

## Request for proposal (RFP )

### Design, Development, Implementation, Maintenance and Management of Automatic Fare Collection System (AFCS) for Bus Rapid Transit System (BRTS), Amritsar

#### Addendum 1 - Part 1 and 2

June 17, 2016

**Please Note: Incase of any difference/ variation in the provisons of the RFP / Addendum(s) from the clarifications issued to the Pre-Bid Queries , the Provisions of the RFP/ Addendum(s) shall prevail. The Reply to Pre-bid queries shall in no way change the Provision of the RFP / Addendum(s) .**

**Issuing Authority : Punjab Bus Metro Society (PBMS)**

Sr No	Clause no	Page No.	RFP Reference	To be read as																								
1	Tender Notice	4	<ul style="list-style-type: none"> <li>• Last Date of Uploading the RFP: till 1500 Hrs on 23.06.2016.</li> </ul>	<ul style="list-style-type: none"> <li>• Last Date of Uploading the bid: till 1500 Hrs on 05.07.2016.</li> </ul>																								
2	Tender Notice	4	<ul style="list-style-type: none"> <li>• Technical Bid Opening: 1530 Hrs on 23.06.2016.</li> <li>• Financial Bid Opening: 1530 Hrs on 08.07.2016.</li> </ul>	<ul style="list-style-type: none"> <li>• Physical Bid Submission: 1500 Hrs 07.07.2016.</li> <li>• Technical Bid Opening: 1530 Hrs 07.07.2016.</li> <li>• Financial Bid Opening: (To be intimated later on)</li> </ul>																								
3	Appendix 5	82	<p style="text-align: center;">.....</p> <p style="text-align: center;">Operators to operate the system</p> <p style="text-align: center;">.....</p>	<p style="text-align: center;">.....</p> <p style="text-align: center;">Operators to operate the Central Control Room System</p> <p style="text-align: center;">.....</p>																								
4.			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">CAPEX PAYMENT MILESTONES ( CAPEX SHALL NOT EXCEED 60% OF TOTAL CONTRACT PRICE)</th> </tr> <tr> <th style="text-align: center;">S. No.</th> <th style="text-align: center;">Payment Milestone</th> <th style="text-align: center;">Payment Amount and Time line</th> <th style="text-align: center;">Submission and Approval required for the Payment</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">Mobilization Advance</td> <td style="text-align: center;">10% of the value of Request Order within 15 days from the date of issuance of Request</td> <td style="text-align: center;">Submission of Invoice</td> </tr> </tbody> </table>	CAPEX PAYMENT MILESTONES ( CAPEX SHALL NOT EXCEED 60% OF TOTAL CONTRACT PRICE)				S. No.	Payment Milestone	Payment Amount and Time line	Submission and Approval required for the Payment	1	Mobilization Advance	10% of the value of Request Order within 15 days from the date of issuance of Request	Submission of Invoice	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">CAPEX PAYMENT MILESTONES ( CAPEX SHALL NOT EXCEED 60% OF TOTAL CONTRACT PRICE)</th> </tr> <tr> <th style="text-align: center;">S. No.</th> <th style="text-align: center;">Payment Milestone</th> <th style="text-align: center;">Payment Amount and Time line</th> <th style="text-align: center;">Submission and Approval required for Payment</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">Mobilization Advance</td> <td style="text-align: center;">10% of the value of Request Order within 15 days from the date of</td> <td style="text-align: center;">Submission of Invoice &amp; BG of equivalent</td> </tr> </tbody> </table>	CAPEX PAYMENT MILESTONES ( CAPEX SHALL NOT EXCEED 60% OF TOTAL CONTRACT PRICE)				S. No.	Payment Milestone	Payment Amount and Time line	Submission and Approval required for Payment	1	Mobilization Advance	10% of the value of Request Order within 15 days from the date of	Submission of Invoice & BG of equivalent
CAPEX PAYMENT MILESTONES ( CAPEX SHALL NOT EXCEED 60% OF TOTAL CONTRACT PRICE)																												
S. No.	Payment Milestone	Payment Amount and Time line	Submission and Approval required for the Payment																									
1	Mobilization Advance	10% of the value of Request Order within 15 days from the date of issuance of Request	Submission of Invoice																									
CAPEX PAYMENT MILESTONES ( CAPEX SHALL NOT EXCEED 60% OF TOTAL CONTRACT PRICE)																												
S. No.	Payment Milestone	Payment Amount and Time line	Submission and Approval required for Payment																									
1	Mobilization Advance	10% of the value of Request Order within 15 days from the date of	Submission of Invoice & BG of equivalent																									

				Order and submission of Invoice			issuance of Request Order and on submission of Invoice & BG of equivalent amount	amount as given in Annexure-1.		
			<b>2</b>	Delivery and Installation of Hardware and Software.	40% of the value of Request Order within 30 days from the delivery and installation of Hardware and Software specified in Request Order.	Submission of required documents (Such as Challan etc) and Invoice by the Service Provider on Pro Rata Basis.	2	Delivery and Installation of Hardware.	30% of the value of Request Order within 30 days from the delivery and installation of Hardware as specified in Request Order.	Submission of required documents (such as Challan etc.) and Invoice by Service Provider on PRO RATA BASIS.
			<b>3</b>	Successful Commissioning	30% of the value of Request Order shall be disbursed as following: <ul style="list-style-type: none"> <li>• 10% of the value of Request order on commissioning of equipment mention in the request order</li> <li>• 10% of the value of Request order on commissioning of respective BRTS Corridor</li> <li>• 10% of the value of Request order on Syncing completion with Control Room System.</li> </ul>	Issuance of Project Acceptance / Go Live Certificate and Invoice	3	Successful Commissioning including Delivery and Installation of Software Application.	40% of the value of Request Order shall be disbursed as following: <ul style="list-style-type: none"> <li>• 10% of the value of Request order on commissioning of equipment mention in the request order</li> <li>• 10% of the value of Request order on commissioning of respective BRTS Corridor</li> <li>• 10% of the value of Request order on Syncing completion with Control Room System.</li> <li>• 10% of the value of Request order on Delivery and Installation of Software Application</li> </ul>	Issuance of issue of Project Acceptance/ go Live Certificate.
			<b>4</b>	Three months of successful operation and Maintenance	10% of the value of Request Order within 30 days from the end of three months of successful Operation and Maintenance	Submission of Invoice				
			<b>5</b>	Six months of successful operation and Maintenance	10% of the value of Request Order within 30 days from the end of three months of successful Operation and Maintenance	Submission of Invoice				
							<b>4</b>	Three months of successful operation and Maintenance	10% of the value of Request Order within 30 days from the end of three (3) months of successful Operation and Maintenance	Submission of Invoice and upon satisfaction of Authority of successful Operation and Maintenance

				<table border="1"> <tr> <td>5</td> <td>Six months of successful operation and Maintenance</td> <td>10% of the value of Request Order within 30 days from the end of six (6) months of successful Operation and Maintenance</td> <td>Submission of Invoice and upon satisfaction of Representative of the Authority of successful Operation and Maintenance</td> </tr> <tr> <td colspan="4"> <p>Note:</p> <ul style="list-style-type: none"> <li>i. For Mobilisation Advance Payment, the Bank Guarantee format in given in Annexure -1. Validity of Bank Guarantee shall be six (6) months from the date of submission.</li> <li>ii. In case, the bidder does not avail mobilization advance, then the payment for Mobilization Advance shall be released along with Payment for Delivery and Installation of Hardware.</li> <li>iii. In case PBMS delays the handover of that station, for more than 60 days beyond lead time mentioned in the Request order, on successful inspection of material supplied bidder shall be paid 60% of the total equipment supplied as per the respective request order.</li> </ul> </td> </tr> </table>	5	Six months of successful operation and Maintenance	10% of the value of Request Order within 30 days from the end of six (6) months of successful Operation and Maintenance	Submission of Invoice and upon satisfaction of Representative of the Authority of successful Operation and Maintenance	<p>Note:</p> <ul style="list-style-type: none"> <li>i. For Mobilisation Advance Payment, the Bank Guarantee format in given in Annexure -1. Validity of Bank Guarantee shall be six (6) months from the date of submission.</li> <li>ii. In case, the bidder does not avail mobilization advance, then the payment for Mobilization Advance shall be released along with Payment for Delivery and Installation of Hardware.</li> <li>iii. In case PBMS delays the handover of that station, for more than 60 days beyond lead time mentioned in the Request order, on successful inspection of material supplied bidder shall be paid 60% of the total equipment supplied as per the respective request order.</li> </ul>			
5	Six months of successful operation and Maintenance	10% of the value of Request Order within 30 days from the end of six (6) months of successful Operation and Maintenance	Submission of Invoice and upon satisfaction of Representative of the Authority of successful Operation and Maintenance									
<p>Note:</p> <ul style="list-style-type: none"> <li>i. For Mobilisation Advance Payment, the Bank Guarantee format in given in Annexure -1. Validity of Bank Guarantee shall be six (6) months from the date of submission.</li> <li>ii. In case, the bidder does not avail mobilization advance, then the payment for Mobilization Advance shall be released along with Payment for Delivery and Installation of Hardware.</li> <li>iii. In case PBMS delays the handover of that station, for more than 60 days beyond lead time mentioned in the Request order, on successful inspection of material supplied bidder shall be paid 60% of the total equipment supplied as per the respective request order.</li> </ul>												
5	20 (d)	114	In case where pre-existing software or hardware are customized/modified for PBMS use by the Service Provider, the IPR for the same shall rest with the Service Provider only. However Service Provider agrees to provide PBMS the rights to use such product beyond the Contract Period of this agreement. PBMS may at its sole discretion demand evidence of pre-existing of any such product.	In case where pre-existing software or hardware are customized/modified for PBMS use by the Service Provider, the IPR for the same shall rest with the Service Provider only. However Service Provider agrees to provide PBMS the rights to use such product beyond the Contract Period of this agreement at no additional cost to PBMS. PBMS may at its sole discretion demand evidence of pre-existing of any such product.								
6	2.1	137	<p><b>Consortium</b></p> <p>The parties do hereby irrecoverably constitute a consortium (the 'Consortium') for the purpose of jointly participating in the bidding process for the project. The parties agree that the number of members in the Consortium shall not exceed Two(2) members.</p>	<p><b>Consortium</b></p> <p>The parties do hereby irrecoverably constitute a consortium (the 'Consortium') for the purpose of jointly participating in the bidding process for the project. The parties agree that the number of members in the Consortium shall not exceed Three (3) members.</p>								

7	6.1	138	<p>The Parties agree that the proportion of shareholding among the Parties in the Consortium shall be as follows:</p> <p>(i) The Lead Member: shall hold the beneficial stake of at least 51% (Fifty one per cent) in the Consortium at all times till the completion of the scope of work under the Service Provider Agreement.</p> <p>(ii) Other Member: [to be inserted]</p>	<p>The Parties agree that the proportion of shareholding among the Parties in the Consortium shall be as follows:</p> <p>(i) The Lead Member: shall hold the beneficial stake of at least 51% (Fifty one per cent) in the Consortium at all times till the completion of the scope of work under the Service Provider Agreement.</p> <p>(ii) Second Member: Whose qualification criteria to be used shall not be less than 26 % [to be inserted]</p> <p>(iii) Third Member: [to be inserted]</p>
<b>Part 2</b>				
8	2.1.1	7	<p>2.1.1 Level 1: AFCS Media</p> <p>Media shall have the information in encrypted format and enable the passenger to access the services</p> <ul style="list-style-type: none"> <li>o Smart Cards</li> <li>o RFID Single Journey Coins/ tokens</li> </ul>	<p>2.1.1 Level 1: AFCS Media</p> <p>Media shall have the information in encrypted format and enable the passenger to access the services</p> <ul style="list-style-type: none"> <li>o Smart Cards</li> <li>o RFID Single Journey Coins/ tokens</li> <li>o Paper Tickets with Barcode ( to be used in case of emergency / station AFCS not working / to be issued via ETM / POS machines )</li> </ul>
9	3.1	11	<p>.....</p> <p>2) Conceptual, preliminary, and final software design reviews with the PBMS, including but not limited to: the software requirements specification, software architecture, logic flow diagrams, and verification and test approach.</p>	<p>.....</p> <p>2) Conceptual, preliminary, and final software design reviews with the PBMS, including but not limited to: the software requirements specification, software architecture, logic flow diagrams, and verification and test approach. System should be designed to ensure no revenue leakage at any point from the system and should discourage manual intervention.</p>

10	3.2.1	11	<p>1. Shall support scalability both vertically (scale-up) and horizontally (scale-out) across Architecture tiers.</p> <p>2. Shall ensure well-balanced load distribution on the various hardware and software component to ensure that no congestion in any of the solution hardware components occurring with the growing load on environment.</p> <p>3. Shall propose suitable multi-processor servers capable of handling the calculated loads. Multi-processing must be natively supported by the hardware serves and operating system to support scalability. In case of cloud solution Service provider shall ensure the scalability and load balancing</p>	<p>1. Shall support scalability both vertically (scale-up) and horizontally (scale-out) across Architecture tiers.</p> <p>2. Shall ensure well-balanced load distribution on the various hardware and software component to ensure that no congestion in any of the solution hardware components occurring with the growing load on environment.</p> <p>3. Shall propose suitable multi-processor servers capable of handling the calculated loads. Multi-processing must be natively supported by the hardware serves and operating system to support scalability. In case of cloud solution Service provider shall ensure the scalability and load balancing.</p> <p>4. System as a whole should be able to cater a scalability of atleast 5 times of existing system requirements.</p>
11	3.4.2 B I.	23-24	<p><b>Function</b> Gate arrays shall be the normal-means of controlling entry to and exit from the paid areas. Control shall be by means of actuating a physical barrier on recognition of a valid token or card by the gate. ....</p>	<p><b>Function</b> Gate arrays shall be the normal-means of controlling entry to and exit from the paid areas. Control shall be by means of actuating a physical barrier on recognition of a valid token or card or paper ticket by the gate. ....</p>
12	3.4.2 B III.	24-25	<p>.....</p> <ul style="list-style-type: none"> <li>•Other Media acceptable: RFID Tokens</li> </ul>	<p>.....</p> <ul style="list-style-type: none"> <li>•Other Media acceptable: RFID Tokens, Paper tickets with Barcode</li> </ul>
13	3.4.2 B V.	25	<p>.....</p> <ul style="list-style-type: none"> <li>•Recognition system, card readers and Card Validators can hide in the cabinet</li> </ul>	<p>.....</p> <ul style="list-style-type: none"> <li>•Recognition system, card readers , Barcode reader and Card Validators can hide in the cabinet</li> </ul>
14	3.4.2 B VI.	26	<ul style="list-style-type: none"> <li>• IP : 54</li> </ul>	<ul style="list-style-type: none"> <li>• IP: 32</li> </ul>

15	3.4.5 A.	30	<p><b>Handheld Terminals for Ticket Inspection/issue of tickets</b>  The service provider shall provide handheld terminals capable of reading contact less smartcard / token for spot checking purposes. The handheld device shall be able to issue tickets and validate smart card in case of power failure or any other emergency cases. The handheld shall read smartcard/token and display card information including last transaction details in-order to ascertain travel details from compliance perspective.  .....</p>	<p><b>Handheld Terminals for Ticket Inspection/issue of tickets</b>  The service provider shall provide handheld terminals along with its necessary software application capable of reading contact less smartcard / token for spot checking / emergency ticketing purposes. The handheld device shall be able to issue tickets and validate smart card in case of power failure or any other emergency cases. The handheld shall read smartcard and token and display information including last transaction details (for cards) in-order to ascertain travel details from compliance perspective. Handheld terminal Unit shall be able to issue paper tickets with barcode print of the transaction data, which shall be read at the exit station by the HTU or by the Flap Barrier. To make it clear, In case exit station AFCS is not working one HTU shall be placed at each station for operation hours, to read paper tickets (with barcode) issued from any other station. Data of these transactions shall be sent real time to Central location for reconciliation. At the end of shift, report of barcode transactions from HTU shall be generated for reconciliation. In case the system on exit station is working barcode ticket shall be read on the Flap gate. Barcode reader is also required on the Flap barrier for same purpose.  .....</p>
16	3.4.5 A. i)	31	<p>.....  The HTU should have capability of GPRS interface. The HTU shall have an 802.11b/g compatible Wi-Fi module connected to an external antenna for data transfer and communication of high volume of data and application down loads to the depot system.  .....</p>	<p>.....  The HTU should have capability of GPRS interface. As an option to GPRS, HTU can have 802.11b/g compatible Wi-Fi module connected to an external antenna for data transfer and communication of high volume of data and application down loads to the depot system. In case of Wi-fi the necessary communication equipment to be supplied by the bidder under the same cost.  .....</p>

17	3.4.5 A. iv)	33	..... <b>Interface</b> Local Wireless: ZigBee / Bluetooth .....	..... <b>Interface</b> Local Wireless: ZigBee / Bluetooth/ GPRS/ Wi-Fi. .....
18	3.5	34	<b>Call Centre Management</b> Service provider shall be required to implement a call management system which shall enable people to communicate internally and externally. Call centre system shall act as a communication carrier mechanism and shall help different stakeholders within the system to respond to desired activities in a pre-determined systematic manner for resolution. This system shall include call management system including PC's, Call handling equipment and EPABX	<b>Call Centre Management</b> Though the Call Centre shall be operated by a separate operator, which presently is in the scope of a separate tender of ITMS, but the AFCS vendor is expected to provide coordination in the call centre for use of feed AFCS system for MIS, decision making, reporting and other functions as may be required for operation of BRT system.

Note: Bidders are requested to visit regularly <https://etender.punjabgovt.gov.in> and [www.pidb.org](http://www.pidb.org) for future corrigendum's, clarifications, addendums, if any.

## **BANK GUARANTEE FOR ADVANCE PAYMENT**

BG No. ... dated...

.....(Name and address of the Client)

In accordance with the provisions of clause no. .... of Contract / Memorandum of Agreement dated....., executed between .....[insert name of the Client] (herein after called "the Client ")and ..... [name of the Service Provider], (herein after called "the service provider ") for the provision of ... [insert brief description of the services], the service provider shall deposit with .....[name of the Client] a bank guarantee for advance payment to guarantee his/its proper and faithful performance for an amount of Rs. ..../- (Rupees .....Only) [insert value of advance payment bank guarantee].

We, the ..... [Bank's Name and Address of Issuing Branch or Office] (hereinafter called the "Bank"), as instructed by the service provider agree unconditionally and irrevocably to guarantee as prime obligator and not as Surety merely, the payment to ..... [name of the Client] on its first demand without whatsoever right of objection on our part and without its first claim to the service provider , in the amount not exceeding Rs. ..../- (Rupees .....Only) [insert value of advance payment bank guarantee]..

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed there under or of any of the Contract documents which may be made between .....[name of the Client] and the service provider , shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect for ..... months [insert period of bank guarantee] from the date issue of this bank guarantee against advance payment under the Contract until ..... [name of the Client] receives full repayment of the same amount from the service provider . The validity of the Guarantee may be extended for such period, as may be required, by the Bank at its sole discretion and written request of the service provider .

Any demand for payment or notice if it is sent by post or delivered by hand should be received at the counter of the bank. This guarantee shall be governed by the laws of India and shall be subject to the jurisdiction of courts and tribunals at .....[insert place of issuing bank branch address]



Notwithstanding anything contained herein above: -

- I. Our liability under this Bank Guarantee shall not exceed its INR \_\_\_\_\_
- II. This Bank Guarantee shall be valid up to \_\_\_\_\_ and  
We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand at [Bank's Name and Address of Issuing Branch or Office] on or before \_\_\_\_\_ [insert expiry date of bank gurantee]

..... Bank Limited

(Signature of the Authorized Official)

(Name & Designation with Bank Stamp)