

**Addendum No. (4)**  
**Tender NO 2/2019/special supplies**  
**Design, Implementation, and Operation of an Intelligent**  
**Transportation System (ITS) for Public Transportation in Jordan**

All companies participating in the above mentioned tender have to be aware by the following:

1. The revised Section 6.3 operational requirements - 6.3.2 hosting.
2. This addendum will be published on LTRC official website ([www.Ltrc.gov.jo](http://www.Ltrc.gov.jo)).
3. All companies shall send confirmation letter to LTRC about receiving addendum no. (4) By E-mail ([Tender@ltrc.gov.jo](mailto:Tender@ltrc.gov.jo)).
4. This Addendum is considered as integral part of the tender documents.

Sincerely,

**Dr. Bashar Al-Omari**  
**Director General**

NO	Requirements	Compliance Notes
<b>6.3.2 Hosting</b>		
1.	<p>For the AFCS hosting, the Bidder shall offer on Cloud local based OR/AND on the International based hosting solution. The hosting solution should meet the performance and scalability requirements and cyber-security-policy (<a href="http://modee.gov.jo/content/national-cyber-security-policies-619">http://modee.gov.jo/content/national-cyber-security-policies-619</a>) requirements.</p> <p>A detailed Hosting Service Level Agreement (SLA) should be provided to ensure the continuity and availability of all services, data security and privacy, Response Time, Compensation for Incidents, Backup and Restoration ...etc. This SLA will be a integral part of the evaluation. The solution should be in line and complying with the terms of the Cloud Computing Policy for Jordan 2019 (when approved and issued) draft policy (<a href="https://modee.gov.jo/uploads/cloudcomputing-policy.pdf">https://modee.gov.jo/uploads/cloudcomputing-policy.pdf</a>)</p>	
2.	<p>The AFCS should be built on multi-tenant (multi-agency) architecture, where the system could be Software as a Service (SaaS) for each agency. The multi-tenant database could be implemented using a logical database where all data is stored in the same database, but each agency's data is accessible only to themselves, or hosted, in which every agency is treated separately with individual instances of software, databases, and servers.</p>	
3.	<p>The control room will setup and operation are the responsibility of the Bidder and will be hosted inside LTRC. The Control room in addition to running the software modules listed in this TOR with high performance and quality, it should have all the required hardware and software to manage the transactions data, capture and store video data from CCTV, ability to control and monitor and manage all AFCS equipment, manage the communication with field operators and drivers.</p>	
4.	<p>The control center will host all required hardware and software to support the ITS operation and backup, including data storage facilities and printing capabilities for each trip.</p> <p>Control center operators should be able to transfer maps, information, or any part of it, to any monitor connected to the system according to authorization levels.</p> <p>The contractor's proposal should detail control center design and setup including:</p> <ul style="list-style-type: none"> <li>A monitor wall (large screen, side monitors)</li> <li>Monitoring stations</li> <li>Servers and data storage and printing facilities</li> <li>Other features the contractor recommends will add value</li> <li>Furniture (Tables, Chairs....etc.)</li> <li>Any Hardware and Software</li> <li>All Network and Electricity works needed</li> </ul>	

NO	Requirements	Compliance Notes
	Any other Civil work and cabling required The contractor must ensure that the control center is setup and operational prior to delivery of the first phase of ITS implementation.	
5.	The bidder shall also have a call center to support riders and field operators and drivers. The Call Centre system shall facilitate passengers to call into for information on bus routes and schedules as well and shall be able to log complaints through call center executive or IVR or online helpdesk system.	
6.	The winning bidder shall provide all System Administrator tools including, but not limited to, backing up data and software, assigning and maintaining system access credentials, responding to user requests, applying software patches and other duties. In addition to LTRC access all server utilities without any hardware costs, software licensing costs or additional maintenance charges.	
7.	The hardware will support and be compatible with all proposed software, and effectively process all events and transactions from the devices that are being furnished and will provide sufficient capacity to accommodate a 50% increase in the number of devices and transactions	
8.	The Winning bidder shall provide redundant CDS installations at separate locations (Cloud) 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	