Surat Smart City Development Limited
ADDENDUM AND CORRIGENDUM-1
RFP No.: SSCDL-IPARK-RFP-01-2018

The Bidders are requested to take note of the following changes made in the RFP document, which are to be taken in to account while submitting the RFP. They shall be presumed to have done so and submitted the RFP accordingly.

- This Addendum and Corrigendum shall be the part of the RFP documents.
- Content specified in this Addendum and Corrigendum supersede relevant content to that effect as provided in the original RFP documents. All other specifications, terms and conditions of the original RFP document shall remain unchanged.
- The queries raised and given by bidders, but the clarifications are not made in this Addendum and Corrigendum shall be considered to remain unchanged as per the terms and conditions mentioned in the original RFP documents.
- Bidders shall read and consider following points, which shall be a part of the RFP documents.

Highlighted Color	What does it indicate?
No highlight	**Indicates content as per original RFP document**
Highlighted in Blue	**Indicates amendment as per this Addendum and Corrigendum-1**

I. Changes with respect to RFP Schedule

Please note that with respect to tendering schedules, the following changes have been effected. Bidders are requested to take note of the same and adhere to the dates specified hereunder with regards to Price Bid Submission and Technical Bid Submission:

Particular	Current Dates	Proposed Dates
Price Bid Submission	To be submitted online only on https://smc.nprocure.com on or before 23.02.2018 up to 18:00 hrs.	To be submitted online only on https://smc.nprocure.com on or before **08.03.2018** 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 28.02.2018 up to 18:00 hrs. To the Chief Accountant, Surat Municipal Corporation, Muglisara, Surat – 395003, Gujarat	In sealed envelope, strictly by RPAD/Postal Speed Post on or before **13.03.2018** up to 18:00 hrs. to the Chief Accounts, Surat Municipal Corporation, Muglisara, Surat – 395003

II. Other Changes

#	Tender Reference	Existing Clause	Amended / New Clause

1.	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.
			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 or native application and development can be undertaken on Open Platform or native platform as per the bidder's solution.
			  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.	2.4.7 Local Server Cum Operating Console for MLCP/Off-street	<table><tr><td>#</td><td>Parameters</td><td>Particulars</td></tr><tr><td>1</td><td>Make</td><td>HP / Dell / Lenovo [Business Series]</td></tr><tr><td>2</td><td>Form factor/height</td><td>Tower</td></tr></table>	<table><tr><td>#</td><td>Parameters</td><td>Particulars</td></tr><tr><td>1</td><td>Make</td><td>HP / Dell / Lenovo [Business Series]</td></tr><tr><td>2</td><td>Form factor/height</td><td>Tower</td></tr></table>

3	Processor	Intel® 7th generation Core™ i7-7700 Processor (3.60 GHz Base Frequency/Clock Speed, 8M Cache, 4 core) or higher	3	Processor	Intel® 7th generation Core™ i7-7700 Processor (3.60 GHz Base Frequency/Clock Speed, 8M Cache, 4 core) or higher
4	Motherboard	Intel Q250 chipset or better	4	Motherboard	Intel Q250 chipset or better
5	Memory	16GB DDR4 RAM @ 2400 MHz or higher with single DIMM, Shall be expendable to 32 GB	5	Memory	16GB DDR4 RAM @ 2400 MHz or higher with single DIMM, Shall be expendable to 32 GB
6	RAID Controller	RAID controller with RAID-0, 1 and 5 support	6	RAID Controller	RAID controller with RAID-0, 1 and 5 support
7	Network	4 Gigabit Ethernet NIC	7	Network	4 x 1 Gigabit Ethernet NIC
8	Ports	2 RS232 , 1 RS485	8	Ports	2 RS232 , 1 RS485
		LPT-Parallel			LPT-Parallel
		Total 6 USB ports (min. 2 at front) with atleast 2 USB 3.0			Total 6 USB ports (min. 2 at front) with atleast 2 USB 3.0
		HDMI/DVI			HDMI/DVI
9	WiFi	Intel®Wireless – N 72602 AC 802.11 ac, 2 x 2, 2.4 GHz /5GHz + Bluetooth® 4.0	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	10	Storage	Usable 2 TB SAS/SATA or Better with RAID-0
11	Monitor	19.5" 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.	11	Monitor	19.5" 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)	12	Input interface	Keyboard and Mouse (Same make of PC)
13	Operating System & Database	Operating System shall be Licensed version of 64 bit latest version of Linux/ Unix/Microsoft® Windows based Operating system.	13	Operating System & Database	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	14	Antivirus	Suitable commercial off-the-shelf antivirus software shall be provided for the duration of the contract

		15	Environmental & Regulatory	ENERGY STAR Certification, EPEAT Gold Registered			15	Environmental & Regulatory	ENERGY STAR Certification, EPEAT Gold Registered
		16	Warranty	5 years Comprehensive onsite Hardware Warranty for Monitor, Keyboard and mouse including service and parts			16	Warranty	5 years Comprehensive onsite Hardware Warranty for Monitor, Keyboard and mouse including service and parts

3.	3.9 BID FEE	All Bidders must submit non-refundable Bid Fee of Rs. 2688 (Rs. 2400 + 12%) by Demand Draft or Banker's Cheque in favour of the "Surat Smart City Development Limited" payable at Surat.	All Bidders must submit non-refundable Bid Fee of Rs. 13440 (INR 12000 + 12% GST) by Demand Draft or Banker's Cheque in favour of the "Surat Smart City Development Limited" payable at Surat.

4.	6.1 PRE-QUALIFICATION CRITERIA / BASIC ELIGIBILITY CRITERIA	Each Bidder should meet pre-qualification Criteria specified hereunder for opening of Financial proposal.	Each Bidder should meet pre-qualification Criteria specified hereunder for opening of Financial proposal.

Sr. No.	Pre-Qualification Criteria	Proof Document Required	Applicable to Prime Bidder / Sole Bidder	Applicable to Consortium Partner	Sr. No.	Pre-Qualification Criteria	Proof Document Required	Applicable to Prime Bidder / Sole Bidder	Applicable to Consortium Partner
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 Under GST	Format to Share Bidder's Particulars as in Appendix 1 Form –1.3 Certificate of Incorporation / Registration Certificate	YES	NO	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 Under GST	Format to Share Bidder's Particulars as in Appendix 1 Form –1.3 Certificate of Incorporation / Registration Certificate	YES	NO
2	The prime bidder should have average turnover of minimum INR 10 crores in last three financial years (FY-14-15, FY-15-16, FY-16-17)	Financial Capability Statement as in Appendix 1 Form –1.4	YES	NO	2	The prime bidder should have average turnover of minimum INR 10 crores in last three financial years (FY-14-15, FY-15-16, FY-16-17)	Financial Capability Statement as in Appendix 1 Form –1.4	YES	NO

3	In case of consortium, the second member of consortium should have average turnover of minimum INR 1 Crore in last three financial years (FY-14-15, FY-15-16, FY-16-17)	Financial Capability Statement as in Appendix 1 Form –1.4	NO	YES	3	In case of consortium, the second member of consortium should have average turnover of minimum INR 50 lakhs in last three financial years (FY-14-15, FY-15-16, FY-16-17)	Financial Capability Statement as in Appendix 1 Form –1.4	NO	YES
4	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 100 car parking slots or - 4 projects with 50 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	ANY	ANY	4	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 100 car parking slots or - 4 projects with 50 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	ANY	ANY

	5	The Bidder should have positive net worth in each of the last for three Financial years as on 31st March 2017	Auditors Statement	YES	YES	5	The Bidder should have positive net worth in each of the last for three Financial years as on 31st March 2017	Auditors Statement	YES	YES
	6	The bidder should not be black-listed / debarred by any of the Government or Public Sector Units in India as on the date of the submission of the tender.	Self-declaration / Undertaking by bidder on its letter head as per Appendix 1 Form – 1.8	YES	YES	6	The bidder should not be black-listed / debarred by any of the Government or Public Sector Units in India as on the date of the submission of the tender.	Self-declaration / Undertaking by bidder on its letter head as per Appendix 1 Form – 1.8	YES	YES

Appendix 1: CONTENTS AND FORMATS FOR TECHNICAL PROPOSALS

Form –1.12: Revised Functional & Non-Functional Specifications Compliance

- 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 cum operator console for storage and hosting the local parking management application. Local server at the respective parking location will also be used as the operator console. The I/O console or the controller connecting the parking peripherals like boom barrier, User fare display , PIS , parking occupancy sensors and receipt printer etc. will be connected with the local server cum operator console. The Database and the other configuration parameters at the local server should be strictly under controlled access and at no point the same shall be accessed by the operator managing the console. 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 etc. 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 Surat Money 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, Surat Money Card Reader and Thermal Receipt Printer etc. b) For motorists who enter the parking lot using Surat Money Card, should get the ticket from the ticket dispenser as any other user and at the exit use the Surat Money 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) Surat Money 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 operator console unit 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 Local server cum operator console unit.		
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, Surat Money Cardreader, 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 Surat Money Card- A Surat Money 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 / Remarks if Any	Specify Make, Model
	A	B	C	D	E
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 Parking Occupancy Controller					
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 Barrier Gate					

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 (Wireless/Wired Communication with the controller)			
5.	Temperature	0°C to +55°C.			
6.	Type of protection	IP66			
7.	Battery Life	In case of magnetic sensor or any other sensor working on Battery the battery should last for minimum 5 years of continuous operations			
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 Cum Operator Console 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 x 1 Gigabit Ethernet NIC			
8.	Ports	2 RS232 , 1 RS485			
9.	Network interface controller (NIC)	LPT-Parallel			

	Trusted platform module (TPM)				
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.	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: 1. Parking Location 2. Parking Operator Name and ID 3. Date and time of transaction 4. Device ID 5. Tariff Tables 6. Ticket serial number 7. Transaction Value 8. Method of Payment – CASH/Surat Money Card/Mobile Wallet 9. 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: 1. Date and Time of Transaction 2. Device Identification Number 3. Ticket Serial Number 4. Location 5. 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			

Appendix 2: REVISED 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 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	18				
2.	Entry Ticket Dispenser/QR Code Unit	Nos	9				
3.	Entry/Exit Fixed CCTV Cameras	Nos	18				
4.	Thermal Receipt Printer	Nos	9				
5.	QR Code Reader	Nos	9				
6.	Parking Occupancy Sensors for Individual slot	Nos	934				

7.	Non-Contact/Non-intrusive Sensors for Parking Occupancy Count only	Nos	72				
8.	Parking Guidance Signal	Nos	72				
9.	Parking Availability Display Type A	Nos	9				
10.	Parking Availability Display Type B	Nos	36				
11.	MLCP Local Server Cum Operator Console including the OS and Database License (As per Bidder's Solution) and accessories	Nos	9				
12.	Handheld Terminal (POS)	Nos	18				
13.	GSM/GPRS connectivity from Handheld Terminal to SMC Datacenter	Nos	18				
14.	Online UPS with 1hour backup (As per Bidder's Solution)	Nos	9				
	TOTAL						
B	**Off-Street PGMS Components**						
1.	Entry/Exit Boom Barrier Gate	Nos	4				
2.	Entry Ticket Dispenser/QR Code Unit	Nos	2				
3.	Entry/Exit Fixed CCTV Cameras	Nos	4				
4.	Thermal Receipt Printer	Nos	2				
5.	QR Code Reader	Nos	2				
6.	Non-Contact/Non-intrusive Sensors for Parking occupancy Count only	Nos	4				
7.	Parking Availability Display Board Type A	Nos	2				
8.	Off-Street Local Server Cum Operator console including the OS and Database License (As per Bidder's Solution) and accessories	Nos	2				
9.	Handheld Terminal (POS)	Nos	4				
10.	GSM/GPRS connectivity from Handheld to SMC Data center	Nos	4				
11.	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 GST)	GST (%)	Total Amount with GST
A	B	C	D	E	F=D*E	G	H= F*(100+G)%
1.	Unit rate for customization of Software Solution for addition of new MLP parking	Unit	1				
2.	Unit rate for customization 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				
5.	AMC for the Software Post completion of 5 years contract period	Unit	1				
6.	AMC for the Hardware Post completion of 5 years contract period	Unit	1				
7.	Connectivity between MLP Parking Lot / Off Street Parking to SMC Datacentre with a minimum bandwidth of 5 Mpbs	Unit	1				

Notes:

a) The L1 evaluation will be done exclusive of taxes as per Column – F. The taxes at prevailing rate will be considered for payment purpose.

b) The Prices mentioned in the Price Bid should include all 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.

c) 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.

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

e) 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.

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

g) 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.

h) The quantities shown in the tender are approximate and no claim shall be entertained for variation of quantities being less or more than those mentioned in the bid. The variations in the quantities shall not vitiate the contract. The selected bidder shall be bound to supply additional quantity up to 30% (thirty percent) of tender amount/quantity, in accordance to any instruction, which may be given to him in writing by SSCDL/SMC. The rates quoted by the bidder will be applicable on full / partial /additional quantity also.

i) **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.**

Thanking you.

Yours   faithfully,

Name and Signature of the Authorized Person

Seal:

Address and contact number:

Appendix 4: REVISED 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	18	
2.	Entry Ticket Dispenser/QR Code Unit	Nos	9	
3.	Entry/Exit Fixed CCTV Cameras	Nos	18	
4.	Thermal Receipt Printer	Nos	9	
5.	QR Code Reader	Nos	9	
6.	Parking Occupancy Sensors for Individual slot	Nos	934	
7.	Non-Contact/Non-intrusive Sensors for Parking Occupancy Count only	Nos	72	
8.	Parking Guidance Signal	Nos	72	
9.	Parking Availability Display Type A	Nos	9	
10.	Parking Availability Display Type B	Nos	36	
11.	MLCP Local Server cum Operator Console including the OS and Database License (As per Bidder's Solution) and accessories	Nos	9	
12.	Handheld Terminal (POS)	Nos	18	
13.	GSM/GPRS connectivity from Handheld Terminal to SMAC	Nos	18	
14.	Online UPS with 1hour backup (As per Bidder's Solution)	Nos	9	
	TOTAL			
B	**OFF-Street PGMS Components**			
1.	Entry/Exit Boom Barrier Gate	Nos	4	
2.	Entry Ticket Dispenser/QR Code Unit	Nos	2	
3.	Entry/Exit Fixed CCTV Cameras	Nos	4	

4.	Thermal Receipt Printer	Nos	2	
5.	QR Code Reader	Nos	2	
6.	Non-Contact/Non-intrusive Sensors for Parking occupancy Count only	Nos	4	
7.	Parking Availability Display Board Type A	Nos	2	
8.	Off-Street Local Server including the OS and Database License (As per Bidder's Solution) and accessories	Nos	2	
9.	Handheld Terminal (POS)	Nos	4	
10.	GSM/GPRS connectivity from Handheld to SMAC	Nos	4	
11.	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)			

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