

ATAL INDORE CITY TRANSPORT SERVICES LIMITED, INDORE

TENDER DOCUMENT

FOR

**“NOTICE INVITING TENDER FOR SUPPLY,
INSTALLATION & MAINTENANCE OF AUTOMATIC
TICKET VENDING MACHINE FOR AICTSL, INDORE
(M.P).**



ATAL INDORE CITY TRANSPORT SERVICES LIMITED

Plot No. 30- Residency Area, A.B. Road,
Opp. M.G.M. Medical College, INDORE - 452001
Ph.: +91-731-2499888

ISSUING FORM

THIS TENDER DOCUMENT NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION & MAINTENANCE OF AUTOMATIC TICKET VENDING MACHINE FOR AICTSL, INDORE (M.P). INDORE HAS BEEN ISSUED BY THE CHIEF EXECUTIVE OFFICER, ATAL INDORE CITY TRANSPORT SERVICES LTD, INDORE to

On dated..... On receipt of /- (Rs. Only) by Cash.

(Receipt No. _____ Dated _____)

MANAGING DIRECTOR,
ATAL INDORE CITY TRANSPORT SERVICES LIMITED, INDORE

A. BRIEF OVERVIEW OF AICTSL AND BUS OPERATIONS IN INDORE

I. Introduction

The Public Transport System in Indore city is being developed and implemented through a Special Purpose Vehicle i.e. Atal Indore City Transport Services Limited (AICTSL), as a strategy for solving the mobilization problems of the Indore city under the perspective of prioritizing the mass public transport system as opposed to individual transport systems in order to structure an integrated transport system which offers higher quality security and reliability from users of corridors with the highest passenger demand in Indore city

Atal Indore City Transport Services limited is a company incorporated under Indian companies Act, 1956 in India with the main object of establishing and maintaining a public Transport system in the city of Indore.

II. Regulation and Control Mechanism

Currently Atal Indore City Transport Services Limited is operating a fleet of 160 buses plying nearly on 25 routes and carrying 1,20,000 to 1,50,000 passengers per day. On Public Private Partnership basis. Under JnNURM scheme AICTSL has procured 125 CNG buses & additional 50 AC buses are to be procured for A.B.Road BRT Corridor. Also AICTSL has implemented AFCS project along the BRTS corridor. Now AICTSL intends **NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION & MAINTENANCE OF AUTOMATIC TICKET VENDING MACHINE FOR AICTSL, INDORE (M.P)**

Notice Inviting Tender (NIT)



ATAL INDORE CITY TRANSPORT SERVICES LIMITED, INDORE

Plot No. : 30, Residency Area, A.B. Road, Opposite M.G.M. College, Indore, M.P.
Telephone No. 0731-2499888, 2904488

NOTICE INVITING E-TENDER - 2nd Call

AICTSL/2018/NIT/EPROC/No.293

Indore, Date: 30/04/2018

Atal Indore City Transport Services Ltd. (AICTSL) is a special purpose vehicle in the form of a Public Limited Company set up to operate and manage Public Transport in the city of Indore. AICTSL invites online tenders from reputed & authorised manufacturers/ dealers/ distributors/ suppliers & established OEM. Important dates for tender processing are as under:-

Name of Work	NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION & MAINTENANCE OF AUTOMATIC TICKET VENDING MACHINE FOR AICTSL, INDORE (M.P).
Pre-bid Meeting Date at AICTSL Office	09/05/2018 at 1700 hrs.
Last date for online purchase of E-tender document	16/05/2018 till 1730 hrs.
Last date for online submission of E-tender technical and financial document	17/05/2018 till 1730 hrs.
Last date for submission of hard copy tender with technical bid submission	18/05/2018 till 1530 hrs.
Earnest money and technical bid will be opened online	18/05/2018 at 1600 hrs.

1. Tender document purchase, submission, detailed terms and conditions, specification and other eligibility criteria details shall be available on Website :- www.mpeproc.gov.in and NIT can be seen only on AICTSL official Website :- www.citybusindore.com.
2. Cost of tender form Rs. 5,000/- (non-refundable).
3. Earnest money deposit Rs. 1, 00,000/- (One Lac only) in the form of DD/FDR in favour Atal Indore City Transport Services Limited, Indore.
4. The bidder fulfilling the criteria as per NIT are eligible to participate in the tendering.

AICTSL reserves the right to reject any or all the tenders or extend the date and time of its sale, submission or opening under its sole discretion without assigning any reason whatsoever.

**Chief Executive Officer
Atal Indore City Transport Services Ltd.**

Tender terms and conditions will be according to the department. Instructions regarding website are as follows:-

- i) For participation in e-tendering module for any department, it is mandatory for prospective bidders to get registration on website www.mpeproc.gov.in . Therefore, it is advised to all prospective bidders to get registration by making on line registration fees payment at the earliest.
- ii) Tender documents can be purchased only online and downloaded from website www.mpeproc.gov.in by making online payment for the tender documents fee.
- iii) Service and gateway charges shall be borne by the bidders.
- iv) Since the bidders are required to sign their bids online using class – III Digital Signature Certificate, they are advised to obtain the same at the earliest.
- v) For further information regarding issue of Digital Signature Certificate, the bidders are requested to visit website www.mpeproc.gov.in . Please note that it may take upto 7 to 10 working days for issue of Digital Signature Certificate. Department will not be responsible for delay in issue of Digital Signature Certificate.
- vi) If bidder is going first time for e-tendering, then it is obligatory on the part of bidder to fulfil all formalities such as registration, obtaining Digital Signature Certificate etc. well in advance.
- vii) Bidders are requested to visit our e-tendering website regularly for any clarification and / or due date extension.
- viii) Bidder must positively complete online e-tendering procedure at www.mpeproc.gov.in
- ix) Department shall not be responsible in any way for delay /difficulties /inaccessibility of the downloading facility from the website for any reason whatever.
- x) For any type of clarification bidders can / visit www.mpeproc.gov.in and held desk contract no. 18002588684 Mail id : eproc_helpdesk@mpsdc.gov.in Support timings: Monday to Saturday from 10:00 AM to 7:00 PM.
- xi) Interested bidders may attend the free training programme in Bhopal at their own cost. For further query please contact help desk.
- xii) The bidder who so ever is submitting the tender by his Digital Signature Certificate shall invariably upload the scanned copy of the authority letter as well as submit the copy of same in physical form with the offer of particular tender.

INSTRUCTIONS FOR TENDERING

1. Before tendering, the tenderer shall visit the site and also carefully examine the conditions of contract, the specifications, drawings and the Bills of Quantities and if there should be or appear to be any ambiguity in or discrepancy between any of these documents or between figured and measured dimensions upon the drawings, he should immediately refer the matter to the ATAL INDORE CITY TRANSPORT SERVICES LIMITED (AICTSL). The tenderer is required, to inspect the site of the proposed work to acquaint himself with regard to the nature of work, availability of materials, labour, duration of working hours, efforts to be taken to work within the existing premises, Special Security arrangement to be made etc.
2. Access to the site during the tender period will be given by appointment.
3. Any clarifications required on the tender documents may be obtained from the office of the AICTSL, Indore.
4. Time is the essence of the contract and the time required for completion of work from the date of placing the work order has been indicated in the appendix to the general conditions of the contract.
5. The tenderer shall complete the annexed form of Tender, Schedule and Bills of Quantities with the whole of the price and information called for therein and shall sign with date on each of the documents in the space provided for the purpose. Each page of the tender shall bear tenderer sign and also shall bear the stamp of the tenderer.
6. The tender form and documents attached to it shall not be detached one from the other and no alteration other than filling in of all blank spaces shall be made in the documents.
7. The tender shall be made on the basis of the rates and prices in the bill of quantities and there will be no adjustment with variation in wage rates, taxes, prices of materials or any other costs, unless indicated otherwise. The AICTSL does not guarantee that any or all the items of work will be in purview of the contract.
8. The AICTSL reserves the right to adjust arithmetical or other errors in any tender in the way which he considers suitable, any adjustment so made by the AICTSL shall be informed to the tenderer.
9. The tender shall remain valid for acceptance for the period of 120 days from the date of submission. If the tenderer withdraws or modifies his offer during validity period the EMD deposit shall be forfeited in favor of AICTSL.

9.1 Forfeiture of Bid Security:

The Bid Security of a Bidder shall be forfeited in the following events:

- (i) If a Bidder withdraws or amends the bid proposal during the period of Bid validity or,
- (ii) In the case of a Successful Bidder, if the Bidder fails to sign the Bus operator Agreement.
- (iii) In the case of any other situation as may be specified in the RFP document.

10. The rates Quoted are inclusive of Income tax, commercial tax, GST and other taxes if applicable & the same will be deducted as per rules.

11. Tender will not be considered if not accompanied by a sum of Rs. 1,00,000/- as Earnest Money. The Earnest Money of unsuccessful tenderer will be returned without interest after a decision is taken in respect of awarding the work. The Earnest Money deposited by the successful tenderer will be adjusted towards security deposit and will not bear any interest.

~~12. The Tender drawings are provided to indicate the nature of work and have been issued for the purpose of tendering. Detailed working drawings will be issued to the contractor for execution of the work based on agreed working programme after issue of the work order.~~

13. Mode of submission of E- Tender: The Tender technical & financial bid shall be submitted via E-tendering till 18/05/2018 as mentioned in the memorandum & hard copy only of technical till 28/03/2018 as mentioned in Memorandum.

- (a) It will be submitted in two sealed envelope. First envelope shall contain Earnest money deposit of Rs. 1,00,000/- (Rupees One Lac only) in form of demand draft in favor of **Atal Indore City Transport Services Limited** Payable at Indore.
- (b) The Second envelope shall contain document duly signed on all the pages as a token of acceptance. Tender will be opened on 18/05/2018. at 16:00 Hrs. in the Office of **Managing Director**, AICTSL, A.B. Road, Indore in the presence of Tenderers or their authorised representatives, who may choose to attend.

15. Tender submitted without following procedure as described in the tender will be disqualified.

16. Subletting the work in any form will not be allowed.

17. Contractors to quote rates inclusive of all Taxes, Levies, and Duties present and future imposed by STATE GOVT, CENTRAL GOVT, and LOCAL BODIES.

18. AICTSL reserves the right to accept or reject any one or all the tenders without assigning any reasons whatsoever.

19. Conditional tenders are liable to be treated as non-responsive tender and hence liable for rejection.
20. Tender will be evaluated as a whole and not component wise.
21. Payment conditions: (As per table below)

Schedule of payment		
<i>Following schedule of payment will be applicable.</i>		
I)	On supply, installation & commissioning of all the systems as mentioned in Work order.	90 % of the bills raised on account of installed quantity as per the rate quoted.
II)	On satisfactory completion of installation and system after 2 months of acceptance.	10 % of the remaining amount.
III)	First year Comprehensive maintenance of the entire supplied system after one year warranty	Quarterly payment of the quoted yearly amount.
IV)	Second year Comprehensive maintenance of the entire supplied system.	Quarterly payment of the quoted yearly amount.
V)	Third year Comprehensive maintenance of the entire supplied system.	Quarterly payment of the quoted yearly amount.

Note:

1. Warranty period shall start only after successful commissioning of the particular hardware.
2. Maintenance period shall start after the warranty period of one year.
3. For Tonner invoicing to be done as supplied rate mentioned in the financial bid.
4. Regular maintenance report & site visit report to be submitted to AICTSL that would be the base of annual maintenance fees.

Date :

To,

**Chief Executive Officer
AICTSL,
30 Residency Area,
Opp. MGM College,
Indore (M.P.)**

Dear Sir,

Having examined the tender conditions, drawings, specifications, designs relating to the works specified in the memorandum and having visited and examined the site of the works specified in the said memorandum and having acquired the requisite information affecting the tender, I/WE hereby offer to execute the works specified in said memorandum within the time specified in the said memorandum on the item rate basis mentioned in the attached schedule and in accordance with all respects with the specifications, designs, drawings and instruction in writing referred to in condition of tender, the Articles of Agreement, and with such materials as are provided for , by and in all other respects in accordance with such condition so far as they may be applicable.

MEMORANDUM

a)	Description of works	NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION & MAINTENANCE OF AUTOMATIC TICKET VENDING MACHINE FOR AICTSL, INDORE (M.P)
b)	Amount of E/M	Rs. 1,00,000/-
c)	Bidder experience & Pre-qualification criteria – only after passing this criteria financial bid shall be opened.	<ol style="list-style-type: none"> 1. Minimum of two years of experience with successfully installation of 2 similar (machines/ ticketing/ any other similar work) works (Documents to be enclosed). 2. Bidders must submit tender specific OEM/ national Distributors/ channel Partners authorization for required items/equipment's confirmation of minimum 4 years of technical support for this project in terms of repair and replacement. 3. ITR for last three financial years. 4. Company/ agency registration certificate. Along with company profile. 5. ISO 9001:2008 / OHSAS 18001:2007 or higher. 6. Self-certification of non-blacklisting from any Govt/ Private organization.
d)	Period of Completion	10 days from the date of work order.
E	Pre-bid date at AICTSL Office	09/05/2018 at 1700 hrs.
F	Last date for online purchase of E-tender document.	16/05/2018 till 1730 hrs.
G	Last date for online submission of E-tender technical and financial document	17/05/2018 till 1730 hrs.

H	Last date for submission of hard copy tender with technical bid submission.	18/05/2018 till 1530 hrs.
I	Earnest money and only technical bid will be opened online.	18/05/2018 at 1600 hrs.

- (1) We undertake to complete and deliver the whole of the works comprised in contract within the time stated in the Appendix to Bid of the general conditions of the contract.
- (2) **We have independently considered the amount of liquidated damage in the Appendix to Bid of the general conditions of the contract and agree that it represents fair estimate of the loss likely to be suffered by us in the event of the works not being completed in time.**
- (3) If our tender is accepted, we will, furnish the performance security deposit for the sum named in the appendix to Bid of the general conditions of the contract for the due performance of the contract.
- (4) We agree to abide by this tender for the period of 120 days from the date fixed for receiving the same and it shall remain binding upon us and maybe accepted at any time before expiry of that period.
- (5) Unless until a formal agreement is prepared and executed this tender together with our written acceptance thereof shall constitute a binding contract between us.
- (6) We understand that you are not bound to accept the lowest or any tender you may receive and reserves to itself, the right to accept or reject any or all the tenders, either in whole or in part, without assigning any reason thereof.
- (7) Should this tender be accepted I/We hereby agree to abide by and fulfill the terms and provisions of the said conditions of contract annexed hereto as far as they may be applicable or in default thereof to forfeit and pay to AICTSL the amount mentioned in the said conditions.
- (8) I/We have deposited Demand Draft for a Sum of Rs. 1,00,000/- as earnest money deposit with AICTSL. Should I/We do fail to execute the contract when called upon to do so, I/We hereby agree that this sum shall be forfeited in favour of AICTSL, Indore.

(9) Our Bankers are :

(10) The names of partner of our firm are :

- (i)
- (ii)
- (iii)
- (iv)
- (v)

Name of the partner of the firm
authorised to sign. OR Name of
person having Power of Attorney to sign
the Contract.

(Certified True copy of the Power of
Attorney should be attached).

(Signature and addresses of witnesses)

(1)

(2)

Yours Faithfully,

Signature of Contractor

GENERAL CONDITIONS OF CONTRACT

1. RATES

The contractor should quote his rates for the items mentioned in the schedule of items. The rates should be written in figures as well as in words. All corrections and alterations made while filling the tender must be attested by initials of the tenderer. Overwriting of figures is not permitted. The contractor will not have the freedom to change the unit. No percentage above or below the schedule is to be quoted. If there is any difference between the amount of words and figures written in the tender forms by the contractor the lesser amount will be treated as valid, if the contractor is not ready to accept the amount so fixed in the above manner and declines to do the work earnest money deposit of the contractor shall be forfeited.

The rates quoted shall be firm and shall not be subjected to any change variations, labour conditions, and fluctuations in railway freight, taxes, royalties and any conditions whatsoever. All rates & prices quoted shall remain firm throughout the tenure of contract (till the completion of all major & minor works in the scope of contractor & its certification by AICTSL). Escalation will not be paid in any case.

The rate quoted in the tender shall also include all required material, man-power, tools & plants, temporary water & electric connection and consumption charges required to execute the work, sales tax, excise duty, octroi, royalty and any other tax and duty or other levy levied by the Central Government or any State Government or Local authority, if applicable. No claim in respect of sales-tax, excise duty octroi or other tax duty or levy whether existing or future shall be entertained by the AICTSL,.

2. TYPE OF CONTRACT:

The contract shall be lump sum contract. The Contractor shall be paid for the actual quantity of work done, as measured at site, at the rates quoted by him in the contract.

3. CONTRACT DRAWINGS:

The preliminary drawings, prepared by the AICTSL, are annexed with the tender and clarification required if any, may be obtained from AICTSL. It should be borne in mind that the drawings are only broad guidelines for the works to be executed. AICTSL has a full right for addition/omission or any change in the drawing/s, at any stage prior or during execution stage. The addition/omission/change will not vitiate the contract and contractor's claim on this account will not be entertained on any ground.

In general the drawings shall indicate dimensions, position and type of construction work. The specifications shall indicate the qualities and the methods, and the bill of quantities shall

indicate the quantum and the rate for each item of work. Any work indicated on the drawings and not mentioned in the specification or vice versa shall be furnished as thoughtfully set forth in both. Work not specifically detailed, called for, marked or specified shall be the same as similar parts that are detailed, marked or specified.

- 3.1 The contractor's work shall not deviate from the drawings and the specifications. The AICTSL interpretation of these documents shall be final and without appeal.
- 3.2 Errors or inconsistencies discovered in the drawings and specifications shall be promptly brought to the attention of the AICTSL, for interpretation or correction. Local conditions which may affect the work shall likewise be brought to the AICTSL attention. If at any time, it is discovered that work is being done which is not in accordance with the contract drawings and specifications the contractor shall correct the work immediately. Corrections of defective work shall not be a basis for any claim for / or extension of time, the contractor shall not carry on any on agreement work except with the written orders of AICTSL.
- 3.3 Figured dimensions on the Scale Drawings and large size details shall govern. Large size details shall take precedence over small scale drawings. Any work done before receipt of such details, if not in accordance with the same, shall be removed and replaced or adjusted, as directed, by the Contractor without expense to the Employer. The general conditions apply with equal force to all the work including authorized extra works.
- 3.4 Drawings and designs for the project as per the guidelines of work will remain property of the AICTSL and will not be used without the written permission of the AICTSL elsewhere.
- 3.5 In case detailed Drawings/ Shop drawings are necessary contractor shall prepare such detailed drawings and / or dimensional Sketches thereof and have it confirmed by the AICTSL prior to taking up such work.
- 3.6 The contractor shall ask in writing for all clarification's on matters of ambiguity or confusion occurring anywhere in drawings, specifications and schedule of quantities or to additional instructions at least 7 days ahead from the time when it is required for implementation so that the AICTSL may be able to give decision thereon.

4. FACILITIES AND CO-OPERATION:

In the case of works indicated on the drawings but not included in the contract the Contractor shall provide necessary facilities and co-operation for any sub-contractor or supplier who may be approved by the AICTSL. The Contractor shall do all cutting, filling of patching of his work that may be required to make its several parts come together properly

and fit it to receive or be received by work of other Contractors shown upon or reasonably implied by the drawings and specifications for the completed structure, and he shall make good after them as the AICTSL may direct.

The Contractor shall not endanger any work by cutting, excavating or otherwise altering the work and shall not cut or alter the work of any other Contractor save with the consent of the AICTSL

5 SAMPLES AND SHOP DRAWINGS:

- 5.1 After the award of the contract, the Contractor shall furnish for the approval of the AICTSL, with such promptness as to cause no delay in his work or in that of any other Sub-Contractor, samples and shop drawings required by the specifications or by the AICTSL. Samples shall be delivered as directed by the AICTSL
 - 5.2 Unless specifically authorized all samples must be submitted for approval of AICTSL within Fifteen days of signing the contract and not less than seven days before the date a particular work involved is scheduled to begin.
 - 5.3 AICTSL shall check and approve such samples, with reasonable promptness only for conformity with the design concept of the project and for compliance with the information in the contract documents. The work shall be in accordance with the approved samples.
6. THAT, all dues regarding taxes present or imposed in future, including the Sales Tax, VAT, Octroi duties, Royalties, and/or all such other taxes/fees levied on the Contractor's work by Government and/or Local Bodies will be payable by the Contractor, and the Employer will not be liable to compensate the Contractor any expenses incurred by the Contractor on any such account/s.

7 STATUTORY OBLIGATION, NOTICES, FEES AND/CHARGES

- 7.1 The Contractor shall comply with and give all notices required by any government authority, and instrument, rule or order made under any act of parliament or any regulation or by-law of any local authority relating to the work or with whose system the same is or will be connected. The Contractor before making any variation from the Contract drawings or contract bills necessitated by such compliance shall give to AICTSL a written notice specifying

and giving reasons from such variations and the AICTSL may issue instructions in regard thereto.

- 7.2 The Contractor shall pay and indemnify the Employee against liability in respect of any fees or charges (including any rates and taxes) legally demandable under any Act of Parliament, instrument, rule or order or any regulation or by-law or any local authority in respect of the work.

8 SUB-CONTRACTOR:

The Contractor shall not be allowed to sublet the work in whole or parts in any case without the permission of Employer. Even for some specialized works no subletting will be allowed without the prior approval of the competent authority in writing without which the Contractor cannot sublet or assign to any other party, or parties the whole, or any portion of work under the contract. Even where such approval is granted, the Contractor shall not be relieved of any obligation or duty or responsibility which he undertakes under the contract.

- 8.1 All specialists, merchants, tradesmen, and others executing any works or supplying and fixing any goods, who may be nominated or selected by the AICTSL shall be deemed to be Sub-Contractors employed by the Contractors and are too referred as nominated sub-contractors. No nominated sub-contractor shall be employed on or in connection with the work against whom the contractor shall make reasonable objection (save where the AICTSL and Contractor shall otherwise agree).

9 ALTERATION OF QUANTITIES

A schedule of probable quantities in respect of each work and the specifications accompany these special conditions. The schedule of quantities is liable to alteration by, omissions, deductions or additions at the discretion of the AICTSL. Each tender should contain not only the rates but also the value of each items of work entered in a separate column and all the items should be totalled in order to show the aggregate value of the entire tender.

The quantities shown in the schedule of quantities are intended to cover the entire new structure indicated in the drawings but the Owners reserves the right to execute only a part or the whole or any excess thereof without assigning any reason thereof. The quantity of any item can vary to any extent and no claim of contractor will be entertained on this ground.

10 MATERIALS & WORKMANSHIP TO CONFIRM TO DESCRIPTIONS

All materials and workmanship shall so far as procurable be of the respective kinds described in the schedule of quantities and/or specifications and in accordance with the instructions, and the Contractor shall upon request of the AICTSL furnish him with all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carry out any test of any materials which the AICTSL may require.

11 CERTIFICATES AND PAYMENTS

The Contractor shall be paid by the employer monthly on running account bills on account of the works executed when in the opinion of the AICTSL, work to the approximate value named in the appendix as "Value of work for Interim certificates" has been executed in accordance with this contract, subject however, to a retention of percentage of such value named in the Appendix hereto as "Retention Percentage from Interim Certificates" until the total amount retained shall be as mentioned in the appendix "Total retention money" after full value of the work subsequently so executed and fixed in the building. All such payments shall be deemed to be on account payment subject to settlement in final bill. The contractor will submit monthly running bills.

12.0 Dispute Resolution

12.1 Amicable Resolution

- (a) Save where expressly stated otherwise in this Agreement, any dispute, difference or controversy of whatever nature howsoever arising under, out of or in relation to this agreement between the Parties and so notified in writing by either Party to the other (the "Dispute") in the first instance shall be attempted to be resolved amicably by the Parties, in accordance with the procedure set forth in sub-article (b) below.
- (b) Either Party may require the Dispute to be referred to the Managing Director (MD), AICTSL for amicable settlement. Upon such reference, both the Parties and the MD or his nominee (who may or may not be an employee of AICTSL shall meet at the earliest mutual convenience and in any event within 15 (fifteen) days of such reference to discuss and attempt to amicably resolve the Dispute. If the Dispute is not amicably resolved within 15 (fifteen) days of such meeting, either Party may refer the Dispute to arbitration in accordance with the provisions of Article 12.2 below.

12. 2 Arbitration

(a) Arbitrators

Any Dispute which is not resolved amicably as provided in Article 12.1 shall be finally settled as per stipulation in Arbitration & conciliation Act 1996.

(b) Place of Arbitration

The place of arbitration shall be Indore.

13 PRICES FOR EXTRAS ETC.

The Contractor may, when authorised and shall, when directed, in writing by the AICTSL add to, omit from or vary the works shown upon drawings, or described in the specifications, or included in the schedule of quantities, but the Contractor shall make no addition, omission or variation without such authorization or direction. A verbal authority or direction by the AICTSL shall, be confirmed by them in writing within seven days, be deemed to have been given in writing. Any such extra is herein referred to as authorised extra and shall be made in accordance with the following provisions:

13 (a) (i) The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced therein.

(ii) Rates for all items, where ever possible, should be derived out of the rates given in the priced schedule of quantities.

13(b) The net prices of the original tender shall determine the value of the items omitted provided if omissions vary the conditions under which any remaining items of works are carried out the prices for the same shall be valued under sub-clause (c) hereof.

13(c) Where the extra works are not of similar character and/or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items of works are carried out or if the amount of any omissions or additions relative to the amount of the whole of the contract works or to any part thereof shall be such that in the opinion of the AICTSL the net rate or price contained in the priced schedule of quantities or tender or for any items of the works involves loss or expenses beyond that reasonably contemplated by the Contractor or is by reason of such omission or addition tendered unreasonable or

inapplicable, the AICTSL shall fix such other rate or price as in the circumstances he shall think reasonable and proper.

- 13(d) It is further clarified that no item of work other than specified in the tender document shall be executed without the prior written permission of the AICTSL. The Contractor should notify well in advance to the AICTSL /AICTSL. The requirement of such work not specified in the tender, and submit the detailed analysis and total quantity and estimate of such work, based on market prices if the material and labor and provision of profit & overheads at 15% only. The measurement and valuation in respect of the contract shall be completed within the period of three months.

14 MATERIALS AND WORKMANSHIP

- 14.1 All materials and workmanship shall bear the relevant code of ISI specification and approved type and the Contractor shall immediately remove from the works any material and/or workmanship which in the opinion of the AICTSL are defective or unsuitable and shall substitute proper material and/or workmanship at his own cost. The term approval used in connection with this contract shall mean the approval of the AICTSL.
- 14.2 The Contractor shall if required submit satisfactory evidence as to the kind and quality of material.
- 14.3 Where special makes or brands are called for they are mentioned as a standard. Others of equal quality may be used provided approval is first obtained in writing from the AICTSL /AICTSL. Unless substitutions are requested no deviation from the specification will be permitted. Failure to propose the substitution of any article within 30 days after signing of the contract will be deemed sufficient cause for denial of the request for substitution.
- 14.4 The Contractor shall indicate and submit evidence in writing of those materials or articles called for in the specifications that are not obtainable for installation in the work within the time limits of the contract. Failure to indicate the above, within 30 days after the signing of the contract, will be deemed sufficient cause for the denial of request for the extension of the contract time.
- 14.5 All material shall be delivered so as to insure a speedy and uninterrupted progress of the work, such material shall be stored so as to prevent overloading of any portion of the structure, and the Contractor shall be entirely responsible for damage or loss by weather or other cause.

15 VIRTUAL COMPLETION AND DEFECTS LIABILITY PERIOD

- 15.1 When in the opinion of the AICTSL the works are practically completed, he shall forthwith issue a certificate to that effect and virtual completion of the work shall be deemed for all the purpose of this contract to have taken place on the day named in such certificate.
- 15.2 Any defects, or other faults which shall appear within the Defect Liability Period stated in the appendix to these conditions and which are due to materials and workmanship not in accordance with the contract shall be specified by the AICTSL in a schedule of defects which he shall deliver to the Contractor not later than 28 days after the expiration of the said Defects Liability period and within a reasonable time after receipt of such schedule the defects shrinkages and other faults therein specified shall be made good by the Contractor and entirely at his own cost.
- 15.3 The liabilities of all the hardware installed by the contractor at the stations will be at contractors end until the site handed over to AICTSL.

16 ~~Materials and Sample of Materials:~~

~~Materials shall be of approved quality and the best of their/available and generally conform to Indian Standard Specification, The Contractor shall order all materials required for the execution of work as early as necessary and ensure that such materials are at site well ahead of their requirement for use in the work.~~

~~Samples of materials shall be supplied by the Contractor at his own cost for approval of the AICTSL.~~

- 17 ~~Contractor shall adhere to safe construction practice and guard against hazardous and unsafe working conditions and shall comply with relevant safety regulations as per Factory Act and any other statutory Acts, rules regulations etc. Safety rules as per IS shall be observed.~~

~~THAT, the Contractor shall be liable for and shall indemnify the Employer and the AICTSL against any liability, loss claim or proceedings whatsoever, arising under any statute or at Law in respect to personal injury to, or death of any person whomsoever, arising out of or in the course of, or caused by carrying out the work/s.~~

18 Sealing and Marking of Bids

1. “Envelope A: NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION & MAINTENANCE OF AUTOMATIC TICKET VENDING MACHINE FOR AICTSL, INDORE (M.P)

Should contain:

- (a) The original of the Bid Security of the required value and in approved format in a separate Envelop duly marked as EMD
- (b) Original of the Technical Bid & mandatory documents.
- (c) Original RFP document/MoM/any other correspondence duly signed by authorized Signatory.

2. Financial Proposal TO BE SUBMITTED ONLY VIA ONLINE PORTAL. NO HARD COPY TO BE SUBMITTED TO AICTSL. All the required/ mandatory documents to be uploaded on E-tendering.

APPENDIX TO BID

(Contract Data)

S.No.	ITEMS	PARTICULAR CONDITIONS FOR THIS CONTRACT
1	Authority	Managing Director, Atal Indore City Transport Service Ltd., Indore
2	Defects Liability Period	This is included in the comprehensive warranty
3	The Start Date	7 (Seven) Days from the date of issue of the work order i.e. letter to proceed with the work.
4	Intended Completion Date	20 days from the start date.
6	Name of the work	NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION & MAINTENANCE OF AUTOMATIC TICKET VENDING MACHINE FOR AICTSL, INDORE (M.P)
7	Work Programme	7 days from the issue of Letter of Acceptance.
9	Amount of Performance security	5 (Five) Percent of the Contract Price.
11	Amount of Liquidated Damage	As per clause 2 of the agreement.
12	Limit of Liquidated Damages	6 (six) percent of contract price

**NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION & MAINTENANCE OF
AUTOMATIC TICKET VENDING MACHINE FOR AICTSL, INDORE (M.P)**

I/We hereby tender for the supply for the AICTSL of the materials, described in the under mentioned memorandum according to the specification within the time specified and at the rates specified therein subject to the conditions hereinto annexed.

MEMORANDUM

Earnest Money Rs. Security Deposit (including earnest money)

Rs. Percentage if any to deduct from bills.

Note: -

1. Note One Consolidated rate for each item should be tendered / quoted inclusive all charges i.e.cost , freight , Octroi , Excise duty , GST etc.
2. In case of variation in rates between words & figures; higher rate will be considered.
3. The tender will be evaluated as a whole and not component wise.

Signature of Contractor

(With Seal)

Should this Tender be accepted, I/We hereby agree to abide by and fulfil all the terms of the above specification and all the conditions of Contract annexed hereto, or in default thereof, to forfeit and pay to the AICTSL or his successors the penalties or sums or money mentioned in the said conditions.

The sum of Rs. 50,000/- in Demand Draft herewith, forwarded as earnest money the full value of which is to be absolutely forfeited to the said Governor or his successors in office without prejudice to any other rights or remedies of the said AICTSL or his successors in office should I/We fail to commence supply of the materials specified in above memorandum or (a) should I/We not deposit the full amount of security in accordance with clause 1 (A) of the conditions of contract, otherwise the said sum of Rs. 50,000/- shall be retained by AICTSL on account of such security deposit as aforesaid, or (b) the full value of which shall be retained by Government on account of the security deposit in clause 1 (B) of the said conditions of contract.

Signature of witness to signature of tenderer Signature

Address

Address

Dated the

The above tender is hereby accepted by me on behalf of the Governor of Madhya Pradesh.

Dated the 2018

Signature of the Officer by whom the tender is accepted,

B. Conditions of Contract

1. The person/persons whose tender may be accepted (hereinafter called the contractor, which expression shall unless excluded by or repugnant to the context include his heirs executors administrators, representatives and assigns) shall (A) (within one day for a contract of Rs. 1000 or less two days for one of Rs. 2000 or less, and so on, upto a limit of ten days of receipt by him of the notification of the acceptance of his tender) deposit with Managing Director in cash or Government securities endorsed to Managing Director (If deposited of more than 12 months) a sum sufficient with the amount of earnest money deposited by him with his tender to make up the full security deposit specified in the tender) or' (B) permit Government at the time of making any payment to him for work done under the contract to deduct such sums as will (with the earnest money deposited by him) amount to percent of all moneys so payable such deductions to be held by Government by way of security deposit) provided always that in the event of contractor depositing a lump sum by way of security deposit as contemplated at (A) above, then, and in such case, if the sum so deposited shall not amount to percent of the total estimated cost of the work it shall be lawful for Government at the time of making any payment of the contractor for work done under the contract to make up the full percentage of percent by deducting a sufficient sum from every such payment as last aforesaid All compensation or other sums of money payable by the contractor to Government under the terms of his contract may be deducted from or paid by the sale of a sufficient part of his security deposit or from the interest arising therefrom, or from any sums which may be due or may become due to the contractor by the Government on any account, whatsoever, and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall within ten days thereafter make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from or raised by sale of his security deposit or any part thereof. This security deposit referred to when paid in cash may, at the cost of the depositor, be converted into interest-bearing provided that that depositor has expressly desired this In writing.
2. The Time allowed for the supply of materials as entered in the tender shall be strictly observed by the contractor and be reckoned from the date on which the order to commence supply of materials is given to the contractor. The supply of materials shall throughout the stipulated period of the contract be proceeded with, with all due diligence (time being deemed to be the essence of contract on the part of the contractor) and the contractor shall pay as liquidated damages an amount equal to one percent or such smaller amount as the Managing Director may decide on the amount of estimated cost of the whole of the materials as shown in the tender for every day that the supply remains uncommenced or unfinished after the proper dates And further, to ensure good progress during the supply of materials, the contractor shall be bound in all cases which the time allowed for any supply of materials exceeds one month, to complete one fourth of the whole time allowed under the contract has elapsed, one half of the supply before one half of such time has elapsed, and three fourth of the supply before three fourth of such time has elapsed in the event. of the contractor failing to comply with this condition shall be liable to pay 'as liquidated damage an amount equal to one percent or such smaller amount as the Managing Director decide on the said estimated cost of the whole of the materials for every day that the due quantity of supply remains incomplete, Provided always that the entire amount of liquidated damages to be paid under the provisions of this clause shall not exceed six per cent on the estimated cost of the supply of materials as shown in the tender.
3. In every case in which the payment or allowance mentioned in clause 2 shall have been incurred for ten consecutive days the Chief Executive Officer shall have power either to annul the contract altogether, or to have the supply completed without further notice at the contractor's risk and expense as he may deem best suited to the Interest of AICTSL and the contractor shall have no claim to compensation for any loss that he may incur in any way,
4. If the contractor shall be hindered in the supply of materials so as to necessitate an extension of the time allowed in this tender he shall apply in writing to the Chief Executive Officer, who shall, if in his opinion (which shall be final) reasonable grounds be shown there for authorize such extension for a period not exceeding three months. Any further extension shall be subject to the previous sanction of the Managing Director.
5. The contractor shall give notice to/he Chief Executive Officer, AICTSL of his intension of making delivery

of materials and on the materials being approved a receipt shall be granted to him by the Divisional Officer or his assistant and no material will be considered as delivered until so approved.

6. The Managing Director, AICTSL shall have power to make any alterations in, omission from, additions to, or substitution for, the supply of the materials specified in the tender, which may appear, to him to be necessary during the progress of the supply and the contractor shall be bound to carry out the supply in accordance with such instructions as may be given to him writing signed by Chief Executive Officer and such alterations, omissions additions or substitutions shall not invalidate the contract, and any additional, altered or substituted supply which the contractor. may be directed to make as herein before provided as part of the supply under this contract shall be carried out by the contractor on the same conditions in all respects as are herein contained and at the same rates as are specified in the tender, the time for the completion of the supply shall be extended in the proportion, that the altered, additional or substituted supply bears to the original supply contracted for and the certificate of the Engineer-in-Charge shall be conclusive as to such proportion. And if the altered additional or substituted supply includes any class of supply, for which no rate is specified in this contract, then such class of supply shall be carried out at the rates entered in the schedule of rates of the.....which was in force at time of the acceptance of the contract provided that when the tender for the original supply is a percentage below/above the schedule of rates, the altered additional or substituted supply required as aforesaid shall be chargeable at the said schedule of rate minus/ plus the same percentage deduction/addition and if such class of supply is not entered in the said schedule of rates, then the contractor shall within seven days of the date of his receipt of the order to carry out of the supply inform the Chief Executive Officer of the rate which it is his intention to charge for such class of supply, and if the Chief Executive Officer does not agree to this rate, he, shall, by notice in writing be at liberty to cancel his order to carry out such class of supply and arrange to carry it out in such manner as he may consider advisable, provided always that if the contractor shall commence supply or incur any expenditure in regard thereto before the rate shall have been determined as lastly hereinbefore mentioned, then and in such case he shall only be entitled to paid in respect of the supply carried out or expenditure incurred by him prior to the date of determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Chief Executive Officer. In the event of a dispute, the decision of the Managing Director of the circle shall be final.
7. If at any time after the execution of contract documents the Chief Executive Officer shall, for any reason whatsoever require the whole or any part of the supply as specified in the tender, to be stopped for any period or shall not require the whole or part of the supply to be carried out, he shall give notice in writing. of the fact to the contractor who shall thereupon suspend or stop the supply totally/partially as the case may be; In any such case except as provided hereunder, the contractor shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the supply in full, but which he did not so derive in consequence of the full supply not having been allowed to be carried out, or on account of any loss that he may be put to account of materials purchased or agreed to be purchased, or for unemployment of labour recruited by him: He shall not also have any claim for compensation by reason of any alterations having been made in original specifications, location of work, quantities and instructions which may involve any curtailment of the supply as originally contemplated Where however, materials have already been purchased or agreed to be purchased or agreed to be purchased by the contractor before receipt of the said notice, the contractor shall be paid for such materials at the rates determined by the Engineer-in-charge, provided they are not in excess of requirements and are of approved quality and/or shall be compensated for the loss, if any that he may be put to, in respect of materials agreed to be purchased by him, the amount of such compensation to be determined by the Chief Executive Officer whose decision shall be final if the contractor suffers any loss on account of his having to pay labour charges during the period during which the stoppage of supply has been ordered under this clause, the contractor shall, on application, be entitled to such compensation on account of labour charges as the Engineer-in-Charge whose decision shall be final may, consider reasonable, provided that the contractor shall not be entitled to any compensation on account of labour charges if in the opinion of the Chief Executive Officer the labour could have been employed by the contractor elsewhere for the whole or part of the period during which the stoppage of the supply has been ordered as aforesaid.
8. On the completion of the delivery of the materials the contractor shall be furnished with a certificate, to that effect by the Chief Executive Officer but the delivery will not be considered complete until the contractor shall have removed all rejected materials, and shall have the approved materials, stoked or placed in such position as may be pointed out to him.
9. Payment will ordinarily be made once a month to the extent of nineteenths of the quantity delivered each month. But all such payments made shall be considered as payments on account to be covered by the

final bill for the complete supply.

10. The materials shall be of the best description and in strict accordance with the specification and the contractor shall receive payments for such materials only as are approved and passed by the Chief Executive Officer.
11. In the event of the materials being considered by the Chief Executive Officer to be inferior to that described in the specification, the contractor shall, on demands in writing forthwith, remove the same at his own charge and cost and in the event of his neglecting to do so within such period as may be named by the Chief Executive Officer. That officer may have such rejected material removed at the contractor's risk and expense incurred being liable to be -deducted from any sum due or which may become due to the contractor.
12. Receipts for payments made on account of a work when executed by a firm, must also be signed by several partners except where the contractors, are described in their tender as a firm which case, the receipts must be signed in the name of the firm by one of the partners or by some other person having authority to give effectual receipts for the firm.
13. If the contractor or his workpeople or servants shall break. deface, injure or destroy any part of a building in which they may be working or any building, road, road curbs, fence, enclosure, water pipes, cables, drains, electric or telephone posts or wires, trees grass, or grass land or cultivated ground the contractor shall make the same good at his own expense or in default, the Chief Executive Officer may cause the same to be made good by other workmen, and deduct the expense, (of which certificate of the Chief Executive Officer shall be final) from any sums that may be then, or at any time thereafter may become due to the contractor from his security deposits or the proceeds of sales thereof or of a sufficient portion thereof.
14. Under no circumstances whatsoever shall the contractor be entitled to any compensation from Government on any account unless the contractor shall have submitted a claim in writing to the Chief Executive Officer within one month of the cause of such claim occurring.
15. In every case in which by virtue of the provisions of section 12, sub-section (1) of the work men's Compensation Act, 1923, Government are obliged to pay compensation to a workman employed by the contractor in execution of the works, Government will recover from the contractor the amount of the compensation so paid, and without prejudice of the rights of Government under section 12 sub,-section (2) of the said Act, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government to the contractor whether under this contract or otherwise Government shall not be bound to contest any claim made against them under section 12, sub section (1) of the said Act, except on the written request of the contractor and upon his giving Government full security for all costs for which Government might become liable in consequence of contesting such claim,
16. The contractor shall supply at his own expense all tools, plant and implements required for the due fulfillments of his contract, and the materials shall remain at his risk till date for final delivery, unless it shall have been in the meantime removed for use by the Chief Executive Officer.
17. No materials shall be brought to site or delivered on Sundays without the written permission of the Chief Executive Officer.
18. The contract shall not be sublet without the written permission of the divisional Officer. In the event of the contractor subletting his contract without such permission, he shall be considered to have .thereby committed a breach of contract, and shall forfeit his security deposit, and shall have to claim for any compensation for, any loss that may accrue from the materials he may have collected or engagements entered into.
19. The decision of the Managing Director for the time being shall be final, conclusive and binding on all parties to the contract upon all questions relating to the meaning of specification and instructions herein before mentioned and as to quality of materials or as to any other question claim right, matter or thing whatsoever in Any way arising out of, or relating to the contract, specification, instructions, orders or these conditions or otherwise concerning the supplies whether arising during the progress of delivery or after the completion or abandonment thereof.
20. On the breach of any terms or condition of this contract, by the contractor the said AICTSL shall be entitled to forfeit the security deposit or the balance thereof, that may at that time be remaining and to release and retain the same as damages and compensation for the said breach, but without prejudice to the right of the said AICTSL to recover any further sums as damages from any sums due or which may become due to the contractor by Government or otherwise howsoever.
21. All quarry fees, royalties, octroi duties and ground rent for stacking materials if any, should be

paid by the contractor, who will however be entitled to a refund of such charges as are permissible under the rules on obtaining a certificate from Chief Executive Officer that the materials were required for use on Government work.

22. The contractor shall pay not less than fair wages to labourers engaged by him on the work

Explanation:

(a) 'Fair wage' means wage whether for time or piece work, notified at the time of inviting tenders for the work and where such wages have not been so notified the wages prescribed by the public works department for the division in which the work is done.

(b) The contractor shall notwithstanding the provisions of any contract, to the contrary, cause to be paid a fair wage to labourers directly or indirectly engaged on the work including any labour engaged by his subcontractors in connection with the said work, as if the labourers had been immediately employed by him.

(c) In respect of all labour directly or indirectly employed in the works for the performance of contractors part of this agreement, the contractor shall comply with or cause to be complied with the labour Act, in force.

(d) Chief Executive Officer shall have the right to deduct, from the moneys due to the contractor, any sum required or estimated to be required for making good the loss suffered by a worker or workers by reasons of non-fulfilment of the conditions of the contract for the benefit of the worker/workers non-payment of wage..; or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the regulations.

(e) The contractor shall be primarily liable for all payments to be used under and for the regulations aforesaid without prejudice to his right to claim indemnity from his sub-contractors.

(f) The regulations aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.

If there is any difference between the amount in words and figures written in the tender forms by the contractor, the lesser amount will be treated as valid if the contractor is not ready to accept the amount so fixed in the above manner and declines to do the work, earnest money deposit of the contractor shall be forfeited.

ANNEXURE - A

NOTICE INVITING TENDER FOR SUPPLY, INSTALLATION & MAINTENANCE OF AUTOMATIC TICKET VENDING MACHINE FOR AICTSL, INDORE (M.P)

Scope of Work:

1. Supply, Installation & integrate the ticket vending machine with all the requirements of AICTSL.
2. All the software along with the integration software shall be provided with the copyright versions & original licences. AICTSL will not give any extra cost for the software required.
3. Regular check of the system with frequent/ regular visits to ensure zero downtime of the system.
4. Comprehensive maintenance of the entire supplied system for three years after one year replacement warranty.
5. During installation complete check of cabling to be done.
6. The vending machine to be provided along with the portable stand.
7. All the systems should be with licenced software and keys to be submitted to AICTSL.
8. All the systems to be integrated so as to ensure the connectivity and back up shall be made with system provided by AICTSL.
9. The work for LAN to be done by the agency.
10. No other cost shall be borne by AICTSL other than comprehensive maintenance fees.
11. AICTSL has complete rights to cancel the quarterly CAMC fees to the agency if there were no visits made or problems were not resolved.
12. Site engineers to be appointed by the agency to ensure the system performance.
13. The machine should be capable of recharging the pre-paid card (Smart Card).
14. **All the parts replaced shall be covered in the comprehensive maintenance and if any extra device for integration, power failure etc to be done by the agency, i.e no other or extra cost other than CAMC quoted per years shall be paid to the contractor.**

Annexure- A

Financial bid:

S.N O.	PARTICULARS	QTY	RATE per unit (Inclusive of Taxes)	AMOU NT(Inclusive of Taxes)	1 st year CAMC after warrant y per unit(Inclusive of Taxes)	Total(Inclusive of Taxes)	2 nd year CAM C per unit(Inclusive of Taxes)	Total(Inclusive of Taxes)	3 rd year CAM C per unit(Inclusive of Taxes)	Total(Inclusive of Taxes)	Total cost of the system including CAMC & Amount(Inclusive of Taxes)
1	Automatic ticket vending machine – As per the scope of work & specifications mentioned in the Annexure – C including – Installation, Commissioning.	5									
	Grand Total INCLUDING CAMC FOR THREE YEARS, SUPPLY & ONE TONNER COST										

Note:

1. Tender will be evaluated as whole & not component wise.
2. Quantity could be increased or decreased with all rights are with AICTSL.
3. Warranty of the item will start only after commissioning of the same.
4. Bidder are required to specify the brand along with his quote.
5. In case of difference between words & figures, lower figure will be considered.
6. Comprehensive maintenance includes the manpower on call for the system operations in working hours.
7. All the govt. regulation for manpower needs to be furnished by the contractor.
8. Agency need to submit the company authorization certificate as quoted in the tender. And without the same the tender shall be treated as invalid.
9. AICTSL reserves the right of rejecting tenders at any phase of the tendering.
10. Tender shall be inclusive of all taxes & freight charges if any.

Seal & Signature of the bidder

Annexure –B

Compliance Sheet

S.No	Item	OEM/ Company/ document	YES	NO	Remark (If Specs are different from requirement)
1					
2					
3					
4					
5					
6					
7					
8					

*** All supported documents to be submitted and uploaded.**

*** Software licence to be submitted to AICTSL after hardware delivery.**

Any other please specify.

Seal & Signature of the bidder

AICTSL

TICKET VENDING MACHINE ALONG WITH PASS RECHARGE

TECHNICAL SPECIFICATIONS – ANNEXURE - C

DOCUMENT CONTROL

Client:	AICTSL
Project Name:	Indore BRTS TVM
Report Title:	Ticket Vending Machine Technical Specifications

TABLE OF CONTENTS

1.	INTRODUCTION	1
1.1	Background	1
1.2	Terminology.....	1
2.	SYSTEM FUNCTIONAL REQUIREMENTS.....	3
2.1	Ticket Vending Machines.....	3
2.1.1	General	3
2.1.2	Enclosure, Environment Controls and Power Supply	3
2.1.3	Locks and Keys	5
2.2	TVM Controller and Integration.....	6
2.2.1	General	6
2.2.2	Customer Interface Requirements	8
2.2.3	Alternate Modes of Operation	10
2.2.4	Alarms.....	11
2.2.5	Display and Controller	11
2.2.6	ExtERNAL Card Reader	12
2.2.7	Card Revaluing	13
2.2.8	Receipt Printer	14
2.3	Communications	15
2.4	Central Software and Servers for TVM Monitoring.....	15
2.5	Reporting	16
2.6	Installation of the Ticket Vending Machines.....	16
3.	DOCUMENTATION	17
3.1	Documentation Submission Requirements	17
3.2	Project Plan.....	17
4.	DESIGN REVIEW	18
4.1	Preliminary System Design Document.....	18
4.2	Site Surveys.....	18
4.3	System Design Document	18
5.	ACCEPTANCE TESTING	19
5.1	Factory Acceptance Testing.....	19
5.2	Installation Testing.....	19
5.3	System Acceptance Testing.....	19
5.4	Burn-in Test Period (BIT).....	20

TABLE OF CONTENTS (CONT'D)

6.	TRAINING.....	20
7.	MANUALS	21
7.1	Equipment Operations and Maintenance Manuals.....	21
7.2	User Manual	22
7.3	System Administration Manual	22
7.4	As Built Documentation.....	22
7.5	Spare Parts	22
8.	OPERATIONS SUPPORT AND WARRANTY	22
8.1	Warranty Period.....	22
8.2	Warranty Coverage	23
8.3	Service Level (SLA).....	23
9.	PROJECT SCHEDULE	25

1. INTRODUCTION

Sections 2 to 8 of this document detail the complete set of requirements for the Ticket Vending Machines. Please note that proponents are required to complete the compliance matrix as provided within the document. Proponents must respond to all tabular items using one of the response Compliances listed in Exhibit 1.

Exhibit 1: Response Compliance and Definitions

Response Compliance	Definition
F	Fully Compliant – Function or feature fully complies with the AICTSL' requirements. Responses that are qualified by exceptions or limitations, etc. in the Compliance Matrix shall be considered the equivalent of "N" (does not comply).
N	Does Not Comply – Proposer does not comply with the AICTSL' requirement. Accompanying comments are discouraged.

Proposers are encouraged to provide in the "Proposal Section Reference" column a reference from their proposal (section/page number) related to the specified requirement. However, the requirement language to which the proposer offers to commit shall govern for system acceptance purposes.

1.1 Background

The AICTSL is seeking to procure Ticket Vending Machines (TVMs) in support of the AFCS system being deployed at Indore BRTS. . Additionally, the AICTSL is interested in securing the option to purchase additional installed TVMs at any time within the next several years for a price established as part of the initial purchase contract, to be able to readily expand the number of installed TVMs over time if needed.

The TVMs will provide visitors and other riders a convenient method to purchase tickets and revalue smart card electronic passes for the AICTSL. . .

The following sections represent the high level set of requirements for the TVM system. Proposals shall also identify any other value added features being offered.

1.2 Terminology

Admin – a person employed by the AICTSL to manage the use of the system by users

ADA - American Disabilities Act.

AICTSL– Atal Indore City Transport Services Ltd.

BRTS– Bus Rapid Transit System

Contractor – the successful proponent, contracted to be responsible for delivering the TVM System

Customer – a person using the system to purchase a ticket.

NFC – Near Field Communications

Pass – Smart Card

Purchase – a transaction where the customer buys a ticket or revalue the smart card from the TVM

Revalue – a transaction where the customer adds value to an existing pass (i.e. the TVM does not dispense a pass but re-enCompliances the data stored in the pass)

TVM – Ticket Vending Machine

User – a person employed by the AICTSL to monitor the TVM system software for alerts or reports

2. SYSTEM FUNCTIONAL REQUIREMENTS

2.1 Ticket Vending Machines

2.1.1 GENERAL

	Description	Compliance	Proposal Section Reference
.1	Each TVM shall comprise of a self-contained and integrated assembly of components that accomplish the required functionality.		
.2	Each TVM shall be tamper proof and shall be able to withstand attempts of vandalism.		

2.1.2 ENCLOSURE, ENVIRONMENT CONTROLS AND POWER SUPPLY

	Description	Compliance	Alternate Requirement Language for CM/E Proposal Section Reference
.1	TVMs shall operate from an external power source, 50 Hertz AC at 230 Volts, incorporating internal power conditioning equipment to (1) transform voltage or current levels as needed for the operation of internal components, and (2) protect internal components from up to +/- 20% fluctuations in the voltage or current level of the external power source.		
.2	<p>The TVM shall incorporate an Uninterruptible Power Supply (UPS) that in the event of a power interruption provides sufficient backup power for:</p> <ol style="list-style-type: none"> 1. Completing the current transaction 2. An orderly shutdown of TVM components 3. Storing all current status data to the hard drive for non-volatile storage. 4. Sending an Alert to the central software 		

AICTSL
TICKET VENDING MACHINE TECHNICAL SPECIFICATIONS

	Description	Compliance	Alternate Requirement Language for CM/E Proposal Section Reference
.3	All TVM components shall be enclosed within a cabinet constructed using stainless steel SS-304 with thickness at least 16 gauge and should be IP65 rated.. The TVM enclosure and internal component enclosures shall be rated as ISI marked. This is intended to prevent incidental contact with the enclosed electrical equipment, and provide suitable environmental protection to resist corrosive agents as well as the infiltration of rain or windblown dust.		
.4	All components requiring customer access shall be incorporated into the front face of the TVM enclosure, securely attached to the enclosure in such a manner that they cannot be removed from the exterior with hammer, screwdriver or pry-bar.		
.5	The TVM design shall comply with all requirements of the r American Disabilities Act (ADA), and with the Accessibility Design Standards for the AICTSL.		
.6	All components of the TVM the customer will interact with shall be between 900mm and 1200mm above the ground.		
.7	The colour scheme of the TVM user interface shall use contrasting colours. The AICTSL shall approve this colour scheme during design review phase before the machines are put into production.		
.8	If a touch screen is used the sensitivity shall be adjustable by the AICTSL.		
.9	The labelled physical keys shall have associated tactile symbols to facilitate the use of the TVM in audio-instructions mode.		
.10	The TVM shall have an audio jack and speakers to facilitate use by the visually impaired. The speakers shall be activated through a labelled physical key button that shall be locatable through tactile detection. The audio jack shall be locatable through tactile detection.		
.11	Screen brightness shall be automatic as per ambient light conditions and/or manually configurable by the AICTSL		
.12	The enclosure colour scheme will be provided by the AICTSL. Multiple colour schemes may be required, for TVMs.		

	Description	Compliance	Alternate Requirement Language for CM/E Proposal Section Reference
.13	The enclosure shall incorporate a side-hinged door into the front face that opens to at least 135 degrees, to allow: <ol style="list-style-type: none"> 1. Maintenance access to the interior of the TVM for diagnosis/replacement of all internal components; and 2. Replenishing receipt paper stock. 		
.14	Components exposed to ambient conditions through the TVM front face shall operate, and the enclosure shall incorporate environmental controls to establish an internal environment that allows all internal components to operate, at ambient temperatures from 0 to 55degrees Celsius, and at relative humidity from 20% to 95%, non-condensing.		

2.1.3 LOCKS AND KEYS

	Description	Compliance	Proposal Section Reference
.1	The TVM front door shall incorporate locks. All locks and keys shall be of a high security type approved by the AICTSL through the design review process.		
.2	All locks for entering the TVM front door shall use the same key, with 5keys provided.		
.3	It shall be possible to change out the TVM locks if a key is lost or the machine breached. The contractor shall provide documentation on the change out procedure. Replacement lock and key sets shall be an item in the required list of spare components and unit pricing.		

2.2 TVM Controller and Integration

2.2.1 GENERAL

	Description	Compliance	Proposal Section Reference
.1	The TVM shall incorporate a microprocessor-based controller, using internal communications connections to send and receive data with each internal component and manage the overall integrated TVM operation.		
.2	The TVM processing time required in response to customer input, for the display to update with the TVM ready for the customer to initiate the next step in the transaction sequence, shall not exceed 1 second.		
.3	<p>The TVM controller shall store the TVM operating system, TVM software and a local database. The TVM shall have its own OS which can be integrated with central application of TVM. The TVM database shall include records for the following events locally:</p> <ol style="list-style-type: none"> 1. The date/time and alarm type for each alarm activation; 2. The date/time, ticket type or pass revalue type(s)/quantity purchased, purchase amount, payment method and receipt number for each completed pass purchase transaction; and 3. Times when the TVM entered or left maintenance mode or revenue servicing mode, and all actions undertaken while in that mode. 		
.4	In response to a command received from the application software, the TVM controller shall send the stored database records accumulated since the previous such transmission to the application software. The TVM controller shall not allow database records to be overwritten until receiving confirmation from the application software that the database records were successfully received and processed by the application software.		
.5	The TVM central application shall be integrated with (existing – under implementation) AFCS central application to synchronise all the transactions and other data in real time with central database to facilitate the seamless update all transactions and data.		

	Description	Compliance	Proposal Section Reference
.6	The TVM contractor shall study and understand the business rules of AICTSL for tickets/pass/policies and shall incorporate the same in the TVM central application.		
.7	<p>In response to a command received from the application software, the TVM controller shall receive reconfiguration data from the application software. This reconfiguration data shall include but not be limited to:</p> <ol style="list-style-type: none"> 1. Updated pass prices; 2. Updated display configuration data; 3. Updated receipt printer configuration data; 4. Software updates/patches for the TVM controller or the firmware of internal components; and <p>The TVM controller shall apply this reconfiguration data by sending it to the applicable internal components. After applying the reconfiguration data, the TVM controller shall send a reconfiguration completion status message to the application software.</p>		
.8	Upon activation of a TVM alarm, the TVM controller shall immediately send a message to the central application software noting the date/time of alarm activation and the alarm type.		
.9	Each transmission to the application software from the TVM controller shall include the date/time of transmission and the TVM number.		
.10	The TVM shall incorporate a real-time clock capable of maintaining the current date/time in synchronisation with central server without external power supply. The TVM controller shall be capable of receiving updated date/time data from the application software and using this data to update the real-time clock.		
.11	The TVMs shall be capable of setting the validity period of the fare media.. The setting for this feature shall be configurable by the AICTSL via the central system software.		

2.2.2 CUSTOMER INTERFACE REQUIREMENTS

	Description	Compliance	Proposal Section Reference
.1	The TVM shall have a tactile labelled physical button to allow the user to select for audio-instruction mode through the TVM speakers. When this mode is selected, the TVM shall provide audio instructions to the user in the language chosen (with English being the default).		
.2	If the customer inserts headphones into the audio jack, the TVM shall switch to audio-instructions mode (if not already in that mode) and play the audio instructions through the headphones instead of the TVM speakers.		
.3	In the audio-instructions mode, the instructions refer to the tactile labelled physical keys to allow the visually impaired to utilize the system to complete ticket purchases and smart card revaluing with the same functionality as for visual instructions mode.		
.4	The TVM shall present the customer with the option to select between tickets/revaluing options for various policies (to be finalised with AICTSL during design review phase) This set of options shall include the price for each choice and the accepted payment options.		
.5	The TVM controller software shall be reconfigurable by the AICTSL in the future to add additional pass options.		
.6	If the customer touches the smart card to the reader target at this initial screen without making any screen selection, the TVM screen shall display any expiry date enComplianced and available balance on that smart card for a duration of three seconds before reverting to the standard initial screen. This duration shall be easily adjustable.		
.7	If the audio-instruction mode is enabled via the speaker button or detection of headphones then the value of the card shall also be announced.		

	Description	Compliance	Proposal Section Reference
.8	After the customer has selected the Tickets/ Smart card value to be purchased, the TVM shall present to the customer the option to choose between: (1) cancelling the transaction, (2) returning to the previous screen to change selections, (3) purchasing the selected ticket or (4) revaluing the smart card in each case presenting on the same screen the total number of tickets of each type selected so far during the transaction. The TVM shall allow the customer maximum transaction value that is configurable by the AICTSL.		
.9	After the customer has selected a set of tickets for purchase or smart card revaluing, the TVM shall display the total price, and indicate payment instructions (cash, credit card, debit card), as well as the options to cancel the transaction or return to the previous screen.		
.10	After the customer initiates payment, the TVM shall continue to display the total price and information on the progress and completion status of the transaction.		
.11	The TVM shall incorporate an integrated cash acceptor device that accepts INR denomination upto 100 and payment card reader that supports payment using RuPay Card, MasterCard and Visa (EMV)-compliant contact “chip” credit/debit cards as minimum, . The reader shall for this purpose incorporate the following within a single overall customer facing device:, contact insertion reader, magnetic stripe swipe reader, encrypted PINpad. The cash acceptor device shall take cash bills of all denominations in INR upto 100 and shall provide change (Notes or Coins) in the integrated cash tray after the transaction.		
.12	If the customer inserts into the contact card reader slot an operating EMV-compliant contact “chip” or debit card that is supported (e.g., RuPay, VISA, Mastercard), the TVM shall process the transaction.		
.13	If the customer uses the magnetic stripe slot to swipe a valid credit card debit card that is supported (e.g., RuPay VISA, Mastercard,), the TVM shall process the transaction. If the financial processing system indicates in response that the card is equipped for EMV-compliant “chip then the TVM shall not authorize the transaction and prompt that use of the magnetic stripe is not permitted and to instead insert or present the card to the reader.		
.14	The TVM shall display that the transaction is being processed and then whether the transaction was authorized or not authorized. If entry of a PIN (into the encrypted PIN pad incorporated into the reader) is required, the display shall indicate this and incorporate this into the overall sequence of transaction progress instructions.		

	Description	Compliance	Proposal Section Reference
.15	If the transaction is authorized, the screen shall indicate that the transaction is complete, and provide instructions about how to retrieve the tickets and revalue the smart card.		
.16	This information encoded on each pass shall include: <ul style="list-style-type: none"> • Ticket Type • Customer Type • Expiry date/time 		
.17	If the transaction is authorized but the TVM is unable to dispense and complete the encoding of all of the passes/tickets, the TVM shall track the value of the tickets/passes that were not able to be dispensed and encoded and automatically complete a credit/debit card reversal transaction for this amount. If the transaction is not authorized, the TVM shall present the option to either pay with a different card or pay through cash or cancel the transaction.		
.18	At the conclusion of any transaction, the printer shall dispense a receipt indicating the date/time of the transaction, TVM number, sequential receipt number, payment card/application used, transaction amount, passes dispensed, and any amount refunded.		

2.2.3 ALTERNATE MODES OF OPERATION

	Description	Compliance	Proposal Section Reference
.1	If no communications for card transaction authorization is operational, then TVM shall enter a degraded mode of operation and the initial display shall indicate "only cash transaction facility in service".		
.2	If the receipt printer is not operational, the TVM shall enter a degraded mode of operation and the initial display shall indicate "receipts not available" in addition to any other relevant degraded mode indication messages. The display shall indicate "only smart card recharge facility in service".		

2.2.4 ALARMS

	Description	Compliance	Proposal Section Reference
.1	The TVM shall detect the onset or end of the following conditions: (1) door is open without having been unlocked first; (2) receipt paper dispenser is 25% or less full; (3) a component has malfunctioned, with code indicating which component;		
.2	All of the “percentage depleted” parameters for triggering alarm conditions shall be configurable by the AICTSL through the application software.		
.3	The TVM shall terminate an alarm condition automatically by detecting that the alarm condition no longer exists with the alarm event logged at the central application.		
.4	After the onset and subsequent termination of an alarm condition, the onset of that alarm condition shall be ready to be re-triggered without any need for manual reset.		

2.2.5 DISPLAY AND CONTROLLER

	Description	Compliance	Proposal Section Reference
.1	The TVM shall incorporate a color Liquid Crystal Display (LCD) display for customer interaction, with a useful screen area of at least 240 mm horizontal and at least 180 mm vertical. Touch screen or adjacent physical buttons with an on-screen programmable label are permitted.		
.2	The display shall be sufficiently protected to resist damage from a person using a hammer, screwdriver or pry bar.		
.3	The display shall enable at least 65,536 simultaneous colours (i.e., 16-bit) and operate with at least SVGA resolution (800 horizontal by 600 vertical), with the display controller operating at the native resolution of the display.		
.4	The display shall provide a maximum screen brightness to view under the full sunlight, within a cone of 60 degrees centered on the perpendicular axis to the display face.		
.5	The display shall be oriented so that the 60 degree cone of visibility encompasses both standing persons up to 6 feet in height and persons seated in a wheelchair		

	Description	Compliance	Proposal Section Reference
.6	The display shall incorporate anti-glare coating and a sun hood to avoid direct sun glare on the display face.		
.7	On-screen display controls shall be provided for contrast, brightness, sharpness and horizontal/vertical display position. Controls to activate and terminate the on-screen display shall only be accessible with the front door open.		
.8	The display shall be able to accept all input required from, and all feedback required to, the customer to allow the initiation, and then completion or cancellation, of any valid transaction.		
.9	The display menus and screen navigation sequence shall be configurable by the AICTSL. The menus and screen navigation sequence for initial use shall be approved by the AICTSL through the design review process prior to the start of system development.		

2.2.6 EXTERNAL CARD READER

	Description	Compliance	Proposal Section Reference
.1	The TVM shall have one clearly identified card reader integrated into the TVM front face, incorporating contact card insertion, magnetic stripe card swipe reader, encrypted PIN pad and contactless card reader (future use).		
.2	This reader shall at a minimum be able to: <ul style="list-style-type: none"> • Complete a transaction with an EMV-compliant chip based contact credit or debit card that is supported, • Read the magnetic stripe on a conventional credit or debit card 		
.3	The card reader shall incorporate visual graphics that clearly indicate the locations and required card orientation for contactless target, contact insertion slot and magnetic stripe swipe slot.		
.4	The card reader shall support online transaction authorization for all RuPay, Visa and MasterCard credit cards using an acquirer service to be selected by the AICTSL, as well as all debit cards supported by that acquirer. The card reader unit shall also incorporate a built-in debit/credit card PIN pad that meets the requirements of the acquirer.		

	Description	Compliance	Proposal Section Reference
.5	The smart card reader and revaluing device shall be universal readers and shall fully support ISO 14443 Type A and Type B cards, MiFare, Felica and all 4 types of NFC tags.		
.6	The smart card reader should operate at 13.56MHz frequency. The smart card shall be able to store a 16 security keys for support of 16 Independent secure smart card applications.		
.7	The smart card reader shall have built in buzzer for audio indication and LED for visual indication of card acceptance/rejection.		
.8	The smart card reader shall have operating read/write range of 0 to 50mm.		
.9	Smart card reader shall have minimum of two physical SAM slots embedded with one SAM card which is secured with key and algorithm.		

2.2.7 CARD REVALUING

	Description	Compliance	Proposal Section Reference
.1	The customer shall have an initial additional menu selection to choose to revalue an existing pass..		
.2	If selecting to revalue an existing pass, the TVM shall present the following potential selections (non-exhaustive list): <ul style="list-style-type: none"> Product policies to be finalised by AICTSL in due course of design.; And the quantity of each card policies they would like to revalue.		
.3	Customer interface requirements for payment shall be the same for revaluing a pass and for purchasing a ticket.		
.4	Once payment is complete the TVM shall display the fare to be encoded on the pass and instruct the user to place their pass against the reader for revaluing. Once the pass has been encoded a message indicating that the revaluing is complete shall be displayed and the value of the next pass to be encoded shall be displayed. This shall repeat until the revaluing is complete. If the existing pass presented for revaluing is encoded with a different fare category or is of a different pass type than the pass pending to be encoded, the reader shall indicate this and indicate that the user should present the correct pass, or cancel the transaction.		

AICTSL
TICKET VENDING MACHINE TECHNICAL SPECIFICATIONS

	Description	Compliance	Proposal Section Reference
.5	The AICTSL shall have the ability to disable the revaluing feature for specific machines at its choosing, as well as the ability to configure the allowable revaluing options.		

2.2.8 RECEIPT PRINTER

	Description	Compliance	Proposal Section Reference
.1	The TVM shall incorporate a thermal receipt printer providing a print resolution of at least 8 dots per mm, capable of printing the receipt variable text and QR codes. Receipts shall be dispensed at a linear speed of at least 80 mm per second.		
.2	The receipt printer text layout shall be configurable at any time by the AICTSL. The initial receipt printer text layout shall be approved by the AICTSL through the design review process prior to the start of system development.		
.3	Receipt dimensions shall be at least 35 mm wide and at least 75 mm long. Receipt paper thickness shall be 0.05 mm to 0.2 mm. The receipt printer shall have the capacity for a paper roll providing at least 2000 receipts.		
.4	The receipt paper shall be suitable for outdoor applications, with moderate resistance to expansion under high relative humidity conditions and a service ambient temperature range from 0 to 55 degrees Celsius.		
.5	The receipt printer shall dispense without jamming for ambient relative humidity levels from 20% to 95%.		
.6	Dispensed receipts shall drop into a recessed tray that protects the receipt from being blown by the wind until retrieved by the customer.		
.7	The Contractor shall supply initial receipt paper stock rolls sufficient for 100,000 receipts, as well as a list of third party vendors from which the AICTSL can independently purchase compatible receipt paper stock in the future.		

2.3 Communications

	Description	Compliance	Proposal Section Reference
.1	The TVMs shall have onboard cellular communications hardware and shall be equipped with 10/100/1000 Mbps Ethernet NIC to communicate with central software application.		
.2	The central system shall be equipped with Wi-Fi access to facilitate data exchange between the TVMs and the central software.		

2.4 Central Software and Servers for TVM Monitoring

	Description	Compliance	Proposal Section Reference
.1	The central application software shall operate on the latest Window based Server environment.		
.2	The central application software shall be installed on the central servers at the TMC, AICTSL facility.		
.3	The central application software shall be capable of supporting operation on virtualized servers.		
.4	The central application software shall be able to remotely reconfigure the TVM software (e.g. update pass prices).		
.5	The central application software shall immediately receive notification of any TVM error.		
.6	All data received from TVMs shall be stored on a database on the central application software server		
.7	The Contractor shall provide data dictionary documentation for this database.		
.8	The data collected and stored shall be the intellectual property of the AICTSL		

2.5 Reporting

	Description	Compliance	Proposal Section Reference
.1	The software shall include a user friendly reporting module that can provide canned reports.		
.2	The reporting software shall allow reports to be printed or exported to create .pdf .csv, .xls, .txt format files.		

2.6 Installation of the Ticket Vending Machines

	Description	Compliance	Proposal Section Reference
.1	The Contractor shall be responsible for installing the Ticket Vending Machines at the AICTSL proposed TVM locations.		
.2	The Contractor shall coordinate with the AICTSL to acquire the necessary site permits.		
.3	The Contractor shall provide the AICTSL with design drawings, as part of the design review process, needed to prepare the site. The AICTSL shall be responsible for preparing the site in support of the TVM installation.		

3. DOCUMENTATION

3.1 Documentation Submission Requirements

The Contractor shall provide detailed documentation that describes the system design, configuration, training, as-built conditions, operation and maintenance. All documentation shall be in English, shall utilize metric measurements, and shall be submitted directly to the AICTSL electronically as MS Word/ Excel/Project files and also as PDF files.

The Contractor shall include the necessary time and resources to modify the documentation to incorporate comments from the AICTSL. The Contractor shall then include additional time for the AICTSL to review the revised documentation.

The manuals shall be complete, accurate, up-to-date, and shall contain only information pertaining to the system installed.

All pages of the documentation shall carry a title, version number and issue date, and shall contain a complete subject index. The Contractor shall be responsible for fully co-ordinating and cross-referencing all interfaces and areas associated with interconnecting equipment and systems.

Documentation shall require re-issuance if any change or modification is made to the equipment proposed to be supplied. The Contractor may re-issue individual sheets or portions of the documentation that are affected by the change or modification. Each re-issue or revision shall carry the same title as the original, with a change in version number and issue date.

3.2 Project Plan

At the outset of the project the Contractor shall prepare a Project Binder that consists of the following:

- Project Management/Work Plan detailing the proposed approach to completing the project, including identification of relevant tasks and an organization/contact chart of personnel;
- Quality Plan detailing the successful Contractor's Quality Assurance procedures, including change management;
- Installation Plan detailing the installation procedure;
- Acceptance Test Plan detailing the approach to system testing;
- Training Plan detailing course content, training time requirements, and who should attend;
- Maintenance and Operations Support Plan that describes routine maintenance measures, response for repairs, communications service, and operations support; and
- Statement of Warranty.

4. DESIGN REVIEW

The design process for the system shall achieve an approved System Design Document prior to proceeding with installations and testing.

The Contractor shall attend design review meetings with the AICTSL to discuss the comments on contractor submissions and proposed responses. Such meetings shall be scheduled to take place shortly after the Contractor has had a chance to respond to comments. The meeting will be used to reach agreement on any outstanding issues raised through the review process. The Contractor shall be expected to issue notes with agreed upon action items following from the meeting.

The Contractor shall meet with the AICTSL IT representatives to conform to system security measures including wording about firewall, data encryption/privacy, and communication.

4.1 Preliminary System Design Document

The Preliminary Design is associated with establishing the necessary information related to Items 1-6 of the System Design Document (SDD) (Final SDD). At the completion of this stage, the Contractor will be expected to submit a preliminary SDD including, at a minimum, the information related to the above referenced items. To do so, it is expected that site visits will be required.

4.2 Site Surveys

As part of the Preliminary Design, the Contractor is expected to identify any risks or issues that may arise related to existing conditions at the AICTSL facilities. A series of site surveys are anticipated to help the Contractor collect necessary information to complete the task. The Contractor shall visit all relevant locations related to installation of system equipment including but not limited to:

- Proposed TVM locations
- Server rooms
- Maintenance and repair facilities

4.3 System Design Document

The System Design Document (SDD) shall include, as a minimum, the following information:

1. Overall system schematic and architecture;
2. Detailed description of all subsystems and equipment and hardware, including functional description, interface descriptions, communications loading details, material specifications (e.g. environmental, electrical), configuration details and installation details;
3. Detailed description of all software, including functional description, system interface descriptions, Graphical User Interface descriptions, database design documentation, standard reports;
4. Detailed description of hardware specifications, availability and reliability figures and configuration details.

5. Major assumptions and risks;
6. Standards compliance plan;
7. Detailed descriptions of information and timing required by the Contractor by other parties;
8. System Security Plan, describing security features of the Central System including fail-over procedure, firewall, data encryption/privacy, and communication;
9. Maintenance Testing and Repair documentation (e.g. key change out procedure, parts replacement);
10. Data Recovery options; and
11. List of Spare Parts and Consumables.

5. ACCEPTANCE TESTING

The testing process for the system shall achieve approved test plans prior to proceeding with testing.

5.1 Factory Acceptance Testing

Prior to any installation, the Contractor shall provide a Factory Acceptance Test. The FAT shall be arranged in the Contractors facility and be attended in person by the AICTSL and its representatives. The test shall demonstrate all aspects of system functionality as presented in this RFP. All expense related to the FAT (upto 3 persons) shall be borne by the Contractor.

The Contractor shall not be allowed to install any hardware at the AICTSL facilities until the FAT has been successfully completed.

5.2 Installation Testing

The Contractor shall provide the AICTSL with Installation Test Procedures that can be used to verify that the TVM is in working order once installed. Installation Testing shall be completed after each installation and be witnessed by the AICTSL. Any deficiencies noted shall be rectified before the initiation of System Acceptance Testing.

5.3 System Acceptance Testing

The SAT can only be initiated once all system elements have been installed and configured. The SAT looks at the entire system, and tests are completed to ensure that the overall functional requirements are met. Where software interfaces with other software, this interface shall be tested through the SAT for each piece of software.

Each requirement listed in the specification shall be tested or, in cases where it may not be feasible to test certain functions in the operational environment, evidence for correct function is to be provided.

SAT shall be witnessed by the AICTSL representatives (AICTSL staff and/or designated support consultants).

5.4 Burn-in Test Period (BIT)

The BIT is a 30-day performance test that is initiated once the SAT has been completed and operation has commenced. Through the BIT, the system is tested under full operations to ensure that the performance requirements are met, and to measure the system reliability and availability. System failures will result in restart of the BIT.

Any residual deficiencies shall be rectified, together with any outstanding training and documentation having been provided, before the AICTSL will grant System Acceptance (SA).

6. TRAINING

The Contractor shall be responsible to train AICTSL designated personnel according to the requirements specified herein.

Training shall take place at the AICTSL designated facilities.

Hands-on practical training with demonstration equipment shall occupy a significant portion of all training classes.

The training presentations and material shall be in English.

Instruction shall cover equipment familiarization and systems operation. The minimum training is that which is necessary to bring those employees designated to the level of proficiency required for performing their respective duties.

The Contractor shall provide experienced and qualified instructors to conduct all training sessions. The Contractor is responsible for ensuring that the instructors teaching these courses are not only familiar with technical information but are able to utilize proper methods of instruction, training aids, audiovisuals and other materials to provide for effective training.

The Contractor is responsible for providing all training materials, training aids, audiovisual equipment and visual aids for the conduct of these courses.

Instructional materials consisting of applicable equipment operation and maintenance manuals, and supplemental notebooks consisting of additional drawings, procedures, and descriptive information shall be provided.

Student guides shall include full topic descriptions, illustrations as needed to enhance content presentation, and common problems with comprehensive solutions given. Student guides shall mirror the instructor guides.

All training materials are to become the property of the AICTSL at the conclusion of training.

At the request of the AICTSL, the Contractor shall provide additional training sessions at the contract price per session.

The Contractor shall submit the training curricula, presentations, and materials for review and approval by the AICTSL. No training shall commence until these items have been approved.

Training curricula shall meet all training requirements and indicate course content, training time requirements, and who should attend.

Training curricula shall be provided to the AICTSL for review a minimum sixty days prior to commencement of equipment installation.

Level of competency required to pass course examinations shall be determined by the AICTSL.

7. MANUALS

At a minimum, the Contractor shall provide two complete hard copy sets plus an electronic version of manuals.

7.1 Equipment Operations and Maintenance Manuals

The Contractor shall provide manuals for each type of unit provided unless specified otherwise. The manuals shall provide sufficient detailed installation and maintenance instructions to allow the AICTSL or its representative to properly and safely install, connect and commission the equipment supplied and to operate and maintain the system.

The operation and maintenance documentation will be comprised of the Operation and Maintenance (O&M) manuals, User Manuals and System Administration Manuals.

The O&M documentation shall be submitted to the AICTSL or its representative prior to SAT.

The O&M manuals shall be a detailed presentation and shall include illustrations where applicable and shall include, but shall not be limited to:

- Description of operation including start-up, shut-down and emergency procedures;
- Installation procedures;
- Complete parts identification diagram and list;
- Troubleshooting procedures;
- Inspection procedures;
- Preventive maintenance procedures and program;
- Repair procedures;
- Diagnostic procedures including criteria for equipment swap-out;
- Wiring diagrams;
- Electrical schematics with board and cable identification;
- Adjustment procedures;
- Seasonal maintenance requirements;
- Equipment arrangement and drawings;
- Names and schedules of all lubricants and cleaners used; and
- Other consumable materials for the equipment stating where used, quantity, service intervals and annual consumption.

The Contractor shall provide a parts list for each piece of equipment supplied. The parts list shall identify the manufacturer(s), model/part number, address and contact information.

Where an equipment component is of a nature that local repairs cannot be made and it must be returned to the factory as a unit for overhaul, specific information concerning its repair and breakdown into component parts shall be provided.

7.2 User Manual

A User Manual shall be provided to support the AICTSL staff in the use and operation of all aspects of the TVM System. The User Manual shall include screen captures and easy to follow instructions to assist users through all tasks that they may need to complete. The User Manual shall include an index.

At a minimum, the User Manual shall include all information available through the context-sensitive help system.

Fault procedures shall be described, as well as procedures for dealing with problems.

7.3 System Administration Manual

The Systems Administration Manual shall outline all configuration parameters, details on how to configure the parameters, back-up process, and process to recover back-up data, troubleshooting techniques and technical support information.

7.4 As Built Documentation

The Contractor shall provide sufficient documentation to reflect "as supplied" conditions and to facilitate operation, maintenance, modification and expansion of the equipment or any of its individual components to the satisfaction of the AICTSL or its representative.

The SDD shall be updated to include the as-built conditions.

The as-built documentation shall be provided three weeks after the System Acceptance Test (SAT), and updated documentation will be required at any time the Contractor provides software or hardware upgrades.

7.5 Spare Parts

The proposer shall identify the specific individual agency-replaceable spare components needed for their TVMs, and the unit pricing for a 10% initial purchase of each by the AICTSL.

8. OPERATIONS SUPPORT AND WARRANTY

8.1 Warranty Period

The warranty period shall commence upon SA for the entire system, and shall remain valid till completion of the Contract period (i.e. 4 years). The warranty shall be of comprehensive type wherein all required man power and spare parts (including consumables) shall be in the scope of the Contractor.

The Contractor shall indicate yearly price for all 3 years in the financial proposal.

8.2 Warranty Coverage

The Contractor shall warrant that it has good title to all system software or that it has the right to license the use of such software, or both, free of any proprietary rights of any other party and free of any other lien or encumbrance.

The Contractor shall warrant that all installation work and system hardware and software shall perform according to the specifications for the warranty period.

It is recognized that the original manufacturer or supplier warranties may expire before the end of the warranty period. The Contractor must therefore provide extended warranties for all such products or equipment (software) and must assume full responsibility for replacement or repair for the duration of the warranty period, the full cost of which must included in the contract price.

All warranties and guarantees of Contractors, manufacturers and suppliers with respect to any such work and system hardware and software shall be obtained by the Contractor for the benefit of the AICTSL regardless of whether or not such warranties and guarantees have been assigned or transferred to the AICTSL by separate agreement. On the AICTSL' behalf, the Contractor shall fully enforce such warranties and guarantees.

During the warranty period, the Contractor shall repair or replace any faulty components, with the cost included in the warranty price. AICTSL will ship each faulty component to the Contractor, who shall return a new or repaired component within **two business days (48 hours)** of originally receiving it.

If the Contractor determines that a returned component is not faulty, AICTSL shall receive the original component back in working order within **two business days (48 hours)** of the Contractor originally receiving the returned component.

All components received back at AICTSL from the Contractor will be tested in accordance with the original acceptance test procedures, and returned to the Contractor if faulty accompanied by a certification.

The Contractor shall pay all shipping charges to and from AICTSL, and any duties associated with the repair or replacement of faulty units.

Returned or replaced spare components shall be packaged, organized and labelled in the same manner as the original supply of spare components.

8.3 Service Level (SLA)

S.no	Item	Requirement	Falls By	Penalty (INR)	Calculation (INR)
1.	TVM Availability	99.00%	0.50%	5,000	For every decrease of 0.50% in TVM availability per month, a penalty of

AICTSL
TICKET VENDING MACHINE TECHNICAL SPECIFICATIONS

					5,000 shall be imposed.
2.	TVM Central Application availability	99.00%	0.50%	20,000	For every decrease of 0.50% in TVM central application availability per month a penalty of 20,000 shall be imposed.
3.	Missing transaction in TVM system.	None	One missing Transaction	500	For every missing transaction, a penalty of 500 shall be imposed.
4.	Addressing Minor and Major software glitches	To be addressed within 7 calendar days after complaint	One day	25,000	For each day of delay in fixing a minor software glitch a penalty of 25000 for each glitch per day shall be imposed.
		Minor is defined as: Least effect on normal operations as per the bidding documents without any noticeable effect of the cause.			
		Restore previous version of the software within 1 calendar days so that functionality is restored.	One day	50,000	For each day delay, penalty of 50,000 per day shall be imposed.
		Fix the glitch and release the new version	30 Days	50,000	For each day of delay in fixing the major software glitch, a penalty of 50,000 per day shall be imposed.

		Major is defined as noticeable effects during normal operations.			
		98.00%	0.50%	50,000	For every decrease of 0.50% in uptime in a period of 1 month, a penalty of 10,000 shall be imposed.

9. PROJECT SCHEDULE

The Contractor shall provide their proposed timelines for this project in Exhibit 5. The time of reference shall be with respect to the Notice to Proceed (NTP) date.

Exhibit 5: Expected and Proposed Implementation Schedule

Milestone	Section Reference	Proposed Schedule by Contractor
Notice to Proceed	N/A	N/A
Master Schedule of Work	3.2	
Project Binder	3.2	
Preliminary Design/System Design Document Completed	4.1	
Final Design/System Design Document Completed	4.3	
Factory Acceptance Test (FAT) Procedures	5.1	
Factory Acceptance Test (FAT)	5.1	
Training Materials	6	
O&M Documentation	7.1	
Installation Test Procedures	5.2	
Training	6	
Completion of Installations and Installation Tests	5.2	

Milestone	Section Reference	Proposed Schedule by Contractor
System Acceptance Test (SAT) Procedures	5.3	
As-built System Design Document	7.4	
Final O&M Documentation (if updated)	7.1	
System Acceptance Test (SAT)	5.3	
Warranty	8	