RFP for iPARK - Intelligent Parking Management System for Multilevel Parking & Open Parking Lot in ABD area of Surat City

Surat Municipal Corporation

Invited by

Surat Smart City Development Limited

115, Smart City Cell, Surat Municipal Corporation,
Muglisara, Main Road, Surat – 395003, Gujarat

RFP No.: SSCDL-IPARK-RFP-01-2017

Last date (deadline) for online Price Bid Submission: 11/08/2017

Last date (deadline) for Technical Bid Submission: 18/08/2017

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I. DISCLAIMER

The information contained in this Request for Proposal document ("RFP") whether subsequently provided to the bidders, ("Bidder/s") verbally or in documentary form by Surat Smart City Development Limited (henceforth referred to as "SSCDL" in this document) or any of its employees or advisors, is provided to Bidders on the terms and conditions set out in this Tender document and any other terms and conditions subject to which such information is provided. This RFP is being issued by the authority for inviting tenders to shortlist vendor for Design, Development, Supply, Installation, Implementation, Maintenance and Management of iPARK - Intelligent Parking Management System pilot implementation for Surat Smart City.

This RFP is not an agreement and is not an offer or invitation to any party. The purpose of this RFP is to provide the Bidders or any other person with information to assist the formulation of their financial offers ("Bid"). This RFP includes statements, which reflect various assumptions and assessments arrived at by SSCDL in relation to this scope. This Tender document does not purport to contain all the information each Bidder may require. This Tender document may not be appropriate for all persons, and it is not possible for the Chief Executive Officer, SSCDL and their employees or advisors to consider the objectives, technical expertise and particular needs of each Bidder. The assumptions, assessments, statements and information contained in the Bid documents, may not be complete, accurate, adequate or correct. Each Bidder must therefore conduct its own analysis of the information contained in this RFP and to seek its own professional advice from appropriate sources.

Information provided in this Tender document to the Bidder is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. SSCDL accepts no responsibility for the accuracy or otherwise for any interpretation of opinion on law expressed herein.

SSCDL and their employees and advisors make no representation or warranty and shall incur no liability to any person, including the Bidder under law, statute, rules or regulations or tort, the principles of restitution or unjust enrichment or otherwise for any loss, cost, expense or damage which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, reliability or completeness of the RFP, and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

SSCDL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. SSCDL may in its absolute discretion, but without being under any obligation to do so, can amend or supplement the information in this RFP.

The issue of this Tender document does not imply that SSCDL is bound to select a Bidder or to appoint the Selected Bidder (as defined hereinafter), for implementation and SSCDL reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by SSDL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and SSCDL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation for submission of the Bid, regardless of the conduct or outcome of the Selection process.

II. DEFINITIONS

In this RFP, the following word (s), unless repugnant to the context or meaning thereof, shall have the meaning(s) assigned to them herein below:

1. "**SSCDL"** or "**Authority"** means the Surat Smart City Development Limited and shall include its authorized successors and assigns at all times.

2. **"SMC"** means Surat Municipal Corporation.

3. "**Bid/Proposal**" means the proposal submitted by the Bidder(s) in response to this RFP in accordance with the provisions hereof including Technical Proposal and Price Proposal along with all other documents forming part and in support thereof as specified in this RFP.

4. "**Bidder**" means vendor responding to the RFP.

5. **"Earnest Money Deposit (EMD)"** means Security furnished by the Bidder.

6. "**Bid Process**" means the process of selection of the Successful Bidder through competitive bidding and includes submission of Proposals, scrutiny and evaluation of such Bids as set forth in the RFP.

7. "**Deadline for Submission of Bids/ Proposal**" or "**Proposal Due Date/Bid Due Date**" shall mean the last date and time for receipt of Bids as set forth in 'Invitation for Proposal' of this RFP or such other date / time as may be decided by SSCDL in its sole discretion and notified by dissemination of requisite information.

8. **"iPARK or Intelligent Parking Management System"** or **"Project"** refers to the Design, Development, Supply, Installation, Implementation, Maintenance and Management of Intelligent Parking Management System pilot implementation for Surat Smart City.

9. **"Agreement"** means the legal agreement including, without limitation, any and all Appendix thereto, which will be entered into between SSCDL and the Successful Bidder for Design, Development, Supply, Installation, Implementation, Maintenance and Management of iPARK - Intelligent Parking Management System pilot implementation for Surat Smart City. The Draft License Agreement is specified in Appendix-5 of this RFP. The terms of this RFP, along with any subsequent amendments at any stage, shall become part of this Agreement.

10. **"Selected Bidder"** shall mean the Bidder who has emerged as preferred bidder in terms of this RFP and has been issued the Letter of Acceptance (LoA) by SSCDL and awarded the work under this RFP.

11. **"Letter of Acceptance"** or **"LOA"** means the letter issued by SSCDL to the Successful Bidder to undertake and execute the project in conformity with the terms and conditions set forth in the RFP and any subsequent amendments thereof.

12. **"Performance Guarantee"** shall mean the Bank Guarantee furnished by a successful Bidder for punctual and due performance of its duties as per terms and conditions of this RFP.

13. "**RFP**" or "**Tender**" shall mean this RFP document which comprises of the following sections: Disclaimer, Instructions to Bidders, Scope of Services, Draft License Agreement, Service Level Agreement, Forms of Bid which include any applicable Appendix.

14. **Technical Proposal Evaluation Criteria** shall have a meaning specified in clause 6.2 of this RFP.

15. **Key Personnel** means the members assigned to this project who will implement the project and form the core team. Certain experienced, professional members who are essential for successful accomplishment of the work to be performed under this contract. The resumes of these personnel will be submitted for evaluation of the proposal and such personnel shall not be removed from the contract work or replaced without compliance.

16. **"COMMON CITY PAYMENT CARD"** means City payment card offered by SMC to the citizens of Surat for all city services including transport, municipal services like library, swimming pool, community hall, entertainment and amusement park, parking, bill payments, utility payments, etc. This is an open open-loop EMV compliant card.

Any other term(s), not defined herein above but defined elsewhere in this RFP shall have the meaning(s) ascribed to such term(s) therein and shall be deemed to have been included in this Section.

III. GLOSSARY

#	Abbreviations	Description
1	AMC	Annual Maintenance Contract
2	BoQ	Bill of Quantity
3	CCTV	Closed Circuit Television
4	CDMA	Code Division Multiple Access
5	CEO	Chief Executive Officer
6	CIF	Common Intermediate Format
7	CPU	Central Processing Unit
8	CST	Central Sales Tax
9	CSV	Comma Separated Values
10	DD	Demand Draft
11	EMD	Earnest Money Deposit
12	ETA	Estimated Time of Arrival
13	ETM	Electronic Ticketing Machine
14	FTTP	Fiber to the premises
15	GIS	Geographical Information System
16	GPRS	General Packet Radio Service
17	GPS	Global Positioning System
18	GSM	Global System for Mobile Communications
19	GUI	Graphical user interface
20	IOS	iPhone Operating System
21	ISI	Indian Standard Institute
22	ISO	International Organization for Standardization
23	IT	Information Technology
24	LAN	local area network
25	LCD	Liquid Crystal Display
26	LED	Light Emitting Diode
27	LoI	Letter of Intent
28	MCBF	Mean Cycle between Failure
29	MTBF	Mean Time Between Failure
30	MTTR	Mean Time to Repair
31	NDA	Non-Disclosure Agreement
32	NEMA	National Electrical Manufacturers Association
33	NIC	Network interface card
34	NMS	Network Management System
35	NTCIP	National Transportation Communications for Intelligent Transportation
36	OEM	Original Equipment Manufacturer
37	OFC	Optical Fibre Cable
38	ONVIF	Open Network Video Interface Forum
39	OS	Operating System
40	POS	Point of Sale

41	RFID	Radio Frequency Identification
42	RFP	Request For Proposal
43	RTP	Real-time Transport Protocol
44	SLA	Service Level Agreement
45	SMAC / CCC	Surat Smart City Center / Command & Control Center
46	SMC	Surat Municipal Corporation
47	SRS	Software Requirement Specifications
48	SSCDL	Surat Smart City Development Limited
49	UAT	User Acceptance Test
50	UPS	Uninterrupted Power Supply
51	UTP	Unshielded Twisted Pair
52	WO	Work Order

IV. NOTICE INVITING REQUEST FOR PROPOSAL

	Surat Smart City Development Limited (SSCDL) 115, Smart City Cell, Surat Municipal Corporation - HQ, Muglisara, Main Road, Surat - 395003, Gujarat. **Notice Inviting RFP for iPARK - Intelligent Parking Management System for Surat City** **[RFP No.: SSCDL-IPARK-RFP-01-2017]**	

Surat Smart City Development Ltd. invites the online bid (on https://smc.nprocure.com) for iPARK - Intelligent Parking Management System for Multilevel Parking & Open Parking Lot in ABD area of Surat City from the bidder meeting the basic eligibility criteria as stated in the bid document.

Bid Fee (Non-refundable)	INR 2832 (INR 2400 + 18% GST) by Demand Draft or Banker's Cheque
Date of Issue of the Bid Document	28/07/2017
Pre-bid Conference by Submission of queries by email	By e-mail to it@suratsmartcity.com on or before 04/08/2017 18:00 hrs
Price Bid Submission	To be submitted online only on https://smc.nprocure.com on or before 11/08/2017 up to 18:00 hrs
Technical Bid Submission (in Hard Copy) filled-in Technical Bid along with Bid Fee, EMD, Solvency Certificate and other documents.	In sealed envelope, strictly by RPAD/Postal Speed Post on or before 18/08/2017 up to 18:00 hrs. To the Chief Accountant, Surat Municipal Corporation, Muglisara, Surat – 395003, Gujarat.
Earnest Money Deposit (EMD)	INR 75,000/- (Seventy Five Thousand only) by Demand Draft or Banker's Cheque
RFP Document Availability	https://smc.nprocure.com, http://suratsmartcity.com, https://www.suratmunicipal.gov.in

The right to accept/reject any or all bid(s) received is reserved without assigning any reason thereof.

GM (IT)

Surat Smart City Development Ltd

A. INTRODUCTION AND BACKGROUND

1. INTRODUCTION

1.1   ABOUT SURAT

Located in western part of India in the state of Gujarat, Surat is referred as the silk city and the diamond city. It has the most vibrant present and an equally varied heritage of the past. Surat is also known as economic capital of Gujarat and is having one of the highest growth rates amongst Asian cities. As per the Census 2011, it is the eighth largest city in the country with population of 4.48 million. On the scale of population growth, Surat is the fastest growing city in Asia and holds 4th rank in the world. On the economic front, Surat holds top most position with highest per house-hold income in the country. Surat City has consistently maintained high GDP growth rate of 12 to 13% and high per capita income.

The economic base of Surat consists of large chemical and petrochemical and natural gas based industries at Hazira established by leading industry houses such as ONGC, Reliance, ESSAR, and Shell. Surat is the biggest centre of MMF (man-made fibre) in India. The overall annual turnover is around 5 billion rupees (approximately USD 82 million). There are over 800 cloth wholesalers in Surat. Surat produces 9 million meters of fabric annually, which accounts for 60% of the total polyester cloth production in India. Textile and apparel industries offer major employment in this region. Surat region is a hub of diamond cutting and polishing industries. The city accounts for 90% of world and 99.9% of India's total rough diamond cutting and polishing. It also accounts for 90% of India's total diamond export.

Surat has also been selected as one of twenty Indian cities (in the first round of selection) to be developed as a smart city under Smart Cities Mission.

1.2   ABOUT SURAT MUNICIPAL CORPORATION

Surat Municipal Corporation is a local self-government which has come into being under the Bombay Provincial Municipal Act, 1949. It carries out all the obligatory functions and discretionary functions entrusted by the BPMC Act, 1949. It became one of the first municipalities of India in 1852 AD, and a municipal corporation in 1966.

The administration of SMC with the help of the people and elected members of the city has transformed Surat to one of the cleanest cities of India. SMC has taken all necessary steps to make the city a better place to live with all amenities. SMC has taken up many path breaking initiatives and these efforts have been acknowledged at national and international level.

SMC's commitment to achieve its mission and carry out the above listed functions successfully can be summarized as below:
- Dedication to achieve excellence in providing civic amenities
- Responsive, Modern, Simple, Accountable and Transparent Administration

Surat Municipal Corporation (referred to as SMC henceforth) has harnessed the power of IT before it became ubiquitous and a necessity for organization of its size. SMC is one of the very few local self-governments to adopt computerization in its early phase and initiated its use for better governance.

Surat Municipal Corporation (SMC) is the nodal agency responsible for providing designated parking spaces to the vehicle user. SMC has the statutory power to collect parking fee through user charges notification. The Traffic Department of Surat Municipal Corporation performs its obligatory duty to provide traffic engineering aspects for regulating and controlling the traffic of the city with the mission of "Overall regulation and control of vehicles and pedestrian Traffic and Transportation, to provide safe and fast travel trip to the citizens."
The traffic department also handles parking situation across Surat city. The parking cell performs activities like new parking lot construction and maintenance of existing parking spots.

More Information regarding SMC and the services provided by SMC can be found on SMC's website at www.suratmunicipal.org.

1.3   ABOUT SURAT SMART CITY DEVELOPMENT LIMITED (SSCDL)

As per the Government of India's guidelines, Surat Municipal Corporation has formed a separate Special Purpose Vehicle (SPV) as Surat Smart City Development Ltd. (SSCDL) for the implementation of projects under the smart city mission for the city of Surat. This SPV shall carry end to end responsibility for vendor selection, implementation, and operationalization of various smart city projects.

1.4   VISION FOR INTELLIGENT PARKING MANAGEMENT SYSTEM

2.2.1   Need for Parking Management System
Around the world, commuters deal with the daily struggle of finding a parking space. Surat is expected to remain one of the fastest growing city in the world with several economic and infrastructure initiatives to happen in near future. With such growth expectation it is required that the city governance is prepared to tackle the parking requirements of its citizens which will also be growing multifold.

2.2.2   Vision
Combining information management and analytics with data gathered from parking sensors and parking management system will allow cities to make smarter and timelier decisions related to parking and their transportation systems. Citizens will be able to use the application over mobile or web to understand the parking availability, live across the city and at the same time officials will be able to use this solution to better understand parking patterns so they can improve citizen services, optimize revenue and more effectively allocate city resources while planning.

SMC can use massive amount of transportation data available that can help it alleviate congestion and improve transportation services, such as parking. With this fully integrated offering, in form of Smarter Parking solution SMC can produce tangible results and happier citizens.

2.2.3 Objective for the project

The business objectives envisaged by implementing Intelligent Parking Management system are:

- Integrated Multilevel Parking and off-street parking with advanced real-time parking availability information on-demand through mobile application to its users.
- Optimize parking space usage
- Reduced congestion through improved capacity of arterial & collector streets through regulated parking that does not block smooth movement of through traffic.
- Reduce leakages in parking through utilization of digital payment methods for paying parking charges
- Enable time and location specific parking tariff to be implemented to facilitate demand management
- Enable enforcement of penalties on parking violations
- Enable dynamic parking tariff to be implemented to facilitate demand management
- Provide users with advanced information and guidance on mobile handsets for availability of parking spaces in and around their destinations
- Provide and install necessary hardware and software solutions, such as but not limited to boom barriers, handheld devices, porta-cabins, switches, gateway, and guidance system, for off street and MLP system
- Integration with Central Control Centre for viewing, analyzing the CCTV feed and monitoring and managing of Smart Parking

2.2.4 Current situation

SMC has following parking infrastructures across the city

Parking spot category	Number
Under Fly-Over Bridge	10
Open Plot	11
Multi-Level	9
Off-Street	3

Under smart city project there are several mechanized parking also being planned across the city.

2. SCOPE OF WORK

The Objective of Smart Parking is to provide a seamless, efficient, citizen-friendly, cost-effective parking operation for Surat City and have the capability to scale and integrate the latest technologies which would include smart parking/navigational capabilities with digital payment platforms.

The selected bidder will be required to Design, Develop, Supply, Install, Implement and Maintain iPARK - Intelligent Parking Management System which is intended for implementation at One Multi Level Parking Facility along with two Open Parking Lots in the ABD area for Surat City

Revenue collection and associated operations with manpower is awarded to different vendors by SMC through separate tendering process and is not part of this RFP.

2.1   OVERVIEW OF LOCATION

As part of Smart City Projects, SMC has identified Seven (7) Town Planning Schemes located in the East Zone and South East Zone of Surat. The ABD area accounts for 3% of total geographical area of Surat city whereas by population it is around 10% of the city population while GDP share of this area is around 16% of the city. Area Based Development for this area with smart features will charge up the business environment and enhance the quality of life of the people.

The overview of the site selected for pilot project is as follows:
1.   The site selected for iPARK system implementation is located in the ABD Area.
2.   The site selected is South East Zone (Limbayat Zone) Multi-level Parking
3.   The site map is depicted in Figure1, The multi-level parking is at a very important location being next to Millennium Textile Market and center of commercial activities
4.   It consists of four levels of parking which include basement parking for two wheelers, ground level parking for commercial vehicles for loading and unloading, first floor is covered parking for cars and second floor is an open terrace parking for cars
5.   The place is fit for smart parking management and does not need any major structural changes.
6.   The basement floor has a dedicated single ramp for two wheelers entry and exit and with a capacity of approximately 400+ two wheelers.
7.   The Ground Floor is used by commercial vehicles with bigger parking slots and also used for loading/unloading and has approximately 60 spaces for parking. Since the place is next to millennium textile market so utilization by commercial vehicle is good.
8.   The First Floor (covered) and second floor (open terrace) are for car parking with capacity of around 100 cars each
9.   A dedicated entrance ramp and different exit ramp is present.
10. There are two off street open space parking next to this multilevel parking as well, so they are added to the project scope thinking from citizen perspective if they get complete view of the parking availability in that area and not just multi-level it would be more meaningful and it will also serve as pilot for other off-street pay n park of SMC.

Figure 1-Site Map

2.2 PROPOSED PARKING SOLUTION

Parking Management System will include following features:

1. **Multi-Level Parking System:** Multi level parking system consists of all indoor / covered / underground parking areas considered under this project. It shall include, but not limited to, entry and exit parking equipment and automatic barriers, camera/sensors for recognition of each parking slot, loop sensors, slot availability information, advanced slot booking facility and map based guidance system, LED signages and CCTV at entry and exit.

2. **Off-Street Pay n Park:** This consists of demarcated area for parking near a street or road. It will include, entry and exit parking equipment, automatic barriers, handheld devices, advance booking of parking facility and map based guidance system, LED signages and CCTV at entry and exit.

3. Integrate the parking management system to central control center (SMAC) and give citizens and SMC officials, live status of parking occupancy.

4. Provision of digital signage(s) near-by and within parking premises to guide vehicles to the parking facility and provide real time parking availability status.

5. Generate hourly, daily, weekly, monthly and annual reports on occupancy and revenue to suggest SMC on potential of the respective site.

6. Integration with Common City Payment Card and acceptance of the payment through it.

7. Future state requirement, solution should have RFID natively integrated and shall only require additional hardware independent of make/model/ to make it fully functional. However, the protocols for integration should be TCP/IP inorder to have a seamless plug and play functionality.

8. On successful implementation of parking solution for this pilot project, SMC reserve the right to extend the project to other parking sites across Surat using same unit cost for hardware with no additional cost for software application except predefined unit rate for customizing the application for such newly added MLP/Off-street parking facilities as quoted in the BoQ for this pilot project.

2.2.1 Project Engagement Model

The Engagement model is split into two stages:

2.2.2.1 Implementation Stage

Implementation of smart parking solution. Within 90 days from the date of handing over of parking site, complete smart parking solution is to be implemented and operationalize as per scope defined in this RFP document.

2.2.2.2 Operation and Maintenance Stage

The contract period is five years from the date of handing over. This includes three months of implementation period. The Bidder shall maintain and manage the complete parking solution as designed and built under this RFP document, throughout the contract period.

2.2.2.3 SMC Responsibilities

1. Space required for installation of Gateway, Switches, Routers, Cameras, LED/LCD signage's etc. for smart parking services will be provided free of cost by SMC. However, any Civil/Electrical work required will be the responsibility of the Bidder at its own cost.
2. SMC will provide built-up space for setting up of Central Control Centre within SMC premises, free of cost.
3. Raw Power supply to run the solution.
4. At the end of the Contract period, all rights given to the Bidder, shall be terminated automatically.

2.2.2.4 Bidder Responsibilities

The bidder is responsible to deliver the entire scope of work as detailed in this RFP. The bidder's responsibility are broadly indicated as under:

1. Design, develop, supply, installation, implementation and maintenance of the smart parking system as per the Service Level Agreement (SLA) throughout the contract period. Penalty will be imposed as per SLA in the Penalty Clause of this RFP document for non-adherence of the terms and conditions of the RFP. If the service level dips below the minimum benchmark, SMC may terminate the contract as defined in RFP document
2. Maintain and manage all hardware, software and services covered in this RFP document throughout the contract period.
3. The bidder shall carry out necessary electrification and networking work for all devices / equipment, such as LED signages including sensors, boom barriers, handheld device, manual pay station, CCTVs, Central Control Centre, built / installed under this RFP document.
4. Bidder will be hosting the solution on SMC data center at Muglisara along with any local instance required at respective parking site and connectivity to the data center will also be responsibility of the bidder.

5. The integrated data available from all software applications from parking solution proposed , should be available in a central database on a central server located at SMC datacenter. The data should be stored in such a way that whenever required it can be queried and made available in report format.

6. Procurement, installation, configuration, Operating System, Database Licenses, hardening of server infrastructure (e.g. CPU, operating system, RAM, storage, etc.) that will host the software application should be provisioned by the selected bidder. SMC will provide only necessary rack space at SMC Datacenter. Necessary network infrastructure within SMC Datacenter will also be provided by SMC. The hardware infrastructure should be able to sustain required load and should support all functional as well as non-functional requirements.

7. Bidder will be responsible for maintenance of the systems/ devices/ equipment /work carried out as part of this RFP throughout the contract period.

8. The Bidder will be responsible for all civil and installation work related to network connectivity, power supply extensions to devices, installation of devices and equipment, and any other networking, communication, and infrastructure requirements related to any work under this RFP document.

9. The Bidder will be required to take the insurance of the entire parking hardware for a period one year.

10. To provide FTTP / broadband connection at each of the parking lot to bring parking related data on real-time basis and CCTV data on demand basis to the Central Control Centre throughout the contract period of project.

11. Erect suitable steel structures at its own cost for installation of LED signages for parking guidance and management system. These structures/ poles shall be of SS/GI, and aesthetically designed and structurally stable and should be approved by SMC.

12. Provide adequate battery bank to ensure uninterrupted power supply to all hardware (equipment, devices, etc.) covered under this RFP document.

2.3 FUNCTIONAL REQUIREMENTS OF PARKING MANAGEMENT SYSTEM

2.3.1 Parking Guidance and Management System (PGMS)

1. The PGMS internally comprises of two subsystems, namely Parking Guidance System and Parking Management System. The Parking Guidance System consists of real time information about availability of parking slots, acceptance of payment through various modes like cash, Common City Payment Card, e-wallet, Debit/Credit card, etc. and billing information. The Parking Management System comprises of the access control system for tracking vehicles in and out of the parking lot, components like sensors, entry devices, barriers, exit devices, payment device, payment mechanism, wireless handheld device, etc.

2. The Parking Management System components should communicate back and forth with the central database and there should be provision to monitor various parameters related to parking facility like occupancy, revenue collection, surveillance, etc. from Central Control Centre (SMAC). The Parking Guidance System will guide the motorist to appropriate parking slots using a combination of digital signs and indicators within and outside the parking lot and through Mobile App.

3. Parking Management System must geo-reference the parking lots and shall have the ability to add more locations in future. Smart parking solution should enable accounting and mapping of individual parking spots to different operators/agencies and monitor the parking space utilization and revenue from those facilities. It Should also capture the start date and end date for the operator contract for each parking facility.

4. All parking lots Muli-Level Parking and off-street must have one-to-one mapping of all the sensors in that location

5. Each MLP and off-street parking lot shall have a local server for storage and hosting the local parking management application. These should be connected to SMC data center.

2.3.2 Parking Information/Guidance

1. Parking Management System should enable stakeholders/users to obtain real time information about the availability of the parking lot by location, based on the occupancy of parking lot, by distance and by parking fee.

2. The total number of slots and free slots for parking must be displayed on a digital signboard near the entrance of the parking lots.

3. Every parking space in MLP shall be fitted with an occupancy sensor for vehicle detection. Sensor should be intelligent and accurately detect if the vehicle space is vacant or occupied. However, the proposed sensors should not detect any human movement.

4. Informative Display Panels should be installed at all entry points (every floor in case of multilevel car park) of the parking lot indicating available spaces for each parking level, total parking and should be able to be customized by software. The display panel should be easy to understand and must have graphical directional and zone status indication (as red crosses for zone full or green directional arrows to guide drivers to zones with available spaces).

5. All the Parking Information/guidance system hardware like Sensors, display will be integrated with Parking Guidance Controller which monitors the status of occupancy and controls guidance signs appropriately.

6. Appropriate sensors should be chosen based on the type of the parking spot and its external conditions. The Bidder can propose innovative, advanced but reliable and cost effective implementation approaches using any sensor technology like ultrasonic, magnetic and camera based sensing
   a) The sensor should be able to detect a vehicle irrespective of the depth or height of sensor installation.
   b) Each sensor should have its own unique identification in order to be accurately tracked by the PGMS.
   c) Each sensor should have an accurate and real time feedback mechanism to be detected automatically by the system in case of faults.

7. For Off-street Pay n Park, the number of available parking slots will be based on estimated spaces since each parking space is not marked. Provision has to be made to count each entry and exit of four wheeler and two wheeler separately and available spaces to be reduced after each entry of a vehicle and added on exit of the vehicle.

2.3.3 Parking Access Control / Management

1. Each multi-level and off-street parking shall have parking ticket dispenser machine at the entrance where the ticket can be issued by the machine on pressing the button by the user/ operator

2. Each entry lane should be equipped with one Entry Device with the following capabilities:
   a) Ticket Dispenser
   b) Push Button for Dispensing Ticket

3. The ticket, QR Code and Common City Payment Card or any other technology used by Bidder should be capable of capturing data that is easily retrievable at the exit

4. Every vehicle entering the parking space should be stopped by barrier. The barrier is raised when the motorist is issued a ticket or has been identified as a legitimate user.

5. In case the parking lot is already occupied to its capacity, the ticket issuing should automatically be blocked and therefore, the barrier should not open. A message should also be displayed on the outdoor screen stating the same

6. The display on Entry Device should have capability to display messages in English, Hindi and Gujarati.

7. Any vehicle, before leaving the parking area, should be stopped by a barrier system at the point of exit from the parking.

8. The solution should also include provision to capture the image of the vehicle (including vehicle registration number plate view) entering and leaving any of the parking spaces and the all the information related to the same should be stored at the central server.

9. Exit of every parking should be equipped with a manned Pay station (booth).
   a) Exit booth should have appropriate space for keeping devices such as a computer in case of an off-street/MLP facility with internet connectivity, QR code reader, Common City Payment Card Reader and Thermal Receipt Printer etc.
   b) For motorists who enter the parking lot using Common City Payment Card, should get the ticket from the ticket dispenser as any other user and at the exit use the Common City payment card as a method of payment, paying the amount as per business rules as specified during design time.
   c) If any discounting is allowed for parking, the business rules for the same shall be provided by SMC and any discounting as applicable shall be handled by the system.
   d) The personnel monitoring the exit Pay Station is also required to manually enter the vehicle registration number details in the system so that the vehicle registration number, along with date and time of exit, is stored in the database.
   e) The payment for parking should be collected based on entry time stamp by any personnel stationed at the Pay Station.
   f) The system will calculate the fee automatically and indicate this on the user fare display clearly visible to the motorist. No manual intervention should be necessary to compute the fee.

10. Once the vehicle exits a parking slot, the total parking slots available in that parking space should automatically get updated.

11. Only after completing the full cycle correctly the transaction will be considered as valid within the parking facility. However, audit trail of each complete, incomplete and cancelled transaction should be available in the system.

12. The solution should be equipped with anti-pass back technology and be able to detect and report any instance pass back.

13. The barrier should remain in closed position for optimal period of time for the vehicle to pass at entrance and exit.

14. Upon horizontal impact by a vehicle, the barrier boom arm should get detached from the barrier unit with minimal damage to the vehicle and the barrier motor mechanism. An alarm should also be raised and sent to the server and monitoring console, when the boom arm of barrier is detached.

15. Under no circumstances should the boom arm re-open except the vehicle impact. This is to prevent, keeping the arm open for illegal entries or exits.

   a) All the boom Barrier detaching incidents shall be captured in the system as an Alert and the video/image of the same shall be captured by the cameras at the entry and exits.

   b) The barrier arm should be easy to refit with barrier unit in a short duration (within one minute).

16. The solution should have capability to capture image of the vehicle registration number plates of the vehicles at every entry and exit of parking lot. The image should be clicked at the entry point when the ticket is issued and at the exit point during payment. The image of the license plate should be linked to the details of the corresponding ticket issued in real- time and stored in the database for six months. This information will be stored in the SMC data center.

17. The Parking Management System should retain videos of car entering/exiting the parking zone for a period of Six Months

2.3.4 Parking Pricing and Payment

1. The Parking Management System should facilitate real time revision of parking fees and should enable real time communication of rules to handheld terminal and parking booths from Central facility/Control Centre.

2. Payment sub system shall have the capability of processing and reporting separately numerous transactions including, but not limited to, the following:

   a) Normal transaction
   b) Lost ticket transaction
   c) Mutilated or unreadable ticket transaction
   d) Non-revenue (no charge) transaction
   e) Blank or used ticket transaction

3. Parking Management System should enable SMC or any other appointed third party to facilitate generation of parking receipts and tickets based on occupancy of parking lots and business rules to be amended from time to time.

4. User shall have the multiple payment options as given below.

   a) Primary mode of payment for parking will be by cash at the Pay Station

b) Common City Payment Card
c) RFID tags (Future state requirement, solution should have RFID natively integrated and shall only require additional hardware to make it fully functional)

2.3.5 Audit, Performance MIS Reports and Alerts

1. PMS should track each and every revenue source and should ensure no leakages due to manual intervention.
2. All vehicular passages during the time that the barrier is not functional/down should be recorded and displayed in the reports separately in order to audit the necessary revenue transactions during that time.
3. System shall daily check whether the vehicles that have entered the premises and are yet to leave. Thereby it should be able to generate alert if any vehicle is overstaying in the parking lot over 24 hrs.
4. In case of any sensor or barrier non-functional, an alert should be sent to the console and server to ensure that the administrator is informed that the device is not working.
5. Parking Management System should:
    a) Report occupancy of parking lots to a central software application deployed at the SMAC using the network laid out as a part of this project.
    b) Include central reporting system establishing the connection between the devices and sensors, and the centralized SMAC.
    c) include reporting dashboards with location specific thresholds to be set for generating customized reports
    d) Be capable of monitoring the number of vehicles that entered or exited the parking premises during any given time.
    e) Generate reports based on the operating agency/agencies managing the parking operations.
    f) Generate reports for each parking spot, in each of the parking lots capturing utilization, cost, and revenue details, and details of assets, people and etc. These reports should be available in all standard acceptable formats like .csv, .pdf, .txt, etc.

2.3.6 Breakdown/ Off-Line / Manual mode

1. PGMS should include the use of wireless handheld device for MLP system and off-street parking. This device shall be used in case of off-street parking or indoor parking during peak hours or as a fallback mechanism. However, this device must track every transaction limiting any manual transaction to zero.
2. MLPs/off-street: In case of fallback (system unavailable), it should be possible for the wireless handheld device to be used as central cash payment device (i.e. it should be possible to scan the QR Code on tickets issued by the entry device and issue receipts post payment, so that the motorists could pay for the parking and then drive out quickly), without any time consumed for payment transactions at the exit.
    a) The device should have capability to print parking receipts and bar coded tickets in real time.

b) Both the functionality of ticket dispensing & cash register should be possible to be combined in one device.

c) This wireless handheld device should be an online unit, connected in real-time with SMAC using either Wi-Fi or 3G/4G. However, in case of network failure, the device should have capability to transact offline and sync with the server as and when connection is restored.

d) The wireless device to have batteries and power supply along with cradle for charging.

2.3.7 Maintenance Mode

1. The central system and all the equipment (barrier gates, ticket dispenser, POS units etc.) shall support maintenance mode during repair, replacement and testing of equipment.

2. All transactions done during the maintenance mode on a ticket dispenser or a handheld ticketing machine shall be possible only using a special maintenance user rights specifically for the purpose.

3. All transactions carried out in the maintenance mode shall be reported separately like exception transactions.

4. The maintenance mode shall be possible only by using a dedicated maintenance "user privilege login" specially created for this purpose.

2.3.8 Central System

1. Uploaded data shall not be deleted from system readers or workstations until the central system has provided confirmation that the transactions have been successfully received.

2. The central system shall be able to update its date and time applying time synchronization to servers and using this to in turn update the date and time on all system devices and workstations.

3. All active equipment shall have an internally maintained date and time clock synchronized at a time interval via the communications controller with the Central System date and time clock.

4. The time synchronization application in the device shall have the capability to adjust the minimum time interval for updating itself with the central system time and date, and shall be capable to update time as often as every minute (configurable) with the central system.

5. The central system shall manage all device activity and maintain their logs including at a minimum:
   a. Data storage and processing systems
   b. Financial systems
   c. Customer databases
   d. Sales and transaction systems

6. All equipment shall operate with a real-time data connection to the central system via the communications network for that equipment.

7. If the data connection to the central system is temporarily lost, all equipment shall seamlessly switch to an offline mode in which all data is temporarily stored in internal memory and transmitted to the central system as soon as the data connection is re-established.

8. All equipment shall have sufficient memory to operate in offline mode, with no loss of data, for no less than 15 Days.

9. The central software shall support managing parking fare tables.

10. It shall be possible to "future-date" pending fare tables so that they can be uploaded ahead-of-time and automatically activated at the planned date and time.

11. All ticket dispensers and handheld ticketing machines shall store the current valid fare-set as well as a future "pending" fare-set with activation date and time in order to allow downloads to the device to occur in advance.

12. When the activation date and time passes, the ticket dispenser and the handheld ticketing device shall automatically replace the existing fare table with the "pending" fare table.

13. Updated fare-sets shall be downloaded as soon as the central system publishes notice that they have become available.

14. The central software shall be capable of providing over-the-air fare table updates & firmware updates to the handheld ticketing devices apart from other immediate critical updates.

    The systems should be driven by configurable parameters and should provide the flexibility for maximum configuration. The configurations shall be for, but not limited to:

    a. Time based Fare table etc.
    b. User Groups and users privileges
    c. Time validity of ticket
    d. Addition & deletion of equipment, nodes, parking lots, handhelds, user groups, users etc.
    e. Reports access

15. The system shall handle all exceptions. Exceptions can be, but not limited to:

    a. QR coded ticket not being read
    b. Manual opening of the barrier gate
    c. Paper ticket lost
    d. QR coded paper ticket not readable after entry

16. Any exception in the normal process shall be flagged separately for auditing and reports should reflect this condition. Mechanisms should be provided to help audit such exceptions.

17. The system shall handle all degraded conditions which can be, but are not limited to, the following:

    a. Ticket Dispenser is not functional
    b. Power failures
    c. Data Connection lost
    d. Particular node down
    e. Central Server down

18. Alterative mechanisms and all required systems shall be provided for the system in case system is in degraded state as specified but not limited to the above by the Bidder.

19. There should be provision in the system to enter degraded transactions, in case they are not registered because of degraded operations.

20. The Bidder should provide an automated Fault Monitoring Module to generate reports identifying the faults of the equipment if any on a daily basis. The fault monitoring system shall have the following minimum capabilities:
    a. Setting up of automatic and manual alerts
    b. Automatic fault detection & reporting
    c. Fault Status reports
    d. Fault Closure reports
21. The reports shall be non-editable and SSCDL and/or its representatives shall have real time access to the Fault Monitoring Module with user privileges of the highest level.
22. Automatic Backup/Archiving Software shall provide automatic back-up of the entire database. The software shall allow taking complete back up or incremental back as per the desired archival policy.

2.3.9 Monitoring & Control Dashboard
1. The Parking control center operator shall be provided with a dashboard and monitoring system that is completely independent from the revenue transaction system and shall be displayed and monitored at the parking facility control room. This system shall record the following information:
    a. The total number of vehicles crossing the gate loop in each controlled entrance and exit lane (count to be obtained regardless of status of equipment components e.g., gate arm raised).
    b. The total numbers of valid card access vehicles for each controlled entrance and exit lane.
    c. The total numbers of valid daily vehicles for each controlled entrance and exit lane.
    d. The number of violation vehicles for each controlled access lane. A violation vehicle is defined as a forced or un-authorized passage of vehicle over the detection area.
2. On this dashboard there shall be a schematic layout showing all the connected parking nodes on the GUI.
3. The various nodes when connected & disconnected shall be represented in different colour schema on the GUI of the SMAC operator.
4. If any particular node is disconnected from the control room, the same shall raise an alarm to the SMAC operator GUI & appropriate action shall be taken to rectify the same.
5. The monitoring dashboard shall allow the SMAC operator to click on any node & view the details of the "operator" logged in, time duration since logged in, summary of transaction performed, disable/enable Entry/Exit Station or POS terminal, other components of parking system.
6. If SMAC operator or any other user from SMAC disables/enables/operates any active device remotely, the same shall be captured in the SMAC activity report with all details including but not limited to date , time, device, action performed etc.
7. The monitoring dashboard shall show the status (connected/disconnected, faulty/working) of all logical devices (barrier gate, ticket dispenser, camera, Common City

Payment Card reader, receipt printer, QR code reader and other equipment) connected to a particular node when clicking on a node from the monitoring dashboard GUI.

8. In case of any fault in the devices connected to a node, or connectivity failure with a node, a pop-up message shall appear on the monitoring dashboard workstation. The operator has to acknowledge the pop-up message & report the type of fault to the maintenance team & shall record the details to the assigned team/individual into the system.

9. Fault assignment to the maintenance team shall be managed and controlled by the system software only. Once a fault is assigned by the SMAC operator or authorized user to the maintenance team, the same shall be displayed in the maintenance module and once fault is closed/resolved by the maintenance team it shall be updated automatically (in case of active devices) or else updated manually in the software application/maintenance module promptly.

2.3.10 System Data Requirements

1. SSCDL shall own all system data and be able to use the central system to export transactions data for processing/analysis using other software.

2. Data shall be retained in the database for at least the financial year previous to the current financial year.

3. Sufficient data storage capacity shall be provided in the central system to store online a minimum of two years of activity with full transactional data. The expected daily transactions on the system is around 3,000 per day in the base year.

4. All data shall be automatically backed-up daily without human intervention, using the backup devices and media.

5. Means shall be provided to automatically archive data older than two years along with the archiving media to store the data.

6. The transactional database shall store the date/ time stamped details of each transaction including all information transmitted to the central system from the system devices.

7. SSCDL shall own all system data and be able to use the central system to export transactions data for processing/analysis using other software.

2.3.11 Citizen/ Operator / Authority Interface

1. The Parking Management System should have a mobile and a web delivery channel for citizens to get real time parking availability.

2. A mobile application and web based user interface should be provided with the following features:

   a. The mobile application should be free to download and use for all citizens.
   b. Compatible with and responsive to all leading smart phones on Wi-Fi, GSM and CDMA networks
   c. Should be Operating System (OS) independent and available on all major OS platforms including Android and iOS.
   d. The app can be a hybrid app and development to be undertaken on Open Platform.
   e. The application should have citizen module and admin module.

f. Through the citizen module, the user should be able to locate nearest parking lot based on user's geographical coordinates. The same information must be made available on map with routing information.

g. The citizen should be able to see all the parking lots with exact available space in a real time mode.

h. The administrators should be able to generate MIS report to view occupancy, collection and other usage statistics over a defined time period.

2.3.12 Integration with other Systems

1. Integration with Smart City Platform and Mobile Applications - Integration of various components provides seamless access of various data across the departments which helps in operation. So the Bidder shall provide complete support for any third party integration required to integrate iPARK with Smart City Platform of SMC and mobile applications to get real time data.

2. Integration with Common City Payment Card - A Common City Payment Card is being envisaged as part of Smart City Initiatives which shall be used for making payments at multiple merchandises across Surat. The card shall be issued by Banks and will be accepted at most of the facilities in Surat including utility payments, transit, parking etc. The Bidder shall work in close coordination with the Bank and other related agencies to make it workable.

3. The system shall integrate with 3rd Party parking Systems deployed across the City and provide the information to Citizens

2.4 NON-FUNCTIONAL REQUIREMENTS OF PARKING MANAGEMENT SYSTEM

2.4.1 Ticket Dispenser

#	Parameters	Particular
1	Display	Display shall be LCD colour graphics user definable display 240 x 160 pixels type with damage resistant lens capable of displaying graphics and images.
2	Ticket Capacity	Dispenser paper roll capacity shall be at least 5,000 tickets per roll and shall have a built-in photo sensor to give paper roll low level indication.
3	Printing technology	The Dispenser shall have built-in high speed ticket printer based on thermal technology and able to print tickets with text and graphics including QR code. Tickets issued shall be cut with a self-sharpening ticket cutter
4	Printing Speed	The print speed shall not be less than 150 mm/s for both text and graphic and at a minimum resolution of 200 dpi (8 dots/mm).
5	Communication	Dispenser controller device shall communicate over Ethernet with the Central Server. No proprietary RS485 cabling or other proprietary system is allowed for communication to dispenser
6	Interface	Dispenser controller shall support USB, Serial, and RS-232 communication mediums to add on devices. Dispenser controller shall have additional inputs and outputs assignable to functions like open/closed sign relays for barrier gates and indication lights operation.
7	Controller	The Dispenser Control unit shall include CPU, input/output terminals, and power supply and logic board for display.
8	Environmental	All dispensers shall come with standard equipment such as heater and cooling fan using a thermostatic controller to ensure a reasonable operating temperature for components in various weather conditions. Humidity range is up to 90% non-condensing.
9	Enclosure	The Dispenser shall have Front/Rear door for easy access for ticket loading and logic board access. The Dispenser housing shall be at least IP54.
10	Operating Temperature	The Dispenser shall have operating temperature range of 0°C to +55°C.

2.4.2 Barrier Gate

#	Parameters	Particulars
1	Barrier Boom Arm Length	Maximum 3.5 m
2	Opening/closing time	1.5 s
3	Duty cycle	100%

4	No. of digital inputs	4
5	No. of relays/digital outputs	4
6	Boom Arm	Folding boom with Breakaway flange with sensor to detect detachment of boom arm
7	MTBF	10 million cycles
8	Enclosure rating	IP54
9	Enclosure Type	The Barrier Cabinet and Boom should have finished with an anti-corrosion paint system. The Barrier gate control system shall be located inside the main Barrier Cabinet and should give easy access to all electrical components for connection, maintenance and programming, including the power isolation switches
10	Safety Sensor	The Barrier gate should have infrared sensors to detect the presence of human, vehicle and other object for extra safety.
11	Temperature range	0°C to +55°C.

2.4.3 Parking Occupancy Controller

#	Parameters	Particulars
1	Function	All occupancy sensors shall be integrated to the Parking Controller to give real time status of parking lot occupancy.
2	Built	The parking controller shall be rugged and shall have sufficient no. of I/O terminals to take feed from occupancy sensors. If multiple controllers are required to cater to occupancy sensors, the same shall be provided.
3	Interface	Based on the feedback from the occupancy sensors and Parking System, the controller shall be able to control the parking guidance signals based on their location to guide users accordingly to nearest vacant slot.
4	Communication	RS232 and Ethernet
5	Temperature	0°C to +55°C.
6	Type of protection	IP66

2.4.4 Parking Occupancy Sensors

#	Parameters	Particulars
1	Function	The ultrasonic, magnetic, camera or any other suitable sensor shall be used to detect occupancy status of the parking lot/bay. The sensor should transmit this signal in real time to the Parking System to evaluate occupancy and count.
2	Built	The sensors shall be housed in an aesthetically good casing and should have mounting provisions suitable for roof mounting, pipe mounting and Floor embedded installation.

3	Self-Diagnostics	The sensor shall have self-diagnostic functionality to identify any defects and report it to the parking system.
4	Communication	Wireless Communication with the controller
5	Temperature	0°C to +55°C.
6	Type of protection	IP67
7	Battery Life	In case of magnetic sensor or any other sensor working on Battery the battery should last for about 7 years of continuous operations

2.4.5   Public Information Signs (PIS)

#	Parameters	Particulars
1	Function	PIS shall be used to display information to users at each multi-level parking station for the vacant slots.
2	Display lines	Type A: Mounted outside MLP area indicate vacant parking lots on each floor to the users shall have single line with 15 Characters (Alphanumeric) each for the all the respective floors.
		Type B: Mounted at designated locations on each floor to indicate vacant lots for that particular floor shall have single line with 15 Characters (Alphanumeric) each
3	Colour	Multicolour
4	Language	The display units shall support multi-lingual fonts in English, Hindi and Gujarati for easy reading.
5	Character height	60 mm at least
6	Weight	Shall be less than 2.0 kg
7	Type of protection	IP66
8	Temperature	0°C to +55°C.
9	Power Supply Requirement	240Vac at 20W
10	LED type	Ultra bright AllnGaP LEDs
		8000mcd at 20mA, 300 viewing angle
		Suitable for outdoor condition under bright sunlight
11	Viewing distance	> 50 meters
12	Communication Interface	RS232 and Ethernet
13	Reliability and maintainability	MBTF: 100000 hours
		MTTR: 15 min.
14	Self-Diagnostics	The display systems shall have built-in test facility, able to carry out self- check at periodic intervals as well as exchange of diagnostic information from the parking management central system including power availability, and its current status.

2.4.6   QR Code Reader

#	Parameters	Particulars

1	1D Symbology Decode Capability	UPC/EAN (UPCA/UPCE/UPCE1/ EAN-8/EAN-13/JAN-8/JAN-13 plus supplementals, ISBN (Bookland), ISSN, Coupon Code), Code 39 (Standard, Full ASCII, Trioptic,Code 32 (Italian Pharmacode), Code 128 (Standard, Full ASCII, UCC/EAN- 128, ISBT-128 Concatenated),Code 93, Codabar/NW7, 2 of 5 (Interleaved 2 of 5, Discrete 2 of 5,IATA, GS1DataBar Omnidirectional, Truncated, Stacked, Stacked Omnidirectional, Limited, Expanded, Expanded Stacked)
2	2D Symbology Decode Capability	TLC-39, Aztec (Standard, Inverse), MaxiCode, DataMatrix/ECC 200 (Standard, Inverse), QR Code (Standard, Inverse, Micro)
3	Nominal Working Range	10 cms Omnidirectional
4	Light Source	Aiming pattern: single dot, 625nm LED
5	Environmental	Compliant with RoHS Directive 2002/95/EC
6	Print contrast	minimum 35% reflective difference
7	Scan rate	100 scans per second
8	Image Transfer Speed	USB 2.0: Up to 12 Megabits/second RS-232: Up to 115 kb/second
9	Interfaces	USB, RS-232, RS-485
10	Electrical Safety	UL6950-1, CSA C22.2 No. 60950-1:2nd ed., EN60950-1: 2nd ed. + A11: 2009 IEC60950-1: 2nd ed.
11	LED Safety	IEC / EN 60825-1: 2001 Class 1M LED, EN 62471: 2008 IEC 62471: 2006
12	EMI/RFI	FCC CFR47 Part 15 Class B: 2007, ICES-003 Issue 4 :2004 Class B, EN 55022: 2006 + A1: 2007, EN 55024: 1998 +A1: 2001 + A2: 2003 AS/NZS CISPR22:2006,VCCI:2007

2.4.7 Local Server for MLCP/Off-street

#	Parameters	Particulars
1	Make	HP / Dell / Lenovo
2	Form factor/height	Tower
3	Processor	Intel® 7th generation Core™ i7-7700 Processor (3.60 GHz Base Frequency/Clock Speed, 4M Cache, 4 core) or higher
4	Motherboard	Intel Q150 chipset or better
5	Memory	16GB RAM, DDR 4, Shall be expendable to 32 GB
6	RAID Controller	RAID controller with RAID-0, 1 and 5 support
7	Network	4 Gigabit Ethernet NIC

8	Ports	2 RS232 , 1 RS485
		LPT-Parallel
		Total 6 USB ports (min. 2 at front) with atleast 2 USB 3.0
		HDMI/DVI
9	WiFi	Intel®Wireless – N 72602 AC 802.11 ac, 2 x 2, 2.4 GHz /5GHz + Bluetooth® 4.0
10	Storage	Usable 2 TB SAS/SATA or Better with RAID-0
11	Monitor	18.5" or higher wide screen LED Backlit based TFTs, Resolution – 1366 X 768 or better, TCO Displays 5.0 certified or better; monitor should be of same make of offered PC Brand.
12	Input interface	Keyboard and Mouse (Same make of PC)
13	Operating System	Operating System shall be Licensed version of 64 bit latest version of Linux/ Unix/Microsoft® Windows based Operating system
14	Antivirus	Suitable commercial off-the-shelf antivirus software shall be provided for the duration of the contract

2.4.8   Central PGMS Management Server

#	Parameters	Particulars
1	Make	HP, Dell, Lenovo
2	Form factor/height	2U Rack Server
3	Processor	Intel Xeon 10 Core E5-2640v4 Processor @ 2.40 GHz with 25MB Cache or better
4	Chipset	Intel C600 series chipset
5	Memory	32 GB ECC DDR4 RDIMM
6	Internal HDD	Usable 4 TB HDD space using 2.5" Hot Plug SAS Drive with RAID 5 configuration and two (2) TB capacity Near-line SAS, Hot Plug SAS drives
7	Storage Controller	SAS RAID Controller supporting RAID 0,1 and 5 with 512MB Cache memory with battery backup
8	Networking Features	4 Nos. of Full Gigabit Ethernet ports with support of TCP/IP, Wake on LAN, Failover, Fault Tolerance
9	Ports	2 Front and 2 Rear USB ports, 1 serial port, 2 RJ-45 port, 1 VGA, 1 Management Port (TCP\IP based)
10	HBA	Single port 8 Gb OFC HBA X 2 Nos. for redundancy to connect with SAN Storage/SAN Switch
11	Optical Drive	Internal DVD Writer
12	Slots	Minimum four PCIe Slots
13	System Management Software	OEM Server Management software should be GUI based with functionality/features mentioned below: • Alerts for monitoring health of critical components. • Should support automatic check & update of hardware drivers & BIOS Version Control.

		• Should be able to generate a report on Inventory & automatically track server warranty information. • Capability for management of entire server hardware resources through physical OS or virtual OS (installed through hypervisor) from local and remote environments.
14	Diagnostics Features	System error LEDs on Front Panel in case of component failure
15	Power supply (std/max)	Minimum 750W Hot Swappable High Efficiency Redundant Power Supplies (1+1) capable to provide necessary power for fully loaded server with India Power Cord.
16	OS Support	Microsoft Windows Server 2008R2 or higher, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES)
17	Operating System	Operating System shall be Licensed version of 64 bit latest version of Linux/ Unix/Microsoft® Windows based Operating system based bidder's solution requirement
18	Cables	Power Cables
19	Virtualization Support	For latest version of MS Windows Hyper-V, Citrix Xen Server and VMware
20	Mounting Kit	Sliding Rack mounting kit for 2U rack server
21	Warranty	5 years comprehensive onsite hardware warranty with 24 x 7 support
22	Antivirus	Suitable commercial off-the-shelf antivirus software shall be provided for the duration of the contract

2.4.9   Fixed CCTV Camera

#	Parameters	Particulars
1	Image Sensor	1/3" Progressive Scan CMOS
2	Min. Illumination	0.01 Lux @(F1.2,AGC ON), 0 Lux with IR
3	Shutter time	1/25s ~ 1/100,000s
4	Lens	2.8 - 12 mm @ F1.4,Angle of view: 80°-28.7°
5	Lens Mount	φ14
6	Day& Night	IR cut filter with auto switch
7	Wide Dynamic Range	Digital WDR
8	Digital noise reduction	3D DNR
9	Video Compression	H.264/M-JPEG
10	Bit Rate	32 Kbps ~ 16 Mbps
11	Audio Compression	-S: G.711/G.726/MP2L2
12	Dual Stream	Yes
13	Max. Image Resolution	1280x960
14	Frame Rate	50 Hz: 25 fps (1280 × 960), 25 fps (1280 x 720), 25 fps (704 x576), 25 fps (640 x 480), 60 Hz: 30 fps (1280 × 960), 30 fps

15	Image Settings	Saturation, brightness, contrast adjustable through client software or web browser
16	BLC	Yes, zone configurable
17	ROI	Yes, up to 4 configurable areas
18	Network Storage	Shall store data on NVR
19	Alarm Trigger	Motion detection, Dynamic Analysis, Tampering alarm, Network disconnect, IP address conflict, Storage exception
20	Protocols	TCP/IP,ICMP,HTTP,HTTPS,FTP,DHCP,DNS,DDNS,RTP, RTCP, PPPoE, NTP, UPnP,SMTP,SNMP,IGMP,802.1X,QoS
21	Security	User Authentication, Watermark, IP address filtering, anonymous access
22	System Compatibility	ONVIF, PSIA, CGI, ISAPI
23	Communication Interface	1 RJ45 10M / 100M ethernet interface
24	On-board storage	Built-in Micro SD/SDHC/SDXC card slot, up to 64 GB
25	Reset Button	Yes
26	Operating Conditions	0°C to +55°C.
27	Power Supply	12 VDC ± 10%, PoE (802.3af)
28	Power Consumption	Max. 5.5 W (Max. 7.5 W with IR cut filter on)
29	Weather Proof	IP66
30	IR Range	Up to 30m

2.4.10 Thermal Receipt Printer

#	Parameters	Particulars
1	Print method	Thermal line Printing
2	Font	9 × 17 / 12 × 24
3	Column Capacity	56 / 42 columns
4	Character Size (W x H)	0.99 × 2.4 mm / 1.41 × 3.39 mm
5	Character Set	95 Alphanumeric, 18 set International, 128 × 43 Graphic,Bar code: UPC-A, UPC-E, JAN8(EAN), JAN13(EAN), CODE39, CODE93, CODE128, ITF, CODABAR, GS1-128,GS1 DataBar,Two-dimensional Code: PDF417, QRCode, MaxiCode, 2D GS1 Data Bar, Composite Symbology
6	Character Structure	12 x 24 / 9 x 17 / 9 x 24 (including 2-dot spacing horizontally)
7	Interface	Built-in USB + UIB (Serial or Parallel or Ethernet Interface)
8	Data Buffer	4KB or 45 bytes
9	Print speed	Min. 100 mm/ sec
10	Dot Density	180 x 180 dpi*
11	Supply Voltage	24 VDC ± 7 %
12	Power Consumption	Approx. 1.8A (Mean)
13	D.K.D. Function	2 Drivers

14	Printer Mechanism Life	20 million lines
15	Auto cutter life	2 million cuts (when using OJI Paper PD150R or PD160R)
16	MTBF	360,000 hours
17	MCBF	70 million lines
18	EMC & Safety Standards	UL / FCC, CE Marking, AS / NZS CISPR22 Class A, IP54
19	Ingress protection	IP 54

2.4.11 User fare Display

#	Parameters	Particulars
1	Display lines	The UFD shall display 2 lines of a 13 character each with a pixel pitch of 2mm.The size of each character per line should be approximately 50mm(H) x 40mm(W)
2	Display Type	UFD Shall be LED full matrix message module with High intensity LEDs. The UFD shall also have mounting brackets for pole or wall mount as the per the site requirement
3	Display Language	The display units shall support multi-lingual fonts in English, Hindi and Gujarati for easy reading
4	Character height	60 mm at least
5	Type of protection	IP66
6	Temperature	0°C to +55°C.
7	Power Supply Requirement	240Vac at 20W
8	LED type	Ultra bright AllnGaP LEDs
		8000mcd at 20mA, 300 viewing angle
		Suitable for outdoor condition under bright sunlight
9	Communication Interface	RS232 and Ethernet
10	Self-Diagnostics	The display systems shall have built-in test facility, able to carry out self- check at periodic intervals as well as exchange of diagnostic information from the parking management central system including power availability, and its current status.
11	Reliability and maintainability	MBTF: 100000 hours
		MTTR: 15 min.

2.4.12 Handheld POS

#	Parameters	Particulars
1	Specification	The handheld machine shall have an integrated display and thermal printer that can be easily read under all conditions of ambient light throughout the day and night

2		It shall be possible to upgrade the firmware/software from the central server, configuration list such as routes along with fare and other related details, etc., data from and to the central server using the 3G/4G technology of the cellular operator installed on the device remotely or using wired communication.
3		If for any reason the fare media cannot be read automatically using the readers on the handheld, there shall be an arrangement to manually enter the QR ID and validate it.

4		The handheld machine shall store all required transaction data on-board, including:
		  a. Parking Location
		  b. Parking Operator Name and ID
		  c. Date and time of transaction
		  d. Device ID
		  e. Tariff Tables
		  f. Ticket serial number
		  g. Transaction Value
		  h. Method of Payment – CASH/Common City Payment Card/Mobile Wallet
		  i. Transmission Status (i.e. successfully transmitted/not successfully transmitted)

5		Upon successful completion of the transaction the handheld machine shall transmit transaction data to the central system at SMAC, including:
		
		  a. Date and Time of Transaction
		  b. Device Identification Number
		  c. Ticket Serial Number
		  d. Location
		  e. Vehicle number

6		The handheld machine shall be preferably of a one-piece unit or maximum two-piece configuration (e.g. with separate printing unit).
7		The handheld machine shall have sufficient memory to store a minimum of one week worth of transaction records (at least 10,000 records) apart from mandatory firmware etc
8		The handheld machines shall be designed to operate from an internal, battery source which can be charged and re-charged
9		The handheld shall operate continuously for minimum 8 (eight) hours without any disruption to the operations at any given instance during the shifts. The Bidder shall ensure that appropriate back-up arrangements are made for the handhelds to cover the entire operating shift without disrupting normal operations
10		The battery shall be field replaceable without any loss of data, with field replacement time
11	Handheld Performance Specifications	CPU: Qualcomm 1.3 GHz quad-core
12		RAM: 2GB
13		ROM: 16GB

14	WLAN	IEEE802.11 a/b/g/n
15	WWAN	2G: GPRS(900/1800MHz)
		3G: WCDMA B1 B8
		4G: FDD-LTE:B1 B3 B7 B8 B20
16	Bluetooth	Bluetooth 4.0
17	GPS	GPS, AGPS
18	1D Imager Scanner Symbologies	UPC/EAN, Code128, Code39, Code93, Code11,
19	2D Imager Scanner Symbologies	Datamatrix, QR code, Micro QR code, Aztec,
20	Weight	Shall Not exceed 0.5Kgs
21	Display	Shall have minimum 4" WVGA (480*800)
22	Touch Panel	Rugged capacitive touch panel
23	Power	Li-ion Battery powered
24	Expansion Slot	1 SIM, 1 MicroSD (TF) slot
25	Interfaces	Standard serial communications ports and USB Micro-B
26	Handling	Handheld shall have an arrangement to hang over the neck of the operator and also a fastening arrangement to the palm for prolonged usage. Both the arrangements shall ensure that the operator doesn't feel uncomfortable under long duration usage
27	Keypad	Numeric / Qwerty
28	Sensors	Light Sensor, Proximity Sensor
29	Operating Temperature	0°C to +55°C
30	Humidity	5%RH - 95%RH non condensing
31	Drop Specifications	Multiple 1.2m drops to concrete
32	Tumble Specifications	1000 x 0.5m/1.64ft falls at room temperature
33	Ingress Protection	IP64

2.4.13 Parking Controller cum Operator Console

#	Parameters	Particulars
1	Make	Business series PC from Dell / HP / Lenovo
2	Processor	Intel® 7th generation Core™ i3-7100 Processor (3.90 GHz Base Frequency/Clock Speed, 3M Cache, 2 core) or higher
3	Memory(RAM)	8 GB DDR4 RAM @ 2400 MHz. or better
4	Motherboard	Intel H110 chipset or better
5	Storage	1 TB SATA III hard disk @ 7200 RPM or higher
6	Network	Dual Gigabit Ethernet NIC
	Ports	2 RS232 , 1 RS485

7		LPT-Parallel
		Total 6 USB ports (min. 2 at front) with atleast 2 USB 3.0
		HDMI/DVI
8	WiFi	Intel® Wireless – N 72602 AC 802.11 ac, 2 x 2, 2.4 GHz /5GHz + Bluetooth® 4.0
9	Monitor	18.5" or higher wide screen LED Backlit based TFTs, Resolution – 1366 X 768 or better, TCO Displays 5.0 certified or better; monitor should be of same make of offered PC Brand.
10	Input interface	Keyboard and Mouse (Same make of PC)
11	PCIe 3.0 Expansion slots	2 PCI Slots
12	Operating System	Operating System shall be Licensed version of latest version of Linux/ Unix/Microsoft® Windows based Operating system.
13	Antivirus	Suitable commercial off-the-shelf antivirus software shall be provided for the duration of the contract
14	I/o Cards / accessories	As per bidder's solution

2.5 INDICATIVE ARCHITECTURE OF IPARK

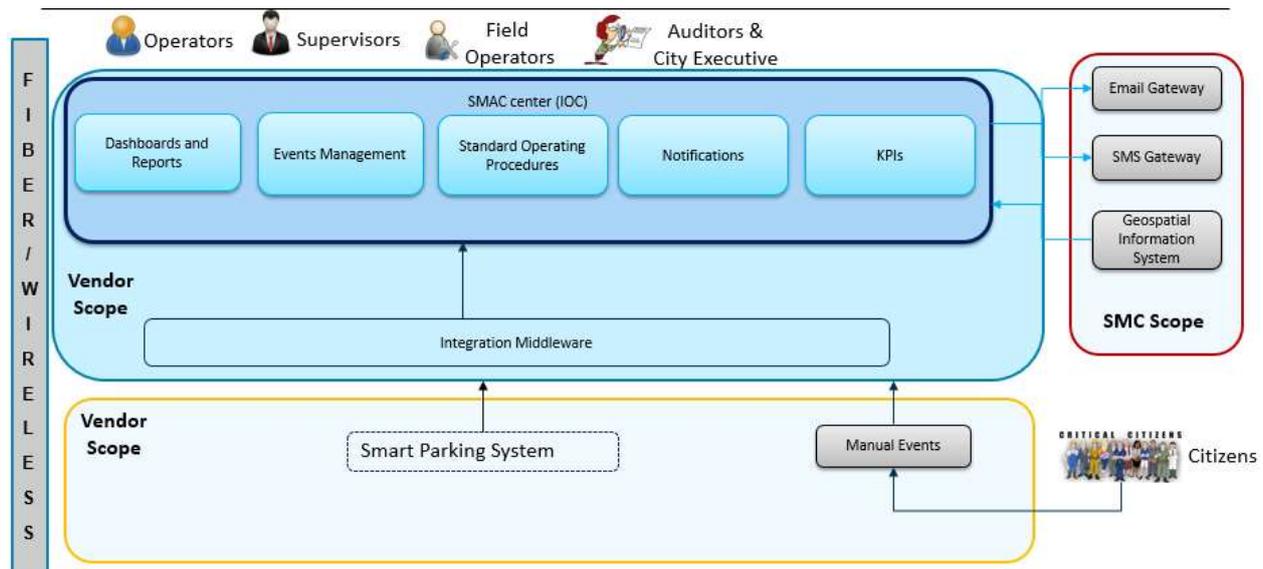### 2.5.1 Reference Architecture

Figure 2-Reference Architecture

2.6 POST IMPLEMENTATION SUPPORT AND MAINTENANCE

The following section describes post go live support requirements, service management and support requirements and enduring support requirements.

2.6.1 Post Go-Live Support

As part of the delivery of the solution it is expected that the Bidder shall provide Post Go Live

Support ("PGLS") for the Solution for 5 years following project implementation. The Post Go Live Support ("PGLS") will start after completion of 3 months of Hypercare Support after Go Live though during hypercare transition to support team (in case different from implementation team) will be carried out and therefore, the PGLS will run from the moment the solution is live through to the end of the fifth year.

The Bidder shall provide appropriate levels of on-site and off-site support as necessary. The Bidder's PGLS team shall be responsible for the continued delivery of stable systems, development and operational support. This includes a preventive maintenance programme, monitoring and system health checks and incident management. It is expected that out of hours support will be provided as needed.

Support of the system is key to establishing system and process stability within iPARK ecosystem following the deployment. Over and above the technical support required in this period, it is expected that support efforts shall target improving end-user familiarization with new applications and processes to enhance adoption and aid transition of new processes to a business-as-usual status. In case further expansion of the solution to other parking areas under SMC, same will be based on work order issued by SMC and will follow a release based approach.

The support provides a defined window of time for knowledge sharing and the transitioning of ownership of support to SMC/SSCDL and/or SMC/SSCDL nominated parties.

The purpose of the PGLS period is to accelerate business stabilization, through the following objectives:

1. To measure, and communicate, how performance is stabilizing against expectations;
2. To inform decision making about how performance issues should be resolved;
3. To prioritize and coordinate efforts to where they will have the most impact;
4. To monitor the impact of any changes until stabilization is achieved;
5. To help determine when the solution is able to transition to the enduring support model;
6. The PGLS team should have flexibility to scale up/down;
7. To ensure timely resolution of incidents;
8. When incidents occur, to restore normal service as quickly as possible to minimize business impact;
9. To ensure that incidents and service requests are processed consistently and that none are lost;
10. To direct support resources where most required;
11. To provide information that allows support processes to be optimized, the number of incidents to be reduced, and management planning to be carried out.

After Go Live bidder shall provide 3 months Hyper Care Support followed by support which will be for remaining period of contract. Necessary transition needs to be taken care by the bidder during these transitions. Warranty support for the solution will be provided for the 3 months Hyper Care Support period or until all defects in the Solution for which the Bidder shall be responsible are resolved, whichever is longer.

Defects include those that were known prior to Go-Live and any new defects that materialize in operation during Warranty.

A defect can only be resolved if:

1. Test passes
2. A valid workaround is approved by SMC/SSCDL

3. Alternate resolution is approved by SMC/SSCDL

A Warranty Defect can be defined as: any defects in the technical performance or functionality of any aspect of the Solution when assessed by reference to the Acceptance Criteria which are identified or known on the date of Acceptance or which arise during the Warranty Period.

The Bidder shall work to ensure that all defects and issues are resolved in line with agreed processes and procedures.

2.6.2 Service Transition

Each transition phase should be supported and tracked by a clearly defined and agreed Transition Plan. The transition plan should outline who the current owner is, the future owner will be, key stake holders and the date of the transition and measure the progress of the transition based on agreed handover criteria.

2.6.3 Service Management Support Process

The bidder need to provide a service support to the Onsite remotely / telephonic support.

The Bidder needs to provide a centralized Service team which will be responsible for:

1) the diagnosis and repair required to close the problem;
2) documenting all actions in the call record/ ticket logs;
3) performing root cause analysis, as required;
4) working with other vendors, as appropriate, to attempt to resolve problems;
5) making recommendations for process and tool improvements; and
6) contacting other support groups or organizations, as required.

Level 2 and Level 3 Support consists of deep level support provided by specialists.

The Support teams to follow all the ITIL processes namely
1) Incident Management,
2) Service Management to cover Minor Enhancements: Effort <20 hours. Handled as pre-paid enhancements with a limited effort up to a total of 60 hours /month,
3) Problem Management
4) Change Management
5) Release Management

2.7 TERMS & CONFITIONS, KPIS & SLAS

2.7.1 Timelines & Deliverables
The following is an indicative list of deliverables and milestones for the agency, assuming that the engagement starts at time T (Issuance of Work Order + 20 Days). The bidder is required to be clearly indicating the release wise time schedule in the proposal. The development process will be reviewed regularly as per the time schedule

The implementation must be completed in 4 months and post implementation support will be for 5 years.

2.7.2 Project phases and deliverables

The deliverables as per the releases with milestones are mentioned below:

Milestone #	Project Phase	Deliverables	Timelines (in days)
Milestone 0	Initiation	Team mobilization	T+10
Milestone 1	Requirement Gathering & Analysis	1. Detailed release plan for the project 2. Requirement Gathering & Analysis Document 3. Development environment set up	T+20
Milestone 2	Architecture & Design	1. Architecture Document 2. Detailed level Design Document 3. Test/Staging environment set up 4. Solution Prototype	T+30
Milestone 3	Installation & Configuration of devices	• Installation & Configuration of devices, sensors, readers etc. • Production environment set up	T + 70
Milestone 4	Implementation & Unit testing	• Develop & customize solution • Unit test cases • Unit testing report • System Integration test cases	T+ 70
	System Integration Testing	System Integration & Performance test report	T+80
Milestone 5	User Acceptance Testing	User Acceptance Testing and controlled demo reports	T+85
Milestone 6	Go Live	Solution Go Live & Deployment Document	T+90
Milestone 7	Hyper-Care	Three-month hyper-care support	T+180

Note:
1. UAT would be iterative in nature, limited up to 3 iterations per release. The Vendor is expected to incorporate the changes in solution post UATs as per user feedback.
2. For delay of every day per milestone, a penalty of 1% of payment for corresponding/relevant milestone would be deducted, provided the delay is attributable to the vendor. The decision of SMC/SSCDL will be binding in this regard.

2.7.3 Payment Schedule

Phase	Release
Installation & Commissioning	50%
UAT	10%
Go-Live	10%
Completion of Hyper Care Support	5%

Completion of 1st year of Support	5%
Completion of 2nd year of Support	5%
Completion of 3rd year of Support	5%
Completion of 4th year of Support	5%
Completion of 5th year of Support	5%

Hypercare deliverable will include closing of all issues reported with Go-Live along with minor enhancements arising due to those defects. This % implies the percentage of total implementation cost as specified by the vendor.

Monthly Progress Reports/MIS to be submitted every month or as and when desired by SMC indicating the activities remaining/completed and progress as against the scheduled tasks / activities

2.7.4 Service Level Agreement Penalty

SLAs will be measured during the support phase and implementation phase as defined above.

The devices which impact the day to day revenue collection for parking like Handheld devices, Ticket dispenser, will have higher urgency than CCTV camera and display boards. Impact will be based upon number of such devices not working and/or suitable work around being available. For five years of contract period the hardware devices are supposed to be covered by onsite replacement warranty. The SLA defined below will decide the number of hours within which such replacement/ support will be required.

Parking solution is classified into 4 categories of severity with respective response time, resolution time and penalties:

Component	Urgency Level	Response Time	Resolution Time	Penalty
Problem with one or more components impacting the revenue collection operations of the entire parking system (like Parking controller, Entry Ticket Dispenser, Application availability, UPS, Handheld POS, etc.)	High	30 Minutes	2 hours	INR 250 per event occurrence per hour till the resolution.
Problem with one or more components impacting data exchange and communication within the parking system at local and central level (like Parking Guidance and Management Application, MLP Local Server, Off-Street Local Server, etc.)	Medium	45 Minutes	4 hours	INR 150 per event occurrence per hour till the resolution.

Problem with one or more components impacting information decimation to the users or partial operations (like Mobile Application, Display Boards, Parking Occupancy Sensor/Controller, Entry/Exit Fixed CCTV Cameras, Entry/ Exit Boom Barrier, etc.)	Low	60 Minutes	6 hours	INR 50 per event occurrence per hour till the resolution.

The problems will be bifurcated based on the High, Medium and Low severity on mutual agreement, however, decision of SMC/SSCDL will be final and binding to the contractor.

2.7.4.1 SLA Change Process

The parties may amend this SLA by mutual agreement. Changes can be proposed by either party. The bidder representative may initiate an SLA review at least half yearly which is subject to approval from SSCDL.

The bidder representative will maintain and distribute current copies of the SLA document as directed by SSCDL. Additional copies of the current SLA will be available at all times to authorized parties.

2.7.4.2 Version Control

All negotiated SLA changes will require changing the version control number. As appropriate, minor changes may be accumulated for periodic release (e.g. every quarter) or for release when a critical threshold of change has occurred.

2.7.4.3 Management Escalation Procedures

The purpose of this escalation process is to provide a quick and orderly method of notifying both parties that an issue is not being successfully resolved at the lowest possible management level. Implementing this procedure ensures that SSCDL and Bidder's management are communicating at the appropriate levels.

a) Escalation should take place on an exception basis and only if successful issue resolution cannot be achieved in a reasonable time frame.

b) Either SSCDL or bidder can initiate the procedure

c) Escalation will be one level at a time

2.7.5 Penalty

a) **Delay Penalty:** A penalty of 0.2% of the consideration of contract for a particular item will be charged for delayed supply and installation for delay of each day thereafter.

b) In case the overall support of the bidder to the SSDCL is not found sufficient or satisfactory, the same will also amount to failure and attract a penalty generally up to 10% of the consideration of Contract. The penalty will be proportionate to the time period for which the support is not found to be sufficient or satisfactory.

c) In case the bidder fails to be compliant with SLAs and KPIs requirements at regular intervals as mentioned above, penalty will be imposed generally up to 10% of the consideration of contract depending upon the nature of failure or the short-fall. Decision of CEO, SSCDL / Municipal Commissioner, SMC shall be treated as final in such cases.

d) In case a serious bug / flaw / error is found in a system or the system is not found working as intended/ satisfactorily / properly due to the software developed then in that case,

generally a penalty of up to 10% of the consideration of contract will be imposed. The penalty will be proportionate to the delay in amending the bug / flaw / error, etc. after the date of report.

e) In case the support of the bidder's staff to the SMC is not found sufficient or satisfactory, the same will also amount to failure and attract a penalty generally upto 10% of the consideration of Contract. The penalty will be proportionate to the time period for which the support is not found to be sufficient or satisfactory.

f) In case of system unavailability for the lack of proper configuration /administration / maintenance of the system by the bidder's staff at SMC a direct penalty of 10% of the consideration of Contract will be imposed, charged.

g) In case the bidder fails to deliver service as depicted in the scope of work, penalty will be imposed generally upto 10% of the consideration of contract depending upon the nature of failure or the short-fall.

h) The cumulative value of penalties stated under the above clauses {a) to f)} could be upto 10% of the consideration of the contract.

i) The decision of CEO/Chairman of SSCDL will be final and binding in case of the percentage of penalty to be applied, imposed in all the above cases to the bidder.

j) In case of continued failure or short-falls from the established standard, the contract shall be terminated and no payments will be made nor will any damages be paid to the bidder besides forfeiting Security Deposit.

2.7.6 Limitation of Liability

a) Except in case of gross negligence or willful misconduct on the part of the bidder or on the part of any person or Firm acting on behalf of the bidder in carrying out the Services, the Bidder, with respect to damage caused by the Bidder to the SSCDL/SMC's property, shall not be liable to the SSCDL/SMC:

I.   for any indirect or consequential loss or damage; and

II.   for any direct loss or damage that exceeds a fixed amount equal to total price submitted online as part of Appendix 2.

b) This limitation of bidder shall not affect the bidder's liability, if any, for damage to Third Parties caused by the bidder or any person or Firm acting on behalf of the bidder in carrying out the Services or any obligation of the bidder to indemnify the Authority with respect to intellectual property rights infringement claims.

B. INSTRUCTION TO BIDDERS

3 GENERAL

3.1   INTRODUCTION TO THIS BID PROPOSAL

SSSCDL intends to invite proposals through this RFP. The Technical Bid along with EMD & Bid Fee in the name of "Surat Smart City Development Ltd" is to be submitted in hardcopy whereas the Price Bid is to be submitted online on https://smc.nprocure.com.

3.2 BID AVAILABILITY & VALIDITY

Bid documents can be downloaded from the web site https://smc.nprocure.com up to the date and time mentioned in the Online RFP Notice "**SSCDL- IPARK-RFP-01-2017**".

The proposal should be valid for acceptance for a minimum period of 180 days from the Bid Due Date/Bid Submission Date (the "**Proposal Validity Period**"). If required, Authority may request the bidder to have it extended for a further period.

3.3 GOVERNING LAW AND JURISDICTION

The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Surat shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Bidding Process.

3.4 AUTHORITY'S RIGHT TO ACCEPT AND REJECT ANY PROPOSAL OR ALL PROPOSALS

a) Authority reserves the right to accept or reject any Proposal and annul the bidding process/ Proposal Evaluation Process and reject any/all Proposals at any time, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the ground for Authority's action.

b) Without prejudice to the generality of Clause (a), the Authority reserves the right to reject any Proposal/Bid if:
   1) at any time, a material misrepresentation is made or discovered, or
   2) The Bidder does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Proposal.
   3) Bidder submitted conditional Proposal/Bid.

c) If such disqualification/ rejection occurs after the Proposals have been opened and the Selected Bidder as per award criteria gets disqualified/ rejected, then the Authority reserves the right to consider the next best Preferred Bidder, or take any other measure as may be fit in the sole discretion of the Authority, including annulment of the Selection Process.

3.5 EARNEST MONEY DEPOSIT (EMD)

(a) Earnest Money Deposit (EMD) of amount Rs. 75,000 (Rupees Seventy Thousand only) should be paid in the form of Demand Draft of any nationalized / scheduled banks, payable at Surat in the favor of the **"Surat Smart City Development Limited"**.

(b)   Any bid not accompanied with valid Earnest Money Deposit in the acceptable amount, form and validity period will be summarily rejected by the Authority as being non-responsive and bids of such Bidder shall not be evaluated further.

(c)   No interest will be payable by the Authority on the Earnest Money Deposit.

(d)   The EMD of unsuccessful Bidders will be returned by the Authority, without any Interest, as promptly as possible on acceptance of the Proposal of the Selected Bidder or when the Authority cancels the Bidding Process.

(e)   The Selected Bidder's EMD will be returned, without any interest, upon the Selected Bidder signing the Agreement and furnishing the Security Deposit in accordance with the provision thereof.

(f)   The EMD shall be forfeited and appropriated by the Authority as damages without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise, under the following conditions:

1) If a Bidder submits a non-responsive Proposal;

2) If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice, or restrictive practice;

3) If a Bidder withdraws its Proposal during the Proposal Validity Period as specified in this RFP and as extended by mutual consent of the respective Bidder(s) and the Authority;

4) In the case of Successful Bidder, if it fails within the specified time limit –
    i   to sign and return the duplicate copy of LOA
    ii   to sign the Agreement within the time period specified by the Authority.
    iii to furnish the Security Deposit along with the signed copy of LOA; or

5) In case the Successful Bidder, having signed the Contract, commits any breach thereof prior to furnishing the Security Deposit.

3.6   DUE DILIGENCE

The Bidders are encouraged to examine and familiarize themselves fully about the nature of assignment, scope of work, all instructions, forms, terms and conditions of RFP, local conditions and any other matter considered relevant by them before submitting the Bid by paying a visit to the site, sending written queries to the Authority, and attending a Pre-Bid meeting.

3.7   ACKNOWLEDGEMENT BY BIDDER

a) It shall be deemed that by submitting the Bid, the Bidder has:

1) made a complete and careful examination of the RFP

2) received all relevant information requested from the Authority;

3) accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the Authority

4) acknowledged that it does not have a Conflict of Interest

5) agreed to be bound by the undertakings provided by it under and in terms hereof.

b) The Authority shall not be liable for any omission, mistake, or error in respect of or any of the above or on account of any matter or thing arising out of or concerning or relating to the RFP or the Bidding Process, including any error or mistake therein or in any information or data given by the Authority.

3.8   COST OF BIDDING

All costs and expenses (whether in terms of time or money) incurred by the bidder in any way associated with the development, preparation and submission of the Bid and bidder's participation in the Bid Process, including but not limited to attendance at meetings, discussions, demonstrations, etc. and providing any additional information required by Authority, will be borne entirely and exclusively by the bidder.

3.9   BID FEE

All Bidders must submit non-refundable Bid Fee of Rs. 2832 (Rs. 2400 + 18% GST) by Demand Draft or Banker's Cheque in favour of the "Surat Smart City Development Limited" payable at Surat.

3.10   SCHEDULE OF BIDDING PROCESS

The Authority shall endeavor to adhere to the bidding schedule as specified in table below:

Date of Issue of the Bid Document	28/07/2017
Pre-bid Conference by Submission of queries by email	By e-mail to it@suratsmartcity.com on or before 04/08/2017, 16:00 hrs
Price Bid Submission	To be submitted online only on https://smc.nprocure.com on or before 11/08/2017
Technical Bid Submission (in Hard Copy) filled-in Technical Bid along with Bid Fee, EMD, Solvency Certificate and other documents.	In sealed envelope, strictly by RPAD/Postal Speed Post on or before 18/08/2017, up to 18:00 hrs. to the Chief Accountant, Surat Municipal Corporation, Muglisara, Surat – 395003, Gujarat.
Date, Time and Venue for Opening of Financial Bid	The technically qualified bidders will be notified with the date and time of the Financial Bid Opening.
Signing of Agreement	Within 15 days from the date of issuance of LOA

3.11   TERMS OF CONTRACT

3.11.1   Selected Bidder shall undertake project on Design-Develop-Maintain-Transfer basis.

3.11.2 Selected Bidder shall design, develop, supply, install, maintain, and transfer the project during the Contract Period. Provided in the event of earlier termination of the Contract, this period shall be ending with the date of termination of the Contract (the "License Period/Contract Period").

3.11.3 The eligible and technically qualified bidder having the lowest price (L1) shall be considered the Selected Bidder as per the terms of this RFP.

3.11.4 The payment to the Selected Bidder shall start based on milestones defined in section 2.7.3 and section 2.7.4

3.11.5 In case of Termination due to Selected Bidder's Event of Default, the Authority shall have right;

- To forfeit the Security Deposit in full.

- To appoint another Bidder. In such case selected bidder will need to handover to SSCDL or appointed agency as per clause (3.11.15) under this section.

3.11.6 Performance and fulfillment of its roles & responsibilities and obligations as per the provisions specified in RFP and Addenda & Corrigenda if any.

3.11.7 It shall be the responsibility of the bidder to make necessary adjustments / repairs / developments / maintenance to keep the systems up and running and in good working condition.

3.11.8 Bidder shall be responsible for maintenance / replacement of each and every spares / components including wiring, battery, etc. for the contract period.

3.11.9 Necessary cost for license (if any) for map usage will be the responsibility of bidder.

3.11.10 The contract period shall cover proactive, preventive, breakdown maintenance of hardware & software support for entire solution provided.

3.11.11 **Termination / Withdrawal:** SSCDL reserves the right to withdraw/ terminate the agency of applicant in any of following circumstances:

- Agency becomes insolvent, bankrupt, resolution is passed for the winding up of the applicant organization

- Information provided to SSCDL is found to be incorrect;

- Delivery conditions are not met within the specified time period;

- Misleading claims about the agency are made;

- Clear evidence is received that agency has breached copyright laws/ plagiarized from another source;

3.11.12 SMC/SSCDL reserves the right to discontinue the specific or all services if the same is either not required or not delivered as per the expectation. In such case the proportionate payment will be made after deducting applicable penalty if any.

3.11.13 The Service Provider shall be responsible and take required insurance for all of their representations working on the site at their own cost. SSCDL/SMC will not be

responsible for any loss or damage to any of the representatives of the Service Provider during the said contract.

3.11.14 The liability as to any damages and/or loss otherwise to any movable or immovable properties, assets during parking operations caused due to improper functioning of the devices or system or otherwise during the contract period, whether knowingly or unknowingly done or occurred shall be made good forthwith to SMC/SSCDL/ Owning party by the selected bidder upon a communication made therefore.

3.11.15 Should the awarded bidder fail to deliver the scope of work in due time or failed to operate / maintain the particular link/links for particular time during contract period , SSCDL/SMC reserves the right to get the work done from third party at the bidder's risk and cost including the link provision and replacement of faulty components/equipment.

3.11.16 The bidder will be bound by the details furnished by him/her to SSCDL/SMC, while submitting the tender or at subsequent stage. In case, any of such documents furnished by the agency is found to be false at any stage, it would be deemed to be a breach of terms of contract making him/her liable to legal action besides termination of contract.

3.11.17 If the agency does not execute the contract to the satisfaction of the SSCDL then the SSCDL may invoke any or all of the following clauses.

- Forfeit the Security Deposit Amount
- Terminate the contract without any liability of SSCDL towards the agency.

3.11.18 **Intellectual Property Rights:** SSCDL shall remain the owner of all the content, source code, architecture and design documents conceptualized, created, and implemented by the selected agency under this engagement. In case of proprietary solution, vendor to provide functional design documents and technical design documents and source code for customization for SMC's non-commercial usage. All analytical models/ reports created as a result of this engagement would be SSCDL proprietary, and all requisite Intellectual Property Rights shall be transferred to SSCDL at the time of completion of the contract period. All intellectual property rights and artifacts whether in tangible or intangible form shall belong to SSCDL and the selected agency has no right to assign, license, sell, or use any content conceptualized, created and implemented under this engagement and/or accompanying Agreement to any third party under any circumstances. All the artifacts conceptualized, created, and implemented by the selected agency whether in tangible or intangible form shall bear relevant copyright notices in the name of SSCDL. The selected agency shall take all such appropriate legal actions to safeguard violation of SSCDL's intellectual property rights, if any. IPR for any pre-developed software applications, implemented by the bidder for this project will remain with the bidder except for modifications/ customizations done specific to the project. Source code of such pre-developed software with other artifacts shall also be provided to SSCDL at the end of contract for authority's own use for non-commercial purpose.

3.11.19　The licenses of the software solution under this RFP shall be perpetual in nature and SSCDL shall continue to utilise the same even after the completion of the contract period without any additional cost.

3.11.20　The selection shall be for five years from the starting from signing of LOA, which shall be reviewed periodically to assess the performance during the specified duration of project.

3.11.21　**Indemnification** Implementation Agency (the "Indemnifying Party") at its expense and to the maximum extent permitted by law, undertakes to indemnify, defend and hold harmless SSCDL (the "Indemnified Party") from and against all losses, liabilities, costs, damages and expenses and will reimburse such fees and expenses as they are incurred, including in connection with any claim or action threatened or brought against the Indemnified Party, attributable to the Indemnifying Party's or its representative's negligence or wilful default, including but not limited to, mismanagement of the brand SSCDL, bodily injury, death or damage to tangible personal property arising in favour of any person, corporation or other entity (including the Indemnified Party) in performance or non-performance under this Agreement; provided, however, that Indemnifying Party shall not be obligated to defend, indemnify, or hold the Indemnified Party from and against any such liabilities, costs, loses, damages and expenses to the extent caused solely by any negligent act or omission or intentional wrongdoing of such Indemnified Party. In case of any negligence or wilful default by agency, leading to disrepute/ financial obligations/ penalties to SSCDL, during the course of contract or after, the media agency will be held liable.

3.11.22　The agency must provide a dedicated team based in Surat to service the account of the SMC/SSCDL within 20 days from the date of award of contract.

3.11.23　The Authority expects all the Key Personnel as specified in the resource deployment plan in the Proposal to be available during the contract period. Any substitution of Key Personnel under compelling circumstances beyond the control of the Agency and the concerned Key Personnel shall be subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Authority with an overlap period of minimum 15 days at agency cost.

3.11.24　The agency must coordinate between SCCDL, SMC departments and sister concerns of SMC to achieve the objective of Smart Waste Management Solution.

Exit Management: The exit process would start at the beginning of the last quarters in case contract is not extended further. At the beginning of the last quarter of the end of the contract period or in the event of termination of contract, the Implementation Agency is required to provide necessary handholding and transition support, which shall include but not limited to, conducting detailed walkthrough and demos/drills for iPark project services, project documentation, etc., and addressing the queries/clarifications of new Implementation Agency selected by SSCDL. Vendor shall provide support in terms of smooth handing over of its services. At the end of the

Contract Period or earlier Termination of Contract due to Vendor's event of default, the Vendor shall transfer ownership of all artifacts developed for the iPARK Project except its proprietary Software to Authority at no cost to Authority.

During the contract period, the Implementation Agency shall ensure that all the documentation including policies, procedures, etc. are kept up to date and the same are handed over to SMC/SSCDL during the Exit management process.

3.11.25 The bidder shall certify that no product quoted in the bid has its End-of-life / end-of support announced. Also at the time of supplying the quoted product, if the product has reached its end of sale, then the bidder will be required to supply similar product for the same OEM with similar or higher specifications.

3.11.26 The bidder would remove a person from its staff at SMC/SSCDL if instructed to do so by the SMC/SSCDL within one month and provide suitable replacement with minimum overlap of 15 days. All persons deputed shall be on the payroll of the Bidder's organization.

3.11.27 The person deployed for the project at SMC/SSCDL will take the permission for leave of absence from SMC/SSCDL.

3.11.28 In case of personnel deputed at SMC/SSCDL by bidder as per the resource deployment plan is on a leave of absence for more than five days,

- then a competent substitute, fully conversant with the processes at SMC/SSCDL will have to be provided by the bidder. Thus, the bidder is required to keep other personnel employed but not deputed at SMC/SSCDL so that the vacancy of the key personnel could be kept filled in.

- if the substitute is not provided for more than 5 days than such leaves after fifth day will be considered as if a person is not deployed by the bidder and monetary deduction will be made accordingly.

3.11.29 The personnel of development team as per the resource deployment plan will observe the work-time of 8 hours per day, 6 days per week (Sunday being holiday); but they will have to put in extra time whenever called for by SSCDL without any additional charges but the same may be compensated in the form of "off-hours" from the normal working schedule.

3.11.30 The leaves of key personnel as per the resource deployment plan should not affect the deliverables as per scheduled timelines.

3.11.31 Non-adherence to above clauses within the said resource deployment plan will be considered as Absence of employee. For each day, the absence of "Project Manager, Parking SME", the authority will deduct Rs 5000, for a Programmer/Developer, Rs. 1500, for rest of the profiles, the penalty will be Rs 1000 per day.

3.11.32   The persons deployed by the bidder shall not claim nor shall be entitled to pay, perks, and other facilities admissible to casual, ad-hoc, regular/confirmed employees of SMC/SSCDL during the contract period or, after expiry of the contract.

3.11.33   The bidder's personnel shall not divulge or disclose to any person, any details of office, operation process technical know-how, administrative/ organizational matters as all are confidential/secret in nature.

3.11.34   The bidder's personnel's working should be polite, cordial, positive and efficient, while handling the assigned work and his/her actions shall promote goodwill and enhance the image of SMC. The bidder shall be responsible for any act of indiscipline on the part of persons deployed by him.

3.11.35   The bidder shall be solely responsible for the redressal of grievances/resolution of disputes relating to persons deployed. SMC shall, in no way, be responsible for settlement of such issues whatsoever.

3.11.36   The transportation, food, medical and other statutory requirements in respect of personnel of the service provider shall be the responsibility of the bidder.

3.11.37   **Force Majeure:** The bidder shall not be liable for any delay or failure of performance of any of its obligations under or arising out of this contract, if the failure or delay is the result of an event of Force Majeure. "Force Majeure" means an event beyond the control of the bidder and not involving the bidder's fault or negligence, and not foreseeable. Such events may include, but are not restricted to, acts of the End customer in its sovereign capacity, wars or revolutions, riot or commotion, earthquake, fires, earthquake, floods, epidemics, quarantine restrictions. The bidder shall continue to perform its obligations under the Contract as far as is reasonably practical and feasible.

3.11.38   **Solvency certificate:** Valid Solvency Certificate amounting to minimum 20% of the consideration of the Contract from a scheduled/nationalized bank to be submitted by the bidder along with technical proposal. Bidder may resort to submitting a solvency certificate of higher value to keep its prices disguised.

3.11.39   Consortium/JV is not allowed.

3.11.40   During the bidding process or during the contract period, if any bidder is found involved in fraudulent and corrupt practices, SMC/SSCDL reserves the right to reject the bid or cancel the contract, forfeiting the EMD and security deposit.

3.11.41   The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Surat shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the bidding process.

3.11.42   It shall be deemed that by submitting the Proposal, the Bidder agrees and releases the Authority, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding

Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or in future.

3.11.43   Nothing contained in the RFP shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever.

3.11.44   The selected bidder shall be deemed to be acting as an independent contractor of Authority and shall not be deemed an agent, legal representative, joint venture, or partner of Authority. Neither party is authorized to bind the other to any obligation, affirmation, or commitment with respect to any other person or entity.

3.11.45   The authority, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time to:

(i)   The Authority, Suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;

(ii)   consult with any Bidder in order to receive clarification or further information;

(iii) retain any information and/ or evidence submitted to the Authority by, on behalf of, and/ or in relation to any Bidder; and/ or

(iv)   Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.

3.11.46   The Bidder has to quote against all the items of the BOQ (supply, installation & implementation) including 5 years comprehensive part replacement onsite warranty. If the Bidder fails to quote for all the items of BOQ along with five years AMC the offer will not be considered.

3.11.47   Bidder has to indicate the make / model of the quoted items mentioned in the Technical Parameter Specification (TPS). Supporting technical brochure / leaflet of the OEM of the quoted model is to be provided/submitted.

3.11.48   The successful bidder shall be responsible to provide the end to end solution.

3.11.49   Selected agency will carry out necessary installation and mounting of the devices/components in a safe and tamper proof manner so as to avoid accidental or intentional damage to it.

3.11.50   Maintaining all the equipments under contract under a perfect working condition by periodic preventive maintenance including cleaning the accessible and serviceable parts. The same shall be carried out on a quarterly basis or as per the modified schedule decided by the Head of the Information Systems Department.

3.11.51   The Maintenance shall be carried out in the period of maintenance window only and the operations carried out at respective location shall not be disturbed or disrupted.

3.11.52   The overall fitting should withstand rough use.

3.11.53 The contract period shall cover proactive, preventive, breakdown maintenance of hardware & software support for entire parking system.

3.11.54 In case if breakdown/ maintenance work is required to be carried out during non-working days/ hours, the bidder shall attend the task(s) during this period at no extra payment.

3.11.55 The entire system should be designed in such a way that no data should be lost under any condition.

3.11.56 All tools and instruments required for installation should be brought by the successful bidder.

3.11.57 All safety and security norms should be adhered by the successful bidder.

3.11.58 Any minor/major upgrades of software during warranty & AMC period shall be provided free to cost and the same shall be installed and configured by the successful bidder during the contract period.

3.11.59 The right to reject accepts any/all bid(s) without assigning any reason thereof is reserved.

3.11.60 Single Point of Contact: Agency will nominate one senior person as the Single Point of Contact (SPOC) for the purpose of receiving the complaint and resolution of the same. The contact etails (mobile number and email) of the same will be shared with the end users as well. The nominated SPOC must interact cordially with the end user. S/he will carry out necessary activities to resolve the problem as per the response and resolution time.

3.11.61 Back-office Support: Additional support as and when needed shall be provided from offsite competent staff of the bidder for specialized repairs, maintenance, configuration and consultation with no extra cost.

3.11.62 In case, the awardee i.e. the selected bidder fails to supply specified quantity and quality of goods in time or the performance of such supply/supplies are not found up to the mark or found of an inferior quality vis-à-vis specifications, the earnest money deposit and/or security deposit will be forfeited at once.

3.11.63 All goods to be supplied shall be of specified or higher speed/technology/version. SSCDL/SMC or its representative shall have the right (if it so desires) to test the goods to ascertain their conformity to the specifications. SSCDL/SMC shall notify to the agency for this purpose and nature of tests that may be conducted (if found necessary) for bench-marking.

3.11.64 The contract shall be governed by the Laws in India and shall be subject to the jurisdiction of Surat.

3.11.65 If any equipment or service issue during the contract period is found to be under repeated failures of same nature due to poor configuration or servicing or replacement of inferior parts or when troubleshooting is found to have been performed in piecemeal

by the bidder the same will be considered as an inefficient attendance, such instances will also be subject to levy of penalties but at double the penalty rate.

3.11.66 The selected bidder shall be deemed to be acting as an independent contractor of Authority and shall not be deemed an agent, legal representative, joint venture, or partner of Authority. Neither party is authorized to bind the other to any obligation, affirmation, or commitment with respect to any other person or entity.

4 DOCUMENTS AND PRE-BID CONFERENCE

4.1 CLARIFICATION TO RFP DOCUMENTS

a) The prospective Bidder requiring any clarification on the RFP Document may submit queries, via email, to "it@suratsmartcity.com" on or before 04/08/2017, 16:00 hrs.

b) They should send in their queries on or before the above stated date to enable Authority to have adequate notice of the said queries so that the same may be addressed at the Pre-Bid Meeting. The Authority shall endeavor to respond to the queries at short span of time prior to Bid/Proposal Due Date. The responses to queries will be sent to Bidders by the Authority. The queries must be submitted in the following format only:

Request for Clarification		
Name and Address of the Organization submitting query	**Name and Position of Person submitting query**	**Contact Details of the Organization / Authorized Representative**
		Tel: Mobile: Fax: Email:
Sr. No / **RFP Reference(s) (Section, Page)**	**Content of RFP requiring clarification**	**Points of clarification required**

c) The Authority shall endeavour to respond to the questions raised or clarifications sought by the Bidders. However, the Authority reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring the Authority to respond to any question or to provide any clarification.

d) The Authority may also on its own motion, if deemed necessary, issue interpretations and clarifications and amendment to all Bidders. All clarifications and interpretations issued by the Authority shall be deemed to be part of the Bidding Documents. Verbal clarifications

and information given by Authority or its employees or representatives shall not in any way or manner be binding on the Authority.

4.2 PRE-BID MEETING

There will not be a physical pre-bid meeting for this RFP. Queries received in due course of time as per clause 4.1 will be reviewed and if required the Addenda and Corrigenda will be issued pursuant to the pre-bid queries and the same will **form the part of the original bid docu**ments and shall override any contradicting effects in the original bid document.

4.3 AMENDMENT OF BIDDING DOCUMENTS

a) At any time prior to the Proposal/Bid Due Date, the Authority may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the RFP by the issuance of Addenda/corrigendum. The same will form the part of the original bid documents and shall override any contradicting effects in the original bid papers.

b) Any Addendum/Corrigendum issued hereunder will be made available on https://smc.nprocure.com.

5 PREPARATION AND SUBMISSION OF PROPOSALS

5.1 LANGUAGE OF PROPOSAL

The proposals prepared by the bidder shall be in the English language. The related correspondence and supporting documents in language other than English/Hindi/Gujarati must have its English translation (which is to be duly attested by the bidder). For purposes of interpretation and evaluation of the Proposal, the English translation shall govern.

5.2 PROPOSAL CURRENCY

Prices shall be expressed in Indian Rupees only.

5.3 FORMAT AND SIGNING OF PROPOSAL

a) The Bidder shall provide all the information sought under this RFP. The Authority will evaluate only those Proposals that are received in the required formats and complete in all respects.

The Bidder shall prepare and submit the Technical Bid (together with originals/ copies of Documents required to be submitted along therewith pursuant to this RFP) along with the EMD and Bid Fee *as per clause 5.4.*

The Price Bid must be submitted online. In case, the Price Bid is submitted physically which leads to revelation of prices before the due date of opening of the Price Bid, the bid will be disqualified.

b) The Technical Proposal shall be typed or written in indelible ink and signed by the authorized signatory of the Bidder who shall also initial each page, preferably in blue ink and the signature of the authorized signatory shall bind the Bidder to the contract. In case of printed and published documents, only the cover shall be initialed. All the alterations, omissions, additions, or any other amendments made to the Proposal shall be initialed by the person(s) signing the Proposal. Each page of the Proposal must be numbered at the right-hand top corner.

c) The Proposal must be properly signed by the authorized signatory (the "Authorized Signatory") as the Bidder holding the power of Attorney. If possible, such Power of Attorney shall be supported by a Board Resolution in favour of the person vesting power to the person signing the Bid.

5.4 PROPOSAL SUBMISSION FORMAT & SEALING AND MARKING OF PROPOSALS

a) The Bid Fee and EMD of the required value and in approved format as specified in clause 3.5 shall be sealed separately in an envelope on which the following shall be super scribed:
"Envelope 1 – Bid Fee & EMD for RFP No.: "SSCDL- IPARK-RFP-01-2017"

b) The Technical Proposal shall be sealed separately in an envelope on which the following shall be super scribed:
"Envelope 2 – Technical Proposal for RFP No.: "SSCDL- IPARK-RFP-01-2017"
The bidder shall submit all the relevant documents so as to ascertain the claims made. Following is the indicative list of documents that are to be submitted. The documents of Technical Proposal shall be as per the Appendix 1 of this RFP and should comprise of all documents required to be submitted as per the said Appendix 1. The checklist of Technical Proposal presented below:

5.4.1 Check list for documents - Technical Proposal

Sr.No.	Appendix	Particulars
1.	EMD & Bid Fee	DD/Banker's Cheque of requisite amount in favor of Surat Smart City Development Limited
2.	Appendix 1 Form -1.1	Covering Letter signed by authorized signatory of Bidder. Constituent documents such as MOA, AOA, Certificate of Incorporation, Service Tax Registration etc.

3.	Appendix 1 Form -1.2	Authorization of signatory in the form of Board Resolution or Power of Attorney (POA notarized and Applicable in case of bid not being signed by the person directly authorized by the bidder), as applicable.
4.	Appendix 1 Form –1.3	Particulars of the Bidders (in the formats given subsequently)
5.	Appendix 1 Form –1.4	Financial Capability statement
6.	Appendix 1 Form -1.5	Experience Statement along with client work order
7.	Appendix 1 Form -1.6	Project Execution Methodology
8.	Appendix 1 Form -1.7	Undertaking
9.	Appendix 1 Form -1.8	Anti-Blacklisting Certificate
10.	Appendix 1 Form -1.9	Non-Disclosure Agreement signed and submit to SSCDL
11.	Appendix 1 Form -1.10	Curriculum Vitae of Proposed Team Members (Key Personnel)
12.	Appendix 1 Form -1.11	Resource Deployment Plan
13.	Appendix 1 Form -1.12	Format for Self-declaration to Implementation Partner and Commitment to Support
14.	Appendix 1 Form -1.13	Functional and Non-Functional specifications compliance
15.		Original RFP documents issued along with addendums/amendments thereto, duly signed by the Bidder through its authorized signatory on all pages.
16.		Valid Solvency Certificate amounting 20% of the consideration of the Contract from a scheduled/nationalized bank.

c) **Outer Envelope:** Both the above stated envelopes, shall be place in a large envelope / outer envelope containing above envelopes must be sealed and super scribed

Details to be mentioned on sealed envelop	
Tender Details • **Notice No.:** SSCDL-IPARK-RFP-01-2017 • RFP for Selection of Vendor for iPARK Project	To, **The Chief Accountant,** **Surat Municipal Corporation,** Mahanagar Seva Sadan, Gordhandas Chokhawala Marg,

	Muglisara, Surat - 395 003, Gujarat, INDIA.

d) The **Price Proposal (Appendix-2)** and **Monthly Billing Rate (Appendix-4)** must be submitted online on https://smc.nprocure.com on or before the last date of submission.

e) The Bidders are required to submit its Proposal (i.e. Technical Proposal and Price Proposal) on or before the due date

The envelope containing Technical Bid must be sent **strictly by Postal Speed Post or Registered Post AD** only so as to reach on or before **18/08/2017 upto 18:00 hrs.**

If the envelopes are not sealed and marked as instructed above, the Authority assumes no responsibility for the misplacement or premature opening of the contents of the Proposal submitted and consequent losses, if any, suffered by the Bidder. Proposals submitted by fax, telex, telegram, or e-mail shall not be entertained and shall be rejected.

5.5   PROPOSAL DUE DATE

a) The last date and time of submission of the Proposals (the "Proposal Due Date/Bid Due Date") is specified in Schedule of Bidding Process Clause 3.10.

b) The Authority may, in its sole discretion, extend the Proposal Due Date by issuing an Addendum uniformly for all Bidders. In such event, all rights and obligations of Authority and Bidders previously subject to the earlier deadline will thereafter be subject to the Proposal Due Date as extended. Any such change in the Proposal Due Date shall be in the form of addenda and be made available on https://smc.nprocure.com.

5.6   LATE PROPOSALS

a) Proposals not reaching to the Authority on or before the specified time limit on the Proposal Due Date will not be accepted.

b) Authority shall not be responsible for any postal delay or non-receipt / non-delivery of any documents.

5.7   MODIFICATION AND WITHDRAWAL OF PROPOSALS

a) Proposal once filled in, submitted shall not be allowed to be withdrawn till the validity of the bid remains in force or else the Earnest Money Deposit shall be liable for forfeiture.

b) Any alteration/ modification in the Proposal or additional information supplied subsequent to the Proposal Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

5.8   FIRM PRICES

Prices quoted must be firm and final and shall not be subject to any upward modifications, on any account whatsoever. The proposal prices shall be indicated in India Rupees (INR) only.

C. PROPOSAL EVALUATION

6 PRE-QUALIFICATION & EVALUATION CRITERIA

6.1 PRE- QUALIFICATION CRITERIA / BASIC ELIGIBILITY CRITERIA

Each Bidder should meet pre-qualification Criteria specified hereunder for opening of Financial proposal.

Sr. No.	Pre-Qualification Criteria	Proof Document Required
1	Bidder should be: • A company incorporated in India under the Companies Act, 1956 (and subsequent amendments thereto) and in operation for a minimum period of 5 years as on 1st May 2017 • Registered with the Service Tax Authorities	Format to Share Bidder's Particulars as in Appendix 1 Form –1.3
2	Turnover of last three financial years. Bidder should have had an average turnover of at least INR 50 lakhs from the last 3 financial years (FY 2013-14, 2014-15, 2015-16).	Financial Capability Statement as in Appendix 1 Form –1.4
3	Experience of Design, Supply, Installation, Commissioning and operation of Smart Parking Guidance & Management System which comprises of sensor based parking, electronically operated Boom Barriers, Parking Management Software and Parking Guidance System during last 7 years with - 2 projects with 200 car parking slots - 4 projects with 100 car parking slots Only those projects will be considered which are already under operations.	• Provide Evidences in terms of copy work order/purchase order for each of the projects undertaken. • Completion Certificate issued & signed by the competent authority of the client entity on the entity's letterhead • Experience Statement as in Appendix 1 Form – 1.5
5	The Bidder should have positive net worth in each of the last for three Financial years as on 31st March 2016	Auditors Statement
6	The bidder should not be black-listed / debarred by any of the Government or Public	Self-declaration / Undertaking by bidder on its letter head as per Appendix 1 Form – 1.8

Sector Units in India as on the date of the submission of the tender.	

6.2   EVALUATION OF PRICE PROPOSAL

a)   The Price Proposal of qualified Bidders passing the Responsiveness Test specified in clause 7.2, and meeting the Pre-qualification Criteria specified in clause 6.1, shall be opened. The Price Proposal opening process is specified in clause 7.3.

b)   Bidders are required to quote online as per Price Proposal format provided in Appendix-2. If bidder fails to mention price for any component required for successful project delivery, it is deemed that bidder will provide the same at its own cost.

c)   The Bidder quoting the lowest bid shall be considered as Lowest Bidder/ Selected Bidder and considered for award after following due process as per clause d) hereunder. In case of two bidders quoting same price, a closed bid will be requested.

d)   The Authority shall determine the responsiveness of Price Proposal of Bidder determined to be Lowest in relation to the Market rate or Authority's Internal Estimate or Good Industry Practice. In case the Price Proposal of the Selected Bidder is found seriously unbalanced by Authority in relation to the market rate or its internal estimate or Good Industry Practice, the Authority shall be entitled to solicit, at its sole discretion, detailed price analysis for any or all items specified in Price Proposal, from the Lowest and/or all Bidders to demonstrate the internal consistency of those prices. In case of the Price Proposal of the Selected Bidder, which is unrealistically lower or higher than internal estimate or market rate or Good Industry Practice and which could not be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

7   EVALUATION PROCESS

7.1   OPENING OF TECHNICAL BID/PROPOSAL

(i)   The Authority shall open the Technical Proposals received to this RFP, at time, date and Place specified in Clause 3.10.

(ii) The Authority will subsequently examine and evaluate Technical Proposals in accordance with the provisions set out hereunder in clause 7.2.

7.2   EVALUATION OF TECHNICAL BID/PROPOSAL

The Bidders shall be required to submit documents as listed in this RFP document as per clause 5.4 along with supporting documents. The Authority shall examine and evaluate the Technical Bids as per the evaluation steps specified below:

a)   *Test of Responsiveness*

1) Prior to evaluation of Technical Proposals (i.e. Technical Proposal Evaluation Criteria), the Authority shall determine whether each Bid/Proposal is responsive to the requirements of the RFP. A Bid/proposal shall be considered responsive only if:

   (i) It is submitted by the bidders fulfilling the pre-qualification criteria.

   (ii) It is received as per the format specified in RFP and prior to Proposal Date and time.

   (iii) Technical Proposal along with the supporting documents are received through RPAD/Speed Post only.

   (iv) It is signed, sealed, and marked as specified in clause 5.3 and 5.4

   (v) It contains all the information, Appendices, documents, and Authorizations in accordance with clause 5.4

   (vi) It contains two separate sealed and marked envelopes for Bid Fee & EMD and Technical Proposal in Single Outer Envelope.

   (vii) It contains the Bid Fee & EMD as per the amount, in formats and Validity Period as specified in RFP.

   (viii) It does not contain any condition.

   (ix) It is not non-responsive in terms hereof and any other conditions specified elsewhere in RFP.

2) The Authority reserves the right to reject any Proposal which is non-responsive and no request for alteration, modification, substitution, or withdrawal shall be entertained by the Authority in respect of such Proposal.

3) Evaluation of Technical Proposal Criteria of only those Bidders shall be carried out whose Bids/proposals determined to be responsive.

b) *Assessment of Pre-qualification Criteria*

   1) The Bidder must meet Pre-qualification Criteria specified in clause 6.1

   2) Evaluation of Price Proposal of only those Bidders meeting the Pre-qualification Criteria as above (1) shall be carried out.

7.3 OPENING OF FINANCIAL BID

(i) The Financial Bid must be submitted online at https://smc.nprocure.com. The Financial Bid, if submitted physically will lead to rejection of the bid.

(ii) The Price Proposal of only the Bidders determined to be Responsive and meeting the Pre-Qualification Criteria in accordance with Clause 7.2, is declared "Technically Qualified Bidders", shall be opened in the presence of such of the Bidders and/or their authorized representatives who choose to attend.

(iii) The Authority shall evaluate Price Proposal in accordance with the provision set forth in clause 6.2

7.4 CLARIFICATION OF BIDS AND REQUEST FOR ADDITIONAL / MISSING INFORMATION

To facilitate evaluation of Proposals, the Authority may, at its sole discretion, seek clarifications/documents/missing information in writing from any Bidder regarding its Proposal. The request for clarification or submission of information and the response shall be in writing. If the response from the Bidder is not received by the Authority before the expiration of the deadline prescribed in the written request, the Authority reserves the right to proceed with evaluation process at the total risk and cost of the Bidder.

7.5 VERIFICATION AND DISQUALIFICATION

(i)   The Authority reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFP and the Bidder shall, when so required by the Authority, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by the Authority shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of the Authority there under.

(ii) The Authority reserves the right to reject any Proposal and forfeit the EMD if:

1) At any time, a material misrepresentation in terms of misleading or false representation is made or uncovered, or

2) Bidder or its parents/subsidiary/sister concerned from whom it is taking credit for meeting Qualification Criteria is blacklisted/barred by any Government Agency in India or abroad.

3) The Bidder does not provide, within the time specified by the Authority, the supplemental information sought by the Authority for evaluation of the Proposal.

4) In case of fraudulent Bid/proposal and involved in fraudulent and corrupt practice

5) A Bidder makes an effort to influence Authority in its decisions on Evaluation process/Selection process.

6) While evaluating the Proposal, if it comes to Authority's knowledge expressly or implied, that some Bidders may have compounded in any manner whatsoever or otherwise joined to form an alliance resulting in distorting competitive price discovery or delaying the processing of proposal.

7) A bidder who submits or participates in more than one Bid/ Proposal under this RFP. Such misrepresentation/blacklisting shall lead to the disqualification of the Bidder. If such disqualification/ rejection occurs after the Bids/Proposals have been opened and the Selected Bidder gets disqualified / rejected, then the Authority reserves the right to:

a. invite the remaining Bidders to submit their Bids/proposals, or
b. take any such measure as may be deemed fit in the sole discretion of the Authority, including annulment of the Bidding Process.

(iii) In case it is found during the evaluation of Proposals or at any time before signing of the Contract or after its execution and during the period of subsistence thereof, that one or more of the prequalification/eligibility criteria/ conditions have not been met by the Bidder, or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Selected Bidder either by issue of the LOA or entering into of the Contract, and if the Successful Bidder has already been issued the LOA or has entered into the Contract, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by the Authority to the Successful Bidder or the Selected Bidder, as the case may be, without the Authority being liable in any manner whatsoever to the Successful Bidder or the Selected Bidder. In such an event, the Authority shall be entitled to forfeit the EMD, as the case may be, without prejudice to any other right or remedy that may be available to the Authority under the RFP and/or the Contract.

7.6   CONTACTS DURING PROPOSAL EVALUATION

Proposals shall be deemed to be under consideration immediately after they are opened and until such time the Authority makes official intimation of award/ rejection to the Bidders. While the Bids are under consideration, Bidders and/ or their representatives or other interested parties are advised to refrain, save and except as required under the Bidding Documents, from contacting by any means, the Authority and/ or their employees/representatives on matters related to the Bids under consideration.

7.7   CORRESPONDENCE WITH BIDDER

Save and except as provided in this RFP, the Authority shall not entertain any correspondence with any Bidder in relation to acceptance or rejection of any Bid/Proposal.

7.8   CONFIDENTIALITY

Information relating to the examination, clarification, evaluation, and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising the Authority in relation to, or matters arising out of, or concerning the Bidding Process. The Authority will treat all information, submitted as part of the Proposal, in confidence and will require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or the Authority or as may be required by law or in connection with any legal process.

8 APPOINTMENT OF SELECTED BIDDER AND SIGNING OF AGREEMENT

8.1 SELECTION OF BIDDER

Subject to the provisions of clause 6 and clause 7, the Bidder whose Bid is
- adjudged as responsive in terms of clause 7.2(a)
- meeting the Pre-qualification Criteria as per clause 6.1 and clause 7.2(b) and
- whose Price Proposal offered, on evaluation as per clause 6.2 has been determined to be Lowest and responsive as per clause 7.3(b),

shall be considered as the "**Selected Bidder**" for award of work after following due process including negotiation.

8.2 NOTIFICATION OF AWARD

a) Authority shall notify the Selected Bidder(s) as the Successful Bidder through letter that its/their Bid has/have been accepted (the "**Successful Bidder(s)**"). This letter ("**Letter of Award**"/ "**LOA**") shall be issued, in duplicate and shall specify the sum which the Authority shall pay to the Successful Bidder in consideration of the project scope as per the terms of Contract.

b) Successful Bidder shall, within 7 (seven) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Successful Bidder is not received by the stipulated date, the Authority may, unless it consents to extension of time for submission thereof, appropriate the Earnest Money Deposit of such Bidder as damages on account of failure of the Successful Bidder to acknowledge the LOA, and the authority will take suitable actions including blacklisting of the bidder.

8.3 SIGNING OF CONTRACT AGREEMENT

a) After acknowledgement of the LOA as aforesaid by the Successful Bidder, it shall cause the Successful Bidder, subject to furnishing the Security Deposit as per clause 8.4, to execute/sign the Agreement within fifteen (15) days from the date of LOA. The Successful Bidder shall not be entitled to seek any deviation, modification, or amendment in the Draft Contract Agreement.

b) The Draft copy of Contract Agreement is specified in Appendix 3.

c) The Successful Bidder shall get correct amount of Stamp Duty adjudicated, at Surat in accordance with applicable law, and submit the same in two copies duly stamped and

executed within fifteen (15) days from the dispatch of Letter of Award. Stamp Duty, and any other charges as may be levied under applicable law, shall be paid by the Successful Bidder.

8.4   SECURITY DEPOSIT

a) The successful bidder will be required to place Security Deposit at 5% of the consideration of the Contract by Demand Draft or Banker's Cheque Payable at Surat in favour of "**Surat Smart City Development Limited**" of any scheduled/nationalized bank within 10 days from the date of notice of award of contract/LOA, failing which a penalty at 0.065% of the amount of security deposit will be imposed for delay of each day. The EMD placed may be considered for conversion towards the security deposit and amount falling short of the required amount shall be payable.

b) If the Bidder, fails to furnish the Security Deposit, it shall be lawful for the Authority to forfeit the EMD and cancel the contract or any part thereof.

c) The Authority shall be entitled to forfeit and appropriate the amount of the Security Deposit in whole or in part:
   i) In the event the Authority requires to recover any sum due and payable to it by the Selected Bidder including but not limited to Damages; and which the Selected Bidder has failed to pay in relation thereof; and
   ii) In relation to Selected Bidder's Event of Default in accordance with the terms contained in the Agreement.

d) At the end of the Contract Period, the Security Deposit shall be returned to the Selected Bidder without any interest, subject to any deductions which may be made by the Authority in respect of any outstanding dues in terms of penalties/deductions under the terms of the Contract Agreement.

8.5   ANNULMENT OF AWARD

Failure of the Successful Bidder to submission of Security Deposit and signing of Agreement as per RFP terms and any other requirements and /or the provisions of RFP and the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD.

8.6   TAX LIABILITY

(a) GST (Goods & Service Tax) has come in existence from 1st July 2017. Contractor / Successful Bidder is bound to pay any amount of GST prescribed by the Govt. of India as per the Terms of Contract agreed upon during the course of execution of this Contract.

During the course of execution of Contract, if there is any change in Rate of GST (Goods & Service Tax) by the Government, the same shall be reimbursed / recovered separately by SMC, subject to the submission of Original Receipt / Proof of the amounts actually remitted by the Successful Tenderer / Contractor to the Competent Authority along with a Certificate from Chartered Accountant of Contractor / Successful Bidder certifying that the amount of GST paid to the Government and the same shall be intimated / submitted / claimed within 30 (Thirty) Days from the date of payment. Remittance of GST within stipulated period shall be the sole responsibility of the Successful Bidder / Contractor, failing which SMC may recover the amount due, from any other payable dues with SMC and decision of Municipal Commissioner shall be final and binding on the Contractor / Successful Bidder in this regard. Further, the non-payment of GST to the Government may lead to the termination of contract and forfeiture of Security Deposit / Performance Guarantee Amount.

If imposition of any other new Taxes/Duties/Levies/Cess or any other incidentals etc. or any increase in the existing Taxes/Duties/Levies/Cess or any other incidentals etc. (excluding GST) are imposed during the course of the contract, the same shall be borne by the Contractor/Successful Bidder Only, in no case SMC shall be liable for the same.

(b) The Authority shall be entitled to deduct tax at source as may be applicable. The TDS certificate(s) shall be submitted as per the due date specified in the Income Tax Act.

D. FORMATS FOR TECHNICAL PROPOSAL

Appendix 1: CONTENTS AND FORMATS FOR TECHNICAL PROPOSALS

Form –1.1 : Covering Letter

(On letterhead of the Bidder, including full postal address, telephone, fax, email, addresses)

Date.....................

To,
General Manager (IT),
Surat Smart City Development Limited (SSCDL)

115, Smart City Cell, Surat Municipal Corporation - Head Quarter,

Muglisara, Main Road, Surat - 395003, Gujarat

Dear Sir,

REF: RFP No. SSCDL-IPARK-RFP-01-2017

1.   Being duly authorized to represent and act on behalf of .... (hereinafter "the Bidder"), and having reviewed and fully understood all the information provided in the RFP document, the undersigned hereby applies as a Bidder for the Project.

2.   Attached to this letter are certified copies of original documents defining:

   (a)   Incorporation as per the Companies Act along with Memorandum and Article of Association, service tax registration whichever is applicable.

   (b)   The Bidder's principal place of business; and

   (c)   The place of incorporation; or the place of registration (or Income Tax registration).

   (e)   Required Earnest Money Deposit and Bid/RFP fees as specified in RFP and all documents as specified in RFP in respective envelopes.

   (f)   Price Proposal online through https://smc.nprocure.com.

3.   SSCDL and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with this application, and to seek clarification from client(s) regarding any technical aspects hereof by way of letters or otherwise from any such institutions, in order to verify statements and information provided in this application, or with regard to our resources, experience, and competence.

4.   This application is made in the full understanding that:

   (a)   Our Proposal and any information submitted at the time of bidding will be subject to verification by SSCDL;

(b)   SSCDL reserves the right to reject or accept any application, cancel the qualification/Bid process, and reject all applications; and

(c)   SSCDL shall not be liable for any such actions as at (b) above and shall be under no obligation to inform us of the grounds for the same.

5.   We confirm that in the event our bid is successful resulting in award of contract, the same will be signed so as to legally bind all the concerned jointly and severally.

6.   We confirm that we agree with the terms and conditions provided in RFP. The Proposal submitted by us shall be valid for a period of Proposal Validity Period specified in RFP.

7.   The Bid Fee & Earnest Money Deposit of stipulated amount in the form of the Demand draft

8.   The undersigned declares that the statements made and the information provided in the duly completed application is complete, true and correct in every detail.

Signature of Authorized Signatory (with official seal)

Name:

Designation:

Address:

Telephone & Fax:

E-mail address:

For and on behalf of (name of Agency)

Form –1.2: Format for Power of Attorney for Signing of the Proposal

(On a Stamp Paper of appropriate value)

(Applicable in case of bid not being signed by the person directly authorized by Board of firm. In the latter case, please provide a copy of the relevant Board Resolution signed by Company Secretary/ Director authorizing the Signatory.)

Dated:

To,
General Manager (IT),
Surat Smart City Development Limited (SSCDL)
115, Smart City Cell, Surat Municipal Corporation - Head Quarter,

Muglisara, Main Road, Surat - 395003, Gujarat

Dear Sir,

REF: RFP No. SSCDL-IPARK-RFP-01-2017

<Bidder's name> _____ hereby authorizes **<Designated Representative's name>** _____ to act as a representative of **<Bidder's name>** _____ for the following activities vide its Board Resolution/ Power of Attorney attached herewith.

To attend all meetings with Surat Smart City Development Limited or other entities associated with this project including Surat Municipal Corporation and to discuss, negotiate, finalize and sign any bid or agreement and contract related to RFP for selection of Vendor for iPARK project (iPARK Vendor) within Surat City.

Yours faithfully,

<Signature of appropriate authority of the Bidder >

Name of appropriate authority of the Bidder:

<Signature and name of the Designated Representative of the Bidder for acceptance of this Power of Attorney>

For

<Name of Bidder > Encl: Board Authorization

Notarised

Form –1.3: Format to Share Bidder's Particulars

Sr. No.	Description	Details (to be filled by the responder to the RPF)
1	Name of the Agency	
2	Official address	
3	Phone No. and Fax No.	
4	Corporate Headquarters Address	
5	Phone No. and Fax No.	
6	Web Site Address	
7	Details of Agency's Registration (Please enclose copy of the Agency registration document)	
8	Name of Registration Authority	
9	Registration Number and Year of Registration	
10	Sales Tax /VAT registration No.	
11	Permanent Account Number (PAN)	
12	Agency's Revenue for last 3 years (Year wise)	
13	Agency's Profitability for the last 3 years (Year wise)	
14	Registration details under the Companies Act 1956	
15	No. of years of operation in India	
16	Service Tax Registration No.	

Please submit the relevant proofs for all the details mentioned above along with your Bid response.

Contact Details of officials for future correspondence regarding the bid process:

Details	Authorised Signatory	Contact Person
Name		
Title		
Agency's Address		
Phone		
Mobile		
Fax		
E-mail		
Signature		

Form –1.4: Financial Capability Statement
{On Statutory Auditor's or CA letterhead}

I hereby declare that I have scrutinized and audited the Financial statements of M/s_____. Turnover* of the bidder (name of the Bidder) as on 31st March, 2016 / 31st December, 2015 as per Audited statement is as follows:

Financial year	Turnover (INR Crore)	Net Worth (INR Crore)
2015-16		
2014-15		
2013-14		

   *To be provided from latest available Audited statement

_____
(Signed and Sealed by the statutory auditor or CA)

Enclosure:

(1) Copy of latest available Audited annual reports for last three years as applicable or as per Financial Year/Calendar Year followed by the bidder firm.

Form –1.5: Experience Statement
[Project Title]

(Attach separate sheet for each project)

A. Project Brief

B. Client (Name & Address)

C. Cost of the Project

D. Duration & period of the Project

E. Roles & responsibility of the organization

F. Whether Project executed by forming Joint venture or Consortium with other organization (In case of consortium provide share in consortium)

G. Country in which it was executed

H. Other features of the Project (Such as Tools & Technology used, total efforts in man months etc.)

I. Provide the relevant project details as under:

#	Project Component	Yes /No	Details
1.	Sensor based parking		
2.	Parking Management Software		
3.	Parking Guidance System		
4.	Electronically Operated Boom Barriers		

The information submitted above is true and I am aware that submitting false information will lead to rejection of our bid and SSCDL can take appropriate action in this regard.

(Sign & Stamped by authorized signatory)

Enclosure:
Purchase Order or Work Order duly authenticated/signed by the respective client be furnished.

Form –1.6: Project execution Methodology
(Detailed Write up and presentation)

The technical proposal should explain the solution proposed by the Bidder and should highlight its salient features (if any). The Bidders will be required to provide a Solution Overview through brief Writeup & Presentation in written form not exceeding broadly 5000 words. This solution overview is to be provided along with technical proposal and bidders will be invited to present if they meet the pre-qualification criteria.

Sr. No.	Content of Solution Overview
1	Project Timeline, Resource Engagement plan and implementation approach
2	iPARK Project Presentation by understanding the scope and describing the details of the technology proposed for parking occupancy sensing
3	Approach on integration with SMC command center
4	Details of hardware infrastructure requirements from SMC data center for entire solution based on functional requirements specified in RFP

The writeup is required to ensure that a workable solution is proposed. SSCDL reserves the right to call the bidder for any clarifications/discussions regarding the solution and suggest binding changes in the solution if it feels such solution deviates majorly from its needs and purposes.

Form –1.7: Undertaking

(On letterhead of the Bidder, including full postal address, telephone, fax, email, addresses)

It is certified that the information furnished here in and as per the document submitted is true and correct and nothing has been concealed or tampered with. We have gone through all the conditions of tender and is liable to any punitive action for furnishing false information / documents.

Dated this _____ day of _____ 201_.

Signature

(Company Seal)

_____

In the capacity of duly authorized to sign bids for and on behalf of:

Signed by

Authorized Signatory with designation

Form –1.8: Format for Declaration by the bidder for not being Blacklisted / Debarred

(To be submitted on a 100-rupee stamp paper by bidder)

Anti-Blacklisting Affidavit

I M/s. ………………………, (the names and addresses of the registered office) hereby certify and confirm that our company is not black-listed / debarred by any of the Government or Public Sector Units in India or abroad as on the date of the submission of the tender.

We further confirm that we are aware that our Proposal for the captioned Project would be liable for rejection in case any material misrepresentation is made or discovered with regard to the requirements of this RFP at any stage of the Bidding Process or thereafter during the agreement period. Dated this ………………………Day of …………………., 201_

Name of the Bidder

Signature of the Authorized person

Name of the Authorized Person

Form –1.9: Non-Disclosure Agreement
{To be given on the Company's Letter Head}

WHEREAS, we, _____, having Registered Office at _____, hereinafter referred to as the Bidder, are agreeable to provide iPARK Design, Development and Maintenance Project services to SSCDL, having its office at 115, Smart City Cell, Surat Municipal Corporation - Head Quarter, Muglisara, Main Road, Surat - 395003, Gujarat hereinafter referred to as the AUTHORITY and, WHEREAS, the Bidder understands that the information regarding the AUTHORITY's business   shared by the AUTHORITY in their Request for Proposal is confidential and/or proprietary to the AUTHORITY, and WHEREAS, the Bidder understands that in the course of submission of the offer for providing **Vendor capabilities for IPARK** and/or in the aftermath thereof, it may be necessary that the Bidder may perform certain jobs/duties on the Authority's properties and/or have access to certain plans, documents, approvals or information of the Authority; NOW THEREFORE, in consideration of the foregoing, the Bidder agrees to all of the following conditions, in order to induce the AUTHORITY to grant the Bidder specific access to the AUTHORITY's property/information. The Bidder will not publish or disclose to others, nor, use in any services that the Bidder performs for others, any confidential or proprietary information belonging to the AUTHORITY, unless the Bidder has first obtained the AUTHORITY's written authorization to do so.

The Bidder agrees that notes, specifications, designs, memoranda and other data shared by the AUTHORITY or, prepared or produced by the Bidder for the purpose of submitting the offer to the AUTHORITY for the said solution, will not be disclosed to during or subsequent to submission of the offer to the AUTHORITY, to anyone outside the AUTHORITY.

The Bidder shall not, without the AUTHORITY's written consent, disclose the contents of this Request for Proposal (Bid) or any provision thereof, or any specification, plan, pattern, sample or information (to be) furnished by or on behalf of the AUTHORITY in connection therewith, to any person(s) other than those employed/engaged by the Bidder for the purpose of submitting the offer to the Authority and/or for the performance of the Contract in the aftermath. Disclosure to any employed/engaged person(s) shall be made in confidence and shall extend only so far as necessary for the purposes of such performance.

Date:

Signature with Seal :

Name   :

Designation   :

Form –1.10: Curriculum Vitae of Proposed Team Members (Key Personnel)

Résumés of all the staff proposed to be deployed at SSCDL shall be attached along with the technical bid as per the format below. The bidder may submit résumés of more than 6 persons and the position on which a person will be deployed to at SSCDL shall be clearly mentioned on the right hand top corner of the first page of that person's résumé. The details provided should help in ascertaining the eligibility of the candidate vis-à-vis the qualification and experience requirement for that post.

S.No.	Item	Curriculum Vitae of Proposed Team Member		
1	Name			
2	Specify role to be played in the project			
3	Name of Organization			
4	Number of years with the Current Organization			
5	Total Experience (in Years)			
6	Experience in months (Provide details regarding name of organizations worked for, Designation, responsibilities, tenure etc.)			
	Name of Organization	From	To	Designation/ Responsibilities
6.1				
6.2…				
7	Summarized professional experience (Relevant to the Current Project) in reverse chronological order			
	From	To	Company / Project / Position / Relevant Functional, Technical, and Managerial Experience	
7.1				
7.2…				
8	Educational Background, Training / Certification including institutions, % of marks, specialization areas etc.			
	Degree	Year of Award of Degree	University	% of marks
8.1				
8.2…				

9	**Candidate's Attestation for the Resume(optional):**	
	I am available for assignment for the duration and location specified in this RFP at Surat.	
	Signature (in blue ink)	Date (DD/MM/YY)
10	**Bidder's Attestation for the Resume:** *[All resumes shall be individually attested by the bidder]*	
	Place	Signature of Authorized Person
	Date	Designation
	Company Stamp	Name

Form –1.11: Resource Deployment Plan

The bidder should have a detailed resource deployment plan in place to ensure that technically qualified staff is available to deliver the project

#	Name of Staff	Area of Expertise	Implementation Period (In Months)						Total Man-Months proposed	Full time/ Part time	Onsite/ Offshore
			M1	M2	M3	M4	M5	M6			
		Project Manager									
		Parking Management SME									
		Hardware Installation Engineer									
		Programmer/Developer									
		Mobile Application Developer									
		Others (if any)									
#	Name of Staff	Area of Expertise	Support Period (In Months)						Total Man-Months proposed	Full time/ Part time	Onsite/ Offshore
			M1	M2	M3	M4	M5	Mn			
		To be specified by Bidder									

Form –1.12: Format for Self-declaration to Implementation Partner and Commitment to Support

(This form has to be provided by the OEMs of the hardware and software solutions proposed on its letter head. This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the OEM.)

To,
General Manager (IT),
Surat Smart City Development Limited (SSCDL)
115, Smart City Cell, Surat Municipal Corporation - Head Quarter,
Muglisara, Main Road, Surat - 395003, Gujarat

Subject: OEM's Authorization Form

Ref: **RFP No. SSCDL-IPARK-RFP-01-2017**

Dear Sir,
We_____ (Name of the OEM) who are established and reputable manufacturers of _____ (List of Goods) having factories or product development centers at the locations _____ or as per list attached, do hereby authorize. _____ (Name and address of the Bidder) to bid, negotiate and conclude the contract with you against RFP No. _____Dated _____for the above goods manufactured or developed by us.

We hereby extend, our warranty for the hardware goods supplied by the bidder and or maintenance or support services for software products against this invitation for bid by _____ (Name of the Bidder) as per requirements of this RFP.

The list of partners in India is as follows:

_____

_____

Thanking you,
Yours faithfully,

(Signature)
For and on behalf of: _____ (Name of the OEM)

Authorised Signatory
Name:
Designation:
Place:
Date:

Form –1.13: Functional & Non-Functional Specifications Compliance – To be updated post review

- The bidder can quote item meeting or exceeding the below mentioned minimum specification.
- The bidder must clearly specify the features of the offered product vis-à-vis specification and deviation if any in the Column-C and Column-D respectively.
- The exact make and model of the product offered must be specified in the Column-E.
- **The technical spec sheet and the product brochure of the product offered should also be submitted along with technical bid.**

In case the space provided is not sufficient then a separate paper as per the format below can be annexed to the bid. The same must be duly signed and stamped.

Functional Specifications

#	Item	Matched? [Yes/No]	Deviation from Specification / Remarks if Any
A	B	C	D
2.3.1 Parking Guidance and Management System			
1	The PGMS internally comprises of two subsystems, namely Parking Guidance System and Parking Management System. The Parking Guidance System consists of real time information about availability of parking slots, extension of parking time by users, acceptance of payment through various modes like cash, Surat Money Card, e-wallet, smart card, Debit/Credit card etc. and billing information. The Parking Management System comprises of the access control system for tracking vehicles in and out of the parking lot, components like sensors, entry devices, barriers, exit devices, payment device, payment mechanism, wireless handheld device, etc.		
2	The Parking Management System components should communicate back and forth with the Central Control Centre (SMAC). The Parking Guidance System will guide the motorist to appropriate parking slots using a combination of digital signs and indicators within and outside the parking lot and through Mobile App.		

3	Parking Management System must geo-reference the parking lots and shall have the ability to add more locations in future. Smart parking solution should enable accounting and mapping of individual parking spots to different operators/agencies and monitor the parking space utilization and revenue from those facilities		
4	All parking lots MLCP and off-street must have one-to-one mapping of all the sensors in that location		
5	Each MLCP and off-street parking lot shall have a local server for storage and hosting the local parking management application. These should be connected to SMC data center.		
2.3.2 Parking Information/Guidance			
1	Parking Management System should enable stakeholders/users to obtain real time information about the availability of the parking lot by location, based on the occupancy of parking lot. Also, shall have facility to be able to view availability by distance and parking fee.		
2	The total number of slots and free slots for parking must be displayed on a digital signboard near the entrance of the parking lots. in the city		
3	Every parking space in MLCP shall be fitted with an occupancy sensor for vehicle detection. Sensor should be intelligent and accurately detect if the vehicle space is vacant or occupied. However, the proposed sensors should not detect any human movement.		
4	Informative Display Panels should be installed at all entry points (every floor in case of multilevel car park) of the parking lot indicating available spaces for each parking level, total parking and should be able to be customized by software. The display panel should be easy to understand and must have graphical directional and zone status indication (as red crosses for zone full or green directional arrows to guide drivers to zones with available spaces)		
5	All the Parking Information/guidance system hardware like Sensors, display will be integrated with Parking Guidance Controller which monitors the status of occupancy and controls guidance signs appropriately		
6	Appropriate sensors should be chosen based on the type of the parking spot and its external conditions. The Bidder can propose innovative, advanced but reliable and cost effective implementation approaches using any sensor technology like ultrasonic, magnetic and camera based sensing a) The sensor should be able to detect a vehicle irrespective of the depth or height of sensor installation. b) Each sensor should have its own unique identification in order to be accurately tracked by the PGMS. c) Each sensor should have an accurate and real time feedback mechanism to be detected automatically by the system in case of faults.		

7	For Off-street Pay n Park, the number of available parking slots will be based on estimated spaces since each parking space is not marked. Provision has to be made to count each entry and exit of four wheeler and two wheeler separately and available spaces to be reduced after each entry of a vehicle and added on exit of the vehicle.		
2.3.3 Parking Access Control / Management			
1	Each multi-level and off-street parking shall have parking ticket dispenser machine at the entrance where the ticket can be issued by the machine on pressing the button by the user/ operator		
2	Each entry lane should be equipped with one Entry Device with the following capabilities: a) Ticket Dispenser b) Push Button for Dispensing Ticket		
3	The ticket, QR Code and Common City Payment Card or any other technology used by Bidder should be capable of capturing data that is easily retrievable at the exit		
4	Every vehicle entering the parking space should be stopped by barrier. The barrier is raised when the motorist is issued a ticket or has been identified as a legitimate user.		
5	In case the parking lot is already occupied to its capacity, the ticket issuing should automatically be blocked and therefore, the barrier should not open. A message should also be displayed on the outdoor screen stating the same		
6	The display on Entry Device should have capability to display messages in English, Hindi and Gujarati.		
7	Any vehicle, before leaving the parking area, should be stopped by a barrier system at the point of exit from the parking.		
8	The solution should also include provision to capture the image of the vehicle (including vehicle registration number plate view) entering and leaving any of the parking spaces and the all the information related to the same should be stored at the central server.		

9	9. Exit of every parking should be equipped with a manned Pay station (booth). a) Exit booth should have appropriate space for keeping devices such as a computer in case of an off-street/MLP facility with internet connectivity, QR code reader, Common City Payment Card Reader and Thermal Receipt Printer etc. b) For motorists who enter the parking lot using Common City Payment Card, should get the ticket from the ticket dispenser as any other user and at the exit use the Common City payment card as a method of payment, paying the amount as per business rules as specified during design time. c) If any discounting is allowed for parking, the business rules for the same shall be provided by SMC and any discounting as applicable shall be handled by the system. d) The personnel monitoring the exit Pay Station is also required to manually enter the vehicle registration number details in the system so that the vehicle registration number, along with date and time of exit, is stored in the database. e) The payment for parking should be collected based on entry time stamp by any personnel stationed at the Pay Station. f) The system will calculate the fee automatically and indicate this on the user fare display clearly visible to the motorist. No manual intervention should be necessary to compute the fee.		
10	Once the vehicle exits a parking slot, the total parking slots available in that parking space should automatically get updated.		
11	Only after completing the full cycle correctly the transaction will be considered as valid within the parking facility. However, audit trail of each complete, incomplete and cancelled transaction should be available in the system.		
12	The solution should be equipped with anti-pass back technology and be able to detect and report any instance pass back.		
13	The barrier should remain in closed position for optimal period of time for the vehicle to pass at entrance and exit.		
14	Upon horizontal impact by a vehicle, the barrier boom arm should get detached from the barrier unit with minimal damage to the vehicle and the barrier motor mechanism. An alarm should also be raised and sent to the server and monitoring console, when the boom arm of barrier is detached.		
15	Under no circumstances should the boom arm re-open except the vehicle impact. This is to prevent, keeping the arm open for illegal entries or exits. a) All the boom Barrier detaching incidents shall be captured in the system as an Alert and the video/image of the		

	same shall be captured by the cameras at the entry and exits. b) The barrier arm should be easy to refit with barrier unit in a short duration (within one minute).		
16	The solution should have capability to capture image of the vehicle registration number plates of the vehicles at every entry and exit of parking lot. The image should be clicked at the entry point when the ticket is issued and at the exit point during payment. The image of the license plate should be linked to the details of the corresponding ticket issued in real- time and stored in the database for six months. This information will be stored in the SMC data center.		
17	The Parking Management System should retain videos of car entering/exiting the parking zone for a period of Six Months		
2.3.4 Parking Pricing and Payment			
1	The Parking Management System should facilitate real time revision of parking fees and should enable real time communication of rules to handheld terminal and parking booths from Central facility/Control Centre.		
2	Payment sub system shall have the capability of processing and reporting separately numerous transactions including, but not limited to, the following: a) Normal transaction b) Lost ticket transaction c) Mutilated or unreadable ticket transaction d) Non-revenue (no charge) transaction e) Blank or used ticket transaction		
3	Parking Management System should enable SMC or any other appointed third party to facilitate generation of parking receipts and tickets based on occupancy of parking lots and business rules to be amended from time to time.		
4	User shall have the multiple payment options as given below. a) Primary mode of payment for parking will be by cash at the Pay Station b) Common City Payment Card c) RFID tags (Future state requirement, solution should have RFID natively integrated and shall only require additional hardware to make it fully functional)		
2.3.5 Audit, Performance MIS Reports and Alerts			

1	PMS should track each and every revenue source and should ensure no leakages due to manual intervention.		
2	All vehicular passages during the time that the barrier is not functional/down should be recorded and displayed in the reports separately in order to audit the necessary revenue transactions during that time.		
3	System shall daily check whether the vehicles that have entered the premises and are yet to leave. Thereby it should be able to generate alert if any vehicle is overstaying in the parking lot over 24 hrs.		
4	In case of any sensor or barrier non-functional, an alert should be sent to the console and server to ensure that the administrator is informed that the device is not working.		
5	Parking Management System should: a) Report occupancy of parking lots to a central software application deployed at the SMAC using the network laid out as a part of this project. b) Include central reporting system establishing the connection between the devices and sensors, and the centralized SMAC. c) include reporting dashboards with location specific thresholds to be set for generating customized reports d) Be capable of monitoring the number of vehicles that entered or exited the parking premises during any given time. e) Generate reports based on the operating agency/agencies managing the parking operations. f) Generate reports for each parking spot, in each of the parking lots capturing utilization, cost, and revenue details, and details of assets, people and etc. These reports should be available in all standard acceptable formats like .csv, .pdf, .txt, etc.		
2.3.6 Breakdown/ Off-Line / Manual mode			
1	PGMS should include the use of wireless handheld device for MLP system and off-street parking. This device shall be used in case of off-street parking or indoor parking during peak hours or as a fallback mechanism. However, this device must track every transaction limiting any manual transaction to zero.		

2	MLPs/off-street: In case of fallback (system unavailable), it should be possible for the wireless handheld device to be used as central cash payment device (i.e. it should be possible to scan the QR Code on tickets issued by the entry device and issue receipts post payment, so that the motorists could pay for the parking and then drive out quickly), without any time consumed for payment transactions at the exit. a) The device should have capability to print parking receipts and bar coded tickets in real time. b) Both the functionality of ticket dispensing & cash register should be possible to be combined in one device. c) This wireless handheld device should be an online unit, connected in real-time with SMAC using either Wi-Fi or 3G/4G. However, in case of network failure, the device should have capability to transact offline and sync with the server as and when connection is restored. d) The wireless device to have batteries and power supply along with cradle for charging.		
2.3.7 Maintenance Mode			
1	The central system and all the equipment (barrier gates, ticket dispenser, POS units etc.) shall support maintenance mode during repair, replacement and testing of equipment.		
2	All transactions done during the maintenance mode on a ticket dispenser or a handheld ticketing machine shall be possible only using a special maintenance user rights specifically for the purpose.		
3	All transactions carried out in the maintenance mode shall be reported separately like exception transactions.		
4	The maintenance mode shall be possible only by using a dedicated maintenance "user privilege login" specially created for this purpose.		
2.3.8 Central System			
1	Uploaded data shall not be deleted from system readers or workstations until the central system has provided confirmation that the transactions have been successfully received.		
2	The central system shall be able to update its date and time applying time synchronization to servers and using this to in turn update the date and time on all system devices and workstations.		
3	All active equipment shall have an internally maintained date and time clock synchronized at a time interval via the communications controller with the Central System date and time clock.		
4	The time synchronization application in the device shall have the capability to adjust the minimum time interval for updating itself with the central system time and date, and shall be capable to update time as often as every minute (configurable) with the central system.		

5	The central system shall manage all device activity and maintain their logs including at a minimum: a. Data storage and processing systems b. Financial systems c. Customer databases d. Sales and transaction systems		
6	All equipment shall operate with a real-time data connection to the central system via the communications network for that equipment.		
7	If the data connection to the central system is temporarily lost, all equipment shall seamlessly switch to an offline mode in which all data is temporarily stored in internal memory and transmitted to the central system as soon as the data connection is re-established.		
8	All equipment shall have sufficient memory to operate in offline mode, with no loss of data, for no less than 15 Days.		
9	The central software shall support managing parking fare tables.		
10	It shall be possible to "future-date" pending fare tables so that they can be uploaded ahead-of-time and automatically activated at the planned date and time.		
11	All ticket dispensers and handheld ticketing machines shall store the current valid fare-set as well as a future "pending" fare-set with activation date and time in order to allow downloads to the device to occur in advance.		
12	When the activation date and time passes, the ticket dispenser and the handheld ticketing device shall automatically replace the existing fare table with the "pending" fare table.		
13	Updated fare-sets shall be downloaded as soon as the central system publishes notice that they have become available		
14	The central software shall be capable of providing over-the-air fare table updates & firmware updates to the handheld ticketing devices apart from other immediate critical updates		

15	The systems should be driven by configurable parameters and should provide the flexibility for maximum configuration. The configurations shall be for, but not limited to: a. Time based Fare table etc. b. User Groups and users privileges c. Time validity of ticket d. Addition & deletion of equipment, nodes, parking lots, handhelds, user groups, users etc. e. Reports access		
16	The system shall handle all exceptions. Exceptions can be, but not limited to: a. QR coded ticket not being read b. Manual opening of the barrier gate c. Paper ticket lost d. QR coded paper ticket not readable after entry		
17	Any exception in the normal process shall be flagged separately for auditing and reports should reflect this condition. Mechanisms should be provided to help audit such exceptions.		
18	The system shall handle all degraded conditions which can be, but are not limited to, the following: a. Ticket Dispenser is not functional b. Power failures c. Data Connection lost d. Particular node down e. Central Server down		
19	Alterative mechanisms and all required systems shall be provided for the system in case system is in degraded state as specified but not limited to the above by the Bidder.		
20	There should be provision in the system to enter degraded transactions, in case they are not registered because of degraded operations.		

21	The Bidder should provide an automated Fault Monitoring Module to generate reports identifying the faults of the equipment if any on a daily basis. The fault monitoring system shall have the following minimum capabilities: a. Setting up of automatic and manual alerts b. Automatic fault detection & reporting c. Fault Status reports d. Fault Closure reports		
22	The reports shall be non-editable and SSCDL and/or its representatives shall have real time access to the Fault Monitoring Module with user privileges of the highest level.		
23	Automatic Backup/Archiving Software shall provide automatic back-up of the entire database. The software shall allow taking complete back up or incremental back as per the desired archival policy.		
2.3.8 Monitoring & Control Dashboard			
1	The Parking control center operator shall be provided with a dashboard and monitoring system that is completely independent from the revenue transaction system and shall be displayed and monitored at the parking facility control room. This system shall record the following information: a. The total number of vehicles crossing the gate loop in each controlled entrance and exit lane (count to be obtained regardless of status of equipment components e.g., gate arm raised). b. The total numbers of valid card access vehicles for each controlled entrance and exit lane. c. The total numbers of valid daily vehicles for each controlled entrance and exit lane. d. The number of violation vehicles for each controlled access lane. A violation vehicle is defined as a forced or un-authorized passage of vehicle over the detection area.		
2	On this dashboard there shall be a schematic layout showing all the connected parking nodes on the GUI.		
3	The various nodes when connected & disconnected shall be represented in different colour schema on the GUI of the SMAC operator.		
4	If any particular node is disconnected from the control room, the same shall raise an alarm to the SMAC operator GUI & appropriate action shall be taken to rectify the same.		
5	The monitoring dashboard shall allow the SMAC operator to click on any node & view the details of the "operator" logged in, time duration since logged in, summary of transaction performed, disable/enable Entry/Exit Station or POS terminal, other components of parking system.		

6	If SMAC operator or any other user from SMAC disables/enables/operates any active device remotely, the same shall be captured in the SMAC activity report with all details including but not limited to date , time, device, action performed etc.		
7	The monitoring dashboard shall show the status (connected/disconnected, faulty/working) of all logical devices (barrier gate, ticket dispenser, camera, Common City Payment Card reader, receipt printer, QR code reader and other equipment) connected to a particular node when clicking on a node from the monitoring dashboard GUI.		
8	In case of any fault in the devices connected to a node, or connectivity failure with a node, a pop-up message shall appear on the monitoring dashboard workstation. The operator has to acknowledge the pop-up message & report the type of fault to the maintenance team & shall record the details to the assigned team/individual into the system.		
9	Fault assignment to the maintenance team shall be managed and controlled by the system software only. Once a fault is assigned by the SMAC operator or authorized user to the maintenance team, the same shall be displayed in the maintenance module and once fault is closed/resolved by the maintenance team it shall be updated automatically (in case of active devices) or else updated manually in the software application/maintenance module promptly.		
2.3.9 System Data Requirements			
1	SSCDL shall own all system data and be able to use the central system to export transactions data for processing/analysis using other software.		
2	Data shall be retained in the database for at least the financial year previous to the current financial year.		
3	Sufficient data storage capacity shall be provided in the central system to store online a minimum of two years of activity with full transactional data. The expected daily transactions on the system is around 3,000 per day in the base year		
4	All data shall be automatically backed-up daily without human intervention, using the backup devices and media.		
5	Means shall be provided to automatically archive data older than two years along with the archiving media to store the data.		
6	The transactional database shall store the date/ time stamped details of each transaction including all information transmitted to the central system from the system devices.		
7	SSCDL shall own all system data and be able to use the central system to export transactions data for processing/analysis using other software.		
2.3.10 Citizen/ Operator / Authority Interface			
1	The Parking Management System should have a mobile and a web delivery channel for citizens to get real time parking availability.		

2	A mobile application and web based user interface should be provided with the following features: a. The mobile application should be free to download and use for all citizens. b. Compatible with and responsive to all leading smart phones on Wi-Fi, GSM and CDMA networks c. Should be Operating System (OS) independent and available on all major OS platforms including Android and iOS. d. The app can be a hybrid app and development to be undertaken on Open Platform. e. The application should have citizen module and admin module. f. Through the citizen module, the user should be able to locate nearest parking lot based on user's geographical coordinates. The same information must be made available on map with routing information. g. The citizen should be able to see all the parking lots with exact available space in a real time mode. h. The administrators should be able to generate MIS report to view occupancy, collection and other usage statistics over a defined time period.		
2.3.11 Integration with other Systems			
1	Integration with Smart City Platform and Mobile Applications - Integration of various components provides seamless access of various data across the departments which helps in operation. So the Bidder shall provide complete support for any third party integration required to integrate iPARK with Smart City Platform of SMC and mobile applications to get real time data.		
2	Integration with Common City Payment Card - A Common City Payment Card is being envisaged as part of Smart City Initiatives which shall be used for making payments at multiple merchandises across Surat. The card shall be issued by Banks and will be accepted at most of the facilities in Surat including utility payments, transit, parking etc. The Bidder shall work in close coordination with the Bank and other related agencies to make it workable.		
3	The system shall integrate with 3rd Party parking Systems deployed across the City and provide the information to Citizens		

Non – Functional Specifications

#	Parameters	Particular	Matched? [Yes/No]	Deviation from Specification	Specify Make, Model

	A	B	C	/ Remarks if Any	E
				D	
2.4.1 Ticket Dispenser					
1	Display	Display shall be LCD colour graphics user definable display 240 x 160 pixels type with damage resistant lens capable of displaying graphics and images.			
2	Ticket Capacity	Dispenser paper roll capacity shall be at least 5,000 tickets per roll and shall have a built-in photo sensor to give paper roll low level indication.			
3	Printing technology	The Dispenser shall have built-in high speed ticket printer based on thermal technology and able to print tickets with text and graphics including QR code. Tickets issued shall be cut with a self-sharpening ticket cutter			
4	Printing Speed	The print speed shall not be less than 150 mm/s for both text and graphic and at a minimum resolution of 200 dpi (8 dots/mm).			
5	Communication	Dispenser controller device shall communicate over Ethernet with the Central Server. No proprietary RS485 cabling or other proprietary system is allowed for communication to dispenser			
6	Interface	Dispenser controller shall support USB, Serial, and RS-232 communication mediums to add on devices. Dispenser controller shall have additional inputs and outputs assignable to functions like open/closed sign relays for barrier gates and indication lights operation.			
7	Controller	The Dispenser Control unit shall include CPU, input/output terminals, and power supply and logic board for display.			
8	Environmental	All dispensers shall come with standard equipment such as heater and cooling fan using a thermostatic controller to ensure a reasonable operating temperature for components in various weather conditions. Humidity range is up to 90% non-condensing.			
9	Enclosure	The Dispenser shall have Front/Rear door for easy access for ticket loading and logic board access. The Dispenser housing shall be at least IP54.			
10	Operating Temperature	The Dispenser shall have operating temperature range of 0°C to +55°C.			
2.4.2 Barrier Gate					

1	Function	All occupancy sensors shall be integrated to the Parking Controller to give real time status of parking lot occupancy.			
2	Built	The parking controller shall be rugged and shall have sufficient no. of I/O terminals to take feed from occupancy sensors. If multiple controllers are required to cater to occupancy sensors, the same shall be provided.			
3	Interface	Based on the feedback from the occupancy sensors and Parking System, the controller shall be able to control the parking guidance signals based on their location to guide users accordingly to nearest vacant slot.			
4	Communication	RS232 and Ethernet			
5	Temperature	0°C to +55°C.			
6	Type of protection	IP66			
2.4.3 Parking Occupancy Controller					
1	Barrier Boom Arm Length	Maximum 3.5 m			
2	Opening/closing time	1.5 s			
3	Duty cycle	100%			
4	No. of digital inputs	4			
5	No. of relays/digital outputs	4			
6	Boom Arm	Folding boom with Breakaway flange with sensor to detect detachment of boom arm			
7	MTBF	10 million cycles			
8	Enclosure rating	IP54			
9	Enclosure Type	The Barrier Cabinet and Boom should have finished with an anti-corrosion paint system. The Barrier gate control system shall be located inside the main Barrier			

		Cabinet and should give easy access to all electrical components for connection, maintenance and programming, including the power isolation switches			
10	Safety Sensor	The Barrier gate should have infrared sensors to detect the presence of human, vehicle and other object for extra safety.			
11	Temperature range	0°C to +55°C.			
2.4.4 Parking Occupancy Sensors					
1	Function	All occupancy sensors shall be integrated to the Parking Controller to give real time status of parking lot occupancy.			
2	Built	The parking controller shall be rugged and shall have sufficient no. of I/O terminals to take feed from occupancy sensors. If multiple controllers are required to cater to occupancy sensors, the same shall be provided.			
3	Interface	Based on the feedback from the occupancy sensors and Parking System, the controller shall be able to control the parking guidance signals based on their location to guide users accordingly to nearest vacant slot.			
4	Communication	RS232 and Ethernet			
5	Temperature	0°C to +55°C.			
6	Type of protection	IP66			
2.4.5 Public Information Signs (PIS)					
1	Function	PIS shall be used to display information to users at each multi-level parking station for the vacant slots.			
2	Display lines	Type A: Mounted outside MLP area indicate vacant parking lots on each floor to the users shall have single line with 15 Characters (Alphanumeric) each for the all the respective floors.			
		Type B: Mounted at designated locations on each floor to indicate vacant lots for that particular floor shall have single line with 15 Characters (Alphanumeric) each			
3	Colour	Multicolour			

4	Language	The display units shall support multi-lingual fonts in English, Hindi and Gujarati for easy reading.			
5	Character height	60 mm at least			
6	Weight	Shall be less than 2.0 kg			
7	Type of protection	IP66			
8	Temperature	0°C to +55°C.			
9	Power Supply Requirement	240Vac at 20W			
10	LED type	Ultra bright AllnGaP LEDs			
		8000mcd at 20mA, 300 viewing angle			
		Suitable for outdoor condition under bright sunlight			
11	Viewing distance	> 50 meters			
12	Communication Interface	RS232 and Ethernet			
13	Reliability and maintainability	MBTF: 100000 hours			
		MTTR: 15 min.			
14	Self-Diagnostics	The display systems shall have built-in test facility, able to carry out self- check at periodic intervals as well as exchange of diagnostic information from the parking management central system including power availability, and its current status.			
2.4.6 QR Code Reader					
1	1D Symbology Decode Capability	UPC/EAN (UPCA/UPCE/UPCE1/ EAN-8/EAN-13/JAN-8/JAN-13 plus supplementals, ISBN (Bookland), ISSN, Coupon Code), Code 39 (Standard, Full ASCII, Trioptic,Code 32 (Italian Pharmacode), Code 128 (Standard, Full ASCII, UCC/EAN- 128, ISBT-128 Concatenated),Code 93, Codabar/NW7, 2 of 5 (Interleaved 2 of 5, Discrete 2 of 5,IATA, GS1DataBar Omnidirectional, Truncated, Stacked, Stacked Omnidirectional, Limited, Expanded, Expanded Stacked)			

2	2D Symbology Decode Capability	TLC-39, Aztec (Standard, Inverse), MaxiCode, DataMatrix/ECC 200 (Standard, Inverse), QR Code (Standard, Inverse, Micro)			
3	Nominal Working Range	10 cms Omnidirectional			
4	Light Source	Aiming pattern: single dot, 625nm LED			
5	Environmental	Compliant with RoHS Directive 2002/95/EC			
6	Print contrast	minimum 35% reflective difference			
7	Scan rate	100 scans per second			
8	Image Transfer Speed	USB 2.0: Up to 12 Megabits/second RS-232: Up to 115 kb/second			
9	Interfaces	USB, RS-232, RS-485			
10	Electrical Safety	UL6950-1, CSA C22.2 No. 60950-1:2nd ed. EN60950-1: 2nd ed. + A11: 2009 IEC60950-1: 2nd ed.			
11	LED Safety	IEC / EN 60825-1: 2001 Class 1M LED, EN 62471: 2008 IEC 62471: 2006			
12	EMI/RFI	FCC CFR47 Part 15 Class B: 2007, ICES-003 Issue 4 :2004 Class B, EN 55022: 2006 + A1: 2007, EN 55024: 1998 +A1: 2001 + A2: 2003 AS/NZS CISPR22:2006,VCCI:2007			
2.4.7 Local Server for MLCP/Off-street					
1	Make	HP/Dell/Lenovo			
2	Form factor/height	Tower			

3	Processor	Intel® 7th generation Core™ i7-7700 Processor (3.60 GHz Base Frequency/Clock Speed, 4M Cache, 4 core) or higher			
4	Motherboard	Intel Q150 chipset or better			
5	Memory	16GB RAM, DDR 4, Shall be expendable to 32 GB			
6	RAID Controller	RAID controller with RAID-0, 1 and 5 support			
7	Network	4 Gigabit Ethernet NIC			
8	Ports	2 RS232 , 1 RS485			
9	Network interface controller (NIC) Trusted platform module (TPM)	LPT-Parallel			
10	PCIe 3.0 Expansion slots (x16/x8)	Total 6 USB ports (min. 2 at front) with atleast 2 USB 3.0			
11	USB ports	HDMI/DVI			
12	WiFi	Intel®Wireless – N 72602 AC 802.11 ac, 2 x 2, 2.4 GHz /5GHz + Bluetooth® 4.0			
13	Storage	Usable 2 TB SAS/SATA or Better with RAID-0			
14	Monitor	18.5" or higher wide screen LED Backlit based TFTs, Resolution – 1366 X 768 or better, TCO Displays 5.0 certified or better; monitor should be of same make of offered PC Brand.			
15	Input interface	Keyboard and Mouse (Same make of PC)			
16	Operating System	Operating System shall be Licensed version of 64 bit latest version of Linux/ Unix/Microsoft® Windows based Operating system			

17	Antivirus	Suitable commercial off-the-shelf antivirus software shall be provided for the duration of the contract			
2.4.8 Central PGMS Management Server					
1	Make	HP, Dell, Lenovo			
2	Form factor/height	2U Rack Server			
3	Processor	Intel Xeon 10 Core E5-2640v4 Processor @ 2.40 GHz with 25MB Cache or better			
4	Chipset	Intel C600 series chipset			
5	Memory	32 GB ECC DDR4 RDIMM			
6	Internal HDD	Usable 4 TB HDD space using 2.5" Hot Plug SAS Drive with RAID 5 configuration and two (2) TB capacity Near-line SAS, Hot Plug SAS drives			
7	Storage Controller	SAS RAID Controller supporting RAID 0,1 and 5 with 512MB Cache memory with battery backup			
8	Networking Features	4 Nos. of Full Gigabit Ethernet ports with support of TCP/IP, Wake on LAN, Failover, Fault Tolerance			
9	Ports	2 Front and 2 Rear USB ports, 1 serial port, 2 RJ-45 port, 1 VGA, 1 Management Port (TCP\IP based)			
10	HBA	Single port 8 Gb OFC HBA X 2 Nos. for redundancy to connect with SAN Storage/SAN Switch			
11	Optical Drive	Internal DVD Writer			
12	Slots	Minimum four PCIe Slots			
13	System Management Software	OEM Server Management software should be GUI based with functionality/features mentioned below: • Alerts for monitoring health of critical components. • Should support automatic check & update of hardware drivers & BIOS Version Control. • Should be able to generate a report on Inventory & automatically track server warranty information.			

		Capability for management of entire server hardware resources through physical OS or virtual OS (installed through hypervisor) from local and remote environments.			
14	Diagnostics Features	System error LEDs on Front Panel in case of component failure			
15	Power supply (std/max)	Minimum 750W Hot Swappable High Efficiency Redundant Power Supplies (1+1) capable to provide necessary power for fully loaded server with India Power Cord.			
16	OS Support	Microsoft Windows Server 2008R2 or higher, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES)			
17	Operating System	Operating System shall be Licensed version of 64 bit latest version of Linux/ Unix/Microsoft® Windows based Operating system based bidder's solution requirement			
18	Cables	Power Cables			
19	Virtualization Support	For latest version of MS Windows Hyper-V, Citrix Xen Server and VMware			
20	Mounting Kit	Sliding Rack mounting kit for 2U rack server			
21	Warranty	5 years comprehensive onsite hardware warranty with 24 x 7 support			
22	Antivirus	Suitable commercial off-the-shelf antivirus software shall be provided for the duration of the contract			
2.4.9 Fixed CCTV Camera					
1	Image Sensor	1/3" Progressive Scan CMOS			
2	Min. Illumination	0.01 Lux @(F1.2,AGC ON), 0 Lux with IR			
3	Shutter time	1/25s ~ 1/100,000s			
4	Lens	2.8 - 12 mm @ F1.4,Angle of view: 80°-28.7°			
5	Lens Mount	φ14			
6	Day& Night	IR cut filter with auto switch			
7	Wide Dynamic Range	Digital WDR			

8	Digital noise reduction	3D DNR			
9	Video Compression	H.264/M-JPEG			
10	Bit Rate	32 Kbps ~ 16 Mbps			
11	Audio Compression	-S: G.711/G.726/MP2L2			
12	Dual Stream	Yes			
13	Max. Image Resolution	1280x960			
14	Frame Rate	50 Hz: 25 fps (1280 × 960), 25 fps (1280 x 720), 25 fps (704 x576), 25 fps (640 x 480), 60 Hz: 30 fps (1280 × 960), 30 fps			
15	Image Settings	Saturation, brightness, contrast adjustable through client software or web browser			
16	BLC	Yes, zone configurable			
17	ROI	Yes, up to 4 configurable areas			
18	Network Storage	Shall store data on NVR			
19	Alarm Trigger	Motion detection, Dynamic Analysis, Tampering alarm, Network disconnect, IP address conflict, Storage exception			
20	Protocols	TCP/IP,ICMP,HTTP,HTTPS,FTP,DHCP,DNS,DDNS,RTP, RTCP, PPPoE, NTP, UPnP,SMTP,SNMP,IGMP,802.1X,QoS			
21	Security	User Authentication, Watermark, IP address filtering, anonymous access			
22	System Compatibility	ONVIF, PSIA, CGI, ISAPI			
23	Communication Interface	1 RJ45 10M / 100M ethernet interface			
24	On-board storage	Built-in Micro SD/SDHC/SDXC card slot, up to 64 GB			
25	Reset Button	Yes			

26	Operating Conditions	0°C to +55°C.			
27	Power Supply	12 VDC ± 10%, PoE (802.3af)			
28	Power Consumption	Max. 5.5 W (Max. 7.5 W with IR cut filter on)			
29	Weather Proof	IP66			
30	IR Range	Up to 30m			
2.4.10 Thermal Receipt Printer					
1	Print method	Thermal line Printing			
2	Font	9 × 17 / 12 × 24			
3	Column Capacity	56 / 42 columns			
4	Character Size (W x H)	0.99 × 2.4 mm / 1.41 × 3.39 mm			
5	Character Set	95 Alphanumeric, 18 set International, 128 × 43 Graphic,Bar code: UPC-A, UPC-E, JAN8(EAN), JAN13(EAN), CODE39, CODE93, CODE128, ITF, CODABAR, GS1-128,GS1 DataBar,Two-dimensional Code: PDF417, QRCode, MaxiCode, 2D GS1 Data Bar, Composite Symbology			
6	Character Structure	12 x 24 / 9 x 17 / 9 x 24 (including 2-dot spacing horizontally)			
7	Interface	Built-in USB + UIB (Serial or Parallel or Ethernet Interface)			
8	Data Buffer	4KB or 45 bytes			
9	Print speed	Min. 100 mm/ sec			
10	Dot Density	180 x 180 dpi*			
11	Supply Voltage	24 VDC ± 7 %			
12	Power Consumption	Approx. 1.8A (Mean)			

13	D.K.D. Function	2 Drivers			
14	Printer Mechanism Life	20 million lines			
15	Auto cutter life	2 million cuts (when using OJI Paper PD150R or PD160R)			
16	MTBF	360,000 hours			
17	MCBF	70 million lines			
18	EMC & Safety Standards	UL / FCC, CE Marking, AS / NZS CISPR22 Class A, IP54			
19	Ingress protection	IP 54			
2.4.11 User fare Display					
1	Display lines	The UFD shall display 2 lines of a 13 character each with a pixel pitch of 2mm.The size of each character per line should be approximately 50mm(H) x 40mm(W)			
2	Display Type	UFD Shall be LED full matrix message module with High intensity LEDs. The UFD shall also have mounting brackets for pole or wall mount as the per the site requirement			
3	Display Language	The display units shall support multi-lingual fonts in English, Hindi and Gujarati for easy reading			
4	Character height	60 mm at least			
5	Type of protection	IP66			
6	Temperature	0°C to +55°C.			
7	Power Supply Requirement	240Vac at 20W			
8	LED type	Ultra bright AllnGaP LEDs			
		8000mcd at 20mA, 300 viewing angle			
		Suitable for outdoor condition under bright sunlight			

9	Communication Interface	RS232 and Ethernet			
10	Self-Diagnostics	The display systems shall have built-in test facility, able to carry out self- check at periodic intervals as well as exchange of diagnostic information from the parking management central system including power availability, and its current status.			
11	Reliability and maintainability	MBTF: 100000 hours			
		MTTR: 15 Mintues			
2.4.12 Handheld Terminal (POS)					
1		The handheld machine shall have an integrated display and thermal printer that can be easily read under all conditions of ambient light throughout the day and night			
2		It shall be possible to upgrade the firmware/software from the central server, configuration list such as routes along with fare and other related details, etc., data from and to the central server using the 3G/4G technology of the cellular operator installed on the device remotely or using wired communication.			
3	Specification	If for any reason the fare media cannot be read automatically using the readers on the handheld, there shall be an arrangement to manually enter the QR ID and validate it.			

4		The handheld machine shall store all required transaction data on-board, including:
		  a. Parking Location
		  b. Parking Operator Name and ID
		  c. Date and time of transaction
		  d. Device ID
		  e. Tariff Tables
		  f. Ticket serial number
		  g. Transaction Value
		  h. Method of Payment – CASH/Common City Payment Card/Mobile Wallet
		  i. Transmission Status (i.e. successfully transmitted/not successfully transmitted)			

5		Upon successful completion of the transaction the handheld machine shall transmit transaction data to the central system at SMAC, including: a. Date and Time of Transaction b. Device Identification Number c. Ticket Serial Number d. Location e. Vehicle number			
6		The handheld machine shall be preferably of a one-piece unit or maximum two-piece configuration (e.g. with separate printing unit).			
7		The handheld machine shall have sufficient memory to store a minimum of one week worth of transaction records (at least 10,000 records) apart from mandatory firmware etc			
8		The handheld machines shall be designed to operate from an internal, battery source which can be charged and re-charged			
9		The handheld shall operate continuously for minimum 8 (eight) hours without any disruption to the operations at any given instance during the shifts. The Bidder shall ensure that appropriate back-up arrangements are made for the handhelds to cover the entire operating shift without disrupting normal operations			
10		The battery shall be field replaceable without any loss of data, with field replacement time			
11	Handheld Performance Specifications	CPU: Qualcomm 1.3 GHz quad-core			
12		RAM: 2GB			
13		ROM: 16GB			
14	WLAN	IEEE802.11 a/b/g/n			
15	WWAN	2G: GPRS(900/1800MHz)			
16		3G: WCDMA B1 B8			
17		4G: FDD-LTE:B1 B3 B7 B8 B20			
18	Bluetooth	Bluetooth 4.0			

19	GPS	GPS, AGPS			
20	1D Imager Scanner Symbologies	UPC/EAN, Code128, Code39, Code93, Code11,			
21	2D Imager Scanner Symbologies	Datamatrix, QR code, Micro QR code, Aztec,			
22	Weight	Shall Not exceed 0.5Kgs			
23	Display	Shall have minimum 4" WVGA (480*800)			
24	Touch Panel	Rugged capacitive touch panel			
25	Power	Li-ion Battery powered			
26	Expansion Slot	1 SIM, 1 MicroSD (TF) slot			
27	Interfaces	Standard serial communications ports and USB Micro-B			
28	Handling	Handheld shall have an arrangement to hang over the neck of the operator and also a fastening arrangement to the palm for prolonged usage. Both the arrangements shall ensure that the operator doesn't feel uncomfortable under long duration usage			
29	Keypad	Numeric / Qwerty			
30	Sensors	Light Sensor, Proximity Sensor			
31	Operating Temperature	0°C to +55°C			
32	Humidity	5%RH - 95%RH non condensing			
33	Drop Specifications	Multiple 1.2m drops to concrete			
34	Tumble Specifications	1000 x 0.5m/1.64ft falls at room temperature			
35	Ingress Protection	IP64			
2.4.13 Parking Controller cum Operator Console					
1	Make	Business series PC from Dell / HP / Lenovo			

2	Processor	Intel® 7th generation Core™ i3-7100 Processor (3.90 GHz Base Frequency/Clock Speed, 3M Cache, 2 core) or higher			
3	Memory(RAM)	8 GB DDR4 RAM @ 2400 MHz. or better			
4	Motherboard	Intel H110 chipset or better			
5	Storage	1 TB SATA III hard disk @ 7200 RPM or higher			
6	Network	Dual Gigabit Ethernet NIC			
7	Ports	2 RS232 , 1 RS485			
		LPT-Parallel			
		Total 6 USB ports (min. 2 at front) with atleast 2 USB 3.0			
		HDMI/DVI			
8	WiFi	Intel®Wireless – N 72602 AC 802.11 ac, 2 x 2, 2.4 GHz /5GHz + Bluetooth® 4.0			
9	Monitor	18.5" or higher wide screen LED Backlit based TFTs, Resolution – 1366 X 768 or better, TCO Displays 5.0 certified or better; monitor should be of same make of offered PC Brand.			
10	Input interface	Keyboard and Mouse (Same make of PC)			
11	PCIe 3.0 Expansion slots	2 PCI Slots			
12	Operating System	Operating System shall be Licensed version of latest version of Linux/ Unix/Microsoft® Windows based Operating system.			
13	Antivirus	Suitable commercial off-the-shelf antivirus software shall be provided for the duration of the contract			
14	I/o Cards / accessories	As per bidder's solution			

CONTENTS AND FORMAT OF

PRICE PROPOSAL

Appendix 2: CONTENT AND FORMAT OF PRICE PROPOSAL

[Note: Must be submitted online, not to be sent physically]

Date…………………

To,
General Manager (IT),
Surat Smart City Development Limited (SSCDL)
115, Smart City Cell, Surat Municipal Corporation - Head Quarter,
Muglisara, Main Road, Surat - 395003, Gujarat

 Subject: Submission of Price Proposal for RFP for selection of Vendor for IPARK

Dear Sir,

I/We, the undersigned Bidder, have read and examined in detail all the bidding documents in respect of selection of vendor for Design, Development, Implementation, Maintenance and Management of iPARK - Intelligent Parking Management System pilot implementation for Surat Smart City.

We fully understand and agree to the scope of work, our roles and responsibilities, obligations, risks involved and terms and conditions specified in RFP documents. I/We undertake to do design, development, implementation, maintenance, and management of IPARK - Intelligent Parking Management System Project on 'Design-Develop-Maintain-Transfer' basis as per the terms of the RFP. Following is our financial offer for contract period of five years, for undertaking the IPARK Project

#	Component	Unit	Quantity	Rate	Amount (W/o Taxes)	Tax (%)	Total Amount with Taxes
A	B	C	D	E	F=D*E	G	H= F*(100+G)%
A	**MLP PGMS Components**						
1.	Entry/Exit Boom Barrier Gate	Nos	2				
2.	Entry Ticket Dispenser/QR Code Unit	Nos	1				
3.	Entry/Exit Fixed CCTV Cameras	Nos	2				
4.	Parking Controller cum Operator Console	Nos	1				
5.	Thermal Receipt Printer	Nos	1				
6.	QR Code Reader	Nos	1				
7.	Parking Occupancy Sensors for Individual slots (quantity as per the technology for sensing used)	As per BOQ	1				

8.	Non-Contact/Non-intrusive Sensors for Parking Occupancy Count only	Nos	8					
9.	Parking Guidance Signal	Nos	8					
10.	Parking Availability Display Type A	Nos	1					
11.	Parking Availability Display Type B	Nos	4					
12.	MLCP Local Server including the OS and Database License (As per Bidder's Solution) and accessories	Nos	1					
13.	Handheld Terminal (POS)	Nos	2					
14.	GSM/GPRS connectivity from Handheld Terminal to SMC Datacenter	Nos	2					
15.	Connectivity between MLP Parking Lot to SMC Datacenter	Nos	1					
16.	Online UPS with 1hour backup (As per Bidder's Solution)	Nos	1					
	TOTAL							
B	**OFF-Street PGMS Components**							
1.	Entry/Exit Boom Barrier Gate	Nos	2					
2.	Entry Ticket Dispenser/QR Code Unit	Nos	2					
3.	Entry/Exit Fixed CCTV Cameras	Nos	4					
4.	Parking Controller cum Operator Console	Nos	2					
5.	Thermal Receipt Printer	Nos	2					
6.	QR Code Reader	Nos	2					
7.	Non-Contact/Non-intrusive Sensors for Parking occupancy Count only	Nos	4					
8.	Parking Availability Display Board Type A	Nos	2					
9.	Off-Street Local Server including the OS and Database License (As per Bidder's Solution) and accessories	Nos	2					
10.	Handheld Terminal (POS)	Nos	4					
11.	GSM/GPRS connectivity from Handheld to SMC Datacenter	Nos	4					
12.	Connectivity between Off-street Parking Lot to SMC Datacenter	Nos	2					
13.	Online UPS with 1hour backup (As per Bidder's Solution)	Nos	2					
	TOTAL							
C	**Parking Guidance & Management System**							
1.	PGMS Application Software for MLP and Off-Street	Nos	1					
2.	Parking Mobile Application	Nos	1					

#							
3.	PGMS Server including the OS and Database License (As per Bidder's Solution)	Nos	1				
	TOTAL						
D	**Any other Hardware or Software application component required to meet the RFP requirements of Smart Parking Management System (Bidder to list individual items and provide costing in price proposal)**						
1.	<specify>	<specify>	<specify>				
2.	<specify>	<specify>	<specify>				
...n							
	TOTAL						
	GRAND TOTAL (A+B+C+D)						

II. Other Items

#	Component	Unit	Quantity	Rate	Total Rates (W/o Taxes)	Tax (%)	Total Amount with Taxes
A	B	C	D	E	F=D*E	G	H= F*(100+G)%
1.	Unit rate for customisation of Software Solution for addition of new MLP parking	Unit	1				
2.	Unit rate for customisation of Software Solution for addition of new Off-street parking	Unit	1				
3.	Programmer/Developer	Monthly Billing Rate	1				
4.	Hardware Engineer	Monthly Billing Rate	1				

Notes:

a) The Prices mentioned in the Price Bid should include all applicable taxes & duties as applicable. The L1 evaluation will be done exclusive of taxes but inclusive of any duties applicable to the products. The bidder to quote the duties along with the rate of products proposed for L1 evaluation.

However, the bidder is expected to provide the tax components in commercials. The payment of taxes to the selected bidder will be done on actuals. In this regard, selected bidder is required to submit documents describing the total tax paid for this Project (for each component). The payment for tax component will be made in the subsequent billing cycle. Further, SSCDL shall be entitled to deduct tax at source or any other taxes/ cess as may be applicable.

b) The quantity mentioned above is indicative in nature and may vary at the time of implementation. The rate should be valid for quantity which may lower/higher than the specified quantity. The rate will also be valid during the contract period for additional purchases if any.

c) All rates/Amount should be quoted in INR.

d) The Authority shall be entitled to deduct tax at source as may be applicable. The TDS certificate(s) shall be submitted as per the due date specified in the Income Tax Act.

e) Evaluation of Price Proposal shall be carried out as per the method specified in clause 6.2.

f) The cost specified in "Table-II: Other Items" will not be taken into consideration for the L1 calculation. The same will be considered. If required, SMC/SSCDL may ask the bidder to carry out the work/deploy additional resources as per the rates specified in the table.

Thanking you.

Yours faithfully,

Name and Signature of the Authorized Person

Seal:

Address and contact number:

Appendix 3: CONTRACT AGREEMENT

This agreement made on the <u><Day></u> day of <u><Month, Year></u> between the GM (IT) of the Surat Smart City Development Limited, Muglisara, Surat 395003 (hereinafter called the "**Authority**") of the FIRST PART and _____ (Name of Bidder) having its registered office at _____ (Address of the company where registered) (hereinafter called "**Successful Bidder**" of the SECOND PART) through < Name of Authorized Representative>, < Designation > empowered to sign and execute the agreement as the SECOND PART which shall include successors assigns.

Whereas the FIRST PART the Authority is desirous in view of a tender (bid) notice no. SSCDL- IPARK-RFP-01-2017 that the services as per the Financial quote in the proposal submitted by the bidder should be provided by the SECOND PART. <<Approving authority>> of the Authority by its resolution no. <> dated <> has accepted a tender of the Successful Bidder for the work of iPARK Project for the sum of Rs. <> + Service Tax for a period of 5 years.

AND WHEREAS the work has been awarded to the SECOND PART vide letter <>, dated <>.

AND WHEREAS the SECOND PART has agreed for iPark Project vide its bid.

Now this agreement witnesseth as follows:

1. The following documents shall be deemed to form part and be read and considered as part of this agreement. viz

    a. The said Request for Proposal – SSCDL- IPARK-RFP-01-2017 of the FIRST PART.

    b. Addendum & Corrigendum to the RFP (if any)

    c. Technical and Financial Proposal submitted by the SECOND PART

    d. Work Order issued by FIRST PART

    e. Non-Disclosure Agreements

2. In this agreement, words and expressions shall have the same meaning as are respectively assigned to them in the tender papers hereinabove referred to.

3. The SECOND PART will deliver the Scope of Work/Services as detailed in the RFP SSCDL- IPARK-RFP-01-2017.

4. In consideration of the payments to be made by the Authority, the FIRST PART to the Successful Bidder, the SECOND PART as hereby covenants with the Authority to provide services and deliverables in conformity to the bid documents referred as per the RFP. In case of failure of the Successful Bidder to deliver the products/services, the Authority is authorized to get the work done from third party at the cost and risk of the SECOND PART.

5. The Authority and the Successful Bidder shall make payments to either party in accordance with the provisions of the Request for Proposal. All other terms and conditions shall be as per the RFP.

6. The contract shall be governed by the Laws in India and shall be subject to the **Jurisdiction of Surat.**

IN WITNESS WHEREOF the parties mentioned hereinbefore cause this agreement to be signed and hereunto set their respective hands and seals through their authorized representatives on the day, month and year first above written at SURAT.

In presence of:

1. Witness   _____

    Name   _____

2. Witness   _____

    Name   _____

For and on behalf of
(< Name >)
Designation of Authorized Representative
Surat Smart City Development Limited

_____
(< Name >)
Designation of Authorized Representative
Surat Smart City Development Limited

1. Witness   _____

    Name   _____

2. Witness   _____

    Name   _____

For and on behalf of
Successful Bidder

_____
(< Name >)
Designation of Authorized Representative

Sealed with the Common Seal of the Surat Smart City Development Limited in the presence of

1. _____

2. _____
Authorized Persons of SSCDL

Appendix 4: BILL OF QUANTITIES (Indicative)

#	Component	Unit	Quantity	Make & Model (Specification sheet to be attached)
A	**MLP PGMS Components**			
1.	Entry/Exit Boom Barrier Gate	Nos	2	
2.	Entry Ticket Dispenser/QR Code Unit	Nos	1	
3.	Entry/Exit Fixed CCTV Cameras	Nos	2	
4.	Parking Controller cum Operator Console	Nos	1	
5.	Thermal Receipt Printer	Nos	1	
6.	QR Code Reader	Nos	1	
7.	Parking Occupancy Sensors for Individual slots (quantity as per the technology for sensing used)	Nos	<specify>	
8.	Non-Contact/Non-intrusive Sensors for Parking Occupancy Count only	Nos	8	
9.	Parking Guidance Signal	Nos	8	
10.	Parking Availability Display Type A	Nos	1	
11.	Parking Availability Display Type B	Nos	4	
12.	MLCP Local Server including the OS and Database License (As per Bidder's Solution) and accessories	Nos	1	
13.	Handheld Terminal (POS)	Nos	2	
14.	GSM/GPRS connectivity from Handheld Terminal to SMAC	Nos	2	
15.	Connectivity between MLP Parking Lot to SMC Datacentre	Nos	1	
16.	Online UPS with 1hour backup (As per Bidder's Solution)	Nos	1	
	TOTAL			
B	**OFF-Street PGMS Components**			
1.	Entry/Exit Boom Barrier Gate	Nos	2	

2.	Entry Ticket Dispenser/QR Code Unit	Nos	2	
3.	Entry/Exit Fixed CCTV Cameras	Nos	4	
4.	Parking Controller cum Operator Console	Nos	2	
5.	Thermal Receipt Printer	Nos	2	
6.	QR Code Reader	Nos	2	
7.	Non-Contact/Non-intrusive Sensors for Parking occupancy Count only	Nos	4	
8.	Parking Availability Display Board Type A	Nos	2	
9.	Off-Street Local Server including the OS and Database License (As per Bidder's Solution) and accessories	Nos	2	
10.	Handheld Terminal (POS)	Nos	4	
11.	GSM/GPRS connectivity from Handheld to SMAC	Nos	4	
12.	Connectivity between Off-street Parking Lot to SMC Datacenter	Nos	2	
13.	Online UPS with 1hour backup (As per Bidder's Solution)	Nos	2	
	TOTAL			
C	**Parking Guidance & Management System**			
1.	PGMS Application Software for MLP and Off-Street	Nos	1	
2.	Parking Mobile Application	Nos	1	
3.	PGMS Server including the OS and Database License (As per Bidder's Solution)	Nos	1	
	TOTAL			
D	**Any other Hardware or Software application component required to meet the RFP requirements of Smart Parking Management System (Bidder to list individual items and provide costing in price proposal)**			
1.	<specify>	<specify>	<specify>	
2.	<specify>	<specify>	<specify>	
…n				
	TOTAL			
	GRAND TOTAL (A+B+C+D)			

Credentials of Team Members

Bidder to share the profiles of named key personnel (as per format described in Form 1.10 of Appendix 1) who would be assigned to the project based out of Surat working from SMC office. The Authority expects all the Key Personnel specified in the Proposal to be available during implementation of the Agreement. The Authority will not consider any substitution of Key Personnel.

Conditions of Eligibility for Key Personnel: Each of the Key Personnel must fulfil the Conditions of Eligibility specified below:

Key Personnel	Minimum qualification	Minimum experience	Experience required
Project Manager	B.Tech/B.E./ MCA	8 years	• Total 8 years post qualification experience, out of which minimum 2 years' experience as Project Manager • Should have solid technical background, with understanding and hands-on experience in managing parking management projects, excellent client-facing, communication and leadership skills
Parking Management SME	B.Tech/B.E. / MCA	5 years	• Total 5 years post qualification experience, out of which minimum 2 years' experience as Parking Management SME • Proven experience as SME with good understanding of processes involved in parking domain, Written and verbal communication, including technical writing skills, Modeling techniques and methods
Hardware Engineer	B.Tech/B.E. / MCA	3 years	• Total 3 years post qualification experience as Hardware Installation Engineer • Proven experience as Hardware Installation Engineer with good understanding of sensor based parking, electronically operated Boom Barriers, auto-pay machines, Smart Card Reader,Parking Guidance System, Modeling techniques and methods
Programmer/ Developer	B.Tech/B.E. /MCA	3 years	• Total 3 years post qualification experience • Proven experience as a developer with a logical approach to problem solving
Mobile Application Developer	B.Tech/B.E. /MCA	2 years	• Total 2 years post qualification experience • Proven experience as a mobile application development and testing.

The Bidder shall have to provide billing rates for the following profile in online form along with Financial Proposal. Though the pricing is a fix bid type and billing rates will not be considered in financial evaluation, but in case additional resources are required, the below mentioned rates would be used. Based on the resource requirement for completion of the above scope of work, agency may deploy necessary resources.

Device cost along with quantity, unit price and total price required should be submitted online as part of price bid and make model and technical compliance should be submitted as Form 1.13 as part of technical proposal.

Appendix 5: SITE PHOTOGRAPHS

Ground Floor commercial vehicle entrance and exit

Basement 2 wheeler parking entrance

Basement 2 wheeler parking

Ground Floor commercial vehicle parking

First Floor covered car parking

Terrace open car parking

Car parking entrance and exit

Off Street Pay n Park – 1

Off Street Pay n Park - 2