5. Unless and otherwise agreed, the goods and services shall not be considered to be completed for the purpose of taking over until such manuals and drawings have been supplied to the user.

F.7. Inspection and acceptance tests

1. Inspection and tests prior to shipment of Goods and at final acceptance are as follows:
 - a. Inspection of the goods shall be carried out to check whether the goods are in conformity with the specifications mentioned in the bid document. Following broad test procedure will generally be followed for inspection and testing of hardware and firm wares. The vendor will dispatch the goods to the ultimate consignee after internal inspection testing along with the supplier's inspection report, manufacturer's warranty certificate. The Purchaser will test the equipment after completion of the installation and commissioning at the site of the installation. (If site preparation is not included in the tender call or specification, the vendor should furnish all details of the site requirement to the Purchaser sufficiently in advance so as to get the works completed before receipt of the equipment.)

- b. The Inspections and tests, at the discretion of Purchaser, may be conducted on the premises of the Vendor or its subcontractor(s), at point of delivery, and / or at the good's final destination. If conducted on the premises of the Vendor or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- c. Should any inspected or tested goods fail to conform to the specifications the Purchaser may reject the goods, and the vendor shall either replace the rejected goods or make alterations necessary to meet specification requirements free of cost to the Purchaser/user.
- d. Purchaser' right to inspect, test and, where necessary reject the goods after the goods' arrival at user's site shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the goods shipment from the country of origin.
- e. Nothing in this clause shall in any way release the vendor from any warranty or other obligations under this contract.
- f. The acceptance test will be conducted by the Purchaser, their consultant or any other person nominated by the Purchaser, at its option. There shall not be any additional charges for carrying out acceptance tests. Any reduction in functional requirements, and performance specifications shall be ground for failure. Any malfunction, partial or complete failure of any part of hardware, firmware or bugs in the software shall be grounds for failure of acceptance test. All the software should be complete, and no missing modules / sections will be allowed. The vendor shall maintain necessary log in respect of the results of the tests to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified. An average uptake efficiency of 97% for the duration of test period (7 days) shall be considered as satisfactory.
- g. In the event of the hardware and software failing to pass the acceptance test, A period not exceeding two weeks will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserves the rights to get the Equipment replaced by the vendor at no extra cost to the Purchaser/user.

F.8. Acceptance certificates

On successful completion of acceptability test, receipt of deliverables etc, and after Purchaser is satisfied with the working of the system, the acceptance certificate signed by the vendor and the representative of the Purchaser will be issued. The date on which such certificate is signed shall be deemed to be the date of successful commissioning of the systems.

F.9. Packing

1. The vendor shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperature, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

2. The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the Purchaser.

F. 10. Delivery and Installation period:

Successful Bidder shall deliver the goods/services, install and commission the same within the time period as mentioned in the Bid Data Sheet at the designated locations as communicated by the Purchaser/User Department.

F.11. Delivery and documents

Delivery of the goods/services shall be made by the vendor in accordance with the terms specified in the tender document. The details of shipping and / or other documents to be furnished and submitted by the vendor are specified below.

A) For Goods supplied from abroad:

1. Within 24 hours of shipment, the Vendor shall notify the Purchaser and the Insurance Company by cable/fax/email full details of the shipment including contract number, description of goods, quantity, the vessel, the bill of lading number and date, port of loading, date of shipment, port of discharge, etc. The Vendor shall mail the following documents to the Purchaser, with a copy to the Insurance Company.
2. Four copies of supplier's invoice showing goods description, quantity, unit price and total amount;
3. 4 copies of packing list identifying contents of each package;
4. Insurance certificate; Manufacturer's/Supplier's warranty certificate;
5. Inspection certificate, issued by the nominated inspection agency and
6. The Supplier's factory inspection report; and Certificate of origin.
7. The above documents shall be received by the Purchaser at least one week before arrival of Goods at the port or place of arrival and, if not received, the Vendor will be responsible for any consequent expenses.

B) For Goods from within India:

Upon delivery of the goods to the user, the vendor shall notify the Purchaser and mail the following documents to the Purchaser:

1. Four copies of the Vendor invoice showing goods description, quantity, unit price total amount;
2. Delivery note, or acknowledgement of receipt of goods from the user;
3. Manufacturer's or Supplier's warranty certificate;
4. Inspection Certificate issued by the nominated inspection agency, and the Supplier's factory inspection report.
5. Certificate of Origin;
6. Insurance policy;
7. Excise gate pass Octroi receipts wherever applicable duly sealed indicating payments made; and
8. Any of the documents evidencing payment of statutory taxes.

9. The above documents shall be received by the Purchaser before arrival of the Goods (except deliver note and where it is handed over to the user with all documents) and if not received, the vendor will be responsible for any consequent expenses.

F.12. Insurance

1. It is suggested that the goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery up to user site.
2. The insurance should be for replacement value from “Warehouse to warehouse (final destination)” on “All Risks” valid upto 3 months till completion and 10 days from the date of acceptance of delivery.

F.13. Transportation

Transport of the goods to the project site(s) shall be arranged by the vendor at his cost.

F.14. Hardware Installation

The vendor is responsible for all unpacking, assemblies, installations and connecting to power supplies. The vendor will test all hardware operations and accomplish all adjustments necessary for successful and continuous operation of the items/equipment supplied at all installation sites.

F.15. Incidental services

The Vendor may be required to provide any or all the following services, including additional services:

1. Performance or supervision or maintenance and/or repair of the supplied goods and services, for a period of time agreed by the parties, provided that this service shall not relieve the Vendor of any warranty obligations under this Contract, and
2. Training of Purchaser and/or its user organization personnel, at the Vendor’s site and / or on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied goods and services.
3. Prices charged by the Vendor for the preceding incidental services, if any, should be indicated separately (if required), and same will be mutually negotiated separately.

F.16. Spare parts

1. The Vendor may be required to provide any or all of the following materials, notifications and information pertaining to spare parts manufactured or distributed by the Vendor.
2. Such spare parts as the Purchaser may elect to purchase from the Vendor, provided that this election shall not relieve the Vendor of any warranty obligations under the contract and
3. In the event of termination of production of the spare parts, an advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements and

4. The Vendor shall ensure availability of spares in stock at his nearest service centre for immediate delivery such spare parts as: (a) are necessary for a minimum of 5 years of operation after installation at the Purchaser's sites (b) are necessary to comply with specifications.

F.19. Warranty

1. The Vendor warrants that the goods and services supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The Vendor further warrants that all goods and services supplied under this contract shall have no defect arising from design, materials or workmanship or from any act or omission of the Vendor, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
2. The warranty period shall be as stated in bid document. The Vendor shall, in addition, comply with the performance guarantees specified under the contract. If, for reasons attributable to the Vendor, these guarantees are not attained in whole or in part, the Vendor shall, make such changes, modifications, and/or additions to the goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the contract at its own cost and expenses and to carry out further performance tests.
3. The equipment supplied should achieve required up time.
4. Purchaser/user shall promptly notify the Vendor in writing of any claims arising under this warranty.
5. Upon receipt of such notice, the Vendor shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods and services or parts thereof, without costs to the user.
6. If the Vendor, having been notified, fails to remedy the defect(s) within a reasonable period, the Purchaser/user may proceed to take such remedial action as may be necessary, at the vendor's risk and expense and without prejudice to any other rights which the Purchaser /user may have against the Vendor under the contract.

F.20. Maintenance service

1. Free maintenance services including spares shall be provided by the vendor during the period of warranty. User, at its discretion may ask the vendor to provide maintenance services after warranty period, i.e. Annual maintenance and repairs of the system at the rates indicated by bidder in its proposal and on being asked so, the vendor shall provide the same.
2. The cost of annual maintenance and repairs cost (after warranty period), which will include cost of spares replaced, shall be paid in equal quarterly installments at the end of each quarter.
3. The maximum response time for maintenance complaint from any of the destination (i.e. time required for supplier's maintenance engineers to report to the installations after a request call/email is made or letter is written) shall not exceed the time period specified in SCC.
4. The vendor will accomplish preventive and breakdown maintenance activities to ensure that all hardware, and firmware execute without defect or interruption for at least required up time.

5. In case up time is less than the stipulated up time, penalty as indicated in the bid document shall be imposed on the vendor.
6. The amount of penalty if any, will be recovered at source from the performance guarantee during the warranty or from annual maintenance charges payable as the case may be.

F.19. Payment

1. The vendor's request(s) for payment shall be made to the Purchaser / Department in writing, accompanied by an invoice describing, as appropriate, the goods/service delivered/ performed.
2. Payments shall be made promptly by the Purchaser/User Department, but in no case later than (30) days after submission of a valid invoice or claim by the vendor.
3. However, payment process from APTS will be subject to receipt of funds from the User Department.
4. The currency of payment will be Indian rupees.
5. Payment shall be made as indicated in Bid document.
6. The annual maintenance and repair cost as per separate agreement if any, shall be paid in equal quarterly installments at the end of each quarter as per the rates quoted and agreed.
7. Payment will be made through Cheque/online.

F.20. Prices

Prices charged by the Vendor for goods delivered and services performed under the contract shall not vary from the prices quoted by the Vendor in its bid, with the exception if any price adjustments authorized in special conditions of contract or in the request for bid validity extension, as the case may be.

F.21. Change orders

Purchaser may, at any time, by written order given to the Vendor, make changes within the general scope of the Contract in any one or more of the following:

1. Drawing, designs, or specifications, where Goods to be supplied under the Contract are to be specifically manufactured for the Purchaser;
2. The method of shipment or packing;
3. The place of delivery and/or the services to be provided by the Vendor.
4. If any such change causes an increase or decrease in the cost of, or the time required for, the vendor's performance of any provisions under the contract, an equitable adjustment shall be made in the contract price or delivery schedule, or both, and the contract shall accordingly be amended.
5. Any claims by the Vendor for adjustment under this clause must be asserted within thirty (30) days from the date of the Vendor's receipt of the change order.
6. Quantity of items to be supplied.

F.22. Contract amendment

No variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

F.23. Assignment

The Vendor shall not assign, in whole or in part, its obligations to perform under this Contract, except with the prior written consent from Purchaser.

F.24. Subcontracts

The Vendor shall notify the Purchaser in writing of all subcontracts awarded under this contract if not already specified in the bidder's proposal. Such notification, in the original bid or later, shall not relieve the Vendor from any liability or obligation under the contract. Subcontract shall be only for bought-out items and sub-assemblies.

F.25. Delays in the supplier's performance

1. Delivery of the Goods and performance of the services shall be made by the Vendor in accordance with the time schedule specified by the Purchaser in the bid document.
2. If at any time during performance of the Contract, the Vendor or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the Vendor shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the vendor's notice, Purchaser shall evaluate the situation and may at its discretion extend the Vendor's time for performance, with or without liquidated damages.
3. A delay by the Vendor in the performance of its delivery obligations shall render the vendor liable to the imposition of appropriate liquidated damages, unless an extension of time is agreed upon by Purchaser without liquidated damages.

F.26. Liquidated damages

If the Vendor fails to deliver any or all of the goods or perform the services within the time period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to, as per the terms indicated in the bid document, until actual delivery or performance, subject to maximum limit. Once the maximum limit of Liquidated Damages is reached, the Purchaser may consider termination of the contract.

F.27. Taxes and duties

1. The vendor shall be entirely responsible for all taxes, duties, license fee Octroi, road permits etc. incurred until delivery of the contracted Goods/services at the site of the user or as per the terms of tender document if specifically mentioned.
2. However any new taxes introduced by GoI / GoAP during validity of the contract it will be applicable to both parties (i.e. Supplier / Purchaser)

F.28. Licensing considerations

The software mentioned in the Schedules of Requirement will be used throughout Andhra Pradesh or user's sites even outside Andhra Pradesh.

F.29. Protection against damages- site conditions:

1. The items/equipments supplied shall not be prone to damage during power failures and trip outs. The normal voltage and frequency conditions available at site are as under:

- a. Voltage 230 Volts
 - b. Frequency 50Hz.
2. However, locations may suffer from low voltage conditions with voltage dropping to as low as 160 volts and high voltage conditions with voltage going as high as 220 + 20% volts. Frequency could drop to 50Hz + 2%. The ambient temperature may vary from 10°C to 48°C. The relative humidity may range in between 5% to 95%.
3. The goods supplied under the contract should provide protection against damage under above conditions.

F.30. Fail-safe procedure

The vendor should indicate in detail fail-safe procedure(s) for the following:

1. Power failure
2. Voltage variation
3. Frequency variation
4. Temperature and humidity variations.

F.31. Training:

For each hardware and software component installed, for the devices, the Vendor may be required to train the designated Purchaser and User Department personnel to enable them to effectively operate the total system. The training, if required, shall be given, as specified in the SCC at the locations specified. The training schedule will be agreed to by both parties during the performance of the Contract.

F.32. Site Preparation and Installation:

The Purchaser is solely responsible for the construction of the installation sites except where it is specifically required under bid document. The bidder will designate to perform a site inspection to verify the appropriateness of the sites before the installation of every hardware related item.

F.33. Governing language

The contract shall be written in English or Telugu. All correspondence and other documents pertaining to the contract which are exchanged by the parties shall be written in same languages.

F.34. Applicable law

The contract shall be interpreted in accordance with appropriate Indian laws.

F.35. Notices

1. Any notice given by one party to the other pursuant to this contract shall be sent to the other party in writing or by telex, email, cable or facsimile and confirmed in writing to the other party's address.
2. A notice shall be effective when delivered or tendered to other party whichever is earlier.

F.36. Termination for default

1. The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Vendor, may terminate the Contract in whole or in part:
 - a. if the Vendor fails to deliver any or all of the Goods/services within the time period(s) specified in the contract, or within any extension thereof granted by the Purchaser pursuant to Clause F.25 or
 - b. if the Vendor fails to perform any other obligation(s) under the Contract or
 - c. if the Vendor, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
2. In the event the Purchaser terminated the contract in whole or in part, Purchaser may procure, upon such terms and in such manner as it deems appropriate, goods or services similar to those undelivered, and the Vendor shall be liable to the Purchaser for any excess costs for such similar goods or services. However, the Vendor shall continue performance of the contract to the extent not terminated.

F.37. Force majeure

1. The Vendor shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
2. For purposes of this clause, “Force Majeure” means an event beyond the control of the Vendor and not involving the Supplier’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
3. If a Force Majeure situation arises, the Vendor shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Vendor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

F.38. Termination for insolvency

Purchaser, may at any time terminate the contract by giving 30 days written notice to the Vendor if the Vendor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Vendor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

F.39. Termination for convenience

1. Purchaser, may at any time by giving 30 days written notice to the Vendor, terminate the Contract, in whole or in part, for its convenience. The notice of termination shall specify that termination is for the Purchaser/Purchaser’s convenience, the extent to which performance of the Vendor under the Contract is terminated, and the date upon which such termination becomes effective.

2. The goods that are complete and ready for shipment within thirty (30) days after the vendor's receipt of notice of termination shall be accepted by the Purchaser at the contract terms and prices. For the remaining Goods, the Purchaser may elect to have any portion completed and delivered at the contract terms and prices at its discretion.

F.40. Resolution of disputes

1. Purchaser and Vendor shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the contract.
2. If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Vendor have been unable to resolve amicably a contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified here in. These mechanisms may include, but are not restricted to, conciliation mediated by a third party.
3. The dispute resolution mechanism shall be as follows:
In case of a dispute or difference arising between the Purchaser and the Vendor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, of India, 1996.

Section G – Special Conditions of Proposed Contract (SCC)

G.1. Delivery and Installation period:

Successful Bidder shall deliver the goods/services, install and commission the Complete Scope of Work and CCC, VC Halls and Sub Command Centres are to be made operational within 90 (Ninety) Days from the date of issue of Notification of Award.

G.2. LD for late deliveries/installations:

1% of the late delivered or deemed late delivered/installed goods for One week or part thereof, 1.5% for Two weeks or part thereof, 2% for Three weeks or part thereof, 2.5% for 4 weeks or part thereof, and so on. In case both delivery and installation were late, then penalty will be computed based on installation date only. Incase, installation is pending due to user department, bidder should submit a letter from user department to that effect.

G.3. Maximum LD for late deliveries/ installation:

Maximum LD for late deliveries/installations: 10% on the Total value of goods for that location/site for late delivery/installation or deemed late delivered/installed goods.

However, Purchaser reserves the right further to take penal action on the bidder. The bidder will be disqualified, blacklisted, action will be initiated as deemed fit and the Bid Security will be forfeited.

G.4. Service Level Requirements

For the offices at DHQ level:

The bidder should attend within 24 hours and resolve the breakdown calls within 48 Hours of call reporting. Failing which penalty is applicable as per terms & conditions.

For the offices at Mandal/Village level:

The bidder should attend within 36 Hours and resolve the breakdown calls within 72 Hours of call reporting. Failing which penalty is applicable as per terms & conditions.

The service provider shall maintain sufficient buffer stock of devices/spares at the district head quarters for this purpose.

G.5. Penalty for failure to maintain during warranty period for all items:

Item	Penalty applicable for the downtime as below.
All Items	For any delay beyond permissible down time, a penalty of 0.5% of equipment cost will be levied for each day or part there of subject to a maximum of total equipment cost.

The penalty amount will be deducted from the amount payable to the bidder by Purchaser. Once this amount is exhausted, penalty amount will be recovered from the Performance Security. Once the Performance Security also exhausted, the bidder will be required to recoup

the Performance Security. If the bidder fails to recoup the Performance Security, the bidder will be debarred from participating in tenders till the time the bidder recoups the Performance Security.

The penalty for crossing service level agreement will be limited to 10%. However, Purchaser reserves the right further to take penal action on the bidder. The bidder will be disqualified, blacklisted, action will be initiated as deemed fit and the Bid Security will be forfeited.

G.6. Payment Terms and Conditions

Payment terms	By Contract signing authority
For items	
Upon submission of Delivery Challan of the supplied materials & Acceptance Test Report	70% Contract / PO for which DCs of the supplied materials & Acceptance Test Report
Upon successful installation, testing, and commissioning of the complete system commissioning at all designated sites	20% of the contract price shall be paid within 30 days upon submission of required installation Certificates from all the designated Sites
Satisfactory Performance Certificate (SPC) from the competent authority of the Department after 30 Days	Remaining 10% of Contract / PO for which DCs, IR cum AT reports & SPCs submitted.
Incase site not ready, for more than 30 days from the date of delivery	75% of the Contract / PO value for that site / location up on submission of Site Not Ready Certificate.
For Dash Board Application	
After completion and go-live declaration	90% of the quoted cost after acceptance of application and go-live declaration by the Department
Satisfactory Performance Certificate (SPC) from the competent authority of the Department after 30 Days	Remaining 10% of Contract / PO for which DCs, IR cum AT reports & SPCs submitted.
For FM Services	
For the manpower deputed during the contract period	Payment will be made quarterly upon submission of invoice and satisfactory performance/attendance report from the competitive authority.

Billing/Invoice	Invoice should be raised in the name of User Department. Billing/Invoice should be done from any of the offices located in AP only. Invoices that are not in compliance with above conditions will not be processed.
-----------------	---

Note:

1. All the Delivery Challans, Installation cum AT Reports, OEM Quality Certificate to be Counter signed by the respective Competent Authority as designated by the user department.
2. Full technical specifications of the supplied items as per Contract/PO are to be mentioned in DCs and IRs.
3. The certificate/report should have Name, Designation, Signature, Phone number, Date and Seal of the Officer.
4. The DC/IR/SPC will not be processed for payments if the Name, Designation, Signature, Phone number, Date and Seal of the Officer are not available.
5. Purchaser reserves right to conduct random Acceptance Test on items delivered if required.

Section H – Annexures

Annexure I : Model Contract Form

Contract Ref No: _____

THIS AGREEMENT is made on ____ day of _____

BETWEEN

1. *The Managing Director , Andhra Pradesh Technology Services Limited, APTS Ltd, 3rd Floor, R&B Building, MG Road, Labbipet,Vijayawada-500010, Andhra Pradesh, India or HoD of User Department (hereinafter called “the Purchaser”),on behalf of _____ Department, AP and*
2. _____ a company incorporated under the laws of India and having its registered office at _____. (Hereinafter called “the Supplier”).

WHEREAS the Purchaser invited bid for certain goods and ancillary services viz., *Supply and Installation of _____ for supply at _____* and has accepted a bid by the Supplier for the supply of those goods and services in the sum of Rs. _____ (_____.) including all taxes and duties (hereinafter called as “the Contract Price”)

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

In this Agreement words and expression shall have the same meanings as are respectively assigned to them in the Conditions of bid document referred to

1. Scope of the Work

Brief outline of the work: *To Supply & Installation of devices/products/items as per the staggered orders issued time to time during the contract period _____ at _____*. The detailed scope is as covered in RFP and subsequent clarifications.

2. Contract Documents

2.1. Contract Documents

The following documents shall constitute the Contract between the User and the Supplier, and each shall be read and construed as an integral part of the Contract:

- I. This Contract Agreement and the Annexures attached to the Contract Agreement
- II. Notification of award
- III. Minutes of TCPC meeting held on _____
- IV. Pre – bid conference minutes

V. Bid document Ref No. _____ Dt. _____

2.2. Order of Precedence

In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in 2.1(Contract Documents) above, provided that Schedule of Amendments contained in Annexure IV shall prevail over all provisions of the Contract Agreement and the other Appendices attached to the Contract Agreement and all the other Contract Documents listed in 2.1 above.

3. 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 Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and 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.
- 5.1. Brief particulars of the goods and services which shall be supplied /provided by the supplier are as under:

Sl. No	Solution, service, or material	Max. Qty	Unit Price
1.			
2.			
3.			
	Grand Total		

5.2 DELIVERY SCHEDULE : _____
5.3 WARRANTY: : _____
5.4 SUPPLIERS RESPONSIBILITY : _____
5.5 UP TIME % : : _____
5.6 EXIT CLAUSE : : _____
5.7 PAYMENT TERMS : _____

IN WITNESS WHEREOF the Purchaser and the Supplier have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

For and on behalf of the Purchaser

Signed:__

In the capacity of Managing *Director, APTS / HoD of User Department*

in the presence of _____

For and on behalf of the Supplier

Signed:___

in the capacity of-----, *M/s.* _____

in the presence of _____

Items	Configuration Required	Qty	Unit Price

Annexure – IV

Amendments & Other Documents

S.No.	Amendment No	Date	Amendment Description

Annexure II – Bid Security (EMD) BG Form

APTS Ref. No.....

Bid Security (EMD) Form

(To be issued by a bank scheduled in India and having at least one branch in Vijayawada)

Whereas..... (Here in after called “the Bidder”) has submitted its bid Dated (Date) for the execution of..... (Here in after called “the Bid”)

KNOW ALL MEN by these presents that We of having our registered office at..... (hereinafter called the “Bank”) are bound into the Andhra Pradesh Technology Service Ltd. (hereinafter called “The APTS”) in the sum of for which payment well and truly to be made to the said APTS itself, its successors and assignees by these presents.

The conditions of this obligation are:

1. If the bidder withdraws its bid during the period of bid validity or
2. If the bidder, having been notified of the acceptance of its bid by the APTS during the period of bid validity:
 - a. fails or refuses to execute the contract form if required; or
 - b. fails or refuses to furnish the performance security, in accordance with the bid requirement;
 - c. Submits fake documents.

We undertake to pay the APTS up to the above amount upon receipt of its first written demand, without the APTS having to substantiate its demand, provided that in its demand the APTS will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including 45 days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

Place:
Date:

Signature of the Bank
and seal.

Annexure III – Performance Security BG Form

APTS Ref. No.....

Performance Security Form

(To be issued by a bank scheduled in India and having at least one branch in Vijayawada)

To: (Address of APTS)

WHEREAS..... (Name of Vendor) hereinafter called “the Vendor” has undertaken, in pursuance of Contract No..... Dated ... (Date), to supply..... called “the Contract”.

AND WHEREAS it has been stipulated by you in the said Contract that the Vendor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier’s performance obligations in accordance with the Contract.

WHEREAS we have agreed to give the Vendor a Guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Vendor, up to a total of Rs. and we undertake to pay you, upon your first written demand declaring the Vendor to be in default under the Contract and without cavil or argument, any sum or sums within the limit of Rs..... . (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the day of..... (Date)

Place:

Date:

Signature and seal of guarantors

Annexure IV – Model Installation cum AT Report

(On Company Letterhead with other statutory details)

IR No.,

IR date

Office Name & Location:

I. Item Make/Model:

Qty:

S.NO. : (Attach separate sheet quantity is more)

SN	Complete specification of item as per Tender Document are to be mentioned such as	Functionality
1	Processor Details	
2	Chipset Details	
3	Memory: RAM	
4	.....	
5	.....	
6	.....	
7	.....	
8	.....	
9	.....	
10	.....	
11	.....	
12	.....	
13	.....	
14	Operating System	
15	Warranty Period	
16	Installation observations	Working satisfactorily or observations found if any

General Remarks:

Signature of Installation Engineer
Name
Contact No.

Signature of Dept. Official
with Name, Contact No., Seal & Date

Section I – Bid Forms

Bid Letter Form

From:
(Registered name and address of the bidder.)

To:
Andhra Pradesh Technology Services Ltd,
3rd Floor, R&B Building, MG Road, Labbipet,
Vijayawada-520010, Andhra Pradesh, India

Sir,

Having examined the bidding documents and amendments there on, we the undersigned, offer to provide services/execute the works including supply, delivery installation of hardware, firm wares and softwares as the case may be, in conformity with the terms and conditions of the bidding document and amendments there on, for the following project in response to your tender Ref. no _____ call dated

Project title:

We undertake to provide services/execute the above project or its part assigned to us in conformity with the said bidding documents in accordance with the schedule of prices attached herewith/submitted through online bid and coverage options made by APTS or its user organization.

If our bid is accepted, we undertake to;

1. Provide services/execute the work according to the time schedule specified in the bid document,
2. Obtain the performance guarantee of a bank in accordance with bid requirements for the due performance of the contract, and
3. Agree to abide by the bid conditions, including pre-bid meeting minutes if any, which remain binding upon us during the entire bid validity period and bid may be accepted any time before the expiration of that period.

We understand that you are not bound to accept the lowest or any bid you may receive, nor to give any reason for the rejection of any bid and that you will not defray any expenses incurred by us in bidding.

Place:
Date:

Bidder's signature
and seal.

Form P-1 - Bidder Information

1	Name of the organization	
2	Year of establishment	
3	Registered Office Address	
4	AP GST Regn. No.	
5	Phone No.	
6	Email	
7	Contact person details with mobile no.	
8	Total No. of branch offices in AP	
9	Total Support engineers at -	
10	At Head office (No.)	
11	At branch offices (No.)	
12	Whether Manufacturer?	If Yes, Provide relevant documents
13	Whether authorized dealer/ Service Provider?	If Yes, Provide relevant documents
14	Details of EMD furnished	
15	Details of certificates enclosed.	
16	Details of Purchasing document.	Provide details like APTS Receipt No& Date.

Place:
Date:

Bidder's signature
and seal.

Form P-2 – Bidder Turnover Details

Turnover details as per pre-qualification criteria mentioned in Section B of this document (taking in to consideration all the amendments issued to this document if any) are to be provided along with supporting documents.

Turnover Details

Sl. No.	Financial Year	Turnover of the bidder in Rs.	Profit after Tax (Rs.)	Networth in Rs.
	(1)	(2)	(3)	(4)
1				
2				
3				

Place:

Date:

Bidder's signature
and seal.

Form P-3 - List of Major Customers

S.No	Customer Full Address	Year of supply	Items supplied to the customer
A	B	C	D

Form P-4 - Details of service centers in AP

S.No	Full Address of service center	Contact person with phone No.	No. of support engineers
A	B	C	D

Form P-5 - Declaration Regarding Clean Track Record

To,
The Managing Director
Andhra Pradesh Technology Services Limited
3rd Floor, R&B Building, MG Road, Labbipet,
Vijayawada-520010, Andhra Pradesh, India

Sir,

I have carefully gone through the Terms & Conditions contained in the RFP Document [No. _____]. I hereby declare that my Company/Consortium Partners has not been debarred/ black listed as on Bid calling date by any State Government, Central Government, Central & State Govt. Undertakings/enterprises/Organizations and by any other Quasi Government bodies/Organizations, in India for non-satisfactory past performance, corrupt, fraudulent or any other unethical business practices. I further certify that I am competent officer in my company to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Printed Name

Designation

Seal

Date:

Business Address:

Form P6 – Undertaking in compliance with GFR Rule 144(xi)

To
The Managing Director,
AP Technology Services Ltd, 3rd Floor, R&B Building
M.G. Road, Vijayawada – 520010

Dear Sir,

Sub: Tender invited for _____ – Regarding.

Ref: Tender Reference _____, Dt. _____

I have read the GoI order issued by Ministry of Finance vides F. No. 6/18/2019-PPD, dated 23-07-2020 and subsequent clarifications/ amendments & G.O. Ms. No. 9, Dt. 25-02-2021 issued by Industries & Commerce Department of Government of Andhra Pradesh regarding restrictions on procurement from a Bidder of a Country which shares a land border with India.

I certify that this bidder is not from any such country or, if from such a Country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and eligible to be considered. [wherever applicable , evidence of valid registration by the competent authority shall be attached].

For <Bidder> (* the definition of bidder as per above mentioned in Clause No. E.3)

Authorized signatory:

Name of the authorized person:

Designation:

Name of Bidder: Stamp of Bidder:

NOTE: The letter should be submitted on the Letter head of the Bidder and should be signed by the Authorized signatory.

Form P7 – Manufacturer’s Authorization Form

On OEM Letter Head

To,
The Managing Director
Andhra Pradesh Technology Services Limited
3rd Floor, R&B Building, MG Road, Labbipet,
Vijayawada-520010, Andhra Pradesh, India

Sir,

Sub: Manufacturer Authorization Form issued to _____ - Reg.
Ref: Tender Ref. No. _____, Dt. _____

We <<OEM>> having our registered office at <<Address>> are established and reputed manufacturers of <<Products>>. We hereby confirm that <<bidder>> whose office is at <<address>> is an authorized reseller of <<OEM>> Products. The above reseller is authorized to provide a bid/quote for these products and enter into contracts for the same with you in respect of the above tender.

We hereby confirm that

1. Guarantee and warranty coverage in respect of the goods and services manufactured by us shall be honored by us, our channel partners, distributors, authorized service centers as the case may be.
2. We update <<the bidder>> and their technical personnel with relevant technical literature, training and skill transfer workshops etc. on a regular basis.
3. We provides back to back technical support to <<the said bidder>> on a continuing basis.
4. <<The said bidder>> is authorized to provide service and solutions using hardware, firmware and software as the case may be.

Note:

1. The letter of authority should be signed by a person competent and having the power of attorney to bind the manufacturer.
2. Conditional authorizations are not acceptable.
3. Any deviation to the above format will be a ground for disqualification of the bidder.

Form T 1 – Technical Compliance Statement

Item wise technical compliance statement as per technical specifications mentioned in Section-D of this document (taking in to consideration all the amendments issued to this document, if any) is to be submitted in the following format:

Item Code:

Item Name:

Sl. No.	Parameter/ Feature	Specification Required	Specification of proposed item along with Part Code, Qty. & Description if any (Part code details must be provided if available)	Compliance (Complied/Higher/Lower)	Reference for proof of compliance (Required docs to be uploaded along with technical bid)
A	B	C	D	E	F
					(Detailed reference such as doc name, para no. page no. etc. should be provided)

Form T 2 - Checklist

Compliance/Agreed/Enclosed/ Deviation Statement

The following are the particulars of compliance/deviations from the requirements of the tender specifications.

Bid document reference	Remarks
1.Delivery period	
2. Form P-1	
3. Form P-2	
4. Form P-3	
5. Form P-4	
6. Form P-5	
7. Form P-6	
8. Form P-7 Manufacturer's Authorization Form	
9. Form T-1	
10. Form T-2	
11. Form F-1 (unpriced)	
12. Pre-qualification criteria	
13. Technical specifications	
14. General instruction to bidders	
15. Standard procedure for bid evaluation	
16. General condition of proposed Contract(GCC)	
17. Special Condition of proposed Contract(SCC)	

The specifications and conditions furnished in the bidding document shall prevail over those of any other document forming a part of our bid, except only to the extent of deviations furnished in this statement.

Place:

Bidder's signature

Date:

and seal

NOTE:

For every item appropriate remarks should be indicated like 'no deviation', 'agreed', 'enclosed' etc. as the case may be.

Form T3 – Model declaration form for undertaking of authenticity for IT Hardware Supplies

Undertaking of authenticity for IT Hardware Supplies

1. This has reference to IT Hardware to be supplied/quoted in case we selected for the RFP Ref. No. _____ dated _____
2. We hereby undertake that all the components/parts/assembly/software used in the IT Hardware Supplies like Hard disk, Monitors, Memory etc shall be original new components/parts/assembly/software from respective OEMs of the products and that no refurbished/duplicate/second hand components/parts assembly/software are being used or shall be used.
3. We undertake that the supplied equipment will be 100% in accordance with the specifications and features mentioned in the RFP/Tender.
 - a. We will prepare to the annexure to installation report and will be given to installation/service engineers while going for installation of equipment or devices.
 - b. Our Service Engineer/Installation engineer will demonstrate all the features and functions to the end user during the installation and obtain the signature installation report and annexure to the installation report.
4. We also undertake that in respect of licensed operating system if asked by you in the purchase order shall be supplied along with the authorized license certificate (eg Product Keys on Certification of Authenticity in case of Microsoft Windows Operating System) and also that it shall be sourced from the authorized source (eg Authorized Microsoft Channel in case of Microsoft Operating System)
5. Should you require, we shall produce certificate from our OEM Supplier in support of above undertaking at the time of delivery. It will be our responsibility to produce such letters from our OEM supplier's within a reasonable time.
6. In case we are found not complying with above at the time of delivery or during installation, for the IT Hardware already billed, we agree to take back such items if already supplied and return the money if any paid to us by you in this regard.

Authorized Signatory

Name

Designation

Cost Sheets - Form F1

S.No.	Item details with make and model	Unit Price without taxes (Rs.)	Applicable Taxes/ Duties on unit price (Rs.)	Unit price with taxes (5=3+4) (Rs.)	Qty	Total amount with taxes (Rs.)
1	2	3	4	5	6	7
Item 1	Customized Active LED Wall				1	
Item 2	Video Wall Controller				1	
Item 3	Work Stations				4	
Item 4	Active LED Screen for VC Hall				1	
Item 5	65" LFD Display				2	
Item 6	Digital Sound Processor				2	
Item 7	Ceiling Micro Phones				4	
Item 8	Wireless Handheld Microphones				3	
Item 9	Gooseneck Microphone System				2	
Item 10	Wireless Collaboration				2	
Item 11	Video Conference Cameras for CCC and VC Halls				2	
Item 12	Power Amplifier				2	
Item 13	Speaker System				16	
Item 14	Automation Controller				1	
Item 15	Touch Panel				1	
Item 16	Accessories				1	
Item 17	Dash Board (Integration Software)				1	
Item 18	42U Network Rack				1	

Item 19	21U Network Rack				1	
Item 20	15KVA Online UPS				1	
Item 21	1 KVA Online UPS				40	
Item 22	L3 Managed PoE Switch				1	
Item 23	Motorised Display				1	
Item 24	Telephone System				1	
Item 25	Firewall				1	
Item 26	Internet Connectivity				2	
Item 27	AC, Ceiling and Acoustics for CCC and VC Hall				2	
Item 28	Furniture, Interiors & Accessories for CCC and VC Hall				2	
Item 29	Facial Access Control System				2	
Item 30	Fire Alarm System				1	
Item 31	All-In- One PC with Accessories				40	
Item 32	Lighting Strobe for Fire Stations				200	
Item 33	Facility Management Services				1	
Item 34	Body Worn Cameras with Docking stations				50 13	
Item 35	GPS Devices				400	
Item 36	Tablets for Vehicles				200	
Item 37	State wide Maintenance				1	
Item 38	Power Surge & Earthing				1	
Item 39	Network Accessories				1	
Item 40	24 Port Patch Panel				2	
Item 41	CAT6 Network cable				2000	
Item 42	Ceiling routers				2	

Item 43	Wireless Routers				40	
Item 44	24 Port Network Managed PoE Switch				2	
Item 45	Network Video Recorder				1	
Item 46	IP Vandal Dome Camera				4	
	Total Schedule Value					

(Signature of Bidder)

Note:-

1. Evaluation of Financial Bids will be including taxes.