



ticketing

**TAKING TRANSPORT TO
THE NeXT LEVEL**

**IMPLEMENTATION OF E-TICKETING SYSTEM
FOR PUBLIC TRANSPORT IN LAHORE**

ON

BUILT-OPERATE-TRANSFER (BOT) BASIS



LAHORE TRANSPORT COMPANY



**IMPLEMENTATION OF E-TICKETING SYSTEM FOR
PUBLIC TRANSPORT IN LAHORE**

Terms of Reference



INTRODUCTION

Lahore Transport Company (LTC) has been established under the provisions of Provincial Motor Vehicles Ordinance 1965 as an Urban Transport Company. LTC has been registered under section 42 of Companies Ordinance 1984. LTC is primarily a regulatory body which has been tasked to ensure a smooth running transport system in Lahore which will provide the commuters a safe, efficient and affordable transport service.

PROJECT DESCRIPTION

1. Background

Lahore is the capital of Punjab and Second biggest city of the Islamic Republic of Pakistan. There are approximately 1.5 Million people travels daily on urban buses including students, senior citizen, professionals and women. This project was initiated by LTC to facilitate its commuters as well as transporters. For the purposes of Feasibility the initial working can be done on the basis of 200 buses and 100,000 passengers per day. Tenure of the Project will be 5-6 Years.

The project is to be carried out through Public-Private Partnership (PPP) arrangement on Build-Operate-Transfer (BOT) basis.

2. Scope of Work

The expression of interest shall include the following phases but the bidder may also include its own processes in addition to following:

2.1. Building Phase

1. Development of Software
 - a. Development of Data Repository, Reporting Software & Web Portal
 - b. Development of Device Software
 - c. Integration of Device and Reporting Software
2. Set up Command and Control Room at LTC
 - a. Installation of Servers
 - b. Setup of Control Room & Video Wall
3. Training
 - a. LTC Executive Staff Training
 - b. Technical Training
 - c. Training of Fare Collectors and Fare Checkers
 - d. On Demand Training of LTC Staff
4. Deployment of Hardware & other equipment in buses & terminals as per instruction by LTC
 - a. Handheld Devices with integrated ticket printer
 - b. Monitoring Devices
 - c. Data Communication Devices
5. Routes & Fare (up to date) Information Provided by LTC



2.2. e-Fare Collection Mechanism

Digital fare collection mechanism to be devised by the bidder:

1. Type of e-ticketing medium
2. Purchase of digital e-ticketing medium
3. Loading of credit to the medium
4. Collection of cash from the operator and deposit in to ESCROW Account

2.3. Operation Phase

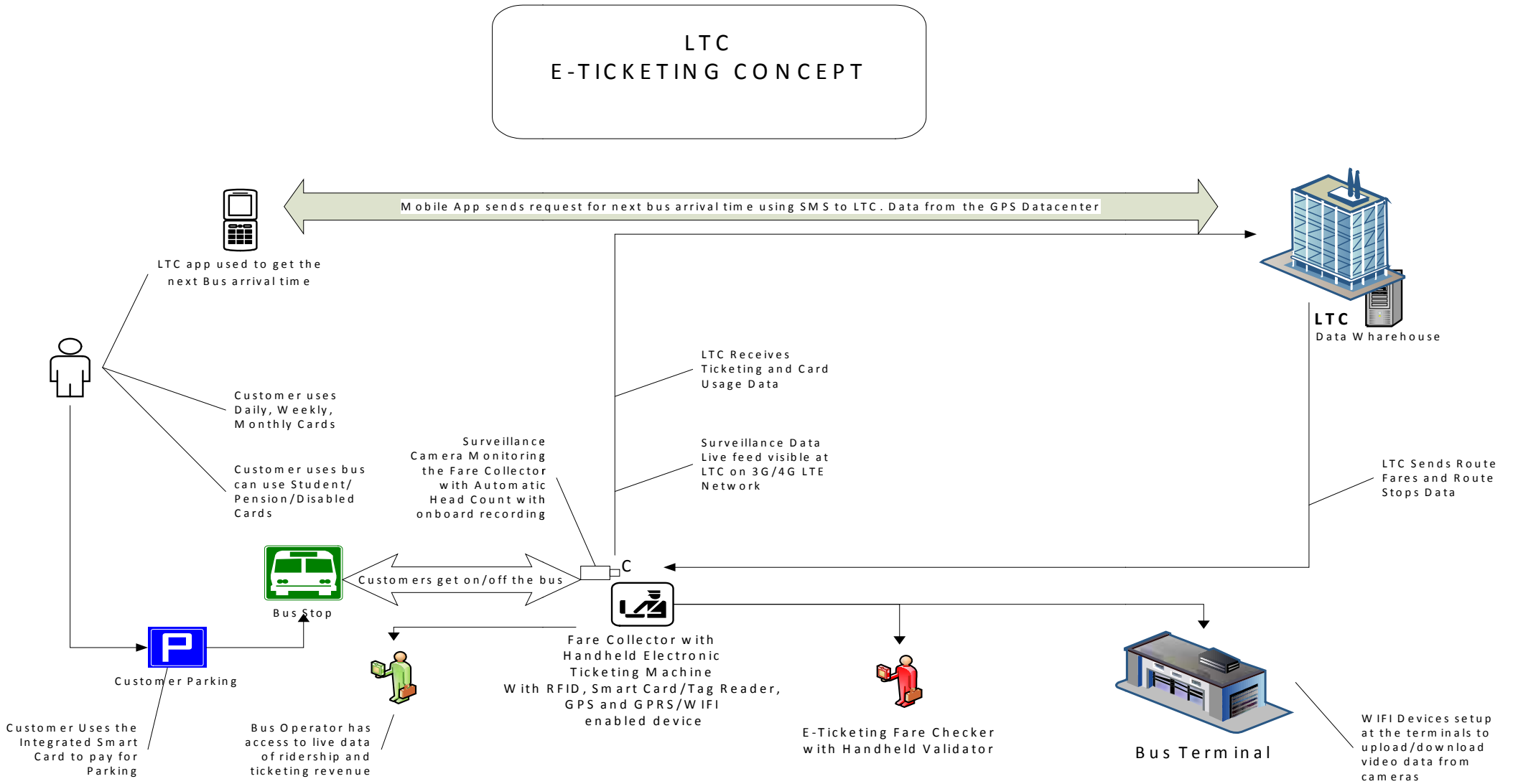
1. Route by Route Implementation of e-ticketing system as per LTC
2. Maintenance and Operation of Devices
3. Data of Fare Collection to be updated on transaction basis
4. Update of devices as per changes in the fare table and route alignment as per LTC

2.4. Transfer Phase

1. At the end of five year period all the equipment used to run the project shall be handed over to LTC in good working condition with maintenance.
2. On mutual agreement the project may extended for another year
3. All the Equipment, Licenses, Software along with source code will be the property of LTC



A.3. General Design Criteria Operations & Maintenance



Minimum Technical Information Required

The minimum technical information the LTC requires Bidders to submit in their Technical Proposal to be considered responsive to the technical requirements are set out in Sections 1 to 7 below:

1. Executive Summary

A covering letter identifying the company(s), firm(s), joint venture(s) or consortium, the relationship of the parties, the lead and associated company(s)/firm(s) and an Executive Summary of the Bidder's Technical Proposal (not to exceed five pages).

2. Experience and Profile

A narrative and graphic presentation of the Bidder's current managerial, corporate, technical and other non-financial related qualifications to undertake and successfully design, finance, develop, manage, operate, maintain, insure and transfer at the end of the Concession Period, the Project under a BOT arrangement. It should also highlight the organizational chart of the Bidder. It should further elaborate in detail the relevant experience of the Bidder, internationally or in local conditions. The narrative must explain the Bidder's BOT institutional arrangements; including its proposed project organization, particularly during the Implementation, operation and maintenance phases. The narrative must contain the curriculum vitae (CV) of key personnel for the Project such as the Project Manager, Software Engineers, Technical Lead, Finance Manager, key operating and maintenance personnel, detailing their relevant experience and qualifications.

Within this section, the Bidder may also provide comments to the Draft Concession Agreement. The following shall be the critical evaluation factors within this section:

- Corporate Structure and organization of the Bidder
- Relevant Experience of the Bidder
- Annual Turnover of the Bidder
- Technology Related Services & Experience
- Proposed Project Manager/ Project Lead of the Project
- Proposed Finance Manager/ Financial Consultant of the Project
- Proposed Technical Team of the Project

3. Conceptual Design

Conceptual Design based upon the Bidder's survey and technical studies conforming to the minimum design requirements as outlined in of Chapter 02. Conceptual Design shall, among other topics, include the following information:

1. E-Ticket System Deployment Plan
2. E-Ticketing System Implementation
3. Data Repository & Reporting Software Design and Development
4. E-Ticketing Operations & Work Flow
5. Recovery Plan of Per Transaction Charges from Operator

4. Methodology

A narrative and graphic presentation of the Bidder's methodology to execute the project. The Bidder shall clearly explain its design, execution, time period, state of the art practices, tentative plans, type of technology, the equipment and staff needs of the Project. The methodology shall be clearly elaborated in layout plans.

5. Operations and Maintenance

During the operational phase of the Project, the LTC shall measure the contractor's compliance with operations and maintenance standards included in an Operations and Maintenance Manual. For the Technical Proposal, Bidders must include a narrative of the contents of an Operations and Maintenance Manual the Bidder will prepare, subject to LTC approval, for the Project, as well as a narrative and graphic presentation of the Bidder's proposed organization and approach to implementation of the Operations and Maintenance requirements for the Project conforming to the minimum operation & maintenance requirements as outlined in Chapter 2.

6. Project Implementation Timetable

A narrative and graphic presentation of the Bidder's proposed Implementation Timetable, including a narrative of how the Bidder, as the Contractor, would work with the LTC and all the Operators.

7. Survey

The bidders may conduct their own survey for all the HOV routes to access the feasibility of the project.

The Bidders are also advised to visit the office of Chief Technical Officer to understand the scope of project in detail. The costs incurred in conducting surveys or visit LTC office shall be at the Bidder's own expense.

8. Mandatory Documents Required for EOI

- ☞ Certificate of registration/ incorporation of the firm in the country of origin
- ☞ Copy of registration with income tax department of Consultancy Company's country of origin
- ☞ List of professional staff the firm intends to use for work on this project along with CVs of such person showing project wise experience with time duration for each project
- ☞ List of large scale technology related project completed by the firm during last 10 years or similar work in hand, (certified where possible by the employer that the work was successful completed) indicating total cost of such work and cost of those projects along with date of start and completion or expected date of completion

- ☞ A certificate/ affidavit that the firm is not black list by any government/ autonomous body of any country.
- ☞ Statement of accounts for the last three (03) years.
- ☞ The LTC reserves the right to reject one or all proposal without assigning any reason

Technical Evaluation Criteria

The LTC shall then weigh the scores for Technical and Financial Proposals. The overall weighting for the technical and financial components of each proposal will be the following:

Sr#	Evaluation Factor	Maximum Score
1	Experience and Profile	20
2	Methodology	30
3	Operations & maintenance procedures and systems	30
4	Innovation and Modernization Proposed & Technology Transfer	10
5	Bidder's Net Worth	10
Total Score		100

NOTE: Sixty Five Percent (65%) Score Required for Qualification and Disqualification in any parts will lead to over all disqualification.

Break-Down of Evaluation Criteria

1. Experience and Profile

Sr#	Evaluation Factor	Score
1	10+Year of Technology Related Experience	20
2	07 Year of Technology Related Experience	15
3	Minimum 04 Year of Technology Related Experience	10

2. Methodology

Sr#	Evaluation Factor	Score
1	Feasibility of the Project	05
2	Proposed Team for the project	05
3	Implementation procedure	05
4	Implementation Time Table (WBS)	05
5	Maintenance plan	05
6	Transfer plan	05

3. Operations, maintenance procedure and system

Sr#	Evaluation Factor	Score
1	<i>Project Implementation (installation of all the equipment)</i>	<i>05</i>
2	<i>Software development</i>	<i>05</i>
3	<i>Software deployment</i>	<i>05</i>
4	<i>Software Reporting</i>	<i>05</i>
4	<i>Setup of Command and Control Center (Servers Deployment)</i>	<i>05</i>
5	<i>Training of Staff (Technical & Field Staff)</i>	<i>05</i>

4. Innovation and Modernization Proposed & Technology Transfer

Sr#	Evaluation Factor	Score
1	<i>Innovation to the Project</i>	<i>05</i>
2	<i>Technology Transfer methodology</i>	<i>05</i>

5. Net Worth of the Bidder

Sr#	Evaluation Factor	Score
1	<i>Net worth of the company (Over 100 Million/ PKR)</i>	<i>10</i>
2	<i>Net worth of the company (Over 50 Million/ PKR)</i>	<i>07</i>
3	<i>Net worth of the company (Over 25 Million/ PKR)</i>	<i>04</i>

