



The Hashemite Kingdom of Jordan

هيئة تنظيم النقل البري
LAND TRANSPORT REGULATORY COMMISSION



Addendum No.3
RFP # 2/2019/special supplies

**Design, Implementation, and Operation
of an Intelligent Transportation System
(ITS) for Public Transportation in Jordan**

**A Multitenant, Standards-Based, Account-Based, and
Closed Payment System**

December 17, 2019

1. Section 4.4.2

Financial Evaluation will be revised as follows:

Among bidders who received 70 or more points in their technical evaluation, a final score will be calculated giving the technical score a weight of 70% and the total price a weight of 30%.

The final score will be calculated as follows:

Final score = [Technical Score X 70%] + [Financial Score X 30%]

Where:

Financial Score = [90% X (Lowest FIXED among bidders / Bidder's FIXED)] + [10% X (Lowest PCT among bidders / Bidder's PCT)]

The bidder with the highest final score will be invited to contract negotiations with LTRC. The payment schedule will be agreed upon during contract negotiations. The operations and maintenance payment schedule will be partly based on the phasing plan for the pilot routes.

2.Responses to Inquiries

Inquiry 1: 3.2.2 Prototype and Showcase Based on the Agreed Design: Showcasing/demo shall be done before agreement signing or after?

Response 1: After signing the contract and finishing the inception phase of the project

Inquiry 2: 3.3.1: Both Wi-Fi and Cellular connection types are mentioned here and in other sections of the RFP. Does contractor will have the freedom of choosing one of the connection type to run the system as hybrid online?

Response 2: Both are required. Connecting a moving bus is not the same as connecting a bus stopping in a garage (terminal). A hybrid viable solution could be an option.

Inquiry 3: 5. System Design & Architecture: Based on our practices in open loop systems we are using a processor as malware between AFCs backend and bank. This brings an ease to AFCs backend to be PCI-DSS free and effort on integrating with multiple banks are left on processor. In this case AFCS provider do really need licensing and certification from Bank of Jordan anyways?

Response 3: Refer to Bylaw of Electronic Payment and Money Transfer 111/2017 for the licensing requirements.

Inquiry 4: 5.2 Standards Based Architecture: "the system to be compliant with relevant standards" compatibility is enough for each standard shall be furnished with its relevant document?

Response 4: During the bidding phase, the bidder shall provide supporting documents, diagrams and detailed explanations of how each standard is supported. However, during the design phase-after awarding- LTRC have the right to verify and validate these claims.

Inquiry 5: 5.1 System Architecture: In the field components section it mentions validators shall support all smart card types, which

highly scoped definition of support. We believe this should be defined in particular according to the existing AFC systems in Jordan and market practices.

Response 5: Refer to other sections in the RFP to define the scope required such as 6.1.1.1 and 6.1.1.2.

Inquiry 6: Joint Venture part should be a bus operator? Or any company related to transportation ? or not necessary to be a part of transportation at all ?

Response 6: Bus operations are not part of this tender. Members of the JV should have experience in the activities required in the RFP.

Inquiry 7: 7.2.1 Can you please advise if there will be any customs duties applied to the importation of equipment for this Project. Specifically, is there any customs exemption?

Response 7: All prices should include taxes and customs fees and there is no customs exemption at this phase.

Inquiry 8: 7.2.1 The RFP states that the LTRC has the right to forfeit the tender bond of the winning bidder "if the bidder fails within the specified time limit to sign the contract, or sign the joint venture agreement in front of a notary public in Amman, Jordan; or furnish the required performance security as set out in the contract." Please advise what is the "specified time limit"?

Response 8: Each member in the joint venture commits itself to sign the sample joint venture agreement in front of a notary public in Amman, Jordan within (20) calendar days as of the date of award notification, the specified time for submitting the performance security and signing the contract will be determined in the award decision.

Inquiry 9: 4.3 (point 3)Can you please advise how revenues above 13 million passengers will be calculated. This will be done on an average fare basis?

Response 9: Percentage of the fare revenue collected for each boarding above 13 million boardings based on the value of each transaction above the 13 million.

Inquiry 10: 7.2.1 The requirement in the second point seems in contradiction to 4.3

The lump sum price we will provide will include our costs, overheads and profits, and then apply all necessary taxes. We therefore envisage providing a breakdown that consists of our lump sum price, applied taxes which gives to a total price. Please confirm

Response 10: Consider conditions and requirements in 4.3.

Inquiry 11: 6.1.1.2

Validators: Support for top-ups and reloads, Firmware upgradable, Integrated 2D barcode reader have been removed as requirements. Does this mean that this is not needed anymore?

Response 11: Abide by the requirements in the current RFP

Inquiry 12: 6.1.1.5 Portable: Thermal printer and 2D imaging scanner for barcode reading has been removed. Does it mean that this is not needed anymore. Please confirm

Response 12: Abide by the requirements in the current RFP

Inquiry 13: 6.1.2.2 (point 4) Account Mgmt: Minimum functions that should be supported has been removed. Please provide us with a list of functions that must be supported here.

Response 13: Abide by the requirements in the current RFP

Inquiry 14: 6.1.2.2 Account mgmt. Card acceptance of 3rd party issued cards has been removed. Does this mean that the system should not accept 3rd party issued cards anymore?

Response 14: Abide by the requirements in the current RFP

Inquiry 15: 6.1.2.3 Request for a solution for credit card and payment processing with comply to ISO 8583 and PCI DSS has been removed. Please confirm this is not needed anymore.

Response 15: Abide by the requirements in the current RFP

Inquiry 16: 6.2.6 Performance All concrete performance requirements have been removed. Does it mean that for example the validator does not have to process a card transaction within 500msec anymore?

Response 16: Abide by the requirements in the current RFP

Inquiry 17: 6.3.1 Point Of sales: Barcode printing at POS has been removed. Please explain what solution is expected for occasional users when barcode is not used anymore.

Response 17: Abide by the requirements in the current RFP

Inquiry 18: 6.3.1 (point 14) barcode ticket printer: Why is this requirement still here when the requirement for barcode printing has been removed

Response 18: All POS equipment is the bidders responsibility and abide by the requirements in the current RFP

Inquiry 19: 6.3.4 (point 1) Operations - Cash management is optional: Is this for the whole system or does this only refer to cash sales on board the vehicles?

Response 19: Cash management is optional Only for cash sales on board the vehicle.

Inquiry 20: 6.3.7 (point 1) Sales channel AVMs are mentioned as options. Is this correct since in the opening statement 6.3 5 AMV are minimum requirement ?

Response 20: Abide by the requirements in the current RFP

Inquiry 21: Pilot and University buses: will the equipment be ordered at the same time or will it be 2 separate orders?

Response 21: The piloting includes Jearsh and University routes and the equipment should be ordered according to the project plan.

Inquiry 22: Can we assume that the City buses and big buses have 2 doors, the 12 passenger buses and the medium buses have 1 door?

Response 22: Refer to Annex 1 where you can find types of busses (2 doors حافلة: 1 door متوسطة: 1 door راكب: 1 door)

Inquiry 23: 3.3 How many buses are in the 1st batch?

Response 23: The bidder's responsibility to set the plan of implementation with the number of buses in each batch with respect to the project time frame.

Inquiry 24: Annex 1 How many bus stops are on all planned routes and can we assume 1 PIS display per stop?

Response 24: Refer to Annex 1 (Maps) for bus stops and the PIS required for terminal points and main stations such as universities.

Inquiry 25: 5 intro Account based ticketing should be considered. Does this mean that ALL card will be treated as ID only and NO data is required to be stored on ANY cards?

Response 25: Yes. However, some solutions have some data for offline connection handling. We look to have a clear solution for offline connection handling.

Inquiry 26: 7.2.1 "The RFP states that the LTRC has the right to forfeit the tender bond of the winning bidder ""if the bidder fails within the specified time limit to sign the contract, or sign the joint venture agreement in front of a notary public in Amman, Jordan; or furnish the required performance security as set out in the contract."" Is there a draft of the contract available and if not when will LTRC will be able to share the draft contract?

Response 26: The draft contract will be ready and shared before the awarding.

Inquiry 27: 4.2 Interoperability Guarantee. The detail of information requested in this point is too high, detailed data architecture and flow diagrams of existing solutions are vendors IP. In Phase 2 this level of detail is appropriate. Please reduce the level of detail to the description of Open Architecture Design proof.

Response 27: Agree. For the bidding process, Bidders shall comment on each item and provide high level content describing how each item will be supported in the design phase.

Inquiry 28: Annex 2 Team Composition, Assignment, Operation etc... The level of detail requested here is very high, this is a detailed workplan that depends on many factors that are unknown at this stage. This table can be used in Phase 3 of the Project. Please move the requirement to use this table in Phase 3.

Response 28: The bidder shall complete the forms in annex as requested. Any adjustments to team composition and work plan can later be made in coordination with LTRC depending on the approved solution

Inquiry 29: 6.3.1.1 item 5 Is it possible to replace the call center services after ramp up by other service channels?

Response 29: Abide by the requirements in the current RFP

Inquiry 30: Section 5 "Page 19, Paragraph: In future phases, LTRC intends to accept open loop payments utilizing a variety of fare media and additional payment options such as Contact/contactless credit/debit/prepaid cards/e-wallet, etc. Bidders should clarify in their proposals how the proposed solution will be extended to meet the open-payment requirements. And Bidders should clarify in their proposals how the proposed solution will impact existing equipment and integration services.

Question: Please describe, why is listed here the contact bankcard, is it supposed that the validators will have the slot for inserting such cards?

Generally: Worldwide the bank cards in onboard public transport using only the contactless part of the bank cards.

Response 30: The validators will not have the slot for inserting cards

Inquiry 31: 5.2

"ISO/IEC 18092 / ECMA-340, Near Field Communication Interface and Protocol-1

ISO/IEC 21481 / ECMA-352, Near Field Communication Interface and Protocol-2

Question: In the tender, there is required also the acceptance of EMV contactless bank card. EMV contactless card acceptance is in contradiction to NFCIP-1&2 - part active initiator. Shall we suppose that the parts of NFCIP-1&2 related to passive initiator are mentioned here (which is not in contradiction to EMV card acceptance)?

Response 31:Yes. Consider the passive transponder

Inquiry 32: 6.1.1.1

"Following fare media should be supported:

- Paper ticket

Question: Where this fare medium should be issued and how it should be used (principle of validation)? From the tender documentation it is not clear.

- Others such as virtual cards (please mention)

Question: Please describe more in details, what virtual cards mean?

Response 32: As stated in the RFP, it is left to the Bidder to propose other compatible fare media types called virtual cards (optional). Paper tickets could be issued from the portal or from any POS. QR based tickets could be stored in the mobile or printed.

Inquiry 33: 6.1.1.2 "1. Fare media validators shall perform but not limited to the following functions:

- GPS

Question: If this feature will be implemented in the driver console and distributed to the vehicle equipment, should be omitted from the validator?

Response 33: GPS support is mandatory. Bidder can propose this alternative solution if the time of transmission is not affected. Also Bidder shall discuss the impact of not having the GPS in the validator (pros/cons).

Inquiry 34: 6.1.1.3 "Section 6. The connection between the front-end devices and back office will be over a routable IP network. Where required, the connections will be secured using Transport Layer Security (TLS) and strong encryption, such as TDEA or AES. All data sent via the internet will be TLS-encrypted using the HTTPS protocol. Any IP communications must not preclude components of the system utilizing IPv6.

Question: Shall we suppose that the IPv6 protocol is mentioned for the backoffice components and servers?

Because the onboard devices are usually hidden behind some NAT or Firewall, where such implementation doesn't make sense and bring point for hackers to try hack the devices.

Response 34: The system should at minimum enable dual stack translation in terms that all IPv4 addresses in the future can be mapped into ipv6 format.

Inquiry 35: 6.1.2.1 "Section 2. Each of the participating They will be allowed to:

- Set their fares by service
- Include their fares in fare capping calculations (or not)
- Honor capped accounts, or accounts that are riding free because of capping (or not)
- Report on usage from their vehicles
- Receive error reports from their vehicles

Note: We recommend the system with the single point of configuration, where are dedicated persons of transport company or integrator, which manage the whole system including the line, stops, pricing, capping, etc. of all transit agencies. Because when there will be multiple operators in the

city / area, when the passenger will use several vehicles for journey to the work, he can use multiple operator and it might happen that different price policy will be applicable including the different capping mightn't come.

So the passenger will pay several time higher price thanks to applying different policies for the journeys instead of one pricing policy to be set.

Of-course every operator has access to the reports and see only data related to him - fares, income, etc.

Question: Could be offered the system with the single point of configuration / management?

Response 35: fare policies are regulated and controlled by LTRC. If the question is about implementing a single fare policy for single journey then there should be no problem about prices.

Inquiry 36: 6.1.2.8 "Section 11. Mobile app QR codes will be national / international standards compliant

Question: Do we understand the sentence national / international standards the type of codes like Aztec, QR, Data Matrix, etc?

Response 36: The main standards that we are referring to are ISO QR standards and QR-Code Standards for Payments in Jordan (<http://www.jopacc.com/echobusv3.0/systemassets/qr%20code%20standards.pdf>)

Inquiry 37: 8 6.2.1 "Section 1. Provide and implement plan for

- Two authentication factors for rider portal

Question: In this document is not defined the Rider portal. Please describe what does it mean?

Section 8. Verify that users can enroll and use TOTP

Question: What does it mean TOTP abbreviation?

Response 37: Use rider as an acronym for a passenger. The TOTP is the abbreviation for Time-Based One Time Password (algorithm)

Inquiry 38: 9 6.3.1.1 "1. Fare media should be available via secure automatic ticket vending machines (ATVM) available at certain locations capable of issuing/reloading different fare media The ATVM shall support payment by coins and banknotes.

Note: The spectrum of the ATVM on the market is wide and are incomparable, therefore we recommend making the deeper specification like (the minimal size 10" of the full touchscreen, accept and give change in coins and accept notes without giving change, communication interface is supposed - GSM, Wi-Fi, Ethernet).

Question: Could you please define the HW specification of ATVM in respect to the listed sample attributes above?

Response 38: The ATVM shall meet the following requirements:

- Processing Unit: Industrial PC, ≥4GB flash memory, ≥1 GB RAM
- Display: ≥15" sunlight readable anti-vandal color displays with operation via touch panel
- Coin Handling: 6 coins' acceptance
- Coin box collector: capacity about 4,5 kg.
- Bank Note Handling: 5 bank note acceptance
- Cassette collector: Capacity 600 banknotes
- Receipt Printer: Graphic thermal printing unit
- Paper width up to 57 mm
- Smart Card Support: RFID Card Reader-Writer (dispenser), allowing passengers to issue a new contactless card or reload an existing contactless card.
- Communications: LAN Ethernet 10/100 Mbit, WLAN, GSM, GPRS, EDGE, UMTS
- Operating temperature: comply with local environment in Amman
- Storage Temperature: comply with local environment in Amman
- Humidity: comply with local environment in Amman
- Power Supply: 220± 10% VAC
- Integrated UPS
- Housing: Galvanized metal sheet, 2mm for the main body and 3mm for the door
- Main case IP54. Slots IP34, 33
- Vandalism-safe door with 5-point lock
- Shutters in all slots for secure & outdoor operation
- Dimensions: Height 1790mm, Width 600mm, Depth 560mm approx.
- Security: Integrated alarm system with remote notifications via SMS/email
- Compliance: CE

At each ATVM, a software application will be installed which will be used in order for the passengers to be able to issue or reload a smart card or buy a barcode paper ticket. The application shall provide a user friendly graphical user interface, especially designed for touch screens. Also, the application will provide management functionality to the Client staff (device management, financial management, alarm handling, etc.)

Inquiry 39: 6.3.1.1 item 2 What's the meaning of Main- and Sub-Terminals and the difference in functionality.

Response 39: Refer to Annex 1 Maps. Each governorate has at least one main terminal such as Jerash Terminal and the Sub-Terminals are the main bus stops like University Bus stops and there is no different in the functionality.

Inquiry 40: In annex 4, there is a form under Joint Venture Agreement. The is in Arabic and is under اتفاقية ائتلاف which translates to Consortium. Totally two different legal concepts. Pls clarify.

Response 40: The form in annex 4 refers to Joint-Venture Agreement not to consortium. Attached an Arabic-English JV agreement.

Inquiry 41: Is it mandatory to build a data center in LTRC for this solution; if this is mandatory, we need more information about the location and space dedicated for this Data Center and if it is allowed to propose hosting in local cloud in Jordan from private sectors companies

Response 41: Refer to Hosting 6.3.2 point 1, the data center is not mandatory and it is allowed to propose hosting in local cloud in Jordan from private sector companies as the hosting meets the performance and scalability requirements and cybersecurity policy requirements set by Ministry of Digital Economy and Entrepreneurship. The Winning bidder shall provide redundant CDS installations and provide immediate, automatic fail-over between sites to ensure the CDS remains available whenever unplanned and planned outages of the production CDS occur. The redundant operations will enable continued operation of critical security and

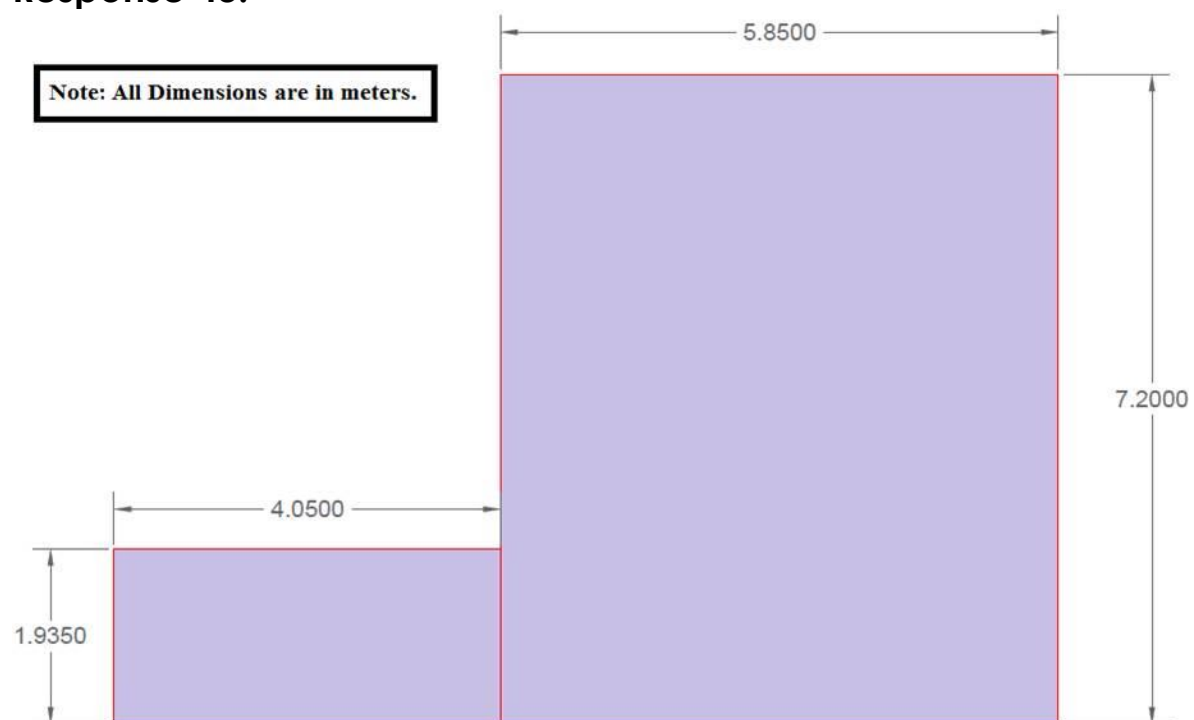
transaction functions without degradation that is obvious to the user.

Inquiry 42: Kindly note that building a data center within the tight time required for Phase 3: Implementation & Piloting, is not very hard to achieve Is it allowed to have for certain period a hosting in the international cloud of the solution' vendor cloud.

Response 42: Refer to response 41

Inquiry 43: Need layout of control room and number of Control center operators

Response 43:



The control room should accommodate Bidders staff in addition to (4) employees from LTRC

Inquiry 44: Need to confirm if cash ticketing required to be supported by equipment's and required number of paper tickets

Response 44: Refer to responses 19 and 32, the number of paper tickets depends on customers' demand

Inquiry 45: Is allowed to start the procurement process after the inception phase in order to be able to comply with the schedule

constraints of: Phase 3: Implementation & Piloting". This is recommended to gain some time which is need for production of equipment and shipping a custom clearance.

Response 45: The bidder's responsibility to set the plan of implementation with respect to the project time frame

Inquiry 46: We need numbers, geographical locations and information for Garages that need WiFi coverage and Main terminals, Universities Terminals in soft copy format (excel, word, or pdf)

Response 46: Refer to Annex 1 and note the garages in our case are the terminals and Start/End bus stops

Inquiry 47: Are the payment terms tied with the phases, i.e. if Design phase is finished and approved; Will the contractor receive its lump sum payment and the same question for the Phase 3: Implementation & Piloting.

Response 47: The payments terms will be agreed up during the contract discussions

Inquiry 48: is the "Fixed annual payment for the first 13 million or below" will be payed to the contractor in the number of rides are decreased for reasons out of his hand or his responsibilities; i.e. in case of bad performance of the bus operators or similar reason that may negatively affect number of rides.

Response 48: The fixed annual payment for the first 13 million or below boarding per year on the routes and vehicles included within the pilot will be payed regardless of the performance of bus operators

Inquiry 49: Will be a dedicated space for the awarded contractor in each terminal, garage, Universities for his staff, Equipment, POS, spare parts inventory; in this case we need more information about that spaces.

Response 49: The LTRC role is only to facilitate the process of getting the required spaces for the awarding contractor.

Inquiry 50: Who will access the rider portal using two factor authentication and how many?

Response 50: The rider (passenger) portal will be accessed by passengers mainly. The number of passengers using the portal will increase by time so the ultimate design of the portal should be scalable (~few simultaneous concurrent users to hundreds of concurrent user)

Inquiry 51: need more clarification about meaning by inter-tier authentication

Response 51: From architecture perspective the AFCS is composed of different systems or modules. Accessing and exchanging data between systems should be secured. So inter-tier authentication is to make sure that system-to-system is secure.

Inquiry 52: Should the rider call center operate 24/7 or during bus working hours? need buses working hours.

Response 52: during bus working hours (Internal route: (5am-7pm), main route: (5am-11pm), University route: (6am-6pm)).

Inquiry 53: Clearing House Would the CH require licensing and certification procedures from the Central Bank of Jordan?

Response 53: The CH based on closed loop does not required licensing from Central Bank of Jordan. The licensing and certification procedures from the Central Bank of Jordan is required when the CH will be open loop. Refer to response 3.

Inquiry 54: If the answer of previous question is YES, the Clearing House (CH) requires licensing and certification from the Central Bank of Jordan.

Q: Please clarify how the CH certification procedure will affect the timeline?

Response 54: Refer to responses 53 and 3.

Inquiry 55: We understand the fact that the <special account> balance will be negative due to university and under-profit subsidies.

Q: Since the CH Operator will be responsible for settlement of bus operator revenues, please clarify if the Ministry of Finance will guarantee the negative balance? (YES, NO)

Response 55: The LTRC will handle the issue of negative balance.

Inquiry 56: It is our understanding that cash payments on buses are a requirement of the 1st phase. Will LTRC enforce the removal of one seat from the Coaster buses and the 12-seater buses to fit the cash unit and the validator?

Response 56: There will be no cash payment on buses

Inquiry 57: RFP Documents does not include the winning proposal contract for the operation of the envisaged system. Accordingly, we assume that it is up for negotiation. If negotiations on the contract fail with the winning tenderer will LTRC liquidate the tender banking guarantee?

Response 57: The Tender Special Committee will study all the reasons that caused negotiations failure and make the decision in line with the regulations governed Government Procurement System.

Inquiry 58: Negotiating the winning tenderer contract could lead to change on the tender conditions. For transparency, will LTRC publish the winning tenderer contract to ensure that the tender conditions have not been altered?

Response 58: Refer to response 57

Inquiry 59: We have the following points to be clarified from LTRC regarding the RFP:

Requirements imply that fare engine has to be on the validator while tender requirements call for ABT system and back office based processing of such requirements

6.1.1.2 Validators

NO	Requirements
10.	Ability to handle free transfers or rebates for stored value or journey-based tickets. the validator determines whether the transfer conditions have been met, and then decides whether to apply free / rebate transfer or treat it as a new trip and deduct the relevant value.
11.	For fare-capping, the validator determines whether it is applicable, and applies the appropriate rules to determine what tariff to deduct (if any).
12.	Payment validation and the deduction of fair value will occur when fare media are tapped on a payment validator. Upon presentation, the validator will determine the appropriate fare based on the defined tariff, ride history (including fare accumulation for fare capping), the presence of any institution-specific fare products, and other attributes contained in the account such as discount eligibility

Response 59: All fare policies, calculation and implementation should be done on the Backoffice. For the above points, the validator should be replaced by the fare engine which runs on the CDS.

Inquiry 60: Unclear requirement – do buses have on board gateway routers (4G/LTE connectivity) or this has to be supplied by vendor? setup of the depot WiFi infrastructure requires site survey and all necessary planning – by our knowledge this can't be just estimated.

6.1.1.3 Network	
1.	Communication in the field will occur using the existing onboard routers' cellular connection. Field transactions will be processed within hundreds of milliseconds so that data is available virtually immediately. (Currently buses have no installed devices. Bidders should provide all devices and setup, configure to operate with the backend systems.)

Response 60: Buses have no devices installed. It is the responsibility of the Bidder to provide all the equipment's

Inquiry 61: Please clarify what is purpose of the ABT type system though but could be used for AVM and other systems that have bulk data transfers.

2.	Currently Operators are individual operators and they do not own a garage. Operators may use the LTRC garage. The Bidder should provide a solution to connect buses with the CDS with using a garage. The WiFi available in garages which is routable to the internet can be used to download system updates to vehicles. It is the bidder responsibility to offer Wi-Fi or/and dedicated link for depots/garages—for the purpose of processing operations data, not necessarily for use by riders The winning bidder shall supply, install, and configure Garage Communications Servers (GCSs) and wireless data networks at each of the garage facilities where the Client buss are parked and serviced. Via Wi-Fi communications, the Garage
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Response 61: The question is not clear

Inquiry 62: Is physical keypad necessary – in contemporary portable devices keypad is no longer necessary due to extremely high reliability of touch interfaces. Physical keypad limits number of devices, increases size and weight and bring no value to operations.

6.1.1.5 <i>Portable Handheld Fare Inspection Device</i>	
1.	The portable Handheld Fare Inspection Device is a light weight and user-friendly device that act as all in one. The device should have: (Please quote price for 10 devices) <ul style="list-style-type: none">• RFID• ability to read all fare media• Wi-Fi• GPRS, GPS• High-brightness resistive touchscreen and numeric or QWERTY keypad• Rugged

If validator has single SAM why portable handheld needs two?

•	Has two integrated Secure Access Modules (SAM) for secure transactions
•	Wireless LAN connectivity

Response 62: The numeric or QWERTY keypad is not mandatory.

Inquiry 63: We would like to propose alternative technology for the PIS since it will conform significantly better to the local conditions – our sister company Papercast with solar powered displays has track record to all major projects in the region from Abu Dhabi, Dubai, Kuwait, Makkah, ... Problem is they lock with below item to LED which is outdated technology.

6.1.5	Passenger Information System-PIS (Optional)
3.	<p>Display Screen on Bus Stations/ Terminal Points and some important Bus Stops</p> <p>Technical Requirement</p> <ul style="list-style-type: none"> LED Technology: SMD Matrix Format: Line Matrix LED Color: Amber Pixel Pitch: 6mm Viewing Angle (H/V): 120o/120o Brightness: >6000cd/m2 Lines: 2 Line Resolution: 128x7 pixels Characters per Line: 21 Brightness Control: 16 levels (automatic or manual) Mechanical: Aluminum Sides: Single Side, Angled Front Face Service Access: Front access with swing door Front Screen: Anti-reflective security glass - Protection: IP54 Color options according to RAL standards - Communication Interfaces: Ethernet, GPRS Operating Temperature: -20oC to +60oC Humidity: up to 95% RH LED Lifetime >100.000h Power Supply: 230 VAC/50 Hz Compliance: CE <p>All such outdoor equipment shall be equipped with automatic system alarm for security reasons.</p>

Response 63: For Optional modules, Bidders can provide alternatives with justifications

Inquiry 64: Can you please specify the requirements for the TVM machines? We need to know the required temperature range, IP (ingress protection) and IK (external mechanical impact protection) ratings, any required sensors, cameras etc.

The OBU shall not be connected to the Internet, it shall connect the bus business systems to the central system through a secure virtual private network through **Business Mobile Gateway Router (BMGR)**

Please confirm that Bidder has to supply ALL Business Mobile Gateway Routers, one for each driver console/OBU device

7- **6.1.2.1**

No. 3.

Based on password/user ID security, any authorized user will be able to download to any single device, any group of devices, and all devices:

- ☐ ☐ Fare tables (one active, two pending)
- ☐ ☐ New and updated application (executable) software files
- ☐ ☐ Security access codes
- ☐ ☐ Configuration files
- ☐ ☐ Operational parameters
- ☐ ☐ **New and updated customer display screen text**
- ☐ ☐ New and updated Driver display text and selections
- ☐ ☐ Any other information necessary for the operation and maintenance of the AFCS devices
- ☐ ☐ Authorized users will be able to select the date and time when any data download is to occur and to review and cancel any previously scheduled download.

Response 64: Refer to inquiry 38 for the specifications of the ATVM. The Bidder has to supply ALL Business Mobile Gateway Routers, one for each driver console/OBU device

3. JOINT-VENTURE AGREEMENT

JOINT-VENTURE AGREEMENT

اتفاقية ائتلاف

It is agreed on this day.....of.....2020
between:

تم الاتفاق في هذا اليوم الموافق 2020/ /

..... Represented by Mr.
..... Represented by Mr.
..... Represented by Mr.

..... ويمثلها السيد
..... ويمثلها السيد
..... ويمثلها السيد

1- To form a Joint Venture to execute the services specified in the Contract of the Tender No.(.....) which was signed or to be signed with the Employer.

1- على تشكيل ائتلاف فيما بينهم لتنفيذ خدمات عقد العطاء رقم المبرم أو الذي سوف يبرم مع صاحب العمل.

2- All parties of the Joint Venture shall be obliged to perform all services agreed upon with the employer which are specified in the tender contract, and they are jointly and severally responsible for all services related to tender no. (/ /) and the contract pertaining thereto. Should one party fail to or delay to perform its obligations either partially or totally, it shall be the responsibility of all other parties jointly and severally without reservation to execute all obligations set under the contract with the Employer to the same standards specified by the contract .

2- يلتزم جميع أطراف الائتلاف بإنجاز جميع الخدمات المتفق عليها مع صاحب العمل والمنصوص عليها في عقد العطاء ويكونون متضامنين ومتكافلين في مسؤولياتهم نحو صاحب العمل فيما يخص كافة الخدمات المتعلقة بالعطاء رقم (/ /) والعقد الخاص به. وفي حالة تخلف أو تأخر أحد أطراف الائتلاف عن إنجاز المسؤوليات المناطة به تنفيذها جزئياً أو كلياً يلتزم بقية الأطراف مجتمعين و/ أو منفردين دون تحفظ بإنجاز جميع الالتزامات المحددة بالعقد الموقع مع صاحب العمل بالشكل المتفق عليه في العقد.

3- The parties to the Joint Venture nominate as leader of the Joint Venture. Any correspondence between the Employer and the parties to the Joint Venture shall be addressed to this leader.

3- يعين أطراف الائتلاف رئيساً للائتلاف، لإدارة العطاء رقم (/ /)، وأي مراسلات تتم بين صاحب العمل والائتلاف، التجمع، أو المشاركة توجه إليه.

4- The parties to the Joint Venture nominate Mr..... as a representative of the leader. He is authorized to sign, on behalf of the Joint Venture, all documents and contracts related to tender no. (/ /), and to represent the Joint Venture before all competent courts and non-official bodies in all contractual, administrative, financial and legal issues related to tender no. (/ /) and the contract pertaining thereto.

4- يسمي أطراف الائتلاف السيد ممثلاً لرئيس الائتلاف ومفوضاً بالتوقيع نيابة عن الائتلاف على كافة الأوراق والعقود الخاصة بالعطاء رقم (/ /) وبتمثيل الائتلاف أمام المحاكم المختصة والدوائر الرسمية وغير الرسمية في كافة الأمور العقدية والإدارية والمالية والقضائية المتعلقة بالعطاء رقم (/ /) والعقد الخاص به.

5- The parties to the Joint Venture have no right to terminate this agreement until the services awarded to them by the contract to this tender are completed and shall remain responsible before the employer until the services are finally taken over as per the conditions of taking over specified in the Tender/ Contract documents and they should not substitute the leader's representative before getting the written approval of the Employer.

5- لا يحق لأطراف الائتلاف أو أي طرف فيه فسخ الائتلاف فيما بينهم إلا بعد انتهاء الخدمات المحالة عليهم بموجب العقد الخاص بهذا العطاء وتكون مسؤولياتهم تجاه صاحب العمل قائمة إلى حين تسلم الخدمات استلاماً نهائياً حسب شروط الاستلام المحددة في وثائق العقد/العطاء كما لا يحق لهم تبديل ممثل رئيس الائتلاف إلا بعد اخذ موافقة صاحب العمل الخطية..

- 6- This agreement is written in both Arabic and English Languages. Should any discrepancy in interpretation arise, the Arabic text shall be considered the authentic.
- 6- حررت هذه الاتفاقية باللغتين العربية والإنجليزية. في حال نشوء أي اختلاف في تفسير أي من بنودها، تعتبر لغة العقد المعتمدة هي اللغة العربية وملزمة للطرفين.

الطرف الثالث

الطرف الثاني

الطرف الأول

Third Party

Second Party

First Party

توقيع الشخص المخول بالتوقيع
قانونياً

Signature of
Authorized
Personnel

الخاتم المعتمد
Seal

.....

.....

.....

.....

.....

.....

Notary Public Certification

تصديق كاتب العدل

4.The Pre-Bid Conference presentation