



The Hashemite Kingdom of Jordan

Land Transport Regulatory Commission



**RFP # 7/2010
Amendments and Responses to Vendor Inquiries**

**Develop and Implement Intelligent Transportation System
for the Public Transportation Sector**

January 3rd 2011

1. Amendmentsto the RFP

A) Scope of Work

2.2 Electronic Fare Collection System

“A flat fare system will be used” will be replaced by:

A route fare system will be used. Each route has its own fare according to the length of the route; some routes are divided into sub-routes.

The fare collection system must enable the driver/controller/operator to make a selection from a list of possible sub-routes served by the bus in order to deduct/charge the appropriate fare and generate a receipt ticket.

2.2.1 STORED-VALUE SMART CARDS

- *The stored-value smart card is a contactless smart card that operates as an RFID system with a proximity range of around 10 cm. It should have a 1K bytes EEPROM chip (minimum) and be compliant with ISO 14443 standards and ITSO or Calypso specifications. This card can be personalized.*
- *The card must comply with size ID-1/ISO 7810 standard and ITSO or Calypso specifications.*

Will be replaced by:

- The stored-value smart card is a contactless smart card that operates as an RFID system with a proximity range of around 10 cm. It should have a 1K bytes EEPROM chip (minimum) and be compliant with ISO 14443. This card can be personalized.
- The card must comply with size ID-1/ISO 7810 standard.
- The proposed solution must comply with an international standard for interoperable smart card solutions within the transportation sector (e.g. ITSO)

2.2.2 TICKETING/ COLLECTION UNIT

CASH TRANSACTIONS

- *The collection box will accept only coins.*
- *Giving back change on the bus (through the collection box) is a preferred option.*
- *Insertion of foreign currency and non-monetary objects will be detected and rejected.*
- *The collection box will also print out a receipt with route information and paid fare that the passenger should keep in possession while on board the bus, in case of an inspection.*

- *Coins will be stored in a protected safe with a lock that is extremely hard to unlock by manual tools. Removal will be administered by authorized personnel.*

Will be replaced by:

- The collection box will accept all Jordanian monetary denominations (coins and bills).
- The driver/controller/operator will verify the amount of money placed by the rider.
- The driver/controller/operator will trigger acceptance of the amount tendered and the generation of the ticket.
- Upon confirmation of the amount tendered, the collection box will print out a receipt with route information and paid fare that the passenger should keep in possession while on board the bus, in case of an inspection.
- Cash will be stored in a protected safe with a lock that is extremely hard to unlock by manual tools. Removal will be administered by authorized personnel.

Contract Duration

- The duration of the contract under this RFP is four (4) years.
- All terms in the Arabic contract will reflect this new duration.

Project Implementation Phases

5.1 Project Implementation Phases

Phase	Description	Duration
Phase 1	JUST, The Hashemite University, Al-Hussein Bin Talal University(including the control room)	6 Months
Phase 2	Remaining Public University-Bound Routes	3 Months
Phase 3	Non-University-Bound Inter-Governorate Routes	9 Months
Phase 4	Internal Non-University-Bound Routes (half of the buses detailed in table 5.1.2)	6 Months
Phase 5	Internal Non-University-Bound Routes (the remaining number of buses detailed in 5.1.2)	6 Months

Number of Vehicles Included in this RFP

- The approximate number of buses included in this RFP is: 4,441
- The tables below detail amendments to those included in the RFP. Please note that Table “5.1.2 Non-University-Bound Internal Routes” remains the same.

5.1.1 Public University-Bound Routes

University	Vehicle Type (Bus Size)	Number of Vehicles		Number of Students
		Route Ending at University	Route Passing by University	
JUST	Large	48		18600
	Medium	54	5	
Al-Hussein Bin Talal University	Large	15		6800
	Medium	3		
The Hashemite University	Large	120		15618
	Medium	4		
The University of Jordan	Large	25	2	27795
	Medium	61	9	
Yarmouk University	Large	4		27298
	Medium	16	6	
Al-Albait University	Large	36	1	12314
	Medium	41		
Mo'ta University	Large	1	18	16124
	Medium	54	26	

5.1.3 Non-University-Bound Inter-Governorate Routes

Vehicles traveling between governorates	Vehicle Type	Number of Vehicles	# of Operators	
			Individual	Company
	Medium	1001	895	27
	Large	502		

B) Joint Venture Terms

The below amendments replace specific sections related to Joint Venture Terms. All other terms remain the same as mentioned in the RFP.

Amendments to Legal Terms(*parts of legal terms*)

- If the Bidder decides to form a joint venture, the joint venture members must furnish in their technical proposal letters of commitment on a form similar to the attached format in Appendix 5.4 signed by a duly authorized personnel (the authorization shall be indicated by duly-legalized power of attorney authorizing the execution of such commitment and attached within the technical proposal) stating that if the bid is awarded to the joint venture; each member in the joint venture commits itself to sign the sample joint venture agreement attached in Appendix 5.4 in front of a notary public in Amman, Jordan within (10) calendar days as of the date of award notification and before signing the Contract; otherwise LTRC is entitled to forfeit the bid bond whether it is in the name of all partners to the joint venture or in the name of any of the joint venture partners. Each partner in the joint venture shall be a business organization duly organized, existing and registered, and in good standing under the laws of its country of domicile. The Bidder must furnish evidence of its structure as a joint venture including, without limitation, information with respect to:
 - the legal relationship among the joint venture members that shall include joint and several liability to execute the contract; and
 - the role and responsibility of each joint venture member
- The Bidder must nominate a managing member (leader) for any joint venture which managing member will be authorized to act and receive instructions on behalf of all the joint venture members
- All bidders should duly sign the joint venture agreement attached to this RFP under Appendix 5.4 by authorized representatives of the joint venture partners without being certified by a notary public and to be enclosed in the technical proposal in addition to authorization for signature on behalf of each member. Only the winning bidder partners in a joint venture should duly sign the joint venture agreement attached to this RFP under Appendix 5.4 by authorized signatories and this agreement is to be certified by a Notary Public in Jordan

Amendments to Financial Terms(parts of financial terms)

- The proposal security of a joint venture may be in the name of all members participating in the joint venture submitting the proposal or in the name of one or more members in the joint venture.
- The proposal security may, at the sole discretion of the tendering committee, be forfeited: (i) If the vendor withdraws its proposal during the period of proposal validity as set out in the RFP; or (ii) in the case of a winning vendor, if the vendor 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.

Amendments to 4.2 Response Format(part of response format)

Note:Where some skills, services or equipment are not available, the bidder is expected to join venture or sub contract with a reputable firm to cover for this specific skill, services or equipment provided that all partners of the joint venture will be jointly and severally responsible towards the employer. In case of sub-contracting, the subcontractor has to be approved by LTRC and the contractor will be liable for all works performed by the sub-contractor.

<End of Amendments>

2. Responses to Inquiries

Inquiry 1: Kindly we have just one question at this moment regarding the ITS tender about the busses specifications & layout.

Response 1: Large vehicles refer to buses carrying 30 or more passengers. Medium vehicles refer to busses carrying 9-29 passengers.

Inquiry 2: Does the machine need to be both ISO 14443 standards and ITSO compliant or just any one?

Response 2: The smart card readers/writers need to be able to communicate with the proposed smart cards. For store-value smart card specifications please refer to the amendment.

Inquiry 3: Do you want the machine to refund change of coins? Many country makes change non-refundable to increase government revenue.

Response 3: No. Please refer to the Amendment.

Inquiry 4: What is the number of smart card needed in the initial phase and likely annual requirement?

Response 4: No ridership statistics exist.

Inquiry 5: Please reconfirm that the total Number of Buses is: 4,476.

Response 5: Please refer to the Amendment.

Inquiry 6: After proposals are studied, selected vendors will be contacted to provide a presentation of their suggested solution. When will the selected vendors be contacted? What will be the subject of the demonstration? (Real working validator demo?)

Response 6: Selected vendors will be contacted within four to six weeks from the final date of receiving vendors' proposals. Demonstrations will include a walk-through presentation of the proposed solution, as well as a live demonstration, with the possibility of a question and answer session.

Inquiry 7: The winning vendor must propose a solution that is modular and capable of easily expanding on the available features (e.g. inclusion of a panic button, vehicle immobilizer, and hands-free voice communication). The winning vendor must coordinate the procurement of the database licenses with LTRC. Expansions have an effect on the

overall cost of the project. Price offers will be prepared according to the minimum requirement to give the best price. How can we foreseen the expansions?

Response 7: The proposed solution must be capable of supporting additional features and expanding the number of vehicles managed by the fleet monitoring system. The information systems (e.g. software, database...etc.) included within the proposal must be capable of addressing such expansions. However, any additional hardware needed for the expansion (e.g. tracking units, vehicle immobilizer units...etc.) is not part of the current scope.

Inquiry 8: Systems are to be built using open standards and interoperability. Which open standards? Which interoperability?

Response 8: Open standards refer to publically-available specifications without any restriction to access or to implement regarding any communication, interconnection, or interchange protocol, and any interoperable data format used.

Inquiry 9: Vehicle status data should be batch processed and transmitted using GSM or GPRS (if there is sufficient coverage) communication channels on intervals set by the system administrator (approx. every 2 minutes). Who will pay for communication costs?

Response 9: According to section "2.3.5 FINANCIAL ACTIVITIES" "GPRS or any suggested communication system operational cost will be the responsibility of the Clearing House"

Inquiry 10: The system must be redundant and fault-tolerant. Where is BOQ for servers and other system equipment? Building up a disaster recover center highly affects the cost. There should be minimum requirements for the other system components so that all vendors must satisfy those conditions and prepare their offers under equal conditions.

Response 10: The BOQ for the servers and other equipment needed is the responsibility of the vendor. In this RFP, disaster recovery refers to the practice of maintaining adequate data backups in accordance with best practices. Servers and other equipment related to the control room will be housed within LTRC.

Inquiry 11: Map updates are required as soon as they are available. All maps used in the proposed solution must be approved by Jordan Geographic Center. Who will provide digital maps? Is it part of quotation?

Response 11: It will be the responsibility of the winning vendor to provide and purchase all necessary maps needed for the proposed solution.

Inquiry12:A flat fare system will be used, all fares to be determined by LTRC. Changes to fares will be pushed to the Electronic Fare Collection Systems on buses via GSM. How will be the system providing solutions for the passengers who use the long routes? Is there a possibility to use distance based fare collection method for longer routes?

Response 12:Please refer to the Amendment.

Inquiry13:The stored-value smart card is a contactless smart card that operates as an RFID system with a proximity range of around 10 cm. It should have a 1K bytes EEPROM chip (minimum) and be compliant with ISO 14443 standards and ITSO or Calypso specifications. This card can be personalized. Vendor will supply cards with ISO14443 and ITSO compliant. Is it possible to supply these cards with mapping different from ITSO specifications?

Response 13: Calypso is not a specific requirement of this RFP. Please refer to the Amendment.

Inquiry 14:In case the Government adopts a national ID smart card with an e-purse application, riders will be able to use their IDs for electronic fare payment. For integration, vendors will need the protocol to be open. Will LTRC provide the protocol?

Response 14: In the event of developing an e-purse application, it will be compatible with the ITS.

Inquiry 15:The unit will include a smart card reader/writer, a ticket printer, and a cash collection box. It is very hard to make daily operation to collect cash from the collection boxes. How will you cope with this? We recommend canceling cash collection. We can propose some other mechanisms which will be better than cash collection.

Response 15: Cash collection will be the responsibility of the bus operator.

Inquiry 16:Giving back change on the bus (through the collection box) is a preferred option. How can you investigate the offers if some items are optional? Optional items highly affect the price quotation.

Response 16: Optional features must be clearly labeled in both technical and financial proposals. Giving back change is no longer required. Please refer to the Amendment.

Inquiry 17:The CMS will provide inventory management. Give us more information about inventory management system.

Response 17: The array of information stored will be determined during the analysis phase of this project.

Inquiry 18:The vendor will propose a mechanism for re-loading smart cards online (optional). Again optional items which may affect the price quotation. How will you investigate the offers fairly?

Response 18: Please refer to Response 16 above.

Inquiry 19:It is expected that the vendor will propose equipment and software that are successfully tried and tested on systems used internationally. How the vendors will prove their references? What will be the minimum reference criteria to participate to the tender?

Response 19: References should briefly describe the services provided along with the contract period. Vendors are expected to indicate similar projects they are currently involved in or have completed in the past five years. As a minimum, a list of current and previous projects must include the countries, the value of each project, number of vehicles monitored, and the number of cards produced. Vendors are also expected to complete the table below.

Client Name	
Address of Client Company	
Principle Contact Officer's Full Name	
Position Title	
Telephone Number	
Email Address	
Indicative Economic Size of Contract	
Date of Commencement	
Duration of Contract	
Project Completion Date	
Nature of Service Provided	
Contract Value	

Inquiry 20: It is expected that the vendor will propose equipment and software that are successfully tried and tested on systems used internationally. When will those materials be supplied?

Response 20: Inquiry 20 is unclear.

Inquiry 21:System upgrades or software updates will be provided as part of this RFP contract. How long will those upgrades be valid?

Response 21: The vendor is responsible for providing all software upgrades for the duration of the contract.

Inquiry 22:There is a fare collection system in Amman. How will be the integration possible with this system?

Response 22: Any future fare collection system is expected to be compatible with the specifications included in this RFP.

Inquiry 23:Article 4.6 : The vendor must furnish evidence of its legal structure as a single company or as a joint venture including, without limitation, information with respect to the legal relationship among the joint venture members that should include joint and several liability to execute the contract; and the role and responsibility of each joint venture member. Which documents are satisfactory to explain legal status for Joint Ventures? Should a Joint Venture formed for this tender be registered in Jordan?

Response 23: At this stage, the form on page 62 of the RFP should be signed at the country of each vendor. The winning vendors should register the joint venture in Jordan and sign the form on page 63 of the RFP document.

Inquiry 24:The cost summary must provide a fixed lump sum price in Jordan Dinars for the overall scope of work and deliverables including all fees and taxes (including sales tax). Does Sales Tax mean V.A.T.? Will the responsibility of importing all the goods from Jordanian Customs and paying all the custom duties and taxes be within the responsibility of vendor?

Response 24: Please refer to Jordanian laws related to taxation and customs. The vendor is responsible for paying all applicable taxes and customs.

Inquiry 25:The proposal security of a joint venture must be in the name of all participants in the joint venture submitting the proposal. Can each member of JV submit a separate proposal security where all the securities sums up to the amount required by the tender from the vendor? Can we get the text of the security?

Response 25: Please refer to the Amendment.

Inquiry 26:Vendors must take into consideration that payments will be made as specified in the tender documents and will be distributed upon submission and

acceptance of the scope of work and of the deliverables and milestones of the scope of work defined for the project by the first party. Who is the first party? Can we get payment terms including payment intervals?

Response 26:LTRC is considered the “First Party”. Please refer to the sample Arabic agreement in Appendix 5 for the terms of payment.

Inquiry 27:A business registration certificate should be provided with the proposal. Is this document required for JV or the members of JV showing their registration in their countries if not registered in Jordan?

Response 27: This is required of each member of the Joint Venture. Please refer to Response 25.

Inquiry 28:All prices should be quoted in Jordanian Dinars inclusive of all expenses, governmental fees and taxes, including sales tax. Will the payments be made in terms of Jordanian Dinars?

Response 28: Yes.

Inquiry 29:The winning vendor will pay the fees of the RFP advertisement issued in the newspapers. What could be the total cost of such advertisement?

Response 29: The approximate cost of the advertisement is JOD 5,200.

Inquiry 30: Reference to Section 2.1.2 Functional Requirements “The fleet monitoring system should be scalable to track 4000 buses simultaneously through the control room based in LTRC”. Kindly provide us with the total number of buses that the system should track.

Response 30: Please refer to the Amendment.

Inquiry 31:Reference to Section 2.2.1 Stored Value Smart Cards. Please advise if there is any special requirement regarding the cards material.

Response 31: No special material is required so long as the cards abide by the specifications and durability set forth in the RFP.

Inquiry 32:Please advise for the recommended language of the technical and financial proposals have to be submitted from the vendor side.

Response 32:English.

Inquiry 33: Article 2.4.2: Are there any national security regulations to be taken into account? If yes, could you please identify them?

Response 33: This inquiry is irrelevant.

Inquiry 34: What is the intent of the Real Time Passenger Information System (RTPIS) in terms of business goals? Understanding this will help us present the best possible solution.

Response 34: Inquiry 34 is unclear.

Inquiry35: We see that it is important that the Central Clearing House (CCH) be able to function for multiple operators (there are many bus operators), multiple modes of transport and multiple business rules. What other modes of transport do you foresee joining the system?

Response 35: Please abide by the scope of this RFP.

Inquiry36: Does the CCH have to be able to process in excess of 10 million transactions a day? From the possible patronage growth numbers for the city of Amman and including different modes, it is important to know the processing volume for the CCH as well as the growth in that volume over time.

Response 36: Please refer to Appendix 5 of this RFP.

Inquiry37: DESFire smartcards and their variants are the mainly used smartcard option in fare collection projects today based on what we have seen globally. Can the system present a DESFire-only card and why is Calypso a requirement if DESFire can be used?

Response 37: Please refer to the Response 13.

Inquiry38: Should the CCH have to produce reports for each operator as well as a combined report?

Response 38: This will be determined during the analysis phase of the project.

Inquiry39: Does the CCH have to meet specific financial auditability standards?

Response 39: The Clearing House is subjected to financial auditing.

Inquiry40: Are the full terms of the contract available in English?

Response 40: No.

Inquiry41: Most international firms do not provide background Intellectual Property (IP previously owned by the firm), but do provide foreground IP (IP developed specifically for this project). What is your view on this? Will foreground IP only be acceptable to you? Will you consider a license-only approach?

Response 41: Please refer to the Arabic Agreement in Appendix 5.

Inquiry42: Is it essential that the Graphical User Interface (GUI) and graphics are in Arabic as this will add cost to the project?

Response 42: Yes, this is a requirement of the RFP.

Inquiry43: We require information on how you conduct your bus schedules and what software package is used to manage those schedules

Response 43: No available information exists.

Inquiry44: Are there other documents which form part of the tender documentation other than the RFP document?

Response 44: The tender documentation at this phase comprises of the RFP, the amendments, and the responses to vendors' inquiries.

Inquiry45: Is it required to have the Fare Collection Information available on the back office/system on real time base for the vehicles?

Response 45: According to section "2.2.2 TICKETING / COLLECTION UNIT" "The unit will transmit data/log to the back office in synchronization with tracking information update."

Inquiry 46: فيما يتعلق بعدد الباصات التي سيتم تجهيزها ليطبق عليها أنظمة النقل الذكية في قطاع النقل العام. هل أن العدد الوارد في دعوة العطاء والبالغ ٤٤٧٦ باص (متوسطه وكبير) يستوجب تجهيزها؟ وان كان هذا العدد قابل للزيادة وما نسبتها؟

Inquiry 46 Translation: "According to the RFP, the total number of medium and large buses is 4,476. Are all these buses going to be equipped? And will the number of busses increase and by how much?"

Response 46: Please refer to Response 5.

Inquiry 47: إذا كان بالإمكان تمديد فترة قبول الإستفسارات لغاية ٨/١/٢٠١١ لغايات إجراء بعض الدراسات؟

Inquiry 47 Translation: "Is it possible to extend the inquiry period until 8/1/2011 to conduct additional analysis?"

Response 47:No.

Inquiry 48: إذا كان بالإمكان معرفة أسماء الشركات المشاركة في العطاء.

Inquiry 48 Translation: "Is it possible to share the names of the other vendors who purchased this RFP?"

Response 48:Yes, please see the table below.

رقم	اسم الشركة	هاتف الشركة
١	الملتقى للحلول التكنولوجية	٥٦٧١٥٢٢
٢	نافذ للخدمات اللوجستية	٥٥٦٣٦٢٩
٣	شركة عبر الشمال لتمثيل الشركات والفبارك	٠٢٧٢٥١١٢١
٤	المتكاملة للبطاقات الذكية	٥٨١٣٥٠٩
٥	الشركة الاردنية الدولية للحماية	٥٠٦٣٧٥٢
٦	مؤسسة حاويش للاكترونيات	٥٨٢٠٩٢٧
٧	الشركة الاهلية للكمبيوتر	٥٦٢٩٩٩٩
٨	الشركة العربية للحلول المتخصصة	٥٦٧٩٦١٦
٩	شركة تطوير الاتصالات	٥٨١٥٧٠٧
10	الباحث للتكنولوجيا	٥٣٣٤٦٨٠
11	شركة المحركات الاردنية الحديثة	٥٦٧٢٢٩٢
12	مؤسسة الشخثوري التجارية	٥٦٥١٠٥٧
		٠٧٩٥٥٢٠٥٦٥
13	شركة المشرق للتقنية والاعمال	٥٨٨٥١٨٥
		٠٧٩٦٧٥٠٦٠٨
14	اتحاد المستشارين للهندسة والبيئة	٤٦١٢٣٧٧
15	شركة الدفاع لتكنولوجيا انظمة الحماية	٥٨٥١٦٦٦
		٥٨٥٣٣٣٧
16	غسان الخطيب وشريكته(المستشارون للمعلومات والادارة المتكاملة)	٥٦٨٨٤١٨
		٥٦٠٣٤٥٠
		٥٦٩١٨٧٢
17	الشركة المتخصصة للخدمات التقنية	٥٦٦٦١٢٧
		٠٧٩٦٧٠٣١٣١
18	الشركة الدولية لتجارة الهواتف المتنقلة	٥٦٠٧٧٤٤
19	شركة الخدمات الامنة لصناعة البرمجيات	٥٨٥٧٥٥٣

Inquiry 49: Are there any statistics with regards to passenger's number and passenger profile, on the appropriate routes, available at the LTRC that can be provided to the bidders?

Response 49: The only available statistics have been included in Appendix 5.

Inquiry 50: Is there a possibility to obtain the FULL fare structure information relevant to the routes within the tender?

Response 50: This information will be given to the winning vendor.

Inquiry 51: Is the LTRC exempted from customs?

Response 51: No

Inquiry 52: Does the bidder have to include a prototype stage in Phase 1?

Response 52: The winning vendor must conduct a thorough requirements gathering, analysis, system design, and prototype prior to implementing phase 1.

Inquiry 53: Is it possible to negotiate the number of buses and operators involved in Phase 1?

Response 53: No.

Inquiry 54: Questions regarding Section 2.1.4

Inquiry 54 a: "When computing the shortest path, LTRC should be able to consider external factors (e.g. traffic jams, detours etc.) It is our understanding that obtaining information about these external factors are not the responsibility of the bidder, Please confirm.

Response 54 a: LTRC system administrator/user must be able to reflect external factors on the ITS system described by this RFP.

Inquiry 54 b: "The vendor shall obtain any necessary licenses or approvals from the TRC". Can you please inform us if there are any specific licenses, that are currently known to the LTRC, that that the bidder should obtain from the TRC?

Response 54 b: Vendors are advised to contact TRC to inquire about any required licenses.

Inquiry 55: Questions regarding Section 2.1.6. Using a hosted solution (for automatic fare collection and clearing house systems) at specialized cloud computing centers can reduce the costs of purchasing and operating the system. Will LTRC consider such an option? Can the bidder offer this as an optional module? If yes, is a specialized computing center outside Jordan a possibility? It is important to point out that the control room operation will still be at the LTRC premises even when using the hosting option.

Response 55: No.

Inquiry 56: Questions regarding section 2.2.1. Is there any available information regarding the national ID smart card available (e.g. standards, who will be the owner of the e-purse of the National ID card)?

Response 56: This inquiry is irrelevant.

Inquiry 57: Questions regarding section 2.2.2

Inquiry 57 a: Will a modular offer be accepted? Meaning can the bidder submit a solution of different modules (in the technical section) with different pricing for each module (in the financial section)?

Response 57 a: Inquiry 57a is unclear.

Inquiry 57 b: As for the general on-board architecture, there is only a mention about a Ticketing/Collection unit. On top of it, there is also a need for a driver terminal where the drivers open/close its shift. Please confirm.

Response 57 b: This can be addressed in the requirements gathering and analysis phase.

Inquiry 58: Questions regarding section 2.2.4. Can the LTRC provide a list of bus stops per route?

Response 58: This information will be made available to the winning vendor. However, LTRC system administrator/user must be able to reflect bus stops on the ITS system described by this RFP.

Inquiry 59: Questions regarding section 2.3

Inquiry 59 a: Is collecting **cash** payments from the vehicles and distributing the **CASH** receivables to the operators a responsibility of the clearing house? Or is

the clearing house responsible only for funds obtained through smart cards selling and usage?

Response 59 a: The Clearing House will only be responsible for monetary transactions using the smart cards.

Inquiry 59 b: Will the sale price of the smart card include a markup to cover the cost of purchasing, and managing the purchase and inventory management of smart cards?

Response 59 b: LTRC will determine the final sale price of the smart cards to bus riders. It is expected to range between JOD 1.500 and 2.000 preloaded with a minimum balance of JOD 0.500.

Inquiry 59 c: Is card reloading required in the buses?

Response 59 c: Please refer back to section "2.3.2 SALES CHANNELS".

Inquiry 59 d: As far as we understand, the stored value of the card will be the only interoperable product. If card reloading is not required in the buses, then the operators can continue to keep the cash collected by the drivers (this cash does not have to be collected by the CH in order to be allocated to different operators). In such case, what would justify a fare box in the buses? This will affect the complexity of the solution.

Response 59 d: Please refer back to section "2.3.2 SALES CHANNELS".

Inquiry 59 e: Could you please confirm that flat fare is the only required fare product? In such case, the customers with a fare card will only tag on when they board the buses. The operators will receive from the CH a fixed amount for each tag on. This has a huge effect on the clearing house requirements.

Response 59 e: Please refer to Response 12.

Inquiry 59 f: The management of the e-purse of a National ID card would require a very complex clearing system. Does the bidder have to provide such a clearing system now?

Response 59 f: The scope of a national ID e-purse is beyond the scope of this RFP.

Inquiry 59 g: Is there estimation to the number of smart cards needed?

Response 59 g: Ridership statistics do not exist.

Inquiry 59 h: Is there any statistics available with regards to the **total** number of passengers?

Response 59 h: Please refer to Response 59 g.

Inquiry 59 i: The specs require for cards to be compliant to ITSO and Calypso. ITSO is very large and Calypso is very specific. Is Calypso mandatory or is Mifare technology also a possibility?

Response 59 i: Please refer to Response 13.

Inquiry 59 j: When is the starting date for the 3 year contract? Does the 3- year contract include the installation phase?

Response 59 j: From the date of the commencement order. Yes the three years include the installation phase. Please refer to section "5.3 Arabic Agreement". Also please refer to the Amendment for contract duration.

Inquiry 59 k: Will an option to extend the 3 year contract be available?

Response 59 k: Contract duration has been amended to become 4 years. Please refer to Article 7 of the Arabic Agreement included in the RFP for extension terms.

Inquiry 59 l: What are the options to deploy controllers on the buses to ensure that passengers are paying the trip fare? And whose responsibility is it? If it is the LTRC responsibility then can you please specify the number of roving inspectors, to be equipped with a portable card checking device?

Response 59 l: This will be the operator's responsibility.

Inquiry 60: Questions regarding section 2.4.5. Who will be responsible for damages to equipment as a result of vandalism? Who will pay the cost of replacing the unit in such a case?

Response 60: Equipment that have been installed and officially accepted by LTRC are no longer the responsibility of the vendor with respect to vandalism.

Inquiry 61: Questions regarding section 3.2. The bidder needs to provide in the proposal a gap analysis. In that perspective, could you please describe shortly the existing Fleet monitoring system, Data room for servers, Control room (if any).

Response 61: Currently there is neither a fleet monitoring system, nor a datacenter and control room.

Inquiry 62: What are the business situations that accept Refund transactions?

Response 62: This will be determined during the analysis phase of the project.

Inquiry 63: The coin acceptor, how many coin denominations can be accepted? And which categories?

Response 63: Please refer to the Amendment.

Inquiry 64: In section (2.3.1), it is mentioned "The sale price of these stored-value smart cards will be determined by LTRC.", so please provide us with the equation of card selling price?

Response 64: Please see Response 59b.

Inquiry 65: Can the vendor manage the card product's pricing by coordinating with LTRC for doing offers?

Response 65: Yes, after getting LTRC's written approval.

Inquiry 66: Blocking of Anonymous cards is not accepted, so please confirm, otherwise, please elaborate the business scenario.

Response 66: Confirmed.

Inquiry 67: In 1.3 Project Objectives (page 6), objective number five: "*Monitor vehicle capacity utilization*" Do you require that monitoring bus capacity will require detecting passengers as they disembark from any bus door?

Response 67: No.

Inquiry 68: In section 2 Project Scope of Services (page 7): "*A lost registered card may be reported then disabled, and refund, minus a processing fee, can be issued to the cardholder.*" We understand this is applicable for personalized smart cards, because we

can ask for the cardholder ID, but what is the mechanism of validating the ownership of anonymous smart card holder in such a case?

Response 68:Please refer to Response 66.

Inquiry 69:In 2.1.1 Environment Overview (page 8), point number two: “*Decentralized client-side*” **Q:** Can the decentralized client side be web browser based, including the GIS application?

Response 69:Yes. The GIS application is not part of this RFP’s scope.

Inquiry 70: In 2.1.2 Functional Requirements (page 8), requirement number one: “*the fleet monitoring system should be scalable to track 4000 buses simultaneously through the control room based in LTRC.*” While in section 5.2 the sum of all vehicles is approximately 4500 buses. **Q:** Please clarify the maximum capacity that the fleet monitoring system should be able to monitor simultaneously?

Response 70:Please refer toResponse 5.

Inquiry 71: In 2.1.6 Control Room(page 11), Paragraph number 3: “*control room operators should be able to transfer maps, information, or any part of it, to any monitor connected to the system according to the authorization level*” **Q:** Please clarify what do you mean by transfer here?

Response 71: Transfer refers to the ability to view particular maps/sections on specific monitors.

Inquiry 72:In 2.4.1 System Architecture (page 17), paragraph number 3: **Q:** We could not get the best practices of Software Development as mentioned in the link?

Response 72: Copy the link into a web browser and click on “General Standards for Software Development V1”.

Inquiry 73: In section 3 RFP Response Components (page 21), paragraph one: “*All final documentation deliverables of the project are required to be prepared in both English and Arabic languages. The sign-off and approval will be given on both Arabic and English language deliverables for the deliverables that are required bilingual*” **Q:** These 2 statements contradict with each other. Some documents, such as technical ones, may be impractical and quite costly to deliver in Arabic, and may add no value. This is the case for most of the interim documents used to develop the systems.

Technical support and Operations Manuals are more suitable to be delivered in both languages. Please clarify.

Response 73: There is no contradiction in the quoted statement. Documents purely technical in nature do not need to be translated into Arabic.

Inquiry 74: In 3.3 Information Security (page 24), "the vendor is required to deliver a ..., and a Disaster Recovery Strategy." **Q:** Where is the envisioned DR Data Center location? And which entity will assume the costs of communication.

Response 74: Please refer to Response 10.

Inquiry 75: In 4.5 Financial terms (page 30), Paragraph 7: "The vendor shall submit a proposal security (tender bond) on a form similar to the attached form ..."

Q: Proposal security (tender bond) form couldn't be found in any of the appendices?

Response 75: No specific form will be used. The tender bond must include its value and duration (validity). The tender bond must be effective as of the date of the proposal deadline.

Inquiry 76: **Q:** Is there a data center available at LTRC, if Yes, does it have the standard specifications of a data center? If No, will the data center room be near the Control Room? And do we have to include its cost as part of the bid, including the preparation of the room?

Response 76: As part of this RFP, vendors are neither required to build a datacenter, nor a control room. Vendors are required to equip and setup the control room according to section "2.1.6 CONTROL ROOM" of this RFP.

Inquiry 77: **Q:** Can we quote price of 3-year Operations of Clearing House in terms of % of transaction values and/or fee per transaction. This is how CH's work.

Response 77: No.

Inquiry 78: **Q:** Who will be responsible to get the written approval from Bus owners to do the required preparations before installing AFC devices?

Response 78: LTRC will be responsible for this.

Inquiry 79: Q: What are the legal and financial frameworks against which a bus owner or merchant can be penalized for tempering or deliberately destroying a device? Also please clarify what are the legal and financial frameworks in case of bus accidents?

Response 79: Equipment that have been installed and officially accepted by LTRC are no longer the responsibility of the vendor with respect to accidents.

Inquiry 80: Q: Are there any regulations that enable LTRC to enforce this system onto bus owners?

Response 80: This will be the responsibility of LTRC.

Inquiry 81: Q: Please clarify who is responsible for consumables as paper for tickets at the merchant and bus side, as well as consumables in the Control Room?

Response 81: The Clearing House.

Inquiry 82: Q: A Clearing House (CH) will require a Call Center to support merchants and bus owners. Do we need to include the Calling Center hardware system in the bid? Do you require that the Call Center be in the Control Room? Will the CH Operator Call Center employees stay at the Control Room?

Response 82: Please refer to section "2.3.6 CUSTOMER SERVICE". If the vendor includes a call center as part of their technical proposal, this will not be hosted in the control room.

Inquiry 83: Q: what is the expected passenger numbers in peak days and on average?

Response 83: Please refer to Response 49.

Inquiry 84: Total number of busses. Please confirm that the total number of busses to be controlled and that need to have the fare collection equipment installed on them are as follows:

JUST, The Hashemite University, Al-Hussein Bin Talal University (including the control room)	245
Remaining Public University-Bound Routes	264
Non-University-Bound Routes	2389
Vehicles travelling between governorates	1560
TOTAL	4458

Response 84: Please refer to Response 5.

Inquiry 85: Total number of busses for Regions. On page 39 of the tender book, the busses are distributed by cities. Can you confirm which cities are in Northern Region, Southern Region or Central region as per 5.1?

Response 85: Please see the below map and refer to the Amendment for the amended project phases.



Inquiry 86: Total number of busses. Please confirm that Non University-Bound Inter-Governorate Routes buses defined on 5.1.3 are not included in 5.1.2 table and kindly define how the distribution for areas is made.

Response 86: Please refer to Response 5.

Inquiry 87: Total number of busses. AS per 2.1.2 “The fleet monitoring system should be scalable to track 4000 buses simultaneously through the control room based in LTRC”. Please confirm the total number of buses, bearing in mind that our worked out total is 4458.

Response 87: Please refer to Response 5.

Inquiry 88: Electronic Fare collection. Confirm if the passenger access (in and out) to the bus only, on the station, or do you allow also access on intermediate stop or in the street.

Response 88: Please refer to Response 59.

Inquiry 89: Electronic Fare collection. Point (2) Project Scope of Services indicates that cash collection unit installed on busses must accept coins and also Smart Card. Due to the high cost of the unit which accepts coins, is it possible to offer a solution without coins collection in the bus (where driver receives the money and returns change if required) and this includes smart card readers in busses and automatic vendor machine accepting coins and give change only in Stations?

Response 89: Please refer to the Amendment.

Inquiry 90: Electronic Fare collection. As per the table 5.1.4 there are 25 stations. How many automated vendor machines are required at each station?

Response 90: Please refer to section “2.3.2 SALES CHANNELS”. Automated vending machines are optional.

Inquiry 91: Electronic Fare collection. As per the table 5.1.4 there are 25 stations. How many manual vendor posts are required in each station?

Response 91: Please refer to section “2.3.2 SALES CHANNELS”.

Inquiry 92: Electronic Fare collection. As per point (2) Project Scope of Services, the smart cards will be procured and sold by Clearing House. Please confirm if only one clearing house is required to be provided.

Response 92: Please refer to section “2.3 Clearing House Operations Management”.

Inquiry 93: Electronic Fare collection. As per point 5.1.1 Public University-Bound Routes there are 152334 students. Will the student pay for the smart card or LTRC will provide the smart card for the student?

Response 93: The student will pay for the smart card.

Inquiry 94: Electronic Fare collection.

Response 94: No inquiry.

Inquiry 95: Clearing house Operations. Point (2.3) determines the operation for 3 years but there is no indication of passengers estimation per bus, region or route. Can LTRC Provided statistical data?

Response 95: Please refer to Response 59 g.

Inquiry 96: Clearing house Operations. Can LTRC provide information of number of routes and different prices rates?

Response 96: This information will be provided to the winning vendor.

Inquiry 97: Clearing house Operations. Contract for Clearing house Operations will be only between LTRC and the winner. Will the busses' owners be part of it?

Response 97: This inquiry is unclear.

Inquiry 98: Clearing house Operations. Please confirm that the vendor on the clearing house is only responsible for the Smart card and no cash payment inside buses.

Response 98: Please refer Response 59 a.

Inquiry 99: Clearing house Operations. Please confirm who is responsible for collecting money from the Automatic Vendor Machines.

Response 99: The Clearing House.

Inquiry 100: Installation of Busses. Please clarify whether the availability of buses for terminal installation will be under LTRC responsibility or the winner needs to coordinate directly with the bus owner.

Response 100: It will be LTRC's responsibility to coordinate between the winning vendor and the bus operators.

Inquiry 101: Payment term. Would you consider accepting payment term based on number of installed busses bases. This means payment for the Control centre and payment each month for the number of busses installed (i.e payment to be on monthly basis based on number of buses installed).

Response 101: Please refer to the sample Arabic agreement in Appendix 5 for the terms of payment.

Inquiry 102: Payment term. Is it possible to accept payment term (except down payment) to be arranged through a Letter of Credit?

Response 102: No.

Inquiry 103: Payment term. Payment term should be on monthly bases in advance for the clearing houses contract. Please advise.

Response 103: Inquiry 103 is unclear.

Inquiry 104: Payment term. Please confirm that the Liquid able Damage can be limited up to 10%.

Response 104: Inquiry 104 is unclear.

Inquiry 105: Contract. Please confirm that the contract can be signed in both language English and Arabic?

Response 105: The contract associated with this RFP is in Arabic.

Inquiry 106:The system must operate and provide access via standard Internet technologies (i.e. web-based) using both HTTP and HTTPS protocols depending on the sensitivity of the data transmitted. What is the requirement? UI running in a web-browser or a HTTP based communication between the single components?

Response 106: The requirement is to secure transmitted data.

Inquiry 107:The system must be stable, fault tolerant and secure.

Inquiry 107 a: What is the customers aimed level of system availability?

Response 107 a: Full system availability.

Inquiry 107 b:What does fault tolerant mean in this case?

Response 107 b: The system should be designed so that it continues operation even if part of the system fails.

Inquiry 107c:What is the customers aimed level of system security and what is the understanding of security in this case?

Response 107 c: The technical proposal should detail various levels of security related to all components of the system including, but not limited to, software security, data security and integrity and data transmission, application security and authorization levels, smart card security (key, encryption, algorithms). The system should be immune to outside attacks. All open ports to be clearly identified.

Inquiry 108:In case of communication failure, the system must track the vehicle in off-line mode and store location information locally. If the communication is re-established, the transmission of actual data (< 2 minutes – to be parameterized) must have a higher priority than historical data. What's meant here? Is it sufficient that the vehicle works autonomously when the data connection to the back office is not established for any reason?

Response 108: If the connection to the back office is lost, all information should be stored locally on the bus. Once the connection is re-established, the most recent data (less than 2 minutes, or any period set by the administrator) should have a higher priority of being transmitted to the back office.

Inquiry 109: The system must notify the back office of failed attempts of establishing connectivity. At what point in time shall the notification take place? Where shall the information appear? What action results of such a notification? What is the technical maintenance concept of the customer?

Response 109: Please refer to Response 57b.

Inquiry 110: The system must provide the ability to physically and logically secure the mobile GPS/GSM unit.

Response 110: No inquiry.

Inquiry 111: Any tampering (physical and logical) with the mobile GPS/GSM unit must be detected by the system.

Response 111: No inquiry.

Inquiry 112: An alarm must be triggered on the vehicle and in the back office control room once tampering is detected.

Response 112: No inquiry.

Inquiry 113:The system must associate vehicle status with hard-coded system time-stamps. Please detail the meaning of "hard-coded system time-stamps".

Response 113: Embedding input or configuration data directly into the source code of a program.

Inquiry 114:The system must be redundant and fault-tolerant.

Inquiry 114 a:Please detail the required level of redundancy. Does it mean: cold standby, warm standby, hot standby, disaster recovery ...?

Response 114 a:Full redundancy is required.

Inquiry 114 b:Please detail the fault tolerance requirement?

Response 114 b:Please refer to Response 107b.

Inquiry 114 c:Please detail the requirements of the system availability.

Response 114 c:The system should be available 24 hours per day 7 days per week.

Inquiry 115: The system must provide the capability to define and manage linear and regional geofences, create buffer margins for each geofence, and generate a notification and a log when the vehicle enters or exits the pre-defined areas. Please explain the meaning of “geofences” and “buffer zones” and the relation between geofences and buffer zones.

Response 115:Geofences are imaginary boundaries set by a GPS unit which causes an alarm to get activated once the unit gets out of these boundaries. Buffer zones are areas of acceptable deviations from the geofences.

Inquiry 116: The system must allow LTRC to compute and display shortest paths between points using the road network (the winning vendor is responsible for ensuring a valid road network file exists).

Inquiry 116 a: What is the use case behind this requirement?

Response 116 a:This inquiry is irrelevant.

Inquiry 116 b:How is the result of a computation used?

Response 116 b:This inquiry is irrelevant.

Inquiry 116 c: How constraints has the computation to take into account (e. g. width of streets, radius of curves). **Remark:** Computation of paths for buses might be running into constraints. Usually it needs a good knowledge of the regional circumstances to define adequate routes for buses.

Response 116 c:This inquiry is unclear.

Inquiry 117:The system must tag points of interest. The vendor must make sure this data is kept up to date. What points of interest are meant here?

Response 117:User defined landmarks and areas of interest.

Inquiry 118: Map updates are required as soon as they are available. Is this considered as a functional requirement? Meaning does this requirement have to be supported by the fleet management system in a more or less functional way? Otherwise this requirement should be part of the Service Level Agreement discussion.

Response 118:Maps must be up-to-date for the duration of the contract.

Inquiry 119: The system will generate the following alerts and notifications, as a minimum: o Non-compliance with geofencing rules. o Late/early departures. o Late/early arrivals. o Exceeding speed limits. o Physical and logical tampering. o Non-reception of data transmission. o Non-compliance with route completion. Is this a requirement of reporting and statistics system or a functional requirement of the control centre's monitoring system?

Response 119:Both.

Inquiry 120: An alarm will be triggered both in the vehicle and in the back office in the event of a system malfunction or disruption of service.

Inquiry 120 a:Is this a requirement of reporting and statistics system or a functional requirement of the control centre's monitoring system?

Response 120 a:Both.

Inquiry 120 b:What is the meaning of alarm? Operational alarm or a technical alarm?

Response 120 b:An audio and/or visual signal.

Inquiry 120 c:Where shall technical alarms be handled? Shall technical alarms appear on the level of operational dispatching? Shall drivers care about technical alarms? This is again related to the technical maintenance concept of the customer?

Response 120 c:This inquiry is unclear.

Inquiry 121: The system should identify the cause and severity of the malfunction.

Inquiry 121 a: Quality of malfunction cause identification is limited to the status reporting capability of on-board equipment.

Response 121 a: No inquiry.

Inquiry 121 b: Severity depends on the customers minimal requirements on the vehicle operations. Are there any requirements defined for this aspect?

Response 121 b:The severity levels will be defined during the analysis phase.

Inquiry 122: How are the buses equipped further: destination displays, passenger information displays, traffic light pre-emption (inductive or radio), audio announcement (automatic for stops or verbally by driver) video system, Passenger-Wifi on buses, Infotainment...

Response 122:None.

Inquiry 123:Depots. How the bus depots are equipped? Can we expect Wifi connections at depots? Will depots be connected to the back office system?

Response 123:No Wi-Fi connectivity. No, the depots will not be connected to the back office.

Inquiry 124: Timetable planning. How is the timetable planning be done? Is there already one or more existing planning systems available?

Response 124:This will be investigated during the analysis phase. Currently, there are no existing planning systems.

Inquiry 125: Bus Types.

Inquiry 125 a:How many different bus types are expected? Who are the bus suppliers? What is the default equipment of the existing buses?

Response 125 a:This will be investigated during the analysis phase.

Inquiry 125 b: Will there be any new buses produced for the project?

Response 125 b: The scope of the RFP includes the currently available buses.

Inquiry 126:Allocated Budget. Can you disclose the allocated budget for the complete Project?

Response 126: No.

Inquiry 127:Can we offer optional solutions and/or sub-options?

Response 127:Yes.

Inquiry 128: In Article 1.3, it is stated that one of the prime objectives of the Project is “Reduce cash handling, reduce boarding time and improve crowd management”, and yet on page 7 in Article 2 “cash payment” is identified as one of the two components of the Electronic Fare Collection System (EFCS). This issue (i.e., cash handling and ticket (receipt) issuing on the busses) has always been the bottle-neck in such systems, and it definitely jeopardizes the quoted objectives listed above. Furthermore, the time lost has also a negative impact on “bus idle time” and “passenger satisfaction”. Would the Administration reconsider this approach and allow the vendors to propose a different viable solution which would definitely contribute to fulfilling the quoted objectives?

Response 128:Yes, in the form of “options”. However, proposals not meeting the requirements identified in the scope of this tender will be eliminated. Please refer to the Amendment.

Inquiry 129: Which type of coins (Jordanian currency) will be used and allowed to be used in purchasing tickets on the busses?

Response 129: Please refer to Response 63.

Inquiry 130: Will the training sessions (Article 2.4.4) be conducted in English language?

Response 130:Training will be conducted in Arabic, however, training materials must be provided in both Arabic and English.

Inquiry 131: Will the documentation and technical manuals be in English language?

Response 131:Documents purely technical in nature do not need to be translated into Arabic.

Inquiry 132:With regard to the authorization identifying the person(s) binding the vendor to the contract (Article 4.6, 4th bullet), which authority *vendor’s national or consular authorities of the Hashemite Kingdom of Jordan* will be the authenticating body?

Response 132:This inquiry is unclear.

Inquiry 133: 2.2 Electronic Fare Collection System (Page 12). Please describe the fare scheme (e.g. distanced-based, zone-based or flat fare, number and types of fare products) that will be implemented by the system?

Response 133:Please refer to the Amendment.

Inquiry 134: 2.2.1 STORED-VALUE SMART CARDS (Page 12). To what extent would the ITSO or Calypso specification be required? E.g. Compliance based on just the card physical behavior or otherwise. What about the back office and clearing house system? Would these back end system and security schema also subject to ITSO or Calypso specification? Would other proven smartcard payment standards be acceptable?

Response 134:Please refer to Response 13.

Inquiry 135: 2.2.3 CARD MANAGEMENT SYSTEM (CMS) Page 13. How many Anonymous and Personalized Cards are expected to be issued by the initial launch and on a monthly basis?

Response 135:Ridership statistics do not exist.

Inquiry 136: 2.2.3 CARD MANAGEMENT SYSTEM (CMS) Page 13. How many cards are expected to be managed and tracked by the system?

Response 136: Please refer to Response 135.

Inquiry 137: 2.2.3 CARD MANAGEMENT SYSTEM (CMS) Page 13. How many days of transaction is required to be kept by the system for analysis and reporting purpose?

Response 137:A complete history log must be maintained, backed-up, and archived. The details will be investigated during the analysis phase.

Inquiry 138:2.3.2 SALES CHANNELS (Page 15). Would a Customer Service Call Centre and a Web Site serving as Sales Channels be required under this RFP?

Response 138: Please refer to Response 82.

Inquiry 139: 2.3.2 SALES CHANNELS (Page 15). What are the type (e.g. Automatic Vending Machine, Ticket Office Machines) and number of card sales/reload equipment should be provided and priced for retail stores, university kiosks, and Personalization Centers?

Response 139: Sales channels distribution and accessibility should reflect demand.

Inquiry 140: 2.3.5 FINANCIAL ACTIVITIES (Page 16). Would a specification for Revenue Allocation and Subsidies Calculation be available for review before the submission of the RFP response?

Response 140: No.

Inquiry 141: 2.3.5 FINANCIAL ACTIVITIES (Page 16). Please elaborate the ultimate aim for the “Model for the service fees”. Do those service fees involve sales channels and public transport bus operators?

Response 141: “Model for the service fees” should be part of the financial proposal. It refers to the expected compensation in return for the services provided and the operational costs incurred by the Clearing House.

Inquiry 142: 2.4.1 SYSTEM ARCHITECTURE (Page 17). Would dedicated and physically isolated environment for each of the Production, Testing, and Disaster Recovery environment be required?

Response 142: Yes, separate environments are expected for production and testing. Regarding the disaster recovery, please refer to Response 10.

Inquiry 143: 2.4.5 MAINTENANCE AND WARRANTY (Page 18). Please clarify what kind of system upgrades is expected for this RFP? Does it refer to hardware refresh? If yes, how many system upgrades are expected within the 3-year operation contract period?

Response 143: All upgrades required during the duration of the contract are the responsibility of the vendor.

Inquiry 144: 2.4.5 MAINTENANCE AND WARRANTY (Page 18). Would software updates of 3rd party software patches that are not relevant to the client implementation be required?

Response 144: Please refer to Response 143.

Inquiry 145: 3.6 Component 6 – Operations Support, Maintenance and Warranty (Page 25). Please confirm that the duration of the project will be 18-month for Implementation

phase (5-phases) follows by 36-month Operations Support, Maintenance and Warranty phase.

Response 145:Four years as per the Amendment.

Inquiry 146: 3.6 Component 6 – Operations Support, Maintenance and Warranty (Page 25). What is the client intension after the 3-year operations support and maintenance contract is expired? Would the client take over the operation and directly work with the 3rd party hardware and software supplier for on-going maintenance support?

Response 146:As part of this RFP, all hardware and software are owned by LTRC.

Inquiry 147: 4.2 Part II: Financial Proposal (Page 27). Please confirm the rate of sales tax, 4% or 16%?

Response 147: Please refer to Response 24.

Inquiry 148: 4.5 Financial Terms (Page 30). Please indicate the fees for the RFP advertisement issued in the newspapers.

Response 148: Please refer to Response 29.

Inquiry 149: 4.6 Legal Terms (Page 33). Please confirm the client understanding and acceptance that the source codes for all pre-existing software and customization offered by 3rd party suppliers are the intellectual property ,which will not be delivered for this project. Suppliers will license the binary object codes for use by the client for this project only. 3rd Party software Suppliers Octopus may consider making the source code available for software escrow arrangement directly with the client to provide further assurance to the client against material default and/or liquidation.

Response 149:Please refer to the Arabic Agreement in Appendix 5.

Inquiry 150:Appendices 5.1 Project Implementation Phases (Page 38). Please clarify whether the stated Project Implementation Phase Duration includes the time for Requirements, Design, Build, and Test, or just the implementation time period after the system has been developed, tested and accepted by the client ready for production roll-out.

Response 150:Yes.

Inquiry 151:Who will be responsible to provide the maps needed for the fleet monitoring system.

Response 151:Please refer to Response 11.

Inquiry 152: we would like to send you some requested information reading your ITS RFP, as follow:

Inquiry 152 a: Routes maps of:

- Public University-Bound Routes
- Non-University-Bound Internal Routes
- Non-University-Bound Inter-Governorate Routes
- Bus Stations location

Response 152 a:Routes will be provided to the winning bidder.

Inquiry 152 b:Any available updated Statistics data of:

- Public transportation passengers average for each route through year seasons
- Public transportation bus's maintenance average through one year

Response 152 b:Ridership statistics do not exist. Bus maintenance is irrelevant.

Inquiry 152 c:polices

- Who has the rights to updated blacklisted cards info? For what level ?

Response 152 c:Updating blacklisted cards information and pushing it to buses is the responsibility of the Clearing House.

Inquiry 153: Is it a must to use 14443 ITSO or Calypso Standards?

Response 153:Please refer to Response 13.

Inquiry 154: Is it ok to use Mifare based solution without ITSO or Calypso as used in Egypt, Dubai, and Turkey?

Response 154:Please refer to the Response 13.

Inquiry 155:(2.1.2) Are there any requirements for auditing system over user transactions, or just view historical tracking data.

Response 155:Inquiry is unclear.

Inquiry 156: (2.1.4) The following set of questions:

Inquiry 156 a: Is it ok to use Google Maps services?

Response 156 a: If it fulfills the requirements of the RFP and the LTRC's requirements as per the SLAs.

Inquiry 156 b: How do expect the system to help administrator in considering traffic jams, detours, ..etc., upon calculating shortest path?

Response 156 b:Inquiry is unclear.

Inquiry 156 c: If maps do not have speed limit tags; do you expect the contractor to tag speed limits on map?

Response 156 c:No.

Inquiry 156 d: Do expect the contractor to include and update points of interest? Usually such tasks is on map supplier/provider.

Response 156 d:Points of interest will be identified by the system administrator/user.

Inquiry 156 e: Do you expect us to provide maps as part of the solution? Our understanding that there is only one approved map supplier in Jordan "JOSecure" please clarify or advice if we can obtain maps from other sources.

Response 156 e:Please check with Jordan Geographic Center.

Inquiry 156 f: Suppose and for some reason we could not obtain the TRC approval after award, what do expect us to do?

Response 156 f:Please check with TRC.

Inquiry 157:(2.1.6) We are assuming high speed internet is available 24/7 in the control room (cost will be on your account), please confirm

Response 157:Confirmed.

Inquiry 158: (2.2.1) Ref. National ID smart card usage, please clarify and send us specs for the national ID card if other than the required rider ID card.

Response 158:Please refer to Response 56.

Inquiry 159: (2.2.2) Do you expect paper and coin money to be used in the cash collection machine?

Response 159:Please refer to the Amendment.

Inquiry 160: In the RFP document, we could not locate a Bill of Quantity, which is customary for these types of bids. The RFP document mentions Public University-Bound Routes / Non-university Bound Internal Routes/ Non-university Bound Internal Routes Inter -Governorate Routes with associated number of vehicles. We do not know however the exact quantity of on-bus ticketing units to be provided (there may be 2 or 3 units per large bus for instance), number of POS at merchant side, number of Ticket Office Machines etc. We strongly believe that each bidder should not build this issue on the basis of assumptions, because this will entail that proposals will be very different from one competitor to the other, thus making it more difficult to evaluate by LTRC. Please clarify?

Response 160: The bidder is expected to present the optimum ITS solution as per the requirements of the RFP, based on experience and implementation of similar projects.

Inquiry 161: Section 2.1.2 Function Requirements (page 8), requirement number 8:

"The system must accurately display and store each vehicle's status, location and profile information within its geographic position on the map ..."

Q: Is there a navigational map for governorates that has been already approved by LTRC and the National Geographical Center?

Response 161:No.

Inquiry 162: Section 2.1.4 Maps (page 10), point number 9:

"The system must tag road speed limits..."

Q: Is the accuracy that commercial navigation systems offer sufficient for LTRC? Which is much less than on-vehicle speed and acceleration sensors.

Response 162: Please refer to Response 160.

Inquiry 163:Section 2.2 Electronic Fare Collection System (page 12), Paragraph number 2:

"A flat fare system will be used, all fares to be determined by LTRC..."

Q: Please explain more in details how the fare system is designed? Because a complex fare system may lead to extra processes and subsequently add to the cost of operations.

Response 163: Please refer to the Amendment.

Inquiry 164: Section 2.2 Electronic Fare Collection, mentions the Ticketing/ Collecting Units only, another device for drivers are needed so drivers login/logout, or open/close their shifts,

Q: Shall we add this to the scope of the project?

Response 164: Please refer to Response 57b.

Inquiry 165: There is no mention about specific Point of Sale (POS) Terminals for merchants/retailers or Ticket Office Machines for topup and personalization. Can you please specify how many merchants are needed to be appointed in order to be sufficient for service coverage?

Response 165: Please refer to Response 139.

Inquiry 166: In section 2.3.2 (Sales Channels) you specify that CH is able to determine the commission to Merchants/Retailers, which is assumed to be on a per transaction basis. However, you have also mentioned that the 3 year Operations price must be quoted as lump sum. Taking these 2 RFP specifications into consideration, please detail the model of financial compensation for the CH on a per transaction basis.

Response 166: The service fee model should be provided as part of the vendor solution.

Inquiry 167: Electronic Fare collection / Clearing House Operation

If on-line payments are required, please provide details and number of Credit Card Agencies in Jordan.

Response 167: Please refer to Response 57b.

Inquiry 168: Clearing house Operations

Inquiry 168 a: Contract for Clearing house Operations will be only between LRTC and the winner. Will the busses' owners be part of it?

Response 168 a: No.

Inquiry 168b: How many Bus Operators will be interfaced at Central Clearing House?

Response 168b: Please refer to Response 57b.

Inquiry 169: Clearing House Operations

Please confirm whether bidders are required to provide only Operation Manager Staff, and Confirm whether labour operations staff personnel will be LTRC previously personnel trained according bidder's training program .

Response 169: Clearing House operations will be managed and run by the winning vendor.

Inquiry 170: Paragraph 2.1.4 Maps. The vendor shall obtain any necessary licenses or approvals from the Telecommunications Regulatory Commission (TRC)

Inquiry 170 a: Please define the public companies involved in the process of obtaining all licenses required in this project. It's important to define clearly the time frame will be needed to obtain all of them and what will happen if any delay. In case of delays obtaining above mentioned licenses, the total offered time schedule must be delayed in the same time frame without any penalty for the contractor. Please confirm and define this point

Response 170 a: Please refer to Response 156f.

Inquiry 170 b: In order to estimate licenses cost, could you provide details of what licenses would be involved as necessary?

Response 170 b: Please refer to Response 156f.

Inquiry 170 c: Could LTRC provide more information about this item?

Response 170 c: Please refer to Response 156f.

Inquiry 171: Paragraph 2.2 Electronic Fare Collection System. Cards can be personalized

Inquiry 171 a: Confirm that personalization equipment is within contract scope or not

Response 171 a: Personalization equipment are part of the Clearing House setup and will be owned by the Clearing House. LTRC will not pay for them.

Inquiry 171 b: If yes, where shall it be installed? How many sites will require for personalization?

Response 171 b: Please refer to Response 160.

Inquiry 172: Paragraph 2.2.3 Card Management System. The Smart card Management System (CMS) will manage the lifecycle of the card.

Inquiry 172 a: Does this mean that the initialization of cards are within vendor's scope?

Response 172 a: Cards should be initialized.

Inquiry 172 b: If yes, where shall it be installed? How many sites will require for initialization?

Response 172 b: Please refer to Response 160.

Inquiry 173: Paragraph 2.3 Clearing House Operations Management. The vendor will be required to manage the Clearing House Operations under a 3 year contract Please, clarify if that section (Clearing House Operational Services) will be signed under a separate contract

Response 173: Service level agreements will be signed for the Clearing House Operations.

Inquiry 174: Paragraph 3.2 Component 2 - Required Infrastructure. Could LTRC provide details about existing Infrastructure?

Response 174: Please refer to Response 57b.

Inquiry 175: Paragraph 3.6 Component 6 - Operations Support, Maintenance and Warranty. The winning bidder is required to perform the activities mentioned bellow for a duration of 36 months after signing the contract. Please, clarify if that means 36 months after signing contract (this would suppose to include execution period) or 36 months after System Commissioning and Reception

Response 175: Please refer to Response 59j.

Inquiry 176: Paragraph 3.7 Component 7 - Clearing House Operations Management. The winning bidder is required to perform the activities mentioned in section 2.3 of RPF for a duration of 36 months after signing the contract.

Please, clarify if that means 36 months after signing contract (this would suppose to include execution period) or 36 months after System Commissioning and Reception

Response 176: Please refer to Response 59j.

Inquiry 177: Paragraph 4.2 Response Format. Bidder's capabilities.

Is it possible to provide subcontractor's references to comply with this requirement?

Response 177: If the subcontractor is defined in the proposal with the provision of full information and references then yes. The subcontractor will be part of the evaluation of the proposal. If awarded the contract, the vendor will not be able to change this subcontractor unless LTRC evaluates the new subcontractor and impact on project implementation, and issues a written approval.

Inquiry 178: Financial Proposal. Please, clarify if both sections (Development, implementation and installation of the ITS and Control Room and Clearing House Operational Services) will be part and will be signed under the same contract

Response 178: Please refer to Response 173.

Inquiry 179: Additional Questions. In order to optimize costs and competitiveness of bidders and for a better evaluation of the tender (under same conditions) Could LTRC provide a BoQ (Bill of Quantities) to quote?

Response 179: Please refer to Response 160.

Inquiry 180: In Article 1.3, it is stated that one of the prime objectives of the Project is "Reduce cash handling, reduce boarding time and improve crowd management, and reduce bus idle-time and save fuel", and yet on page 7 in Article 2 "cash payment" is identified as one of the two components of the Electronic Fare Collection System (EFCS) described in the RFP#7/2010.

This issue (i.e., cash handling and ticket (receipt) issuing on the busses) has always been the bottle-neck in such systems; it creates long queues, creates unnecessary arguments between the passengers and the driver when the exact change is not available, and it definitely jeopardizes the quoted objectives listed above. Furthermore, the time lost has also a negative impact on "bus idle time" and "passenger satisfaction". It should also be noted that *cash handling* and *ticket issuing* on the busses are not considered as favorable features in modern state-of-the-art Electronic Fare Collection Systems.

Would the Administration reconsider this mode of operation and allow the vendors to propose a different viable solution which would definitely contribute to fulfilling the quoted objectives?

Response 180: Please refer to Response 128.

Inquiry 181: Article 2.1.1: What is the total number of “decentralized client-side units” envisaged in the System?

Response 181: Please refer to Response 57b.

Inquiry 182: The operations of **Fleet Management** has monthly recurring costs because of the use of GSM communications. Who will pay these expenses?

Response 182: This is the responsibility of the Clearing House.

Inquiry 183: Article 2.1.3: What are the typical “attributes” to be used in the definition of “*points of interest*”? How many such points are to be included in the System?

Response 183: Please refer to Response 57b.

Inquiry 184: Article 2.1.4: Is LTRC prepared to help and support the Contractor in obtaining necessary licenses and/or approvals from the Telecommunications Regulatory Commission? What are, if any, typical expenses to be expected? What is the typical lead time necessary to obtain such approvals?

Response 184: Please refer to Response 156f.

Inquiry 185: Article 2.3.2: Will the sales agents purchase the necessary hardware to perform their tasks, or these expenses will be included in the offer and sales agents will be equipped with the necessary hardware without any charge?

Response 185: Such hardware will be owned by the Clearing House. LTRC will not pay for their provision to sales agents.

Inquiry 186: Articles 2.3.2/2.2.2: Since services to be provided by the agents will be free-of-charge, how will the commission fees to be paid by CH be covered? Is it correct to assume that the vendor has no responsibility in such matters and such expenses should be kept out of the Price Proposal?

Response 186: Services will be provided free-of-charge to bus operators affiliated with LTRC. Dealing with agents is the responsibility of the Clearing House.

<End of Vendor Inquiries>