

**SAN FRANCISCO  
MUNICIPAL TRANSPORTATION AGENCY**

**DIVISION:** Finance and Information Technology

**BRIEF DESCRIPTION:**

Authorize the Director of Transportation to issue a Request for Proposals for SFMTA Contract No. 2020-46 for procurement of Single- and Multi-Space Parking Meter Hardware and Associated Meter Management Systems, and to negotiate a contract (or contracts) for these services with the highest-ranked proposer(s) for a term of five years, with a five-year extension option at the discretion of the Director of Transportation.



**SUMMARY:**

- The SFMTA manages 28,000 single- and multi-metered spaces for the Agency and the Port of San Francisco.
- In 2013, the SFMTA Board awarded Agreement SFMTA No. 2013-09 for multi-space paystations to MacKay Meters, Inc. for \$8 million and SFMTA No. 2014-09 for single-space parking meters to IPS Group, Inc. for \$54 million. The San Francisco Board of Supervisors also approved Agreement SFMTA No. 2014-09 due to its dollar value.
- The parking meters and a majority of paystations purchased in 2014 are nearing the end of their useful life due to subsequent technology improvements and the age of the hardware.
- In addition, the existing meter equipment must be replaced because most of the technology uses an older version of telecommunication equipment, and cellular service providers have advised the Agency that they will no longer support 3G networks after 2022.
- The agreement(s) awarded from the proposed Request for Proposals (RFP) will enable the Agency to procure approximately 16,000 single-space parking meters and 2,200 multi-space paystations, associated Meter Management Systems (MMS), and vendor support services including programming and integration with other parking management systems.
- The SFMTA will evaluate proposals for single-space parking meters and multi-space paystations separately, and expects to award separate contracts to the successful proposer for each type of equipment. Should one vendor submit successful responses for both types of equipment, the SFMTA will award a single contract.

**ENCLOSURES:**

1. SFMTAB Resolution
2. RFP and Scope of Work

**APPROVALS:**

DIRECTOR   
SECRETARY 

**DATE**

June 11, 2020

June 10, 2020

**ASSIGNED SFMTAB CALENDAR DATE:** June 16, 2020

**PURPOSE**

Authorize the Director of Transportation to issue a Request for Proposals for SFMTA Contract No. 2020-46 for procurement of Single- and Multi-Space Parking Meter Hardware and Associated Meter Management Systems, and to negotiate a contract (or contracts) for these services with the highest-ranked proposer(s) for a term of five years, with a five-year extension option at the discretion of the Director of Transportation.

**STRATEGIC PLAN GOALS AND TRANSIT FIRST POLICY PRINCIPLES**

The RFP will support SFMTA Strategic Goal 3: Improve the quality of life and environment of San Francisco and the region

It will support the following City Transit-First Policies:

1. To ensure quality of life and economic health in San Francisco, the primary objective of the transportation system must be the safe and efficient movement of people and goods.
2. Decisions regarding the use of limited public street and sidewalk space shall encourage the use of public rights of way by pedestrians, bicyclists, and public transit, and shall strive to reduce traffic and improve public health and safety

**DESCRIPTION**

**Background**

The SFMTA manages 23,500 single-space and 4,500 multi-space metered parking spaces for vehicles and motorcycles under the Agency’s jurisdiction and for the Port of San Francisco. The parking meters and paystations used to manage parking spaces are capable of supporting multiple methods of payment, including by coin, credit card, pre-paid parking meter card, smartphone or via a call-in number. Meters can be programmed to display multiple parking rates and time limits, and support two parking models – Pay-by-Space (PbS) and Pay-by-License-Plate (PbLP). This meter functionality supports the SFMTA’s Citywide demand-responsive pricing program for metered spaces (SFpark) to maximize available on-street parking to decrease traffic congestion.

On September 17, 2013, the SFMTA Board awarded Agreement SFMTA No. 2013-09 for multi-space paystations to MacKay Meters, Inc. for \$8 million and SFMTA No. 2014-09 for single-space parking meter procurement to IPS Group, Inc. for \$54 million. The Board of Supervisors also approved Agreement SFMTA No. 2014-09 due to its dollar value on November 26, 2013. The SFMTA issued notices to proceed for each agreement in early 2014. Meter and paystation installations were completed in 2016.

The parking meters and a majority of paystations are now nearing the end of their useful life due to subsequent technology improvements and age of the hardware. In addition, most of the meter technology uses an older version of telecommunication equipment (i.e. 3G modems). Cellular service providers have advised the Agency that they will no longer support 3G networks after December of 2022. Therefore, it is vital that new meters and paystations are installed before the termination date.

## **Proposed Parking Meter RFP**

The proposed RFP will enable the SFMTA to procure:

- Approximately 16,000 single-space parking meters and 2,200 multi-space paystations.
- Associated Meter Management Systems (MMS).
- Additional vendor support services including programming and integration with other parking management systems.

The SFMTA has obtained a waiver of the Local Business Enterprise subcontracting requirement, established in Chapter 14B of the SF Administrative Code to improve the ability of certified small and micro local businesses to compete effectively for the award of City contracts through the use of discounts, set asides, and subcontracting participation requirements. The waiver was granted because the meter equipment to be procured includes proprietary programming and hardware that requires all services related to this procurement to be performed only by personnel of the successful vendor(s). This is a result of increasing demands for specialization and is standard practice within the parking meter industry. No work associated with the procurement and software support would be conducted by personnel outside of the firms contracted to supply the equipment.

The SFMTA will evaluate proposals for single-space parking meters and multi-space paystations separately, and anticipates that it will award separate contracts for each type of equipment. Should one vendor submit successful responses for both types of equipment, the SFMTA will award a single contract. After evaluation of proposals and selection of the highest-ranked proposer(s), negotiations for the agreement(s) will commence. After the negotiation process is completed, the proposed agreement(s) will be submitted to the SFMTA Board and the Board of Supervisors for approval.

## **STAKEHOLDER ENGAGEMENT**

Stakeholders from the Agency's Parking Meter Shop, Parking and Curb Management, Enforcement, Financial Services and Administration as well as from the City's Treasurer and Tax Collector provided input as to the scope of services, and desired meter/paystation functionality.

## **ALTERNATIVES CONSIDERED**

The option to keep the existing meters was rejected because the existing equipment is nearing the end of its useful life, the pending discontinuation of 3G networks, and improved meter technology.

## **FUNDING IMPACT**

Meter and paystation hardware will be funded through the Agency's Capital Improvement Projects funds. Single-space meter hardware costs are estimated at \$10 million; multi-space paystation hardware costs are estimated at \$16.1 million. Annual operating costs for single-space

**PAGE 4.**

meters and multi-space paystations (estimated at \$2.3 million and \$1.7 million, respectively) will be paid through the Agency's Operating Budget.

**ENVIRONMENTAL REVIEW**

On April 27, 2020, the SFMTA, under authority delegated by the Planning Department, determined that the Request for Proposals for Procurement of Parking Meter Hardware and Associated Meter Management System is not defined as a "project" under the California Environmental Quality Act (CEQA) pursuant to Title 14 of the California Code of Regulations Sections 15060(c) and 15378(b).

A copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors and is incorporated herein by reference.

**OTHER APPROVALS RECEIVED OR STILL REQUIRED**

Because the contract(s) to be awarded will exceed the \$10 million threshold for Board of Supervisor's approval under Charter Section 9.118, the Request for Proposals must be submitted to the SFMTA Board to authorize its issuance.

The City Attorney's Office has reviewed this report.

**RECOMMENDATION**

Staff recommends that the SFMTA Board authorize the Director of Transportation to issue a Request for Proposals for Contract No. SFMTA 2020-46 for procurement of Single- and Multi-Space Parking Meter Hardware and Associated Meter Management Systems, and to negotiate a contract (or contracts) for these services with the highest-ranked proposer(s) for a term of five years, with a five-year extension option at the discretion of the Director of Transportation.

SAN FRANCISCO  
MUNICIPAL TRANSPORTATION AGENCY  
BOARD OF DIRECTORS

RESOLUTION No. \_\_\_\_\_

WHEREAS, The SFMTA manages 23,500 single-space and 4,500 multi-space metered parking spaces for vehicles and motorcycles under the jurisdiction of the Agency and the Port of San Francisco; and,

WHEREAS, On September 17, 2013, the SFMTA Board awarded Agreement SFMTA No. 2013-09 for multi-space paystations to MacKay Meters, Inc. for \$8 million and SFMTA No. 2014-09 for single-space parking meter procurement to IPS Group, Inc. for \$54 million. The Board of Supervisors also approved Agreement SFMTA No. 2014-09 on November 26, 2013; and,

WHEREAS, The parking meters and a majority of paystations previously installed are now nearing the end of their useful life due to subsequent technology improvements and the age of the hardware; and,

WHEREAS, Most of the current meter technology uses an older version of telecommunication equipment (i.e. 3G modems); and cellular service providers have advised the Agency that they will no longer support the 3G networks after December of 2022; therefore, it is vital that new meters and paystations are installed before the termination date; and,

WHEREAS, The agreement(s) awarded from the proposed RFP will allow the Agency to procure approximately 16,000 single-space parking meters and 2,200 multi-space paystations, associated Meter Management Systems (MMS), and additional vendor support services including programming and integration with other parking management systems; and,

WHEREAS, The SFMTA has obtained a waiver of the LBE subcontracting requirement because the equipment to be procured includes proprietary programming and hardware that requires all services related to this procurement to be performed only by personnel of the successful vendor(s); and,

WHEREAS, On April 27, 2020, the SFMTA, under authority delegated by the Planning Department, determined that the Request for Proposals for Procurement of Parking Meter Hardware and Associated Management System is not defined as a “project” under the California Environmental Quality Act (CEQA) pursuant to Title 14 of the California Code of Regulations Sections 15060(c) and 15378(b); and,

WHEREAS, A copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors and is incorporated herein by reference; and,

WHEREAS, Because the contract(s) to be awarded most likely will exceed the \$10 million threshold for Board of Supervisor's approval under Charter Section 9.118, the Request for Proposals must be submitted to the SFMTA Board to authorize its issuance; now, therefore, be it

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors authorizes the Director of Transportation to issue a Request for Proposals for Contract No. SFMTA 2020-46 for procurement of Single- and Multi-Space Parking Meter Hardware and Associated Meter Management Systems, and to negotiate a contract (or contracts) for these services with the highest-ranked proposer(s) for a term of five years, with a five-year extension option at the discretion of the Director of Transportation.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of June 16, 2020.

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Secretary to the Board of Directors  
San Francisco Municipal Transportation Agency



City and County of  
San Francisco



**Request for Proposals for  
Single- and Multi-Space Parking Meter Hardware and  
Associated Meter Management Systems**

**RFP No. SFMTA-2020-46**

**EVENT ID: SFGOV-[Insert the number provided by  
generated by the FSP Sourcing Event, e.g.,  
#####.]**

(CCO No. 20-1538)

Date Issued: **June 18, 2020**  
Pre-Proposal Conference: **July 1, 2020, 10:00 AM PT**  
Proposal Due: **August 17, 2020, 1:00 PM PT**

# San Francisco Municipal Transportation Agency (SFMTA)

## Request for Proposals for Single- and Multi-Space Parking Meter Hardware and Associated Meter Management Systems

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**Appendices:**

**List additional appendices as needed.**

<b>Appendix</b>	<b>Content</b>	<b>Page</b>
A.	<p>CMD Attachment 2: Requirements for Architecture, Engineering and Professional Services Contracts, for contacts \$50,000 and over (separate document). Proposers must submit the following forms:</p> <p style="padding-left: 40px;">Form 2A CMD Contract Participation Form</p> <p style="padding-left: 40px;">Form 2B “Good Faith” Outreach Requirements Form</p> <p style="padding-left: 40px;">Form 3 CMD Non-discrimination Affidavit</p> <p style="padding-left: 40px;">Form 5 CMD Employment Form</p> <p>The following form may be required, depending on the circumstances:</p> <p style="padding-left: 40px;">Form 4 CMD Joint Venture Form</p>	A-1
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H.	<p>Statement of Work with following attachments:</p> <p>Attachment 01 – Parking Meter API (Policy and Inventory)</p> <p>Attachment 02 – Parking Meter SE API (Special Event Policies)</p> <p>Attachment 03 – Real Time Meter Payment Webservice</p> <p>Attachment 04 – Weekly Revenue Reconciliation</p>	H-1

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# I. Introduction and Schedule

## A. General

The San Francisco Municipal Transportation Agency (SFMTA or Agency), through this Request for Proposals (RFP), wishes to procure single- and multi-space parking Meter hardware and associated Meter Management Systems (MMS). SFMTA currently anticipates purchasing approximately 16,000 units of single-space and 2,200 units of multi-space Meter hardware, though the actual quantity of each meter type will be determined later.<sup>1</sup>

The SFMTA currently manages 28,000 metered parking spaces for both the Agency and the Port of San Francisco. Of these metered spaces, 23,500 are covered by the single-space meters, and 4,500 are covered by the multi-space technology. Both vehicle and motorcycle spaces are metered (25,800 and 2,200 spaces, respectively). The SFMTA currently operates approximately 600 multi-space paystations. Most of the Agency's current parking spaces (approximately 27,500) are set up in "pay-by-space" (PbS) mode, and only a small portion (approximately 500 spaces) are set up in the "pay-by-license plate" (PbLP) mode.

Through this procurement process, the Agency is looking to increase the current share of multi-space paystations (both in PbS and PbLP modes). As a result of this procurement, all the existing hardware may be replaced except for the newest paystations procured over the last few years. Exact procurement quantities will be determined during contract negotiations with the highest-ranked Proposer(s). Cost proposals, in Appendix G, should be based on 16,000 single-space and 2,200 multi-space units.

Proposers may submit Proposals for either single-space, multi-space or both types of Meter hardware and associated MMS. If a Proposer chooses to submit a Proposal for only single-space devices, it must submit a complete Proposal, except that it will submit only Section IIA "Meter Hardware-Single-Space" and not Section IIB, "Meter Hardware-Multi-Space." Alternatively, if a Proposer chooses to submit a Proposal for only multi-space devices, it must submit a complete Proposal, except that it will submit only Section IIB "Meter Hardware-Multi-Space" and not Section IIA, "Meter Hardware-Multi-Space." Should a Proposer opt to submit Proposals for both types of devices, the Proposer must submit a complete separate Proposal for each type of Meter hardware as indicated above. The Evaluation Committee will evaluate the Proposals for each device type separately. Any single Proposal combining responses for both types of Meter hardware will be rejected without review by the SFMTA. Wherever a requirement applies to both types of Meter hardware, the Proposer may provide the same response for both Proposals. Taking Appendix G as an example, if a Proposer is submitting a proposal for single-space or multi-space Meter hardware, the Proposer must submit a separate Appendix G for the type of Meter hardware on which it is proposing, and if submitting for both types, the Proposer must submit a separate Appendix G for each type of device.

The Agreement for each type of device shall be a firm fixed-price contract, with Meter hardware payments, ongoing monthly communications, management system and credit card

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<sup>1</sup> Where a word or phrase is capitalized but not defined in this RFP, it shall have the meaning set forth in the glossary in Appendix H, Statement of Work, or Appendix C, Sample Agreement for Professional Services and Software as a Service (Form P-600/P-648).

gateway and processing fees (if elected), and liquidated damages/credit assessments (if applicable). Should the SFMTA select a single Contractor for both types of devices, there will be a single contract to cover the entire procurement.

Award of the contract(s) is subject to approval by the SFMTA’s Board of Directors and the San Francisco Board of Supervisors.

The Agreement(s) shall have an initial term of five years, which the SFMTA may extend at its sole discretion for up to five additional years, for a total term of ten years for each contract. No cost adjustments will be made for the base term of the Agreement due to inflation or otherwise. The SFMTA may consider a one-time price adjustment if it exercises its option to extend the Agreement and will have the option to purchase additional Meter hardware during the extension term.

## **B. Schedule**

The anticipated schedule is:

<b><u>Phase</u></b>	<b><u>Date</u></b>
RFP is issued by the SFMTA:	June 18, 2020
Pre-Proposal Conference:	July 1, 2020, 10:00 AM PT
Deadline for submission of written questions or requests for clarification:	July 24, 2020, 1:00 PM PT
Proposals due:	August 17, 2020, 1:00 PM PT

\*The SFMTA reserves the right not to conduct oral interviews and select a firm based on the written Proposals only.

## **C. Contractors Unable to do Business with the City**

### **1. Generally**

Contractors that do not comply with laws set forth in San Francisco's Municipal Codes may be unable to enter into a contract with the City. Some of the laws are included in this RFP, or in the Sample Agreement attached.

### **2. Companies Headquartered in Certain States**

Subject to certain exceptions, Proposers are hereby advised that this Contract is subject to the requirements of Administrative Code Chapter 12X, which prohibits the City from entering into a contract with a contractor that has its headquarters in a state that has enacted a law or laws that perpetuate discrimination against LGBT people and/or has enacted a law that prohibits abortion prior to the viability of the fetus, or a contractor that will perform any or all of the work on the contract in such a state. Chapter 12X requires the City Administrator to maintain a list of such states, defined as "Covered States" under Administrative Code Sections 12X.2 and 12X.12. The list of Covered States is available on the website of the City Administrator. Proposers will be required to certify compliance with Chapter 12X as part of its proposal, unless the City determines that a statutory exception applies.

## II. Statement of Work

The full Statement of Work (SOW) for this RFP is described in Appendix H and its associated Attachments 01 through 06.

Proposers shall review all attachments, appendices, and examples included in this RFP to ensure a complete understanding of equipment and services required.

The SOW is organized into five different sections:

- I. Administrative
- II. Meter Hardware (Single- and Multi-Space)
- III. Meter Management System (MMS)
- IV. Meter Programming
- V. Integration

All sections of the SOW contain requirements for both single- and multi-space Meter hardware, except for Section IIA and IIB, which are specific to single-space and multi-space Meter hardware, respectively. For all applicable sections, Proposers must provide a response for each individual requirement within each section (i.e., respond to Section III.1.a separately from Section III.1.b). No points will be awarded for any requirement that does not have a corresponding response; this includes unintentional omissions. Please review all the documents to ensure each requirement is properly addressed.

### III. Submission Requirements

#### A. Time and Place for Submission of Proposals

Proposals must be received by 1:00 PM on August 17, 2020. Proposers must submit their Proposals in an electronic format either by email to [Carlos.Peza@sfmta.com](mailto:Carlos.Peza@sfmta.com) or on a USB drive to:

Carlos F. Peza  
SFMTA Contracts & Procurement  
One South Van Ness Ave., 3<sup>rd</sup> Fl.  
San Francisco, CA 94103-5417

Proposers are fully responsible for ensuring their Proposals are received by the time and date indicated. The SFMTA will not accept late Proposals, even in cases of known email system failure. Accordingly, Proposers are encouraged to submit their Proposals at least 24 hours before the time and date due.

#### B. Proposal Content and Format

Proposer shall ensure that the document is legible and may be easily viewed on a computer monitor, laptop, or (electronic) tablet. The SFMTA prefers that text be unjustified (i.e., with a ragged-right margin), and that you use an 11-point or larger serif font (e.g., Times New Roman, and not Arial). Pages must have margins of at least 1” on all sides (excluding headers and footers).

All electronic files must include scanned (PDF) copies of any documents that require signature. Signatures must be by an official with your firm who is authorized to submit a Proposal on behalf of your firm.

Proposals shall be submitted in three separate electronic files, as listed below. If a Proposer is submitting Proposals for single-space and multi-space devices, there should be a complete set of files for each Proposal, marked accordingly. Each electronic file shall be clearly marked “**SFMTA-2020-46-Single-Space**” or “**SFMTA-2020-46-Multi-Space**,” as applicable, and, as applicable, “Proposal Part 1,” “Proposal Part 2,” “Proposal Part 3,” etc.

- Part 1 – One electronic copy of the Written Proposal, including completed and signed Appendices D, E, and F. (Submit Appendices A and G as separate files, as stated below.)
- Part 2 – One electronic copy of the completed and signed Appendix A forms (see Section VI.O and Appendix A) as a separate file on your electronic media submission.
- Part 3 – One electronic copy of the completed Appendix G (Cost Proposal Excel Workbook) as a separate file on the electronic media submission.
- Part 4 (Optional) – Proposers wishing to negotiate modification of terms and conditions must attach a copy of the SFMTA’s Sample Agreement referring to the specific portion of the Agreement to be changed and show the proposed changes in track changes mode.



All electronic files must include scanned (PDF) copies of any documents that require signature. Signatures must be by an official with your firm who is authorized to submit a Proposal on behalf of your firm. Your electronic media shall be clearly marked that it is for “SFMTA-2020-46-Single-Space” or “SFMTA-2020-46-Multi-Space,” as applicable.

## **C. Part 1 – Written Proposal**

Firms interested in responding to this RFP must submit Written Proposals that include the information requested in this Section III.C in the order specified herein. Written Proposals must include a table of contents showing the applicable section headings and sub-headings, section numbering, and page numbers. Page limitations, if any, are indicated, below, in parentheses next to the corresponding section headings. Each Proposal shall be clearly identified as either a “Single-Space Proposal” or “Multi-Space Proposal.” Firms responding to both single and multi-space Meter hardware procurements must submit two separate Written Proposals.

### **1. Introduction and Executive Summary (up to 2 pages)**

Submit a letter of introduction with an executive summary of the Proposal. The letter must confirm that the Proposer is willing and able to perform the work described in the RFP. The letter also must include the following commitment.

Please cut and paste the following commitment in your letter: Proposer has read and agrees to the Sample Agreement for Professional Services and Software as a Service (Form P-600/P-648) (Appendix C), except as noted by Proposer and proposed modifications are submitted in response to Section III.F of this RFP.

Finally, the letter must be signed by an authorized representative of the Proposer.

### **2. Certification of Headquarters in Accordance with Administrative Code Chapter 12X.**

Proposals should contain the following statement:

“I certify that my company is headquartered at the following address \_\_\_\_\_. I will notify the City if my company's headquarters moves.”

This statement can be included in the letter of introduction.

### **3. Firm Qualifications / References (up to 10 pages)**

Provide information on the Proposer’s background and qualifications that includes the following:

- a. Name, address, and telephone number of a contact person;
- b. A brief description of the Proposer’s firm (including a description of any relevant joint venture or partnership agreement); and
- c. A description of the Proposer’s participation in two projects or service contracts similar in scope as that described in this RFP, including: (1) client/reference

contact email addresses and telephone numbers; (2) a list of Proposer's staff members who worked on each project; (3) budget for each project; (4) schedule for each project; and (5) summary of each project. If joint contractors or subcontractors are proposed, provide the past project information and references for each of them. This description needs to be completed for each type of proposed Meter hardware on which Proposer is submitting a proposal. For example, if the Proposer is submitting a Proposal on single-space Meter hardware, the projects should be similar in scope and size to the anticipated procurement of single-space Meter hardware. If the Proposer is submitting a Proposal on both single- and multi-space Meter hardware, the Proposal for single-space devices needs to include three projects for single-space devices in that Proposal, and three projects for multi-space devices for the multi-space Proposal.

- d. Minimum Qualifications (MQs) – Proposer must include a response demonstrating that it meets each of the six MQs requirements listed in Section IV.B below as applicable to whether it is submitting a Proposal on single-space, multi-space devices or both.

It is the Proposer's responsibility to ensure that all information for references and MQs sections is current and accurate. References shall include names, telephone numbers, and e-mail addresses. If contact information is not provided or incorrect for the purposes of verifying project experience and MQs, the Proposal may be deemed non-responsive.

#### **4. Team Qualifications (up to 5 pages)**

- a. Provide a list identifying: (1) each key person on the project team, (2) the project manager, (3) the role each will play in the project, and (4) a written assurance that the key individuals listed and identified will perform the work. Affirm that those key personnel will not be substituted or reassigned to another project without the SFMTA's prior approval.
- b. Provide a description of the experience and qualifications of the project team members.

#### **5. Response to the Statement of Work (up to 60 pages)**

Provide detailed responses to each of the five sections of the SOW, except for Section IIA and IIB, which are specific to single-space and multi-space Meter hardware, respectively. For all applicable sections, it is recommended to use the SOW Table of Contents as an outline for the response. Proposers must provide a response for each individual requirement within each section (i.e., respond to Section III.1.a separately from Section III.1.b). No points will be awarded for any requirement that does not have a corresponding response; this includes unintentional omissions. Please review all documents to ensure each requirement is addressed.

### **D. Part 2 – CMD Attachment 2**

Submit completed and signed forms listed in RFP Appendix A, CMD Attachment 2: Requirements for Architecture, Engineering and Professional Services Contracts, to document compliance with the LBE requirements described in Section VI.O of this RFP.

## **E. Part 3 – Cost Proposal**

Proposers shall submit with the Proposal a Cost Proposal as a separate electronic file that includes the information requested and is in the format in Appendix G.

The SFMTA intends to award this contract(s) to the Proposer(s) that it determines will provide the best overall program services to the Agency. The SFMTA reserves the right to accept other than the lowest-priced offer.

## **F. Part 4 - City Terms and Conditions**

Proposer must acknowledge that it is willing and able to meet all of the SFMTA's proposed terms and conditions as outlined in Appendix C, the SFMTA's Sample Agreement for Professional Services and Software as a Service (Form P-600/P-648), except that Proposers wishing to negotiate modification of terms and conditions must attach a copy of the SFMTA's Agreement referring to the specific portion of the Agreement to be changed, and show proposed changes in track changes mode. The SFMTA's selection of any Proposer who proposes changes to the SFMTA's Agreement terms shall not be deemed as acceptance of the Proposer's proposed changes.

## IV. Evaluation and Selection Criteria

### A. Overall Evaluation Process

The evaluation process will consist of the phases specified below with the following allocation of points for review of each type of Proposal – single-space and multi-space:

<b>Evaluation Phase</b>	<b>Maximum Points</b>
<b>Screening of Minimum Qualifications</b>	<b>Pass/Fail</b>
<b>Written Proposal</b>	
1. Qualifications and Experience	150
2. Response to SOW	
I. Administrative	150
II. Meter Hardware (IIA. Single-Space OR IIB. Multi-Space)	255
III. Meter Management System (MMS)	100
IV. Meter Programming	240
V. Integration	230
<b>Written Proposal Score</b>	<b>1,125</b>
<b>Cost Proposal Score</b>	<b>425</b>
<b>Oral Interview Score (if conducted)</b>	<b>150</b>
<b>TOTAL SCORE</b>	<b>1,700</b>

### B. Minimum Qualifications

The SFMTA will review each Proposal to determine whether the Proposer meets the Minimum Qualifications (MQs) stated below. Proposals will not be scored during the review of the MQs; this screening is simply a pass or fail determination. A Proposal that fails to meet the MQs will not be eligible for consideration in the evaluation process. The SFMTA reserves the right to request clarifications from Proposers prior to rejecting a proposal for failure to meet the minimum qualifications. Clarifications are limited exchanges between the SFMTA and the Proposer for the purpose of clarifying certain aspects of the Proposal and will not provide a Proposer the opportunity to revise or modify its Proposal. Only Proposals that meet the MQs can proceed to the next evaluation phases.

A Proposer must meet the Minimum Qualifications stated below:

1. The Proposer shall demonstrate that they have been in the parking Meter business for a minimum of five years.
2. The Proposer shall have the following number of credit card-enabled meters installed and operational at the time of the Proposal submittal:
  - a. If submitting a Proposal on single-space Meters – 1,750 devices in North American markets.
  - b. If submitting a Proposal on multi-space Meters – 250 devices in North American markets.
3. The Proposer is currently involved as a prime contractor or a subcontractor with at least two municipalities or other government entities (e.g. State) located in North America.
4. Proposed Meter hardware shall rely on a rechargeable battery augmented by a solar power panel. Proposer shall include images of the proposed Meter hardware units for validation of this requirement.
5. Proposed multi-space Meter hardware shall have a printer that is configured to allow automated or on demand printing of the receipt types described in the Section IIB.2.o of the SOW.
6. Proposed Meter hardware shall present the means to visually indicate Meter hardware PAID, EXPIRED and NEEDS SERVICE statuses as described in SOW Sections IIA.9.b and IIB.9.c. Proposer shall include images of the proposed Meter hardware units for validation of this requirement. Proposers competing for single-space devices shall provide the evidence of points (a), (b), and (c). Proposers competing for multi-space devices shall provide evidence demonstrating points (a), (b), (c) and (d).
  - a. Single-space and multi-space: front display with remaining parking and expiration times for PAID sessions.
  - b. Single-space and multi-space: front LEDs or any other visual method of indicating PAID, EXPIRED and NEEDS SERVICE and status.
  - c. Single-space and multi-space: back LEDs or any other visual method of indicating PAID, EXPIRED and NEEDS SERVICE status.
  - d. Multi-space: back side LEDs or any other visual method of indicating PAID and EXPIRED statuses of every space controlled by the multi-space Meter hardware.

Any Proposal that does not demonstrate that the Proposer meets these MQs for its respective Proposal by the deadline for submittal of Proposals may be deemed non-responsive.

### **C. Selection Criteria**

An Evaluation Committee comprised of parties with broad expertise in parking and municipal governance will evaluate the Proposals, using the criteria described below. As noted, SFMTA P-590 (5-19)

the committee will evaluate Proposals for single-space Meter hardware and Proposals for multi-space Meter hardware separately. Therefore, the evaluation process detailed below will be completed twice, once for the Proposals for single-space devices and once for Proposals for multi-space devices.

**1. Qualifications and Experience of Firm and Project Team (150 points)**

- a. Proposer’s and the team’s demonstrated expertise in the subject areas necessary to complete the tasks.
- b. Experience with projects or service assignments of similar size, scope and staff demand.
- c. Strength or successful outcome of showcased projects, including demonstrated adherence to scope, schedule, deadlines and budgets.
- d. Recent experience (last five years) of staff assigned to the project and a description of the tasks to be performed by each staff person.
- e. Proposer’s and the team’s demonstrated expertise in Meter hardware pre-deployment setup, installation and on-going support for the duration of the Agreement.

**2. Response to SOW (975 points)**

Following is the breakdown of the total points to be allocated for the Statement of Work sections.

<b>SOW Section</b>	<b>Category/Section</b>	<b>Points</b>
I	Administrative	150
IIA or IIB	Meter Hardware Single-Space or Meter Hardware Multi-Space	255
III	Meter Management System (MMS)	100
IV	Meter Programming	240
V	Integration	230
<b>Total</b>		<b>975</b>

All sections of the SOW contain requirements for both single- and multi-space Meter hardware, except for Sections IIA and IIB, which are specific to single-space and multi-space Meter hardware, respectively. For all applicable sections, Proposers must provide a response for each individual requirement within each section (i.e., respond to Section III.1.a separately from Section III.1.b). No points will be awarded for any requirement that does not have a corresponding response; this includes unintentional omissions. Please review all the documents to ensure each requirement is properly addressed.

**3. Cost Proposal (425 points)**

The Proposal with the lowest overall five-year contract cost will receive the maximum 425 points. Each of the other Proposer’s cost proposals will be scored by dividing the lowest cost

Proposal by each Proposer's respective cost proposal, and then multiplied by 425 then combined with the results from each section to arrive at the total number of points assigned to the Proposal.

See the following illustration as an example for calculating the scoring for the cost proposal:

<b>Proposer</b>	<b>Proposed Total Cost</b>	<b>Calculation of Points</b>	<b>Points Assigned</b>
Proposer A	\$100,000	Full 425 points.	425
Proposer B	\$120,000	\$100,000 divided by \$120,000 multiplied by 425.	354
Proposer C	\$150,000	\$100,000 divided by \$150,000 multiplied by 425.	283

#### **4. Oral Interview (150 points)**

Following the evaluation of the written Proposals, all firms that have a statistical chance of being the selected Proposer (based on the scores of the written Proposals) may be interviewed by the Evaluation Committee to make the final selection. The interview will consist of standard questions asked of each Proposer and may include specific questions of individual Proposers intended to clarify their written Proposals. The Evaluation Committee panel will score each Proposer based on the Proposer team's presentation and/or responses.

After the oral interview, the SFMTA will combine all scores, rank the Proposers and select the highest-ranked Proposer to commence contract negotiations.

**The SFMTA reserves the right not to hold oral interviews and select a firm based on the written Proposals only.**

## V. Pre-Proposal Conference and Contract award

### A. Pre-Proposal Conference

The SFMTA encourages Proposers to attend a virtual Pre-Proposal Conference via Skype on July 1, 2020, 10:00 AM PT. The SFMTA will address Proposers' questions and will provide any new or additional information concerning the RFP or selection process at the Pre-Proposal Conference.

To attend the meeting, you can either click the "Join Skype Meeting" link below and/or call the phone number and enter the Conference ID.

[Join Skype Meeting](#)

Trouble Joining? [Try Skype Web App](#)

Join by phone

+1 (415) 646-2800

[Find a local number](#)

Conference ID: 3834794

For the Pre-Proposal Conference, Proposers are encouraged to submit questions in writing by email no later than June 26, 2020, 10:00 AM PT and directed to: [Carlos.Peza@sfmta.com](mailto:Carlos.Peza@sfmta.com).

Proposers are further encouraged to provide the following information to [Carlos.Peza@sfmta.com](mailto:Carlos.Peza@sfmta.com) to register for the Pre-Proposal Conference and have their information listed on the virtual sign up list.

1. Attendee Name
2. Organization Name
3. Organization's Business Address
4. E-Mail/Phone Contact Information
5. Indicate if your firm is a Local Business Organization (LBE)
6. Indicate if your firm is interested in presenting a proposal as a Prime Contractor, Subcontractor or Both.

Proposers shall submit all other questions concerning this Request for Proposals in writing by email only during the question-and-answer period, ending July 24, 2020, no later than 1:00 PM PT and directed to: [Carlos.Peza@sfmta.com](mailto:Carlos.Peza@sfmta.com).

Please include "SFMTA-2020-46" in the subject line of your email.

Questions and answers will be posted publicly.



The Pre-Proposal Conference will begin at the time specified, and company representatives are urged to arrive on time. Topics already covered will not be repeated for the benefit of late arrivals. Failure to attend the Pre-Proposal Conference shall not excuse the successful Proposer from any obligations of the Contract. Written bid addenda will execute any change or addition to the requirements contained in this RFP, as a result of the Pre-Proposal Conference (see Section VI.D below).

It is the responsibility of the Proposer to check for any RFP Addenda, Q&A postings, and other updates, which will be posted on the San Francisco City Partner website:  
<https://sfcitypartner.sfgov.org/pages/index.aspx>.

## **B. Contract Award**

The SFMTA will evaluate and rank Proposals as described herein and intends to invite the highest-ranked Proposer(s) to commence contract negotiations. The Agency's ranking of any Proposal or invitation to any Proposer to negotiate a contract shall not imply acceptance by the SFMTA of all terms of the Proposal, which are subject to further negotiations and approvals before the SFMTA may be legally bound thereby. If a satisfactory contract cannot be negotiated in a reasonable time with a Proposer, then the SFMTA, in its sole discretion, may terminate negotiations with that Proposer and begin contract negotiations with the next highest-ranked Proposer for that particular device, i.e. single-space or multi-space.

By submitting a proposal, Proposers acknowledge that they are willing and able to meet all of the SFMTA's terms and conditions as stated in the SFMTA's Sample Agreement (Appendix C), unless otherwise noted by Proposer and proposed modifications are submitted in response to Section III.F of this RFP.

## VI. Terms and Conditions for Receipt of Proposals

### A. Errors and Omissions in RFP

Proposers are responsible for reviewing all parts of this RFP and complying with all Proposal submission requirements. Proposers must promptly notify the SFMTA, in writing, if the Proposer discovers any ambiguity, discrepancy, omission, or other error in the RFP. Any such notification shall be directed to the SFMTA promptly after discovery, but in no event later than five working days prior to the date for receipt of Proposals. The SFMTA will issue modifications and clarifications to the RFP as Addenda as provided below.

### B. Inquiries Regarding RFP

All communications regarding the RFP must be directed in writing to:

[Carlos.Peza@sfmta.com](mailto:Carlos.Peza@sfmta.com)

Please include “SFMTA-2020-46” in the subject line of your email.

### C. Objections to RFP Terms

If a Proposer objects on any ground to any provision or legal requirement of the RFP, the Proposer must, not more than 10 calendar days after the RFP is issued, provide written notice to the SFMTA setting forth with specificity the grounds for the objection and all relevant facts. The failure of a Proposer to object in the manner set forth in this paragraph shall constitute a complete and irrevocable waiver of any such objection.

### D. Bid Addenda

The SFMTA may modify the RFP prior to the Proposal due date by issuing Bid Addenda, which will be posted on the San Francisco City Partner website:

<https://sfcitypartner.sfgov.org/pages/index.aspx>.

The Proposer is responsible for ensuring that its Proposal reflects any and all Bid Addenda issued by the SFMTA prior to the Proposal due date, regardless of when the Proposal is submitted. Therefore, the SFMTA recommends that the Proposer consult the San Francisco City Partner website frequently, including shortly before the Proposal due date, to confirm that the Proposer is aware of, and its Proposal is responsive to, all Bid Addenda.

### E. Term of Proposal

By submitting a Proposal, a Proposer warrants that the price stated and personnel proposed to perform the services described in the RFP are valid for 120 calendar days from the Proposal due date, and that the quoted prices are genuine and not the result of collusion or any other anti-competitive activity.

## **F. Revision of Proposal**

A Proposer may revise its Proposal at any time before the deadline for submission of Proposals. The Proposer must submit a revised Proposal in the same manner as the original. A revised Proposal must be received on or before the Proposal due date.

In no case will a statement of intent to submit a revised Proposal, or commencement of a revision process, extend the Proposal due date for any Proposer.

At any time during the Proposal evaluation process, the SFMTA may require a Proposer to provide oral or written clarification of its Proposal. The SFMTA reserves the right to make an award without requesting such further clarification.

## **G. Errors and Omissions in Proposal**

Failure by the SFMTA to object to an error, omission, or deviation in the Proposal will in no way modify the RFP or excuse the selected Proposer from full compliance with the specifications of the RFP or any contract awarded pursuant to the RFP.

## **H. Financial Responsibility**

The SFMTA shall have no financial responsibility for any costs incurred by a firm in responding to this RFP. Submitted Proposals are the property of the SFMTA and may be used by the SFMTA in any way it deems appropriate.

## **I. Proposer's Obligations under the Campaign Reform Ordinance**

Proposers must comply with Section 1.126 of the S.F. Campaign and Governmental Conduct Code, which states:

No person who contracts with the City and County of San Francisco for the rendition of personal services, for the furnishing of any material, supplies or equipment to the City, or for selling any land or building to the City, whenever such transaction would require approval by a City elective officer, or the board on which that City elective officer serves, shall make any contribution to such an officer, or candidates for such an office, or committee controlled by such officer or candidate at any time between commencement of negotiations and the later of either (1) the termination of negotiations for such contract, or (2) three months have elapsed from the date the contract is approved by the City elective officer or the board on which that City elective officer serves.

If a Proposer is negotiating for a contract that must be approved by an elected local officer or the board on which that officer serves, during the negotiation period the Proposer is prohibited from making contributions to:

- the officer's re-election campaign
- a candidate for that officer's office
- a committee controlled by the officer or candidate.

The negotiation period begins with the first point of contact, either by telephone, in person, or in writing, when a contractor approaches any city officer or employee about a particular contract, or a city officer or employee initiates communication with a potential contractor about a contract. The negotiation period ends when a contract is awarded or not awarded to the contractor. Examples of initial contacts include: (1) a vendor contacts a city officer or employee to promote himself or herself as a candidate for a contract; and (2) a city officer or employee contacts a contractor to propose that the contractor apply for a contract. Inquiries for information about a particular contract, requests for documents relating to a Request for Proposal, and requests to be placed on a mailing list do not constitute negotiations.

Violation of Section 1.126 may result in the following criminal, civil, or administrative penalties:

1. **Criminal.** Any person who knowingly or willfully violates section 1.126 is subject to a fine of up to \$5,000 and a jail term of not more than six months, or both.
2. **Civil.** Any person who intentionally or negligently violates section 1.126 may be held liable in a civil action brought by the civil prosecutor for an amount up to \$5,000.
3. **Administrative.** Any person who intentionally or negligently violates section 1.126 may be held liable in an administrative proceeding before the Ethics Commission held pursuant to the Charter for an amount up to \$5,000 for each violation.

For further information, Proposers shall contact the San Francisco Ethics Commission at (415) 581-2300.

## **J. Communications Prior to Contract Award**

It is the policy of the SFMTA that only SFMTA staff identified in the RFP as contacts for this competitive solicitation are authorized to respond to comments or inquiries from Proposers or potential Proposers seeking to influence the contractor selection process or the award of the contract. This prohibition extends from the date the RFP is issued until the date when the contractor selection is finally approved by the SFMTA Board of Directors and, if required, by the San Francisco Board of Supervisors.

All firms and subcontractor(s) responding to this RFP are notified that they may not contact any SFMTA staff member, other than the person(s) identified in the RFP as the authorized contact, for the purpose of influencing the contractor selection process or the award of the contract from the date the RFP is issued to the date when the contract award is approved by the SFMTA Board of Directors and, if required, by the San Francisco Board of Supervisors. This prohibition does not apply to communications with SFMTA staff members regarding normal City business not regarding or related to this RFP.

Any written communications sent to one or more members of the SFMTA Board of Directors concerning a pending contract solicitation shall be distributed by the SFMTA to all members of the SFMTA Board of Directors and the designated staff contact person(s) identified in the RFP.

Except as expressly authorized in the RFP, where any person representing a Proposer or potential Proposer contacts any SFMTA staff for the purpose of influencing the content of the

competitive solicitation or the award of the contract between the date when the RFP is issued and the date when the final selection is approved by the SFMTA Board of Directors, and, if required, by the San Francisco Board of Supervisors, the Proposer or potential Proposer shall be disqualified from the selection process. However, a person who represents a Proposer or potential Proposer may contact City elected officials and may contact the Director of Transportation of the SFMTA if s/he is unable to reach the designated staff contact person(s) identified in the RFP or wishes to raise concerns about the competitive solicitation.

Additionally, the firms and subcontractor(s) responding to this RFP are prohibited from providing any gifts, meals, transportation, materials or supplies or any items of value or donations to or on behalf of any SFMTA staff member from the date the RFP is issued to the date when the contract award is approved by the SFMTA Board of Directors and if required, by the San Francisco Board of Supervisors.

All lobbyists or any agents representing the interests of a Proposer (including prime contractors and subcontractor(s)) are also subject to these prohibitions.

A Proposer must submit with its Proposal an executed Attestation of Compliance (see Appendix D) certifying compliance with these requirements. The Attestation of Compliance must be signed by all firms and subcontractor(s) named in the Proposal. A Proposal that does not include the executed Attestation of Compliance as required by this section will be deemed non-responsive and will not be evaluated. Any Proposer who violates the prohibitions of this section, directly or through an agent, lobbyist or subcontractor, will be disqualified from the selection process.

## **K. Sunshine Ordinance**

In accordance with S.F. Administrative Code Section 67.24(e), proposals and bids, all other documents submitted with the Proposal, and records of communications between the City and persons or firms seeking contracts shall be open to inspection immediately after a contract has been awarded. Nothing in this provision requires the disclosure of a private person's or organization's net worth or other proprietary financial data submitted for qualification for a contract or other benefits until and unless that person or organization is awarded the contract or benefit. Information that a Proposer provides that is covered by this section will be made available to the public upon request.

## **L. Public Access to Meetings and Records**

If a Proposer receives a cumulative total per year of at least \$250,000 in City funds or City-administered funds and is a non-profit organization as defined in Chapter 12L of the S.F. Administrative Code, the Proposer must comply with Chapter 12L. The Proposer must include in its Proposal (1) a statement describing its efforts to comply with the Chapter 12L provisions regarding public access to Proposer's meetings and records, and (2) a summary of all complaints concerning the Proposer's compliance with Chapter 12L that were filed with the City in the last two years and deemed by the City to be substantiated. The summary shall also describe the disposition of each complaint. If no such complaints were filed, the Proposer shall include a statement to that effect. Failure to comply with the reporting requirements of Chapter 12L or material misrepresentation in Proposer's Chapter 12L submissions shall be grounds for rejection

of the Proposal and/or termination of any subsequent Agreement reached on the basis of the Proposal.

## **M. Reservations of Rights by the City**

The issuance of this RFP does not constitute an agreement by the City that any contract will be awarded by the City. The City expressly reserves the right at any time to:

1. Waive or correct any defect or informality in any response, Proposal, or selection process;
2. Reject any Proposal or all Proposals;
3. Reissue a Request for Proposals;
4. Prior to submission deadline for Proposals, modify all or any portion of the selection procedures, including deadlines for accepting responses, the specifications or requirements for any materials, equipment or services to be provided under this RFP, or the requirements for contents or format of the Proposals;
5. Procure any materials, equipment or services specified in this RFP by any other means; or
6. Determine that no project will be pursued.

In submitting a Proposal, a Proposer acknowledges and agrees that the City shall not be liable for any costs or other damages incurred by a Proposer if the City determines not to award a contract, rejects any or all Proposals, or exercises any of the reserved rights described herein.

## **N. No Waiver**

No waiver by the SFMTA of any provision of this RFP shall be implied from any failure by the SFMTA to recognize or take action on account of any failure by a Proposer to observe any provision of this RFP.

## **O. Local Business Enterprise Requirements**

The requirements of the Local Business Enterprise and Non-Discrimination in Contracting Ordinance set forth in Chapter 14B of the San Francisco Administrative Code as it now exists or as it may be amended in the future (collectively the “LBE Ordinance”) shall apply to this RFP.

### **1. LBE Subcontracting Participation**

The LBE subcontracting participation requirement for this contract has been waived. Prime contractors are encouraged to engage LBEs to perform work on this contract to the greatest extent possible.

### **2. LBE Participation and Ratings Bonuses**

Rating bonuses do not apply to this RFP.

### **3. CMD Forms to be Submitted with Proposal**

a. A Proposal must include the following Contract Monitoring Division (CMD) Forms contained in the CMD Attachment 2: 1) CMD Contract Participation Form (if utilizing LBE subcontractors, 3) CMD Non-Discrimination Affidavit, and 5) CMD Employment Form. If these forms are not submitted with the Proposal, the Proposal may be determined to be non-responsive and rejected.

b. A Proposer must submit one electronic copy of the above forms with its Proposal as a separate electronic file on the media that contains the Proposal (see Section III.A).

If you have any questions concerning the CMD Forms, you may contact Lome Aseron, SFMTA Contract Compliance Office at 415-701-5332 or [Lome.Aseron@sfmta.com](mailto:Lome.Aseron@sfmta.com).

## **P. Employment Non-Discrimination and Economically Disadvantaged Workforce Hiring Provisions**

### **1. General**

As a material condition of contract award, the Proposer and its subcontractors agree to comply with the nondiscrimination in employment provisions required by Chapter 12B of the Administrative Code and the hiring of economically disadvantaged persons, as required by the City's First Source Hiring Program, Chapter 83 of the Administrative Code.

### **2. Nondiscrimination Provisions**

As a material condition of the contract, the selected Proposer represents and agrees that:

a. It does and will not, during the term of the contract or any contract amendment, discriminate in the provision of benefits between its employees with spouses and employees with domestic partners.

b. The selected Proposer and its subcontractors on this contract will not discriminate against any employee or applicant for employment because of race, color, religion, ancestry, national origin, age, sex, sexual orientation, gender identity, domestic partner status, marital status, disability or AIDS/HIV status, weight, height, or association with members of classes protected under this chapter or in retaliation for opposition to any practices forbidden under this chapter. Discrimination on the basis of sex includes sexual harassment as defined in Section 16.9-25(b) of the Code. The consultant, contractor or subconsultant/subcontractor will take action to ensure that applicants are employed, and that employees are treated equally during employment, without regard to the fact or perception of their race, color, creed, religion, ancestry, national origin, age, sex, sexual orientation, gender identity, domestic partner status, marital status, disability, weight, height, or AIDS/HIV status. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rate of pay or other forms of compensation; and selection for training, including apprenticeship.

### **3. Non-Compliance with Chapter 12B Prior to Contract Award**

As a material condition for award of the contract, the selected Proposer and its subcontractors must be in compliance with the nondiscrimination provisions of Chapter 12B, on all existing City contracts prior to award of this contract. The SFMTA shall have the authority to review the selected Proposer's and subcontractors' prior performance to ensure compliance with the nondiscrimination provisions of Chapter 12B.

If the SFMTA determines that there is cause to believe that any contractor or subcontractor is not in compliance with the nondiscrimination provisions of Chapter 12B, the SFMTA will attempt to resolve the non-compliance through conciliation.

- a. If the non-compliance cannot be resolved, the SFMTA will submit to the contractor or subcontractor a written Finding of Non-compliance.
- b. The SFMTA will give the contractor or subcontractor an opportunity to appeal the Finding.
- c. The SFMTA may, by written notice, stay the award of any contract to a Proposer where the Proposer or any subcontractor is the subject of an investigation for a violation of the City's non-discrimination ordinance(s).

### **4. Complaints of Discrimination after Contract Award**

- a. A complaint of discrimination in employment initiated by any party after contract award shall be processed in accordance with CCO procedures.
- b. A finding of discrimination may result in imposition of appropriate sanctions, including:
  - (i) There may be deducted from the amount payable to the contractor or subcontractor under this contract a penalty of \$50 for each person for each calendar day the person was discriminated against in violation of the provisions of the contract.
  - (ii) The contract may be canceled, terminated or suspended in part by the SFMTA.
  - (iii) The consultant, subconsultant or vendor may be determined ineligible to perform work or supply products on any City contract for a period not to exceed two years.

Said sanctions are not the City's exclusive remedies, which may be imposed in combination with additional legal remedies, sanctions or penalties.

### **5. Trainees – SFMTA Employment Training Program**

- a. **Trainee Requirements:** Contractors shall comply with the City's First Source Program, Administrative Code Section 83(see Section V.E below), which fosters employment opportunities for economically disadvantaged individuals. Contractors must notify the First Source Program of all open, entry-level positions and consider all program referrals fairly and equally.



In addition, the SFMTA requires contractors to hire a minimum number of professional service trainees in the area of the contractor’s expertise. These hires count toward the First Source Hiring requirements. Trainees may be obtained through the City’s One Stop Employment Center, which works with various employment and job training agencies/organizations or other employment referral source.

**Number of Trainees**

Project Fees	To Be Hired
\$0 – \$499,999	0
\$500,000 – \$899,999	1
\$900,000 – \$1,999,999	2
\$2,000,000 – \$4,999,999	3
\$5,000,000 – \$7,999,999	4
\$8,000,000 – \$10,999,999	5
\$11,000,000 – \$13,999,999	6
(> = \$14M, for each additional \$3 million in contractor fees, add one additional trainee)	

- b. The trainee must be hired by the contractor or by any subcontractor on the project team.
- c. No trainee may be counted towards meeting more than one contract goal.
- d. A trainee must meet qualifications for enrollment established under the City’s First Source Hiring Program as follows:
  - (i) “Qualified” with reference to an economically disadvantaged individual shall mean an individual who meets the minimum bona fide occupational qualifications provided by the prospective employer to the San Francisco Workforce Development System in the job availability notices required by the Program, and
  - (ii) “Economically disadvantaged individual” shall mean an individual who is either: (1) eligible for services under the Workforce Investment Act of 1988 (WIA) (29 U.S.C.A 2801 et seq.), as determined by the San Francisco Private Industry Council; or (2) designated “economically disadvantaged” for the First Source Hiring Administration, as an individual who is at risk of relying upon, or returning to, public assistance.
- e. On-the-job training (to be provided by the contractor): The contractor shall hire the trainee on a full-time basis for at least 12 months or on a part-time basis for 24 months, with prior approval offering him/her on-the-job training which allows the trainee to progress on a career path.
- f. Contractor shall submit for the City’s approval a description and summary of training proposed for the trainee, along with the rate of pay for the position.

**San Francisco Municipal Transportation Agency**  
RFP for Parking Meter Hardware and Management System

- g. The trainee's commitment does not require that he/she is used only on this project; the trainee may also be used on other projects under contract to the Proposer that may be appropriate for the trainee's skill development.

## **VII. Contract Requirements**

### **A. Standard Contract Provisions**

The selected Proposer(s) will be required to enter into a contract substantially in the form of the Agreement for Professional Services, attached hereto as Appendix C. Failure to timely execute the contract, or to furnish any and all insurance certificates and policy endorsement, surety bonds or other materials required in the contract, shall be deemed an abandonment of a contract offer. The SFMTA, in its sole discretion, may select another firm and may proceed against the original selectee for damages.

### **B. Nondiscrimination in Contracts and Benefits**

As a material requirement of the contract, the selected Proposer(s) shall comply with Chapters 12B and 12C of the San Francisco Administrative Code. Generally, Chapter 12B prohibits the City and County of San Francisco from entering into contracts or leases with any entity that discriminates in the provision of benefits between employees with domestic partners and employees with spouses, and/or between the domestic partners and spouses of employees. The Chapter 12C requires nondiscrimination in contracts in public accommodation. Additional information on Chapters 12B and 12C is available on the CMD's website at: <http://sfgsa.org/index.aspx?page=6058>.

### **C. Minimum Compensation Ordinance (MCO)**

As a material requirement of the contract, the selected Proposer(s) shall comply with the Minimum Compensation Ordinance (MCO), as set forth in S.F. Administrative Code Chapter 12P. Generally, this Ordinance requires contractors to provide employees covered by the Ordinance who do work funded under the contract with hourly gross compensation and paid and unpaid time off that meet certain minimum requirements.

For additional information about the MCO, and for the amount of hourly gross compensation currently required under the MCO, see <http://sfgov.org/olse/mco>. Note that this hourly rate may increase on January 1 of each year and that contractors will be required to pay any such increases to covered employees during the term of the contract.

### **D. Health Care Accountability Ordinance (HCAO)**

As a material requirement of the contract, the selected Proposer(s) shall comply with the Health Care Accountability Ordinance (HCAO), as set forth in S.F. Administrative Code Chapter 12Q. Contractors shall consult the San Francisco Administrative Code to determine their compliance obligations under this chapter. Additional information regarding the HCAO is available on the web at <http://sfgov.org/olse/hcao>.

### **E. First Source Hiring Program (FSHP)**

If the contract is for more than \$50,000, then the City's First Source Hiring Program (Admin. Code Chapter 83) may apply. Generally, this ordinance requires contractors to notify

the First Source Hiring Program of available entry-level jobs and provide the Workforce Development System with the first opportunity to refer qualified individuals for employment.

Contractors are directed to consult the San Francisco Administrative Code to determine their compliance obligations under this chapter. Additional information regarding the FSHP is available on the web at <http://oewd.org/first-source> and from the First Source Hiring Administrator, [business.services@sfgov.org](mailto:business.services@sfgov.org) or call (415) 701-4848.

## **F. Conflicts of Interest**

The selected Proposer(s) must agree to comply fully with and be bound by the applicable provisions of state and local laws related to conflicts of interest, including Section 15.103 of the City's Charter, Article III, Chapter 2 of City's Campaign and Governmental Conduct Code, and Section 87100 et seq. and Section 1090 et seq. of the Government Code of the State of California. The selected Proposer(s) will be required to acknowledge that it is familiar with these laws; certify that it does not know of any facts that constitute a violation of said provisions; and agree to immediately notify the City if it becomes aware of any such fact during the term of the Agreement.

Individuals who will perform work for the SFMTA on behalf of the selected Proposer(s) might be deemed "contractors" under state and local conflict of interest laws. If so, such individuals will be required to submit a Statement of Economic Interests, California Fair Political Practices Commission Form 700, to the City within ten calendar days of the SFMTA's notice of award of the contract.

## **VIII. Protest Procedures**

### **A. Protest of Non-Responsiveness Determination**

Within five working days of the SFMTA's issuance of a notice of non-responsiveness, any Proposer that believes the SFMTA has incorrectly determined that its Proposal is non-responsive may submit a written notice of protest. Such notice of protest must be received by the SFMTA on or before the fifth working day following the SFMTA's issuance of the notice of non-responsiveness. The notice of protest must include a written statement specifying in detail each and every one of the grounds asserted for the protest. The protest must be signed by an individual authorized to represent the Proposer, and must cite the law, rule, local ordinance, procedure or RFP provision on which the protest is based. In addition, the protestor must specify facts and evidence sufficient for the SFMTA to determine the validity of the protest.

The SFMTA reserves the right to proceed with its selection process to evaluate responsive Proposals pending the Agency's determination of the validity of a protest.

### **B. Protest of Non-Responsible Determination**

Within five working days of the SFMTA's issuance of a notice of a determination of non-responsibility, a vendor that would otherwise be the lowest responsive proposer may submit a written notice of protest. The vendor will be notified of any evidence reflecting upon their responsibility received from others or adduced as a result of independent investigation. The vendor will be afforded an opportunity to rebut such adverse evidence, and will be permitted to present evidence that they are qualified to perform the contract. Such notice of protest must be received by the SFMTA on or before the fifth working day following the SFMTA's issuance of the notice of non-responsibility. The notice of protest must include a written statement specifying in detail each and every one of the grounds asserted for the protest. The protest must be signed by an individual authorized to represent the proposer, and must cite the law, rule, local ordinance, procedure or RFP provision on which the protest is based. In addition, the protestor must specify facts and evidence sufficient for the City to determine the validity of the protest.

### **C. Protest of Contract Award**

Within five working days of the SFMTA's issuance of a notice of intent to award the contract, any firm that has submitted a responsive Proposal and believes that the SFMTA has incorrectly selected another Proposer for award may submit a written notice of protest. Such notice of protest must be received by the SFMTA on or before the fifth working day after the SFMTA's issuance of the notice of intent to award.

The notice of protest must include a written statement specifying in detail each and every one of the grounds asserted for the protest. The protest must be signed by an individual authorized to represent the Proposer, and must cite the law, rule, local ordinance, procedure or RFP provision on which the protest is based. In addition, the protestor must specify facts and evidence sufficient for the SFMTA to determine the validity of the protest.

The SFMTA reserves the right to proceed in contract negotiation with the selected Proposer pending the Agency's determination of the validity of a protest.

## **D. Delivery of Protests**

All protests must be received by the due date. A protestor bears the risk of non-delivery within the deadlines specified herein. Protests or notice of protests made orally (e.g., by telephone) will not be considered. Protests must be delivered via email to:

[Carlos.Peza@sfmta.com](mailto:Carlos.Peza@sfmta.com)

**Appendix A**  
**City and County of San Francisco**  
**Contract Monitoring Division**  
**CMD Attachment 2**  
*Requirements for Architecture, Engineering and Professional Services*  
**Contracts, for contracts \$55,000 and over**

*Appendix A* is a separate file to be downloaded from the online posting for this RFP on the San Francisco City Partner website.

You may access the website at the following link:

<https://sfcitypartner.sfgov.org/pages/index.aspx>

## Appendix B Standard Forms

The requirements described in this Appendix are separate from those described in Appendix A.

### A. How to become Eligible to Do Business with the City

Before the City can award any contract to a contractor, all vendors must meet the minimum requirements described below. There may be additional requirements placed upon a vendor depending on the type of good or service to be purchased.

### B. Mandatory Forms

At a minimum, in order to become eligible to do business with the City, a vendor must submit the following documents to the Vendor File Support Division via the San Francisco City Partner website located at <https://sfcitypartner.sfgov.org/>.

1. [Vendor Application Packet](#) (includes *New Vendor Number Request Form* and *IRS Form W-9*)
2. [CCSF Vendor - Business Registration \(Electronic Submission - you must have a vendor number to complete\)](#)
3. [CMD 12B-101 Declaration](#) of Nondiscrimination in Contracts and Benefits

### C. Vendor Eligibility and Invoice Payment

Vendors must have a City-issued vendor number, have all compliance paperwork submitted and approved by the City, and have an executed contract or purchase order before payments can be made. Once a vendor number has been assigned, an e-mail notification will be provided by the City's Vendor File Support Division. This notification will include instructions on how to sign up to receive payments through the San Francisco City Partner website located at <https://sfcitypartner.sfgov.org/>.



### D. Vendor Eligibility Forms

<u><a href="#">Form</a></u>	<u><a href="#">Purpose/Info</a></u>	<u><a href="#">Routing</a></u>
<a href="#">CCSF Vendor - Business Registration (Electronic Submission - you must have a vendor number to complete)</a>	This declaration is required for city vendors to determine if you are required to obtain a Business Registration Certificate.	<a href="https://sfcitypartner.sfgov.org/">https://sfcitypartner.sfgov.org/</a>



<u>Form</u>	<u>Purpose/Info</u>	<u>Routing</u>
<a href="#">Declaration of Nondiscrimination in Contracts and Benefits</a> <i>with supporting documentation</i> (Form CMD-12B-101)	This Declaration is used by the City's Contract Monitoring Division to determine if a vendor offers benefits to employees. When a vendor offers benefits, it must be verified that all benefits, including insurance plans and leaves, are offered equally to employees with spouses and employees with domestic partners. For more information and assistance, please visit the City Administrator's <b>Contract Monitoring Division Equal Benefits</b> web page.	<a href="https://sfcitypartner.sfgov.org/">https://sfcitypartner.sfgov.org/</a>
<a href="#">Vendor Profile Application</a>	Includes New Vendor Number Request Form and IRS Form W-9.	<a href="https://sfcitypartner.sfgov.org/">https://sfcitypartner.sfgov.org/</a>

### E. Supplemental Forms

<b>Form:</b>	<b>Required If:</b>
Minimum Compensation Ordinance (MCO) Declaration (  pdf)	You have at least \$25,000 (\$50,000 for non-profit organizations) in cumulative annual business with a City department or departments and have more than 5 employees, including employees of any parent, subsidiaries and subcontractors.
Health Care Accountability Ordinance (HCAO) Declaration (  pdf)	You have at least \$25,000 (\$50,000 for non-profit organizations) in cumulative annual business with a City department or departments and have more than 20 employees (more than 50 employees for nonprofit organizations), including employees of any parent, subsidiaries or subcontractors.
Insurance Requirements ( <a href="#">pdf</a> )	The solicitation requires the successful proposer to demonstrate proof of insurance.
Payment (Labor and Material) Bond ( <a href="#">pdf</a> )	The solicitation requires the awarded vendor to post a Payment (Labor and Material) bond.
Performance Bond ( <a href="#">pdf</a> )	The solicitation requires the awarded vendor to post a Performance bond.
Local Business Enterprise Program Application ( <a href="#">Contract Monitoring Division</a> )	You desire to participate in the City's Local Business Enterprise Program which helps certain financially disadvantaged businesses increase their ability to compete effectively for City contracts

For further guidance, refer to the City's supplier training videos that are located online at: <https://sfcitypartner.sfgov.org/> .

## Appendix C

### **Sample Agreement for Professional Services and Software as a Service Services (Form P-600/P-648)**

*Appendix C* is a separate file to be downloaded from the online posting for this RFP on the San Francisco City Partner website.

You may access the website at the following link:

<https://sfcitypartner.sfgov.org/pages/index.aspx>

## Appendix D

### Attestation of Compliance

*To be completed by all Proposing Firms and All Individual Subcontractors*

(Please check each box, sign this form and submit it with your response.)

Name of individual completing this form: \_\_\_\_\_

The form is submitted on behalf of firm: \_\_\_\_\_

Name of RFP: **SFMTA-2020-46**

1. I attest that I and all members of the firm listed above will and have complied to date with Section VI.J of the above RFP.  Yes
  
2. I understand that if my firm or any members of the firm listed above are found to be in violation of Section VI.J of the above RFP, this will disqualify my firm and any Proposal in which my firm is named from further consideration.  Yes

I have entered required responses to the above questions to the best of my knowledge and belief.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix E

*To be completed by all Proposing Firms and All Individual Subcontractors*

### Certification Regarding Debarment, Suspension, and Other Responsibility Matters

By signing and submitting its Proposal, the Proposer or proposed subcontractor certifies as follows:

- (1) \_\_\_\_\_  
(Proposer or Proposed Subcontractor Business Name)
- certifies to the best of its knowledge and belief that it and its principals:
- a. Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from contracting with any federal, state or local governmental department or agency;
  - b. Have not within a three-year period preceding the date of this Proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) contract; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (1)b of this certification; and
  - d. Have not within a three-year period preceding the date of this Proposal had one or more public contracts (federal, state, or local) terminated for cause or default.
- (2) Where the firm executing this RFP Appendix E is unable to certify to any of the statements in this certification, such firm shall attach a detailed explanation of facts that prevent such certification.
- (3) The certification in this clause is a material representation on fact relied upon by the San Francisco Municipal Transportation Agency (SFMTA).

As the authorized certifying official, I certify that the above-specified certifications are true.

\_\_\_\_\_  
Business Name

\_\_\_\_\_  
Authorized Representative Name (print)

\_\_\_\_\_  
Authorized Representative Title (print)

\_\_\_\_\_  
Authorized Representative Signature

\_\_\_\_\_  
Date

## Appendix F

*To be completed by all Proposing Firms and All Individual Subcontractors*

### **Certification Regarding Lobbying**

---

(Proposer or Proposed Subcontractor Business Name)

Certifies that it will not and has not paid any person or organization for influencing or attempting to influence a member of the San Francisco Municipal Transportation Agency (SFMTA) Board of Directors, or an officer or employee of the SFMTA in connection with the contract to be awarded pursuant to this Request for Proposals (RFP), except as expressly authorized in this RFP. The Proposer or proposed subcontractor submitting this certification shall also disclose the name of any lobbyist registered under Article II of the San Francisco Campaign and Governmental Conduct Code who has made lobbying contacts on its behalf with respect to the contract to be awarded pursuant to this RFP.

This certification is a material representation of fact upon which reliance was placed for the purposes of the SFMTA's evaluation of Proposals and award of a contract pursuant to the RFP. Submission of this certification is a prerequisite for submitting a Proposal responsive to the RFP.

Following submission of Proposals with this signed certification, any firm who 1) pays any person or organization for influencing or attempting to influence a member of the SFMTA Board of Directors, or an officer or employee of the SFMTA in connection with the contract to be awarded pursuant to this RFP, except as expressly authorized in the RFP, 2) fails to disclose the name of any lobbyist registered under Article II of the San Francisco Campaign and Governmental Conduct Code who has made lobbying contacts on its behalf with respect to the contract to be awarded pursuant to this RFP, or 3) pays or agrees to pay to any SFMTA employee or official or to any member of the selection panel or other person involved in the making of the contract on behalf of the SFMTA any fee or commission, or any other thing of value contingent on the award of a contract, will disqualify any Proposal in which that firm is named as a prime contractor, joint venture partner or subcontractor from the selection process.

By signing and submitting its Proposal, the Proposer or proposed subcontractor also certifies to the SFMTA that the Proposer or proposed subcontractor has not paid, nor agreed to pay, and will not pay or agree to pay, any fee or commission, or any other thing of value contingent on the award of a contract to any SFMTA employee or official or to any member of the selection panel or other person involved in the making of the contract on behalf of the SFMTA. As the authorized certifying official, I certify that the above-specified certifications are true.

---

Business Name

---

Authorized Representative Name (print)

---

Authorized Representative Title (print)

---

Authorized Representative Signature

---

Date

## **Appendix G**

*To be completed by all Proposing Firms and Submitted as a Separate Electronic File;  
Do Not Include the Fee or Cost Proposal in Your Main Proposal Document File*

### **Cost Proposal**

*Appendix G* is a separate file to be downloaded from the online posting for this RFP on the San Francisco City Partner website.

You may access the website at the following link:

<https://sfcitypartner.sfgov.org/pages/index.aspx>

## Appendix H

### Statement of Work

### Single- and Multi-Space Parking Meter Hardware and Associated Management Systems

*Appendix H* is a separate file to be downloaded from the online posting for this RFP on the San Francisco City Partner website.

You may access the website at the following link:

<https://sfcitypartner.sfgov.org/pages/index.aspx>



## Appendix I

### Liquidated Damages and Credit Assessments

*Appendix I* is a separate file to be downloaded from the online posting for this RFP on the San Francisco City Partner website.

You may access the website at the following link:

<https://sfcitypartner.sfgov.org/pages/index.aspx>

## Appendix H

### Statement of Work

# Single and Multi-Space Parking Meter Hardware and Associated Management Systems

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TERMS AND ABBREVIATIONS

The following definitions apply to the Statement of Work. Where a word or phrase is capitalized but not defined below, it shall have the meaning set forth in the Sample Agreement, Appendix C:

Term or Acronym	Definition
Acceptance or Accepted	The formal written acceptance by the City that all work, or a specific portion thereof, under the Contract has been satisfactorily completed, in accordance with the Acceptance criteria set out in Attachment 06. Accepted refers to work after Acceptance.
Active	Refers to the state when a payment is in progress.
Application Programming Interface or API	A set of subroutine definitions, communication protocols, and tools for programming software and firmware to operate Parking Meter software. In general terms, it is a set of clearly defined methods of communication among various Parking Meter system components (e.g. SFMTA data warehouse, MMS, enforcement handheld, PBP application, VMS).
Backend Settings	Set of variables that affect Meter hardware behavior, such as minimum credit card charge, grace period, backlight, payment increments and LED settings.
Behavior	Meter hardware policies as perceived by the end user (e.g., start/end times, Time Limits, rates, pre-pay, cap color).

Term or Acronym	Definition
Cap Color/Space Type	<p>A color designation of the Meter hardware housing that signifies Meter Behavior. Cap Color may be physical (e.g. Meter housing is painted Yellow or Red) or virtual (e.g. Alternative Grey, which means Yellow Cap or Red Cap commercial Meter assumes characteristics of Grey Cap or general Metered parking). Detailed descriptions of the Cap Colors are listed below:</p> <ul style="list-style-type: none"> <li>Black – Motorcycle parking</li> <li>Blue – Disabled person parking (currently unmetered)</li> <li>Brown – Tour bus loading zone (Metered)</li> <li>Green – Short term general Metered parking</li> <li>Grey – General Metered parking</li> <li>Orange – Shuttle bus stop</li> <li>Purple – Boat trailer parking (Metered)</li> <li>Red – Six wheeled truck loading zone</li> <li>White – Passenger loading zone</li> <li>Yellow – Commercial loading zone</li> </ul>
City	<p>“City” or “the City” means the City and County of San Francisco, a municipal corporation, acting by and through its Municipal Transportation Agency.</p>
Configuration	<p>Set of Behaviors that make up the Meter Behavior for a standard week period.</p>
Contactless	<p>Describes type of payment made by a Customer with a smart card that uses radio signals to provide a wireless connection to a card reader, so that no physical contact is necessary.</p>
Contractor	<p>The firm awarded the contract.</p>
Customer	<p>Person who uses a Meter on the street for the purpose of paying for parking.</p>
Data Warehouse	<p>One of two database and reporting systems hosted and managed by SFMTA.</p>
Day	<p>One calendar day.</p>
Descriptive Variables	<p>Variables that describe attributes of Metered spaces but do not affect Meter Behavior (e.g., area, street, latitude, longitude).</p>

Term or Acronym	Definition
Effective Date	The date of certification of the contract, as evidenced by a Notice To Proceed issued from the SFMTA to the Contractor.
Europay, Mastercard, and Visa (EMV)	A standard developed and managed by American Express, Discover, JCB, Mastercard, UnionPay, and Visa — is a global standard for credit cards that uses computer chips to authenticate (and secure) chip-card transactions.
General Metered Parking (GMP)	Refers to locations where Parking Meter hardware are in effect for parking for all types of vehicles.
Hold and Send	Credit Card protocol where transactions are stored in Meter hardware's memory instead of submitted in real-time.
Hotlist	A listing of credit card and/or smart card numbers that are not valid forms of payment as a result of fraud, theft or other misuse.
Idle	Refers to the status of the Meter when no payment is in progress. Screen displays static information messages until a payment is started, at which time the Meter switches to Active.
Industry Standards	An established norm or requirement regarding the technical systems aspects of Parking Meter hardware or software.
Level I Support	First level of IT support - Contractor receives a Customer call and attempts to resolve the issue reported through immediately available options; usually involves direct interaction with the Customer.
Level II Support	Mid-level IT support - Contractor attempts to recreate the issue in a separate environment to determine how to resolve it. Examples of common fixes done by second level support are configuration changes, data backload, data correction, application restart.
Level III Support	High-level IT support - Contractor applies software code changes and participates in actual software code deployment in order to resolve an issue not resolved in earlier levels of support.
Merchant of Record (MOR)	The Merchant of Record is an entity that is authorized and held liable by the financial institution to process the end consumer's credit and debit card transactions.



Term or Acronym	Definition
Meter or Parking Meter	Single or multi-space device used to manage on-street parking space and allow Customers to pay for parking space usage.
Meter Mechanism	Single-space Meter device consisting primarily of: Motherboard/ CPU, display, modem, coin chute, card reader, solar panel, power unit, NFC reader and keypad.
Meter Operation, Operating Hours, Enforcement Hours	Days and times when payment is required for use of parking spaces.
Meter Shop	SFMTA's Parking Meter maintenance and administration facility located in San Francisco.
Meter Management System (MMS)	A package of software applications consisting of a relational database, user interface, reporting applications, Meter hardware backend settings, display and Behavior programming modules.
Metered Space	A parking space managed by single or multi-space Meter hardware.
Mixed Payment Transaction	A transaction where a Customer uses more than one payment type (e.g., coin and credit card) to pay for a single parking session.
Motherboard, CPU or Board	A printed circuit board containing the principal components of a computer or other device, with connectors into which other circuit boards can be slotted.
MS ID	Multi-space Meter hardware identification number.
Near Field Communication (NFC)	The ability to pay for use of the Parking Meter with a smartphone or certain smart cards by bringing them into proximity with the Meter.
Notice to Proceed (NTP)	Written notification provided by the SFMTA to the Contractor after contract approval and availability of funding that indicates when services under the Agreement should begin.
Operating Schedule/Hours	Set of rules that govern the overall hours that the Meter is in effect and may include TOW, prepayment settings, and Time Limits.

Term or Acronym	Definition
Parking Space ID	Unique permanent identifier assigned to a Metered space when it is added to the Parking Space Inventory.
Pay by License Plate (PbLP)	Meter hardware that is set to work in “pay by license plate” mode.
Pay-by-Phone (PBP)	Mobile application software that allows a Customer to make a Parking Meter payment through their smartphone.
Payment Window	Time period that begins when the Customer initiates a payment at the Meter and ends when the Meter registers the payment as completed and transmits the transaction to the MMS.
Parking Control Officer (PCO)	Employee of the City and County of San Francisco to enforce parking regulations.
Parking Meter District (PMD)	Geographic areas designated for Metered parking as defined by SFMTA.
Parking Meter Repairer (PMR)	Employee of the City and County of San Francisco to provide Meter maintenance.
Parking Space Inventory (PSI)	The complete listing of parking spaces that are or have been Metered spaces in SFMTA’s Data Warehouse, including all attributes of the Metered spaces except for variables that govern Meter Behavior
Plug and Play (PnP) Device	A device with a specification that facilitates the discovery of a hardware component in a system without the need for physical device configuration or User intervention to resolve resource conflicts.
Port	Port of San Francisco
Post ID	Unique number that identifies the location of a Metered space by street, block number and side of the street.
Prepay Time; Prepayment Time	Time of day before the beginning of Operating Hours when Customer can pay for time that commences at the beginning of Operating Hours.
Price Schedule	Set of rules that govern Meter rates.

Term or Acronym	Definition
Proposer	Firm submitting a proposal in response to RFP.
Rate Bucket	Specific hourly rate shown in dollars/hour for specified hours of the day.
Rec and Park	San Francisco Recreation and Parks Department
Regulatory Requirements	Federal, state or local rules and regulations governing design and operation of the Meter hardware.
Return Merchandise Authorization (RMA)	The process by which defective parts are returned and replaced.
Screen	Display on the Meter that shows dynamic messages programmed remotely.
Secure File Transfer Protocol (SFTP) Site	Site that facilitates data access and data transfer over a secure data stream.
Service Level Agreement (SLA)	Requirements for Meter functionality and Contractor support.
SFMTA or Agency	The agency of City with jurisdiction over surface transportation in San Francisco, as provided under Article VIIIA of the City's Charter.
SFMTA Parking Card	Prepaid cards sold by SFMTA that can be used with Parking Meter hardware only.
Special Event (SE) Rates	Rates charged by the SFMTA during certain specified times to correspond with expected high parking demand.
Standard Variables	Meter programming and reporting variables typically included in the MMS, such as physical locators: area, street, latitude, longitude and Behavior.
Terminal	Meter hardware Serial Number.
Time Limit, Max Time	Maximum amount of time allowed to park during Operating Hours.

Term or Acronym	Definition
Time Slot	A period within a day (12 AM to 11:59:59 PM) defined by a START time and an END time and assigned a set of rules that govern the Meter Behavior within those hours.
TOW	Refers to a time slot that a vehicle may be towed for violation of parking regulations.
Vandalism	Shall mean any willful damage caused to the Meter, which affects the appearance and/or operation of the Meter or interferes with the normal use of the Meter.
Variable Message Signage (VMS)	Electronic billboards that provide the public with information related to parking and other traffic-related events (e.g. number of available parking spaces in off street garage).
User	Person who is authorized to access the MMS (e.g., SFMTA Meter Shop staff).
User-Defined Variables	Variables defined and supplied by SFMTA that are not typically included in the MMS; primarily used to filter and sort Metered spaces in ways that are useful to SFMTA only and do not affect Meter Behavior.

## SECTION I: ADMINISTRATIVE

The Contractor must provide the following with regard to administrative services. The equipment capabilities and supporting software that the Contractor delivers upon execution of the contract shall match the Meter hardware and software specifications submitted in the Contractor's submitted proposal. This administrative section contains requirements for both single and multi-space Meter hardware.

### 1. Training

The Contractor shall:

- a. Provide all training in San Francisco, California at a location to be determined by the SFMTA. The training shall be provided at no cost to SFMTA.
- b. Prior to Meter deployment, provide training for all areas necessary to deploy, maintain, operate, and enforce Parking Meter hardware to be supplied under the Agreement.

- c. Prior to Meter deployment, provide up to 120 hours of training covering maintenance, finance, accounting, audit, enforcement, and MMS usage, as scheduled by SFMTA. In addition, at SFMTA's sole discretion, the Contractor shall provide one additional week (40 hours) of training, as scheduled by SFMTA at the later time.
- d. Provide follow-up training throughout the period of installation.
- e. Train and certify SFMTA and its designee as Level II Support Technician to support the Meter warranty (minimum five persons shall be certified).
- f. Provide an ongoing training classes for SFMTA staff on an annual basis for the duration of the Agreement. The training duration of each class shall be no less than 32 hours. Training topics shall be discussed and agreed to by the SFMTA at least two weeks prior to every class.
- g. Supply one hard copy to SFMTA and keep digital copies of all operating, training and repair manuals. Such manuals should be made a part of the Contractor's on-line management system.
- h. Provide online help tools, such as access to all product manuals, technical bulletins, frequently asked questions, as well as the ability to submit help tickets, and track the status of such tickets.
- i. Grant to the SFMTA rights to reproduce all training and operation manuals needed for its staff and subcontractors.

## 2. Customer Support

The Contractor shall provide:

- a. One Project Manager and one Field Technician (Level III Support certified) that are 100% allocated to SFMTA during the installation and commissioning phase (i.e. physically located at Contractor's site in Bay Area), 60% for six months following hardware Acceptance and 40% for the remainder of the Agreement (including any extension periods).
- b. A warehouse/office in San Francisco, Daly City, South San Francisco or Brisbane during installation period and an office in California for the term of the Agreement. Such warehouse/office location shall be approved by SFMTA and is to be used for installation, warranty repairs and general support of Meter hardware and software.
- c. Level I telephone and web-based help desk from 7am – 5pm PST.
- d. Level II and III support during Meter Operation Hours. Such requests shall be returned within 15 minutes.
- e. Senior technical contact (i.e. Director of Engineering and CTO) information should an emergency arise (e.g. Meters display "Free Parking" on regular working day). This service should apply during Meter Operation Hours. Such calls shall be returned within 15 minutes.
- f. Video-based training and a help video library that can be accessed at any time through the MMS and vendors' website.
- g. Technical support staff shall return a call from the SFMTA within 15 minutes during Meter Operating Hours. Calls requiring a response from a senior member of the Contractor's staff shall be returned within 30 minutes during the Meter Operating Hours.
- h. The City reserves the right to change the Meter Operation Hours.

### 3. Warranty Hardware Repair Services

- a. The Contractor shall provide a Meter hardware warranty for a period of five years from the date of Acceptance of all Meter hardware.
- b. The Contractor shall guarantee that all components of the Meter hardware shall be able to work without defects, notwithstanding Vandalism, during the five-year warranty period.
- c. SFMTA will consider failures and malfunctions qualified under warranty to be excessive in case where any one component's rate of failure exceeds 10% of the Accepted inventory, or two or more components combined rate of failure exceeds 15% of the Accepted inventory. Performance would be measured for any consecutive 180-Day period.
- d. Should the rate of the failures and malfunctions qualified under warranty coverage exceed the thresholds above, the Agency may elect to recover its labor costs to replace failing or malfunctioning components through credit assessments described in Appendix I of the RFP.
- e. The warranty period on each phased deployment of Meter hardware shall commence when the entire phase is Accepted in writing by SFMTA. SFMTA and Contractor shall establish a deployment schedule during contract negotiations.
- f. The Contractor shall provide a warranty that it conveys good title to the Meter hardware purchased by the City and that at the time of any such sale, the hardware shall be free and clear from all liens and encumbrances.
- g. The Contractor shall pay for warranty shipments from the Meter Shop to the Contractor's warranty handling facility and back to the Meter Shop.
- h. The Contractor shall supply and maintain an adequate inventory of replacement components (e.g., card readers, coin validators, CPU boards, batteries, keypads) to support San Francisco's RMA process during the entire term of the Agreement.
- i. The Contract shall guarantee that Meter hardware can operate within a temperature range of 0 to 140 degrees Fahrenheit and under environmental

- conditions found in San Francisco, including but not limited to wind-blown grime, rain, fog, salt air, sun (including direct sunlight), and vibrations.
- j. The Contractor shall provide warranty coverage that include repair and/or replacement of any part or modular component determined to be defective in material or workmanship under normal use and service, at no additional cost to the City.
  - k. The Contractor shall notify the Meter Shop of substitution of parts during warranty repairs.
  - l. The Contractor shall return warranty repair and/or replacement to the Meter Shop no later than 45 Days from receipt by The Contractor's warehouse/repair facility.
  - m. The Contractor shall guarantee that within the term of the Agreement, when more than one warranty is applicable for a replacement part, the later warranty expiration date shall apply. For example: if a CPU is replaced under warranty six months before the end of the general warranty's five-year term, but the CPU warranty is 12 months, then the warranty period for that replacement CPU shall be 12 months.
  - n. The Contractor shall guarantee that all replacement parts shall meet or exceed the quality of the original parts. All replacements parts shall be approved by SFMTA.



#### 4. Non-Warranty Hardware Repair Services

- a. The Contractor shall provide a set fee for non-warranty repairs. This includes parts, labor and shipping but does not include taxes or batteries. Contractor reserves the right to adjust this flat fee once at the beginning of each calendar year based on materials and labor costs from a previous year. Use Appendix G – Cost Proposal.
  
- b. The Contractor shall return all non-warranty repairs to San Francisco Meter Shop no later than 45 Days from receipt in Contractor’s warehouse/repair facility.

## 5. MMS Support and Licensing

The Contractor shall:

- a. Provide a hosted MMS, and maintain all required licensing for the MMS, for as long as the Meter hardware is in use by the City. Communication Fees and Meter Management System Fees for the MMS shall be included in the MMS fee in "Appendix G – Cost Proposal".
- b. Agree to negotiate in good faith an extension of MMS licensing, communication and other Meter hardware related services to the City beyond terms in the Agreement for as long as Meter hardware is in use by the City as the Meter hardware life span may exceed the term of the Agreement. If the SFMTA seeks such extension of terms, Contractor shall negotiate in good faith at the end of the contract term.
- c. Provide MMS service uptime level guarantee of no less than 99.985%. Refer also to Appendix B of the Sample Agreement.
- d. Provide an MMS that only requires an internet browser to access the system. At the minimum, Microsoft Edge, Firefox, Safari and Chrome browsers shall be supported.
- e. Be responsible to upgrade or otherwise modify the MMS to accommodate future internet browser upgrades at no cost to the City.
- f. Provide an MMS with both desktop and mobile versions. Both versions shall have the same performance parameters and behave identically.
- g. Provide separate MMS accounts for three current City departments: SFMTA, Port and Rec & Park.
- h. The SFMTA reserves the right to request that additional City departments be added to the MMS at no additional cost to the City.

## 6. Installation

The Contractor shall:

- a. Deliver Meter hardware to the SFMTA's Meter Shop or its designee as a complete assembly, including all parts and materials needed for immediate deployment.
- b. Provide a staging area for phased deployment using a warehouse facility in San Francisco, Daly City, South San Francisco or Brisbane, as approved by SFMTA.
- c. Support all aspects of the installation process, including, but not limited to, challenges with high security maintenance and coin vault locks.
- d. Configure Meter hardware to connect to the network and be fully operational at the time the SFMTA takes possession of the hardware.
- e. Create electronic inventory records for installed Meters, including but not limited to delivery dates, install dates, warranty commencement and expiration, and post installation location codes and coordinates (Latitude/Longitude).
- f. Provide and apply all applicable Meter hardware decals at no cost to the City. Decal designs must have SFMTA's approval prior to application on Meter hardware.
- g. Provide a surface mounting plate, anchor bolts and other required installation materials for all multi-space Meter hardware.

## 7. Certification and Compliance

The Contractor shall:

- a. Obtain prior to award of the Contract, renew as appropriate, and maintain throughout the Contract term, the certifications listed below with respect to the Meter hardware and related applications and functionality provided under this Agreement.
- b. Provide a copy of all renewed compliance certificates or other documentation of the renewals no later than 30 Days past the expiration of the current compliance certificate.
- c. Provide documents regarding certification within two business days of a request from the SFMTA at any time during the term of the Agreement.
- d. Provide all required FCC Certifications.
- e. Provide a valid Payment Card Industry Security Standards (PCI-DSS) Certification.
- f. Ensure that the Contractor's credit card gateway maintains appropriate PCI DSS certification as a Level 1 Service Provider.
- g. Comply with the Visa Cardholder Information Security Program (CISP) and MasterCard Site Data Protection (SDP) programs.
- h. Provide a valid PA-DSS Certification for the Meter system payment application, consisting of the Payment Application Data Security Standard (PA-DSS), validated by a Payment Application Qualified Security Assessor (PA-QSA), and verified on PCI SSC's list of PA-DSS validated payment applications. Refer to Section 20.4 in the Draft Agreement, Appendix C.
- i. Contractor's payment software submitted for PA-DSS validation shall incorporate:
  - i. Contactless Payment
  - ii. Remote connections capability such as Short Messaging Service (SMS)
- j. Provide valid EMV Level 1 and Level 2 certifications.
- k. Achieve compliance at its own expense, with any and all certifications for Regulatory Requirements and Industry Standards that impact the Agreement as new requirements are established and notify the SFMTA in writing of these new

- requirements when they are in effect. Should the SFMTA be notified of new requirements, the SFMTA will inform the Contractor and request that the Contractor verify compliance with the identified requirements.
- I. If, during the term of the Agreement, Contractor is required to obtain any such new certifications, inform the SFMTA in writing of the timeline for compliance and any potential impact to services pending compliance, and obtain the new required certifications as soon as possible, at Contractor's own expense.
  - m. Provide parts for Meter hardware upgrades caused by new certification. The costs for new hardware shall be passed to the City without any markup from the Contractor.

## 8. Parking Hardware Disposal

The Contractor shall:

- a. Dispose of all old Meter hardware in compliance with applicable state or local environmental equipment disposal regulations.
- b. Dispose of all old batteries in compliance with applicable state environmental equipment disposal regulations during the term of the Agreement.
- c. Remit all the proceeds from recycling to the SFMTA after the disposal process is complete.
- d. Submit evidence of successful disposal and invoices for any recycling fees and actual labor and transportation costs incurred as part of the disposal process.

## 9. Revenue Processing

The Contractor shall:

- a. Ensure that credit card processing is performed by a merchant institution/acquiring bank specified by SFMTA (currently CityBase).
- b. Offer credit card processing rates as part of its solution (e.g. a Contractor or its subcontractor becomes an MOR for all meter transactions on behalf of the Agency). Please use Appendix G, Part 2 – Merchant Processing.
- c. Make deposits only into accounts authorized by SFMTA.
- d. Provide credit card gateway services for routing credit card transactions to the specified merchant processor.
- e. Be able to utilize different merchant ids (MID) for Meter hardware used by different City departments (currently SFMTA and Port).
- f. Be able to serve as MOR on City's behalf, the funds shall be settled into Agency's bank account in no later than four Days after the transaction.
- g. As MOR on City's behalf, deposit gross revenue receipts into Agency's bank account.
- h. As MOR on City's behalf, provide merchant billing on a monthly basis for the previous month's fees.
- i. Accommodate additional City departments during the term of the Agreement at no cost to the City.
- j. The SFMTA reserves the right to change the existing gateway provider to a City-preferred gateway at any time during the term of the contract. The SFMTA and the Contractor shall negotiate costs and charges associated with the change.
- k. The SFMTA reserves the right to change the credit card processing entity during the term of the Agreement. The Contractor shall complete such changes in good faith and at no cost to the City.

## 10. Consultant Services

- a. The Contractor shall be able to provide parking related consultant services (itself or through a sub-contract agreement) in accordance with rates published in Appendix G, Part 2 – Calculation of Costs. Scope and duration of the consultant services shall be mutually agreed by both parties prior to commencement of work. The following services shall be provided:
  - i. Junior Developer
  - ii. Senior Developer
  - iii. Project Manager
  - iv. Junior Analyst
  - v. Senior Analyst
  - vi. Support Technician
  - vii. Survey Technician
  
- b. Optional Services: The SFMTA may, at its sole discretion, exercise the option to request parking-related consulting services not required by other provisions of the Contract. Such services may include but are not limited to: analytical support for developing pricing strategies based on the best practices employed worldwide, technical support to maintain and upgrade parking rate change engine and related business intelligence systems, Meter planning, inventory control, payment card development options and Meter maintenance and repair operations at the rates established in Appendix G, Part 2, Calculation of Costs.



## 11. Website for Parking Receipts

- a. The Contractor shall develop a user-facing website that would allow a credit card user to print a receipt of his or her transaction at home using any of the options listed below. The website shall use open architecture design to allow for integration with additional data sources.
  - i. Contractor shall develop and host for duration of the Agreement the website whereby a Customer would enter only the following pieces of information:
    1. Date of the transaction.
    2. Last four digits of the credit card number.
  - ii. The Contractor shall provide an ability to receive a parking receipt via text message.
- b. Prior to development, the Contractor shall provide a timeline for whichever option SFMTA exercises.
- c. Hosting, maintenance and overall administration of the website shall be the responsibility of the Contractor for the term of Agreement.
- d. Should the Contractor be unable to develop the website, the Contractor agrees to obtain a subcontractor to perform the development, hosting and maintenance as outlined above at no cost to SFMTA.

## SECTION IIA: METER HARDWARE – SINGLE-SPACE

The Contractor must provide the following with regard to single space Meter hardware. The equipment capabilities and supporting software that the Contractor delivers upon execution of the contract shall match the Meter hardware and software specifications submitted in the Contractor's submitted proposal. This section contains requirements for single-space Meter hardware. *Note: Proposers should only respond to this section if proposing on Single-Space devices.*

### 1. General

The Contractor shall:

- a. Provide a Meter hardware that is new and unused.
- b. Provide Meter hardware that complies with all applicable Americans with Disabilities Act regulations.
- c. Meter hardware with a warranty for a period of five years from the date of Acceptance.
- d. Guarantee that all components of the Meter hardware will work without defects, notwithstanding Vandalism, during agreed warranty period (e.g. five years).
- e. SFMTA will consider failures and malfunctions qualified under the warranty to be excessive in case where any one component's rate of failure exceeds 10% of the Accepted inventory, or two or more components combined rate of failure exceeds 15% of the Accepted inventory. Performance would be measured for any consecutive 180-Day period.
- f. Should the rate of the failures and malfunctions qualified under warranty coverage exceed the thresholds above, the Agency may elect to recover its labor costs and material costs to replace failing or malfunctioning components through credit assessments described in Appendix I of the RFP.
- g. Provide a Meter hardware with modular design and PnP components that can be exchanged in a matter of minutes.
- h. Provide a Meter hardware with all electronic components, connections, CPU and wiring shall be fully weatherproofed for the duration of the Agreement.
- i. Provide Meter hardware with built-in diagnostic software that date- and time-stamps all maintenance events, including the duration of the fault, for retrieval and analysis either in the field or remotely; all data shall be integrated with the MMS supplied under this Agreement.

- j. Provide Meters hardware with "out of order" function. The out of order event shall be accurately recorded with timestamp. This information shall be automatically sent wirelessly to the MMS (if power and communications are still available) and shall also be available for manual collection by maintenance personnel (via mobile MMS and/or handheld) or another manual interface at the Meter.
- k. Provide a Meter hardware or the MMS that accurately record date, time and duration of the out of order event for the following two conditions as defined by SFMTA:
  - i. From "needs repairs" to "back in service".
  - ii. From "out of order" to "back in service".
- l. Provide Meter hardware that allow for adding time to an existing parking session.
- m. Provide Meter hardware that allow a Customer to purchase a maximum time for a selected space by pressing one button.
- n. The following payment methods must be accepted:
  - i. Credit Card (Visa, MasterCard, AMEX, and Discover)
  - ii. Contactless payment
  - iii. Coins (\$0.05, \$0.10, \$0.25 and \$1.00)
  - iv. Smart card (SFMTA proprietary card schema)
- o. Optional Services: SFMTA may, at its sole discretion, introduce other payment methods (e.g. additional credit cards smart card, Google Maps, regional mobility app). If the SFMTA elects to introduce additional payment methods, the parties shall negotiate in good faith on a time and material basis all the costs associated with the payment channel additions in accordance with the consultant rates established in Appendix G, Part 2.
- p. Optional Services: Should SFMTA request development of a new payment method, the Contractor shall allocate appropriate administrative and technical resources within 30 Days of the request. The Contractor and the SFMTA must agree upon the scope of such requested enhancements before NTP is issued. The delivery schedule for requested enhancements shall not exceed twelve calendar months from NTP unless an extension is authorized by SFMTA.
- q. Provide Meter hardware that accept all available types of payment when adding time to an existing session.

- 
- r. Provide Meter hardware that can download and store the Hotlist from the MMS to prevent smart cards on the Hotlist from being used. This requirement applies to scheduled (daily) and on-demand (ad-hoc) requests.
  - s. Electronic keys and locks used for either top lock or vault lock shall be easily programmed via lock management system in use by SFMTA (Medeco Nexgen).
  - t. Be able to resolve performance issues with high security top and vault lock by its Level II and III personnel.
  - u. Provide single-space door assembly that include a vault door, brackets, hinges and Medeco Nexgen lock as part of its spare parts list. This door assembly shall carry the same five years warranty as Meter hardware (unless not available from the lock manufacturer, then the standard manufacturer warranty term would apply).
  - v. Meter hardware shall support three languages: English, Spanish, and simplified Chinese.
  - w. Provide Meter hardware that can be wirelessly updated (software, firmware etc.).

## 2. Meter Hardware Housing or Dome

- a. Meter hardware housing or dome shall be made from strong, tamper and Vandalism resistant material. A use of recycled materials is welcomed but not mandatory.
- b. Meter hardware housing or dome shall be able to be opened with a force equal to lifting one pound of weight for two feet.
- c. Meter hardware housing or dome shall be able to be transferred to and from the field without special equipment and not have sharp edges.
- d. Meter hardware dome shall be able to fit to any housing without adjustment.
- e. Meter hardware housing or dome shall have robust background printing, graphics and paint that can accommodate all weather conditions without fading, chipping or pilling during agreed upon general warranty period of five years.
- f. Meter hardware housing or dome shall accommodate anti fogging and moisture drainage design.
- g. Meter hardware housing or dome shall guarantee to fit the existing MKH4500 housing (top or a lower vault portion) without compromising the integrity of the Meter assembly.
- h. Meter hardware housing or dome shall guarantee weather resistant displays or screens that are not susceptible to color change or loss of opacity when exposed to the UV light and other environmental factors during agreed upon general warranty period of five years.
- i. Meter hardware housing or dome shall be designed to prevent condensation and screen clouding from the excessive moisture in the upper part of the Meter hardware.
- j. Meter hardware housing or dome shall be designed to prevent the use of credit card skimmers or other such illegal devices.
- k. Each Meter hardware housing unit or dome shall have a unique serial number of its own.
- l. Each Meter hardware housing unit or dome shall be available in different colors including but, not limited to:
  - i. Grey

- ii. Red
  - iii. Yellow
  - iv. Green
  - v. White
  - vi. Black
- m. Meter hardware shall be impact resistant and maintain its integrity during transport to and from the field. It should be able to withstand the drop from five feet height without compromising the functionality of the Meter hardware

### 3. Coin Chute

- a. Coin chute shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Coin chute shall be a PnP device.
- c. Coins passing through the coin chute shall be deposited directly into a sealed container in a separate vault area of the Meter housing.
- d. If the coin chute is inoperable, Meters shall have the option to accept card payments (e.g., credit card and smart card), Contactless and third-party payments (e.g., PBP payments).
- e. The coin chute or track shall be a free-fall type.
- f. The chute shall include anti-backup (anti-fishing) component(s) to prevent the retrieval of deposited coins (e.g., attached to strings, paddles, wires).
- g. The jam alarm shall only stay active if the cause of the jam is present in the coin chute.
- h. Coin chute shall detect both metallic and non-metallic jams.
- i. When the coin chute detects a jam, the jam shall be recorded in the maintenance log. At a minimum, the Meter should be able to detect the following objects:
  - i. bent paper clip
  - ii. bent soda can tab
  - iii. cotton
  - iv. toothpick
  - v. paper matchbook cover
  - vi. folded plastic straw
  - vii. coffee stirrer
  - viii. coin-wrapped in tape
  - ix. backed up coin
- j. Coin chute is easily cleared of foreign objects by PMR in the field without use of tools.
- k. The entrance to the coin chute shall be replaceable stainless steel to accommodate or screen out coins of various sizes.

#### 4. Coin Validation

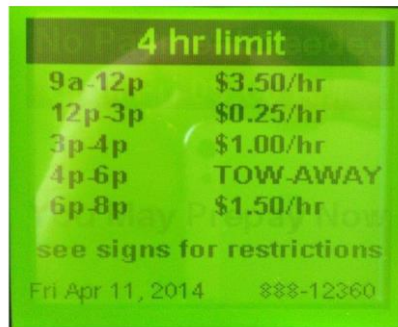
- a. Meter hardware shall provide a count of all coins by denomination or other metallic objects passing through the coin chute that match the programmed characteristics of valid coins to a level of accuracy of at least 99%, so 990 coins out of 1000 shall be recorded.
- b. The coin validation mechanism shall be programmable to accept a minimum of 16 different coins and/or tokens including U.S. nickels, dimes, quarters and dollar coins.
- c. The coin validation system shall accept all user-defined coins and tokens through software parameter changes only. Software changes shall be able to be sent to the Meter wirelessly and via a mobile MMS and/or a handheld device. SFMTA shall also have the option to manually train the Meter for this purpose.
- d. Should the U.S. Mint change the existing currency in any way the Contractor shall, at its own expense mutually agreed-upon time, update the software to accept the new coins issued as well as the old coins as soon as new coins are available to the general population. Any changes to the validation process shall be made within 14 Days.
- e. The Contractor shall be able to alter the coin table to add new coins or to improve screening of invalid coins upon the Agency's request. Any changes to the validation process shall be made within fourteen Days of the written request by SFMTA. The SFMTA will provide at least 100 samples of items that it wants to be screened out as invalid coins.
- f. The coin validator and coin chute operations shall incorporate no contact points that could be affected by grime or moisture, or a combination of the two.
- g. Meter hardware shall recognize \$0.01 coins and record them in its revenue audit files. Recording actual value is preferable; however, recording \$0.01 coins as "unrecognized or invalid" is also acceptable.



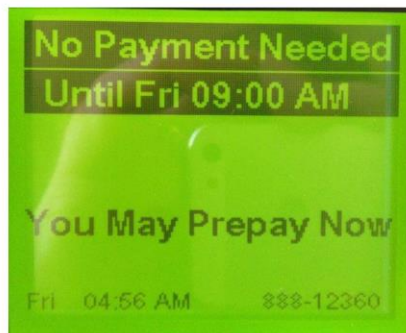
## 5. Display Technology

- a. Display shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Meter hardware shall be able to support four or more display panels.
- c. Display shall have a configurable backlight feature, as defined by SFMTA. Backlight feature shall be activated by any button press, coin deposit or other payment type (physical, Contactless and PBP).
- d. Backlight settings shall allow for "always on" option (i.e. backlight is ON during posted Operating Hours).
- e. Backlight setting should be configurable based on Meter profile and not be a general setting for all the inventory to behave a like.
- f. Display shall support configurable rate of display panel changeover. SFMTA shall be able to adjust the time interval between panel changes within MMS.
- g. Display shall be able to accommodate various conditions of displaying the information. For instance, displays should be able to show Rate Buckets that are constrained by the Meter's Operating Hours.
- h. Display shall be able to show Rate Buckets that are easy to read (e.g. adequate spacing between the lines, bold letters, larger fonts for the current time).
- i. Display shall be able to support deployment of display configuration (messaging, rates, layouts etc.) to a group of spaces determined by SFMTA.
- j. Display functionality shall support dynamic messaging based on Meter individual profile. Such messages shall be set via MMS and deployed to a group of spaces determined by SFMTA.
- k. Display shall be able to accommodate at least ten lines of text, (or more lines as space allows on display) information and spacing (see example of the current screen in subsection 5.l below).
- l. Display screens shall be able to display the following information:
  - i. Time Limit
  - ii. All Rate Buckets for each Day
  - iii. Hours of Operation
  - iv. Post ID or MS ID

- v. Date and time
- vi. User instructions (e.g. TOW Away, Free Parking, Prepay, See Signs)
- vii. Special messages (e.g. Super Bowl, Special Event Tomorrow, Go Warriors)
- viii. Additional information as needed



- m. Date, time and Post ID shall be displayed on all display panels.
- n. During Operating Hours, the screen shall display the current Time Limit and rate, and all corresponding regulations for that day.
- o. The screen shall be fully programmable to display, at a minimum, messages corresponding to the following conditions:
  - i. Condition 1: Configurable "Pre-Pay" message (e.g., "No Payment Needed Until Fri 09:00 AM", "You May Prepay Now"). See the following example:



- ii. Condition 2: Days/hours of operation, time slots, rates, regulations. Configurable "Expired" message.
- iii. Condition 3: "Paid Meter mode" with countdown of time left before Meter expires. See example below:



- iv. Condition 4: Customer inserts a card incorrectly during Operating Hours. Results: Error message specific to condition (e.g., "Card inserted incorrectly").
- v. Condition 5: Customer inserts credit card and it is declined. Results: Error message specific to condition (e.g. "Invalid card; use another card").
- vi. Condition 6: Payment with card - Customer adds/subtracts time and money using Meter inputs (e.g., +/- buttons), and confirms transaction (e.g., presses "OK" button). Results: "Please Wait" message followed by configurable "Transaction Completed" message.
- vii. Condition 7: Incomplete transaction - Customer inserts parking card causing the Meter to become Active but pulls card out before transaction is completed. Message: "Transaction Cancelled" message.
- viii. Condition 8: Card slot is inoperable. Message: "No cards; Use coin".
- ix. Condition 9: Coin slot is inoperable. Message: "No coins; Use card".
- x. Condition 10: Both coin and card slots are inoperable. Message: "Out of Order"
- xi. Condition 12: Payment is in progress: current time slot and rate, time and corresponding payment adjusting up or down as Customer adds coins or presses the +/- buttons to add/subtract time.
- xii. Condition 13: Upcoming TOW Away - adds money/time up to the beginning of TOW regulation. Message: Configurable "limit reached" message "Limit Reached; TOW After 03:00 PM".

- xiii. Condition 14: Time Limit - Customer adds money/time up to the Time Limit programmed in the Meter. Message: "Limit Reached" message (e.g., "4-hr limit reached").
  - xiv. Condition 15: Ongoing TOW Away - "TOW Away" message (e.g., TOW Away Until 03:00 PM; DO NOT PARK").
  - xv. Condition 16: Free Parking - (e.g., "No payment accepted").
  - xvi. Condition 17: Special Event Time - Meter has special programming in effect. Message: "Special Event Rate: \$7/hr", "Ongoing Special Event – TOW Away", etc.
  - xvii. Condition 18: Passenger or commercial loading zone during certain hours. Message: "No Parking – Loading Zone".
- p. A payment by an SFMTA parking card shall consist, generally, of the following steps:
- i. Customer inserts SFMTA parking card in the card slot.
  - ii. Meter reads and displays balance in the parking card.
  - iii. Customer adds/subtracts time and money.
  - iv. Customer confirms payment.
  - v. Meter writes new balance back to the SFMTA parking card while displaying configurable "please wait" message.
  - vi. Meter displays configurable "transaction completed" message and starts counting down time.

## 6. Keypad / Input Mechanism

- a. Keypad or other input mechanism shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Meter hardware shall have a mechanism for inputting information (e.g., buttons, keypad).
- c. Meter hardware shall have a mechanism that provides prompting and confirmation to the Customer as a payment is conducted at the Meter (e.g. OK button).
- d. Meter hardware shall have a mechanism that allow canceling a transaction (e.g. Cancel button).
- e. Meter hardware shall have an easy to use keypad/input mechanism.
- f. Keypad/input mechanism shall be environmentally sealed to prevent elements (e.g. moisture, grime) from affecting the performance of the hardware.
- g. Keypad/input mechanism shall be a PnP device.
- h. Keypad/input mechanism symbols/markings shall be casted, embedded or engraved (i.e. it cannot be a sticker or a label). Keypad/input mechanism symbols/markings shall not deteriorate, notwithstanding Vandalism, during five-year warranty period.

## 7. Clock

- a. Meter hardware clocks shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Meter technology shall automatically adjust internal clocks for periodic daylight savings time periodic changes and have the ability to turn auto update feature on and off thru the MMS.
- c. Meter technology clocks shall be synced each time they communicate with the MMS.
- d. Meter technology clocks shall track each day of the week.
- e. Meter technology clocks shall be able to accommodate both formats: AM/PM and 24 hours.
- f. Meter technology clocks' power source shall be different from the main power source and keep accurate time (up to seven Days) even when the main and backup batteries are discharged/removed.

## 8. Power

- a. Meter hardware shall rely on a battery augmented by solar power.
- b. Meter hardware may utilize both rechargeable and non-rechargeable batteries.
- c. Meter hardware batteries shall be warranted for at least 36 months without a need of replacement or a warehouse recharging for an 80% of Accepted inventory, under standard the SFMTA power load (see subsection 8.d below). Contractor and the SFMTA shall measure this requirement by monitoring batteries voltage and replacement histories through an MMS report.
- d. Example of standard SFMTA power load is as follows:
  - i. 4:30AM Pre-pay period
  - ii. Standard Operating Hours: 75% of the inventory 9a-10p, Monday - Saturday for most spaces, with 25% of meter inventory also working on Sundays.
  - iii. Pay-by-phone visual indication is ON during the Operating Hours.
  - iv. Real-time revenue feed (for all transactions) is ON during Pre-pay and Operating Hours (FY2019 ~ 90 transactions per month/space).
  - v. Real-time maintenance feed (for all transactions) is ON during Pre-pay and Operating Hours.
  - vi. Quarterly Rate changes.
  - vii. Occasional screen changes.
  - viii. Special event programming for all spaces (currently ~ 28,000 parking spaces).
  - ix. Backlight is ON for 10 seconds after any button press, coin deposit, card payment (physical or Contactless) during Pre-Pay period and Operating Hours.
  - x. LEDs (paid, expired, need service and out of order) are ON during Operating Hours.
- e. Meter hardware batteries shall utilize the same voltage characteristics thresholds across the Accepted inventory for ease of maintenance and voltage monitoring.
- f. Batteries shall be easily serviceable on the field so that a PMR technician can replace a battery in less than 60 seconds. Meter hardware operating system shall be up and running within three seconds of a new battery insertion.

- g. SFMTA maintenance personnel shall be able to replace batteries without the use of tools (i.e., nothing should be screwed in or otherwise constrained from removal).
- h. The SFMTA shall be able to purchase both rechargeable and non-rechargeable battery components individually.
- i. Meter hardware shall accommodate at least two battery alarms: Low and critical. The low battery alarm shall be sent to the MMS three to four weeks prior to a complete battery depletion and critical battery alarm shall be sent a week prior to complete battery depletion.
- j. Meter hardware technology shall employ all available "smart" technologies to dynamically calculate the battery usage and provide notification to PMR staff accordingly.
- k. Before battery power is fully depleted, Meter software shall recognize power challenges, communicate a critical battery alarm to the MMS, then power the mechanism down by "graceful shutdown" software functionality, which allows the operating system to perform its task of safely shutting down processes and closing connections.
- l. Meter technology shall be able to power up within 3 seconds after a bad battery is replaced (either rechargeable or non-rechargeable), without exception, for 100% of the inventory.
- m. SFMTA prefers to utilize battery products available for purchase through regular consumer channels (i.e. it should not be required to only use a battery pack of the Contractor's proprietary design).
- n. For each battery provided, the Contractor shall be responsible for identification of the battery manufacturer, production dates, expected shelf life and other applicable references.
- o. The Contractor shall provide battery recycling option to SFMTA as part of this proposal. At a minimum, quarterly pickup of bad batteries from SFMTA's Meter Shop facilities shall be scheduled.
- p. SFMTA prefers not to use the batteries that include electronic boards or other electronic components besides a wire connection to the mechanism.
- q. The Contractor shall integrate a voltage check system for rechargeable and non-rechargeable batteries into the mechanism reset sequence.



- r. The Meter shall retain all stored programming, operational, and financial audit data for a minimum period of two years, even if the Meter hardware loses power (solar and/or battery), or the battery becomes depleted or disconnected.
- s. The Contractor shall provide four battery testing units and charging stations that are capable to simultaneously charge up to 200 Meter batteries.

## 9. LED and Visual Enforcement

- a. The LED and Visual Enforcement shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Meter hardware shall be able to visually communicate (front and back) the following statuses:
  - i. Meter is OFF (no LED lights are blinking).
  - ii. Meter is ON and in Pre-Pay mode (no LED lights are blinking)
  - iii. Meter is ON and EXPIRED (e.g. the RED LED is ON during Operating Hours).
  - iv. Meter is ON and PAID (e.g. the GREEN LED is ON during Operating Hours).
  - v. Via front display, remaining parking and expiration times for PAID sessions
  - vi. Meter is ON but requires repair service (e.g. low battery, jam, no communication). (e.g. the PURPLE LED is ON during Operating Hours).
  - vii. Meter is ON but in Out of Order state (both card reader and coin chute are out of service). E.g. the YELLOW LED is ON during Operating Hours.
- c. Meter hardware shall accommodate visual indication of PBP payments during Pre-Pay and Operating Hours. This functionality shall not impact battery life and be factored into power calculations. The following SLA shall apply:
  - i. Meter shall display PBP payments within 45 seconds after payment data is received from the vendor.
  - ii. 96% of all online (i.e. normally communicating) Meters shall adhere to the standard listed in subsection (i) above during any given Day.
  - iii. The MMS shall produce a report dedicated to PBP visual indication SLAs listed in this section that provides daily, monthly and annual filters and statistics.
- d. Meter hardware LEDs shall be a PnP component.
- e. Meter hardware LEDs shall be programmable based on time of day (e.g. only start flashing at the beginning of the Operating Hours).
- f. Meter hardware LEDs shall support GREEN indication of PAID status, RED indication of EXPIRED status, YELLOW indication of OUT OF ORDER status and

OTHER indication for NEEDS SERVICE status. The SFMTA reserves the right to add additional LED colors, if available.

- g. LED visual indication shall provide clear visibility from at least 30 feet, regardless of viewing angle.

## 10. Credit Card Reader and Processing

- a. Card reader shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Card reader shall accommodate anti-skimming and anti-jamming design features.
- c. Card reader shall have EMV 1 and 2 certification levels.
- d. Card reader and Meter hardware shall support the following credit card payments (both stripe and Contactless):
  - i. Visa
  - ii. MasterCard
  - iii. Discover
  - iv. Amex
- e. Meter hardware shall be able to support SFMTA's smart card for Meter payment.
- f. Meter hardware shall have the ability to be programmed for additional credit card payment systems upon request of the SFMTA. The SFMTA and the Contractor shall negotiate in good faith all costs and charges associated with such change.
- g. Card reader shall be non-locking and permit users to remove cards without damage to the card, especially during a fault situation or power failure.
- h. If a credit card is inserted incorrectly, the card shall be easily removed by the Customer without the use of any tools.
- i. Meter hardware shall have the option to accept coin and Contactless methods of payment when the card slot or reader is inoperable.
- j. Card connector shall be rated at least 250,000 cycles of transactions.
- k. Card reader shall be a PnP device.
- l. Card reader shall be easily serviced (should a jam be detected) with minimal hand tools required.
- m. Optional Services: At SFMTA's request, the Contractor shall design alternative smart card payment options. The SFMTA and the Contractor shall negotiate a

timeline for delivery and development costs. Refer to Consultant Rates in Appendix G, Part 2.

## 11. Modem - Communications

- a. Modems shall function without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Proposer shall offer the most current modem technology available on the market at the time of the Proposal submittal (e.g. 4G LTE).
- c. Should the modem technology become obsolete during the term of the Agreement, the Contractor shall provide replacements parts in a reasonable time frame and without any markup (i.e. extra cost). The parties will negotiate timing and costs of replacing the parts in good faith, as cost of the compliant hardware will be disclosed with the City.
- d. Meter hardware shall be able to communicate 95% of revenue and maintenance data to the MMS wirelessly within 120 seconds after determining the transaction is completed.
- e. SFMTA prefers for a modem to be a PnP device that is not a part of the Meter hardware CPU or motherboard.
- f. Modems shall support secure on-line authorizations of credit cards at the time of the transaction.
- g. Meter hardware technology shall initiate communication with the MMS at least every 12 hours regardless of the occurrence of transactions or faults.
- h. Meter hardware technology shall support two types of modem: GPRS and CDMA.
- i. Meter hardware technology shall support various modem states (e.g. active, stand-by, dormant).
- j. Contractor, at its own expense, shall conduct pre-installation surveys using both Meter hardware equipment and handheld multi-carrier, single-strength testers (e.g. Squid testers <https://www.bvsystems.com/product/squid-3g4g-bundle/>) to highlight any potential problem areas and address with carriers in advance of the deployment. Such surveys shall be conducted at the middle of each block to provide representative data. If any trouble spots are found, Contractor shall have the ability to bring the carrier in for additional surveys and the Contractor shall offer a remediation solution.



## 12. Maintenance

- a. Meter hardware shall be maintained and serviced for all the major components (e.g. coin chute, card reader, modem, Contactless reader, battery, CPU/motherboard) designed as PnP devices.
- b. Meter hardware shall be designed so that metallic and non-metallic foreign objects can be cleared from the coin chute within 60 seconds or less, under any weather conditions, without the need for special tools.
- c. Meter hardware shall be designed so that metallic and non-metallic foreign objects can be cleared from the card reader slot in less than three minutes, under all weather conditions, without the need for special tools.
- d. Meter hardware shall return to full functionality immediately upon replacing any major component (e.g. coin chute or track and/or and card reader). No special tools shall be required for replacement of these items.
- e. Meter hardware shall feature onboard diagnostics that include a full on-screen menu that shows the status of various hardware and software components. (e.g. battery voltage, solar power measurements, cellular signal strength, electronic error codes, firmware versions, last communication, rate profile).
- f. Meter hardware shall allow for SFMTA's Meter shop staff to add incremental time without having the payment register as revenue in the audit information (e.g., if a Customer's payment must be deleted during maintenance). This usage shall be logged as a distinct payment type (e.g., instead of the payment being labeled "cash" or "credit", it shall be labeled "Tech Credit"). The value of the payment shall be logged as \$0.00.
- g. Meter hardware shall allow for SFMTA's Meter shop staff to add MAX time without having the payment register as revenue in the audit information (e.g., if a Customer's payment must be deleted during maintenance). This usage shall be logged as a distinct payment type (e.g., instead of the payment being labeled "cash" or "credit", it shall be labeled "Tech Credit"). The value of the payment shall be logged as \$0.00.
- h. Meter hardware shall have a feature that allows maintenance staff to add a full Day's time (up to the end of the Operating Hours) to the mechanism without adding coin or card payments. (e.g., when a new Metered space is established in a previously unmetered area).
- i. Meter hardware shall have the ability to temporarily disable the recording of cash and card (credit and smartcard) totals to allow audit data test purchases by coin or card without being recorded in the payment audit data. After this



- feature is invoked, the recording of any coins/cards shall be immediately disabled to allow for testing.
- i. The test coins/cards shall not register until there has been no activity for a set period provided by the SFMTA (this shall be configurable via MMS), after which time the registering of payments is enabled automatically.
  - ii. Once testing is completed, Meter technology shall automatically revert to its normal operation without further intervention or specific commands.
- j. Meter hardware shall allow for an automated recognition of Post ID (e.g. when PMR switches the hardware, it automatically recognizes the Post ID, immediately connects to the MMS and receives appropriate policy details).
- k. Meter hardware shall allow PMR to credit a space while in maintenance mode. Such credit shall be able to be extended to cover all Operating Hours.

## SECTION IIB: METER HARDWARE – MULTI-SPACE

The Contractor must provide the following with regard to multi-space Meter hardware. The equipment capabilities and supporting software that the Contractor delivers upon execution of the contract shall match the Meter hardware and software specifications submitted in the Contractor's submitted proposal. This section contains requirements for a multi-space Meter hardware. Note: Proposers should only respond to this section if proposing on Multi-Space devices.

### 1. General

The Contractor shall:

- a. Provide new and unused Meter hardware.
- b. Provide fully ADA compliant Meter hardware.
- c. Provide Meter hardware that is warranted to operate without any defects for a period of five years from the date of Acceptance.
- d. Guarantee that all components of the Meter hardware are able to work without defects, notwithstanding Vandalism, during agreed warranty period (e.g. five years).
- e. SFMTA will consider failures and malfunctions qualified under the warranty to be excessive in case where any one component's rate of failure exceeds 10% of the Accepted inventory, or two or more components combined rate of failure exceeds 15% of the Accepted inventory. Performance would be measured for any consecutive 180-Day period.
- f. Should the rate of the failures and malfunctions qualified under warranty coverage exceed the thresholds above, the Agency may elect to recover its labor costs to replace failing or malfunctioning components through credit assessments described in Appendix I of the RFP.
- g. Provide Meter hardware that have a modular design with PnP components that can be exchanged in a matter of minutes.
- h. Provide Meter hardware with weatherproofed electronic components, connections, CPU and wiring for the duration of the Agreement.
- i. Provide Meter hardware with built-in diagnostic software that date- and time-stamps all maintenance events, including the duration of the fault, for retrieval and analysis either in the field or remotely; all data shall be integrated with the MMS supplied under this Agreement.

- j. Provide Meter hardware with "out of order" function. The out of order event shall be accurately recorded with time-stamp and automatically sent to the MMS (if power and communications are still available) and shall also be available for manual collection by maintenance personnel (via mobile MMS and/or handheld) or another manual interface at the Meter hardware level.
- k. Provide Meter hardware and MMS that accurately record date, time and duration of the out of order event for the following two conditions, as defined by SFMTA:
  - i. From "needs repairs" to "back in service".
  - ii. From "out of order" to "back in service".
- l. Provide Meter hardware that allow for adding time to an existing parking session.
- m. Provide Meter hardware that allow a Customer to purchase a maximum time for a selected space.
- n. Provide Meter hardware that accepts the following payment methods:
  - i. Credit Card (Visa, MasterCard, AMEX, and Discover)
  - ii. Contactless payment
  - iii. Coins (\$0.05, \$0.10, \$0.25 and \$1.00)
  - iv. Smart card (SFMTA proprietary card schema)
- o. Optional Service: SFMTA may, at its sole discretion, introduce other payment methods (e.g. additional credit cards smart card, Google Maps, regional mobility app). If the SFMTA elects to introduce additional payment methods, the parties shall negotiate in good faith on a time and material basis all the costs associated with the payment channel additions in accordance with the consultant rates established in Appendix G, Part 2.
- p. Optional Service: Should SFMTA request development of a new payment method, the Contractor shall allocate appropriate administrative and technical resources within 30 Days of the request. The Contractor and the SFMTA must agree upon the scope of such requested enhancements before NTP is issued. The delivery schedule for requested enhancements shall not exceed twelve calendar months from NTP unless an extension is authorized by SFMTA. Refer to Consultant Rates in Appendix G, Part 2 for rates.
- q. Provide Meter hardware that accept all available types of payment when adding time.

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- r. Provide Meter hardware that can download and store the Hotlist from the MMS to prevent smart cards on the Hotlist from being used. This requirement applies to scheduled (daily) and on-demand (ad-hoc) requests.
  - s. Provide Meter hardware with electronic Medeco Nexgen locks.
  - t. Support resolving performance issues with high security top and vault lock by its Level II and III personnel.
  - u. Provide Meter hardware with modular design.
  - v. Provide Meter hardware with components that are replaceable in less than 10 minutes.
  - w. Provide Meter hardware with Medeco maintenance and battery compartment locks.
  - x. Meter hardware shall support the following three payment schemas:
    - i. Pay-by-Space (i.e. a parking space shall be selected prior to accepting a payment).
    - ii. Pay-by-License-Plate (i.e. a license plate shall be entered prior to accepting a payment).
    - iii. Pay-and-Display (i.e. only a time selection is required prior to accepting a payment).
  - y. Provide Meter Hardware that support three languages: English, Spanish, and simplified Chinese.
  - z. Provide multi-space door assembly that includes a vault door, brackets, hinges and Medeco Nexgen lock as part of the spare parts list. This door assembly shall carry the same five-year warranty as Meter hardware (unless not available from the lock manufacturer, then the standard manufacturer warranty term would apply).
  - aa. Provide Meter hardware that can be wirelessly updated (software, firmware etc.).

## 2. Meter Hardware Housing

- a. Meter hardware housing shall be made from strong, tamper and Vandalism resistant material. This includes all housing compartments:
  - i. Maintenance
  - ii. Collection
  - iii. Battery (if separate from the maintenance compartment)
- b. Meter hardware housing shall be ergonomically designed and easy to use.
- c. Meter hardware housing shall have robust background printing, graphics and paint that can accommodate all weather conditions without fading, chipping or pilling during agreed upon general warranty period of five years.
- d. Meter hardware housing shall accommodate anti fogging and moisture drainage design.
- e. Meter hardware housing or dome shall guarantee weather resistant displays or screens that are not susceptible to color change or loss of opacity when exposed to the UV light and other environmental factors during the five-year warranty period.
- f. Meter hardware housing shall be designed to prevent the use of credit card skimmers or other such illegal devices.
- g. Each Meter hardware housing shall have a unique serial number of its own.
- h. Meter hardware shall be impact resistant and maintain its integrity during transport to and from the field.
- i. Meter hardware housing shall be of 11-gauge steel or better.
- j. Meter hardware vault and maintenance doors shall be minimally 3/8-inch manganese steel or equivalent.
- k. Meter hardware's door to the coin box vault shall provide no direct access to the maintenance compartment.
- l. Meter hardware shall have separate compartments for maintenance, collection vault and battery compartment; the coin may only be accessed by authorized personnel using an electronic key to deactivate the locking system.
- m. Meter hardware shall be powder-coated.

- n. Meter hardware battery compartment shall have a robust locking mechanism to prevent Vandalism and battery theft.
- o. Meter hardware shall be built with a printer that is configured to allow automated or on demand printing of the receipt types below:
  - i. Payment proof receipt (for a parking customer)
  - ii. Audit record of cash collections
  - iii. Service door entry receipts
  - iv. Enforcement status receipts showing the payment status for all spaces managed by each Meter hardware.

### 3. Coin Validator

- a. Coin validator shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Coin validator shall be a PnP device.
- c. If the coin validator is inoperable, Meters shall have the option to accept card payments (e.g., credit card and smart card), Contactless and third-party payments (e.g., PBP payments).
- d. The validator shall include anti-backup (anti-fishing) component(s) to prevent the retrieval of deposited coins (e.g., attached to strings, paddles, wires).
- e. Coin validator shall recognize both metallic and non-metallic jams.
- f. The jam alarm shall only stay active if the cause of the jam is present in the coin chute.
- g. When the coin validator detects a jam, the jam shall be recorded in the maintenance log. At a minimum, a Meter hardware shall be able to detect the following objects:
  - i. bent paper clip
  - ii. bent soda can tab
  - iii. cotton
  - iv. toothpick
  - v. paper matchbook cover
  - vi. folded plastic straw
  - vii. coffee stirrer
  - viii. coin-wrapped in tape
  - ix. backed up coin
- h. Coin validator is easily cleared of foreign objects by PMR in the field without use of tools.
- i. The entrance to the coin validator shall be designed to screen out a non-metallic objects (e.g. a coin shutter).
- j. Coins passing through the multi-space Meter hardware shall be deposited directly into a sealed cashbox in a separate vault area of the Multi-space Meter hardware.
- k. Multi-space Meter hardware shall provide "coin return chute" for all invalid coins or in case of canceled transaction.

- I. Multi-space Meter hardware shall provide a count of all invalid coins.



#### 4. Coin Validation

- a. Meter hardware shall provide a count of all coins by denomination or other metallic objects passing through the coin chute that match the programmed characteristics of valid coins to a level of accuracy of at least 99 %, so 990 coins out of 1000 shall be recorded.
- b. The coin validation mechanism shall be programmable to accept a minimum of 16 different coins and/or tokens including U.S. nickels, dimes, quarters and dollar coins.
- c. The coin validation system shall accept all user-defined coins and tokens through software parameter changes only. Software and firmware changes shall be sent to the Meter hardware wirelessly. SFMTA shall also have the option to manually train the Meter hardware, if needed.
- d. Should the U.S. Mint change the existing currency in any way the Contractor shall, at its own expense mutually agreed-upon time, update the software to accept the new coins issued as well as the old coins as soon as new coins are available to the general population. Any changes to the validation process shall be made within 14 Days.
- e. The Contractor shall be able to alter the coin table to add new coins or to improve screening of invalid coins upon the Agency's request. Any changes to the validation process shall be made within fourteen Days of the written request by SFMTA. The SFMTA will provide at least 100 samples of items that it wants to be screened out as invalid coins.
- f. The coin validator and coin chute operations shall incorporate no contact points that could be affected by grime or moisture, or a combination of the two.
- g. Meter hardware shall recognize \$0.01 coins and record them in its revenue audit files. Recording actual value is preferable; however, recording \$0.01 coins as "unrecognized or invalid" is also acceptable.

## 5. Display Technology

- a. Display shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Meter hardware shall support four or more display panels.
- c. Display shall have a configurable backlight feature. Backlight feature shall be activated by any button press, coin deposit or other payment type (physical, Contactless and PBP).
- d. Backlight settings shall allow for "always on" option (i.e. backlight is ON during posted Operating Hours).
- e. Display shall support configurable rate of display panel changeover. SFMTA shall be able to adjust the time interval between panel changes within MMS.
- f. Display shall be able to accommodate various conditions of displaying the information. For instance, Rate Buckets that are constrained by the Meter's Operating Hours.
- g. Display shall be able to show Rate Buckets that are easy to read (e.g. adequate spacing between the lines, bold letters, larger fonts for the current time).
- h. Display shall be able to support deployment of display configuration (messaging, rates, layouts etc.) to a group of spaces determined by SFMTA.
- i. Display shall be able to accommodate at least ten lines of text, (or more lines as space allows on display) information and spacing.
- j. Display functionality shall support dynamic messaging based on Meter individual profile. Such messages shall be set via MMS and deployed to a group of spaces determined by SFMTA.
- k. Display screens shall contain the following information:
  - i. Time Limit
  - ii. All Rate Buckets for each Day
  - iii. Hours of Operation
  - iv. Post ID or MS ID
  - v. Date and time
  - vi. User instructions (e.g. TOW Away, Free Parking, Prepay, See Signs)
  - vii. Special messages (e.g. Super Bowl, Special Event Tomorrow, Go Warriors)
  - viii. Additional information as needed

- l. Date, time and Post ID shall be displayed on all display panels.
- m. During Operating Hours, the screen shall display the current Time Limit and rate, and all corresponding regulations for that day.
- n. The screen shall be fully programmable to display, at a minimum, messages corresponding to the following conditions:
  - i. Condition 1: Configurable "Pre-Pay" message (e.g., "No Payment Needed Until Fri 09:00 AM", "You May Prepay Now").
  - ii. Condition 2: Days/hours of operation, time slots, rates, regulations. Configurable "Expired" message.
  - iii. Condition 3: "Paid Meter mode" with countdown of time left before Meter expires.
  - iv. Condition 4: Customer inserts a card incorrectly during Operating Hours. Results: Error message specific to condition (e.g., "Card inserted incorrectly").
  - v. Condition 5: Customer inserts credit card and it is declined. Results: Error message specific to condition (e.g. "Invalid card; use another card").
  - vi. Condition 6: Payment with card - Customer adds/subtracts time and money using Meter inputs (e.g., +/- buttons), and confirms transaction (e.g., presses "OK" button). Results: "Please Wait" message followed by configurable "Transaction Completed" message.
  - vii. Condition 7: Incomplete transaction - Customer inserts parking card causing the Meter to become Active but pulls card out before transaction is completed. Message: "Transaction Cancelled" message.
  - viii. Condition 8: Card slot is inoperable. Message: "No cards; Use coin".
  - ix. Condition 9: Coin slot is inoperable. Message: "No coins; Use card".
  - x. Condition 10: Both coin and card slots are inoperable. Message: "Out of Order"
  - xi. Condition 12: Payment is in progress: current time slot and rate, time and corresponding payment adjusting up or down as Customer adds coins or presses the +/- buttons to add/subtract time.

- xii. Condition 13: Upcoming TOW Away - adds money/time up to the beginning of TOW regulation. Message: Configurable "limit reached" message "Limit Reached; TOW After 03:00 PM".
  - xiii. Condition 14: Time Limit - Customer adds money/time up to the Time Limit programmed in the Meter. Message: "Limit Reached" message (e.g., "4-hr limit reached").
  - xiv. Condition 15: Ongoing TOW Away - "TOW Away" message (e.g., TOW Away Until 03:00 PM; DO NOT PARK").
  - xv. Condition 16: Free Parking - (e.g., "No payment accepted").
  - xvi. Condition 17: Special Event Time - Meter has special programming in effect. Message: "Special Event Rate: \$7/hr", "Ongoing Special Event – TOW Away", etc.
  - xvii. Condition 18: Passenger or commercial loading zone during certain hours. Message: "No Parking – Loading Zone".
- o. A payment by an SFMTA parking card shall consist, generally, of the following steps:
- i. Customer inserts SFMTA parking card in the card slot.
  - ii. Meter reads and displays balance in the parking card.
  - iii. Customer adds/subtracts time and money.
  - iv. Customer confirms payment.
  - v. Meter writes new balance back to the SFMTA parking card while displaying configurable "please wait" message.
  - vi. Meter displays configurable "transaction completed" message and starts counting down time.

## 6. Keypad / Input Mechanism

- a. Keypad or other input mechanism shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Meter hardware shall have an alpha-numeric keypad.
- c. Meter hardware shall at a minimum have OK, CANCEL and LANGUAGE buttons.
- d. Keypad/input mechanism shall be environmentally sealed to prevent elements (e.g. moisture, grime) from affecting the performance of the hardware.
- e. Keypad/input mechanism shall be a PnP device.
- f. Keypad/input mechanism symbols/markings shall be casted, embedded or engraved (i.e. it cannot be a sticker or a label). Keypad/input mechanism symbols/markings shall not deteriorate, notwithstanding Vandalism, during five-year warranty period.
- g. PbLP Meter hardware shall be able to work in two general modes:
  - i. By "license plate" only where user only needs to enter a license plate number to begin parking transaction.
  - ii. By space type / curb color and "license plate". In this case, the user must first select a general space type (e.g. general meter parking, commercial zone, short term parking) and then a license plate. In this mode, a selection of space type / curb color will result in Meter hardware enforcing certain parking rules, as defined by SFMTA. For instance, a selection of commercial zone prior to entering the license plate will enforce a shorter time limit.

## 7. Clock

- a. Meter hardware clocks shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Meter technology shall automatically adjust internal clocks for periodic daylight savings time periodic changes.
- c. Meter technology clocks shall be synced each time they communicate with the MMS.
- d. Meter technology clocks shall track each day of the week.
- e. Meter technology clocks shall be able to accommodate both formats: AM/PM and 24 hours.
- f. Meter technology clocks' power source shall be different from the main power source and keep accurate time even when the main and backup batteries are discharged/removed.

## 8. Power

- a. Meter hardware shall rely on a battery augmented by solar power.
- b. Meter hardware may utilize both rechargeable and non-rechargeable batteries.
- c. Meter hardware batteries shall be warranted for at least 36 months without a need of replacement or a warehouse recharging for an 80% of Accepted inventory, under standard SFMTA power load (see point "d" below). The Contractor and the SFMTA will measure this requirement by monitoring batteries voltage and replacement histories in an MMS report.
- d. Example of standard SFMTA power load is as follows:
  - i. 4:30AM Pre-pay period
  - ii. Standard Operating Hours: 75% of the inventory 9a-6p, 25% of the inventory 9a-10p. Monday - Saturday for most spaces, with some spaces working on Sunday.
  - iii. Pay-by-phone visual indication is ON during the Operating Hours.
  - iv. Real-time revenue feed (for all transactions) is ON during Pre-pay and Operating Hours (FY2019 ~ 90 transactions per month/space).
  - v. Real-time maintenance feed (for all transactions) is ON during Pre-pay and Operating Hours.
  - vi. Quarterly Rate changes.
  - vii. Occasional screen changes.
  - viii. Special event programming (currently 200+ days/year).
  - ix. Backlight is ON for 10 seconds after any button press, coin deposit, card payment (physical or Contactless) during Pre-Pay period and Operating Hours.
  - x. LEDs (paid, expired, need service and out of order) are ON during Operating Hours.
- e. Each type (rechargeable and non-rechargeable) of Meter hardware batteries shall utilize the same voltage characteristics thresholds across the Accepted inventory for ease of maintenance and voltage monitoring.
- f. Batteries shall be easily serviceable on the field so that a PMR technician can replace a battery in less than five minutes. Meter hardware OS shall be available within 3 seconds of new battery insertion.

- g. SFMTA maintenance personnel shall be able to replace non-rechargeable batteries without the use of tools (i.e., nothing should be screwed in or otherwise constrained from removal).
- h. The SFMTA shall be able to purchase both rechargeable and non-rechargeable battery components individually.
- i. Meter hardware shall accommodate at least two battery alarms: Low and critical. The low battery alarm shall be sent to the MMS three to four weeks prior to a complete battery depletion and critical battery alarm shall be sent a week prior to complete battery depletion.
- j. Meter hardware technology shall employ all available smart technologies to dynamically calculate the battery usage and provide notification to PMR staff accordingly.
- k. Before battery power is fully depleted, Meter software shall recognize power challenges, communicate a critical battery alarm to the MMS, then power the mechanism down by "graceful shutdown" software functionality, which allows the operating system to perform its task of safely shutting down processes and closing connections.
- l. Meter technology shall be able to power up within 3 seconds after a bad battery is replaced (either rechargeable or non-rechargeable), without exception, for 100% of the inventory.
- m. SFMTA prefers to utilize battery products available for purchase through regular consumer channels (i.e. it should not be required to only use a battery pack of the Contractor's proprietary design).
- n. For each battery provided, the Contractor shall be responsible for identification of the battery manufacturer, production dates, expected shelf life and other applicable references.
- o. The Contractor shall provide battery recycling option to SFMTA as part of this proposal. At a minimum, quarterly pickup of bad batteries from SFMTA's Meter Shop facilities shall be scheduled.
- p. SFMTA prefers not to use the batteries that include electronic boards or other electronic components besides a wire connection to the mechanism.



- q. The Contractor shall integrate a voltage check system for rechargeable and non-rechargeable batteries into the mechanism reset sequence.
- r. The Meter shall retain all stored programming, operational, and financial audit data for a minimum period of two years, even if the Meter hardware loses power (solar and/or battery), or the battery becomes depleted or disconnected.
- s. The Contractor shall provide, at a minimum, four battery testing units and charging station(s) (to be located at and utilized by the SFMTA Meter Shop); such charging stations shall accommodate simultaneous charging of at least 40 Meter batteries, at no cost to SFMTA.
- t. Meter hardware batteries shall include durable and ergonomic handles for transportation and handling.

## 9. LED and Visual Enforcement

- a. The LED and Visual Enforcement shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Meter Hardware shall present the means to visually indicate meter payment (Coin, Credit Card, Smart Card, and Pay-by-Phone). Such visual indication shall have a back-side indicator for every space controlled by the Meter hardware, as well as Meter hardware operational status (i.e. requires repair service and/or out of order).
- c. Meter hardware shall be able to visually communicate (front and back) the following statuses:
  - i. Meter is OFF (no LED lights are blinking).
  - ii. Meter is ON and in Pre-Pay mode (no LED lights are blinking).
  - iii. Meter is ON and EXPIRED (e.g. the RED LED is ON during Operating Hours).
  - iv. Meter is ON and PAID (e.g. the GREEN LED is ON during Operating Hours).
  - v. Via front display, remaining parking and expiration times for PAID sessions.
  - vi. Meter is ON but requires repair service (e.g. low battery, jam, no communication). (e.g. the PURPLE LED is ON during Operating Hours).
  - vii. Meter is ON and is in Out of Order state (both card reader and coin chute are out of service). E.g. the YELLOW LED is ON during Operating Hours.
- d. Meter hardware shall accommodate visual indication of PBP payments during Pre-Pay and Operating Hours. This functionality shall not impact battery life and be factored into power calculations. The following SLA shall apply:
  - i. Meter shall display PBP payments within 45 seconds after payment data is received from the vendor.
  - ii. 96% of all online (i.e. normally communicating) Meters shall adhere to the standard listed in subsection (i) above during any given Day.
  - iii. The MMS shall produce a report dedicated to PBP visual indication SLAs listed in this section that provides daily, monthly and annual filters and statistics.
- e. Meter hardware LEDs shall be a PnP component.

- f. Meter hardware LEDs shall be programmable based on time of day (e.g. only start flashing at the beginning of the Operating Hours).
- g. Meter hardware LEDs shall support GREEN indication of PAID status, RED indication of EXPIRED status, YELLOW indication of OUT OF ORDER status and OTHER indication for NEEDS SERVICE status. The SFMTA reserves the right to add additional LED colors, if available.
- h. Meter hardware shall have a visual payment indication module for all spaces controlled by a unit that has reliable visual indication regardless of weather conditions.
- i. Visual indication shall provide clear visibility from at least 30 feet, regardless of viewing angle.

## 10. Credit Card Reader and Processing

- a. Card reader shall be able to work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Card reader shall accommodate anti-skimming and anti-jamming design features.
- c. Proposed card reader shall have EMV 1 and 2 certification levels.
- d. Meter hardware shall support the following credit card payments (both stripe and Contactless):
  - i. Visa
  - ii. MasterCard
  - iii. Discover
  - iv. Amex
- e. Meter hardware shall be able to support SFMTA's smart card for Meter payment.
- f. Optional Services: Meter hardware shall have the ability to be programmed for additional credit card payment systems upon request of the SFMTA. The SFMTA and the Contractor shall negotiate in good faith all costs and charges associated with such change. Refer to Appendix G for Consultant Rates.
- g. Card reader shall be non-locking and permit users to remove cards without damage to the card, especially during a fault situation or power failure.
- h. If a credit card is inserted incorrectly, the card shall be easily removed by the Customer without the use of any tools.
- i. Meter hardware shall have the option to accept coin and Contactless methods of payment when the card slot or reader is inoperable.
- j. Card connector shall be rated at 250,000 cycles of transactions
- k. Card reader shall be a PnP device.
- l. Card reader shall be easily serviced (should a jam be detected) with minimal hand tools required.
- m. Optional Services: At SFMTA's request, the Contractor shall design alternative smart card payment options. The SFMTA and the Contractor shall be able to

mutually agree to a timeline for delivery and negotiate development costs. Refer to Appendix G for Consultant Rates.

## 11. Meter hardware Collection Recording and Revenue Counter

- a. Meter hardware shall reset coin counters at the time of the physical coin collection.
- b. Meter hardware shall record the time and date of the door opening, and detailed coin audits since the last collection within the MMS.
- c. MMS shall keep accurate records of all coin collections under the Agreement.
- d. SFMTA maintenance personnel shall be able to open the vault door without producing coin audit or Meter hardware coin counter reset.
- e. Meter hardware shall automatically enter all vault opening events data into the MMS. SFMTA shall be able to filter data and produce data reports.
- f. Solution shall provide SFMTA the ability to reset Meter hardware' coin counters remotely from the MMS. This feature shall support both individual multi-space Meter hardware resets and group resets (i.e. multiple units grouped together).

## 12. Meter Hardware Security and Coin Collection

- a. Meter hardware shall allow no access to the coin vault area from maintenance compartment.
- b. Meter hardware shall allow no access to the maintenance compartment from the coin vault area.
- c. Meter hardware battery compartments shall allow no access to the coin vault area and maintenance compartment.
- d. Meter hardware shall include a high security locking mechanism for the maintenance compartment.
- e. Meter hardware shall include a high security programmable electronic lock and key for daily collections.
- f. Meter hardware shall use high security locks with anti-tampering protection.
- g. Meter hardware shall be configured so that the SFMTA or its designee shall be able to program electronic keys and locks for a single Meter, a designated group of Meters or the entire Meter inventory.
- h. The Contractor shall provide two cashboxes for each supplied Meter hardware.
- i. Cashboxes shall have a reset flag to indicate that the cashbox was emptied and reset for the next collection use.
- j. Cashboxes shall be made of light durable material that is easy to handle and have no sharp edges.
- k. Cashboxes shall have an ergonomic handle design.
- l. Cashboxes shall have an anti-fishing device protecting a coin box entrance.
- m. Meter hardware shall automatically communicate the total dollar amount and number of coins for each denomination as well as total revenue immediately after any successful collection.
- n. Meter hardware shall automatically issue a collection receipt upon removal of the cashbox. The receipt shall indicate the total amount collected, as well as the number of coins of each denomination, and the grand total of the revenue contained within the cashbox.
- o. Each cashbox shall have a clearly visible unique serial number.





### 13. Modem - Communications

- a. Modems shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.
- b. Proposer shall offer the most current modem technology available on the market at the time of the Proposal submittal (e.g. 4G LTE).
- c. Should the modem technology become obsolete during the term of the Agreement, the Contractor shall provide replacements parts in a reasonable time frame and without any markup (i.e. extra cost). The parties shall negotiate timing and costs in good faith, as cost of compliant hardware will be disclosed with the City.
- d. Meter hardware shall be able to communicate 95% of revenue and maintenance data to the MMS wirelessly within 120 seconds after determining the transaction is completed.
- e. SFMTA prefers for a modem to be a PnP device that is not a part of the Meter hardware CPU or motherboard.
- f. Modems shall support secure on-line authorizations of credit cards at the time of the transaction.
- g. Meter hardware technology shall initiate communication with the MMS every 12 hours regardless of the occurrence of transactions or faults.
- h. Meter hardware technology shall support different types of modem (e.g. GPRS and CDMA).
- i. Meter hardware technology shall support various modem states (e.g. active, stand-by, dormant).
- j. Contractor, at its own expense, shall conduct pre-installation surveys using both Meter hardware equipment and handheld multi-carrier, single-strength testers (e.g. Squid testers <https://www.bvsystems.com/product/squid-3g4g-bundle/>) to highlight any potential problem areas and address with carriers in advance of the deployment. Such surveys shall be conducted at the middle of each block to provide representative data. If any trouble spots are found, Contractor shall be able to bring the carrier in for additional surveys and the Contractor shall offer a remediation solution.



## 14. Maintenance

- a. Meter hardware shall be maintained and serviced for all the major components (e.g. coin chute, card reader, modem, Contactless reader, battery, main Board) designed as PnP devices.
- b. Meter hardware shall be designed so that metallic and non-metallic foreign objects can be cleared from the coin chute within 60 seconds or less, under any weather conditions, without the need for special tools.
- c. Meter hardware shall be designed so that metallic and non-metallic foreign objects can be cleared from the card reader slot in less than three minutes, under all weather conditions, without the need for special tools.
- d. Meter hardware shall return to full functionality immediately upon replacing any major component (e.g. coin chute or track and/or and card reader). No special tools shall be required for replacement of these items.
- e. Meter hardware shall feature onboard diagnostics that include a full on-screen menu that shows the status of various hardware and software components. (e.g. battery voltage, solar power measurements, cellular signal strength, electronic error codes, firmware versions, last communication, rate profile).
- f. Meter hardware shall allow for SFMTA's Meter shop staff to add incremental time to a specific space or all spaces without having the payment register as revenue in the audit information (e.g., if a Customer's payment must be deleted during maintenance). This usage shall be logged as a distinct payment type (e.g., instead of the payment being labeled "cash" or "credit", it shall be labeled "Tech Credit"). The value of the payment shall be logged as \$0.00.
- g. Meter hardware shall allow for SFMTA's Meter shop staff to add MAX time to a specific space or all spaces without having the payment register as revenue in the audit information (e.g., if a Customer's payment must be deleted during maintenance). This usage shall be logged as a distinct payment type (e.g., instead of the payment being labeled "cash" or "credit", it shall be labeled "Tech Credit"). The value of the payment shall be logged as \$0.00.
- h. Meter hardware shall have a feature that allows maintenance staff to add a full Day's time (up to the end of the Operating Hours) to a specific space or all spaces without adding coin or card payments. (e.g., when a new Metered space is established in a previously unmetered area).
- i. Meter hardware shall have the ability to temporarily disable the recording of cash and card (credit and smartcard) totals to allow audit data test purchases by coin or card without being recorded in the payment audit data. After this

feature is invoked, the recording of any coins/cards shall be immediately disabled to allow for testing.

1. The test coins/cards shall not register until there has been no activity for a set period provided by the SFMTA (this shall be configurable via MMS), after which time the registering of payments is enabled automatically.
- ii. Once testing is completed, Meter technology shall automatically revert to its normal operation without further intervention or specific commands.
- j. Meter hardware shall allow PMR to credit single or multiple parking spaces while in maintenance mode. Such credit shall extend to cover all Operating Hours.

## SECTION III: METER MANAGEMENT SYSTEM (MMS)

The Contractor must provide the following with regard to its Meter Management System. The equipment capabilities and supporting software that the Contractor delivers upon execution of the contract shall match the Meter hardware and software specifications in the Contractor's submitted proposal. The Meter Management System section contains requirements for both single-space and multi-space Meter hardware.

### 1. General

- a. Login to the MMS shall take less than five seconds without exception.
- b. The MMS shall contain, at a minimum, the following modules:
  - i. System Administration
  - ii. Documentation
  - iii. Management of User Permissions and Alarms
  - iv. Asset and Inventory Management
  - v. Faults and Maintenance Reports
  - vi. Revenue Reports
  - vii. Hotlist Management
  - viii. Maintenance Work Orders
  - ix. RMA Administration and Management
- c. The MMS shall be accessed via any standard web browser (e.g. Firefox, Chrome, Safari, IE).
- d. The MMS shall have two versions: desktop and mobile (e.g. be accessible from mobile device such as phone and tablet).
- e. The Mobile MMS shall be able to run on any mobile platform (Apple, Windows, Android, etc.).
- f. The MMS shall not require any custom software to be installed on the end user's machine.
- g. The Contractor shall be responsible, for the duration of the Agreement, for all updates to its MMS to ensure full compatibility with the latest versions of the internet browsers.
- h. The MMS shall offer a uniform user interface, in which the same colors, fonts, nomenclature, icons and logos are used for all MMS modules.

- i. The Contractor shall provide and maintain for the term of the contract (at no cost to SFMTA) the SFTP Site to exchange and store various data files as it relates to the Meter hardware.
- j. The Contractor shall provide up to 25 custom reports during the term of the contract to be determined by the SFMTA at no additional cost. Such reports may vary in scope and effort. The Contractor shall assume no less than 40 development hours per report.
- k. MMS maintenance module, at the minimum, shall offer the following functionality:
  - i. Review of on-going maintenance alarms.
  - ii. Review of current revenue totals.
  - iii. Ability to display Paid/Unpaid status including data from pay-by-phone vendor.
  - iv. Meter locations.
  - v. Work orders (based on business rules setup by SFMTA either using app itself or the MMS).
  - vi. Ability to log work performed and close the work orders.
  - vii. Ability to export all the data in suitable format (e.g. XML, JSON) daily, in real-time or batched.
  - viii. Ability to support integrations with other parking and maintenance related software.
- l. Optional Services: The MMS shall have the ability to be configured as curb-length based system rather than Post ID based system. If the SFMTA elects for such change, the SFMTA and Contractor will negotiate the charges on a time and materials basis in good faith. Refer to Appendix G, Part 2 for Consultant Rates.

## 2. System Administration

The MMS shall provide the following administrative functions:

- a. Assignment/management of the relationship between Post ID and terminal ID.
- b. Configuration creation, deployment and management.
- c. A report with a detailed list of all available configurations both current and past.
- d. Audit trail of Post ID any changes.
- e. Audit trails of any configuration changes.
- f. The ability to view terminal and Post ID geo-locations map (e.g. Google Map, City base map).
- g. The ability to manage variable parameters used throughout the MMS and Meter hardware, including but not limited to, column and report names, Special Event messaging, report group designation.
- h. The ability to manage coin collection and maintenance cards.
- i. The ability to produce a report of all current and decommissioned coin collection card numbers with "last collection event" stamp.
- j. The ability to manage various geographical inventory attributes (e.g. collection route, collection sub-route, PMR route, enforcement beat, PMD).
- k. The ability to manage user access.
- l. The ability to produce a report of MMS usage by a specified username.
- m. Policy, inventory and Special Events XML/JSON import/export Meter hardware configuration management.
- n. The ability to view Meter hardware counts and status at any point during the term of the Agreement.

### 3. MMS Documentation

- a. SFMTA may copy/disseminate any related MMS documentation to staff/contractors working with Meter hardware and the MMS.
- b. The MMS manual, which shall be delivered to the SFMTA within 15 days of Notice to Proceed, shall provide a detailed description of the following:
  - i. All revenue reports
  - ii. All maintenance reports.
  - iii. All RMA reports.
  - iv. Meter hardware programming.
  - v. All Meter hardware backend settings and values.
- c. The MMS manual shall be updated every time new updates, reports and procedures are available.
- d. The MMS manual shall contain patch/release notes summarizing performed changes to all hardware/software.



#### 4. MMS Users and Permissions

- a. The MMS shall support a minimum of ten different user groups, each with its own set of permissions for viewing reports and/or conducting changes to Meter programming.
- b. The MMS shall allow SFMTA to manage users and permissions directly, without having to go through the Contractor to add users or create or modify user permissions.
- c. The MMS shall accommodate at least 200 different users at no cost to SFMTA.

## 5. Asset and Inventory Management

- a. The MMS shall have the historical record of all Meter hardware Accepted by SFMTA, including the dates and services of each device.
- b. The MMS shall have the ability to track Meter hardware status (e.g. Active, Inactive, Deactivated, Terminated, Liquidated) of all Meter hardware Accepted by SFMTA.
- c. The MMS shall be able to track serial numbers and Post IDs when one mechanism is replaced by another mechanism during the RMA process.
- d. The MMS shall track the following attributes for all Terminals Accepted by SFMTA:
  - i. PMD
  - ii. PMR Route
  - iii. Zone
  - iv. Area
  - v. Street and Block
  - vi. Post ID
  - vii. MS ID
  - viii. Pole Type
  - ix. Pole Status
  - x. Meter Type
  - xi. RFID (if being used)
  - xii. Terminal
  - xiii. Location Status (e.g. assigned to pole, RMA, decommissioned, terminated, lost)
  - xiv. Software version
  - xv. Firmware version
  - xvi. Configuration ID
  - xvii. Configuration Name
  - xviii. Collection Route
  - xix. Collection Sub Route
  - xx. Enforcement beat
  - xxi. Original install date
  - xxii. Current terminal install date
  - xxiii. Warranty expiration date
  - xxiv. Battery installation date

- xxv. Street side (e.g. odd, even)
  - xxvi. Street address
  - xxvii. Latitude and Longitude
  - xxviii. Housing color (e.g. grey, green, red, yellow)
  - xxix. Carrier (e.g. AT&T, Verizon, T-Mobile)
  - xxx. Modem type (3G, 4G LTE, 5G)
  - xxxi. Special event area
  - xxxii. Hours of Operations
  - xxxiii. Rates
  - xxxiv. Time limits
  - xxxv. Restrictions
  - xxxvi. Signage information
- e. The MMS shall accurately track audit, maintenance, inventory and programming transactions for all Terminals in the Accepted inventory.
  - f. The MMS shall accurately track the status (e.g. active, inactive, decommissioned, lost) of every MS ID/Post ID and combine monthly inventory totals by area (e.g. jurisdiction, collection route, repair area, PMD).
  - g. The MMS shall have a detailed rate structure report for all available Meter hardware configurations, showing all rates and policies for any given Day.

## 6. Faults and Maintenance

All fault and maintenance reports described in this section shall have 99% accurate information on any given Day for any 100 spaces. i.e. for any given 100 parking spaces, on any given Day, the report shall be accurate within +/- one parking space.

The MMS shall provide the following functionality/reports/alerts:

- a. Ability to group Meter fault and maintenance reporting by various geographic inventory attributes (e.g. PMR Route, Street and Block, Collection Route, Enforcement Beat).
- b. Ability to group Meter fault and maintenance reporting by various Meter hardware attributes (e.g. Post ID, Mechanism/Terminal ID, RFID, MS ID, Cap Color).
- c. Ability to report using various time parameters:
  - i. Hour
  - ii. Day
  - iii. Week
  - iv. Month
  - v. Quarter
  - vi. Year (both fiscal and calendar)
- d. Ability to produce summary and detailed reports based on various Meter faults.
- e. Ability to produce summary and detailed reports based on Meter hardware status. Meter hardware status shall include but are not limited to the following terms:
  - i. Out of Order
  - ii. Needs Service
  - iii. No Communication / Unknown
  - iv. Working
  - v. Low Battery
  - vi. Low Solar
  - vii. Coin Blockage
  - viii. Card Reader Blockage
- f. Ability to produce "Up Time Reports" based on following parameters:

- i. Up Time Without Payment Issues: This parameter is based on the ratio of Operating Hours of all fully functioning Terminals to all available Operating Hours for all the Active Terminals. Only Terminals with coin chute, card reader, modem, battery and non-communicating faults are factored in the calculation of the numerator. To calculate: All Operating Hours for Active Terminals MINUS fault duration hours for any Terminal with coin chute, card reader, modem, battery alarm, are DIVIDED by all available Operating Hours for all the Active terminals in the inventory.
  - ii. Up Time Without Coin Payment Available: This parameter is based on the ratio of Operating Hours of all fully functioning Terminals PLUS all terminals where coin purchase was disabled, to all available Operating Hours for all the Active Terminals. Only Terminals with card reader, modem, battery and non-communicating faults are factored in calculation of the numerator. To calculate: All Operating Hours for Active Terminals MINUS fault duration hours for any Terminal with card reader, modem, battery alarm, are DIVIDED by all available Operating Hours for all the Active Terminals in the inventory.
  - iii. Up Time Without Card Payment Available: This parameter is based on the ratio of Operating Hours of all fully functioning Terminals PLUS all Terminals where card purchase was disabled, to all available Operating Hours for all the Active Terminals. Only the Terminals with coin chute, modem, battery and non-communicating faults are factored in calculation of the numerator. To calculate: All Operating Hours for Active Terminals MINUS fault duration hours for any Terminal with coin chute, modem, battery alarm, are DIVIDED by all available Operating Hours for all the Active Terminals in the inventory.
- g. Exception report for Meters that have not communicated with the MMS within a configurable/variable parameter (e.g. 24 hours, 72 hours), including the number of hours since last communication.
  - h. Exception report for Meters with active alarms listing duration of fault (in hours and Days. This report is aggregated by all available in inventory geographical attributes.
  - i. Exception report showing coin box full in a percentage that is configurable by User parameter.
  - j. Exception report for coin collection both in detailed and summary forms.
  - k. Fault history report (summary, overview, details).

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- I. Non-reporting Meters report.
  - m. Faults overview listing all major faults for specific date. Listed faults shall include but not be limited to the following:
    - i. Coin Chute
    - ii. Card Reader (and all related card reader issues)
    - iii. Battery (and all relative battery alarm states)
    - iv. Modem
    - v. Coin Box
    - vi. Non-reporting Faults
    - vii. Sensor Faults (any sensor related to the Meter hardware operations, for example, coin accept sensor, vault door sensor)
  - n. Faults overview shall present data on monthly, quarterly and annualized basis. Figures shall be averaged over a selected time range.
  - o. Ability to store and produce reports on the following MMS alarms:
    - i. Coin canister is full.
    - ii. Initial low battery setting has been reached.
    - iii. Battery is experiencing a fault.
    - iv. Wireless communications interruption.
    - v. Coin payment and card payment operation failure.
    - vi. Operating system fault.
    - vii. Operational functions fault.
    - viii. Door open detection (vault and maintenance doors, if applicable).
    - ix. Status/record of all file transfer activities.
    - x. Live alarm to detect communication status.
    - xi. Notice of various initialization and machine setting routines.
    - xii. No transaction within defined timeframe.
    - xiii. No coin transaction within defined timeframe.
    - xiv. No card or credit card transaction within defined timeframe.
  - p. A standard report showing the usage of maintenance cards, maintenance features that disable revenue totaling, and maintenance payments.

## 7. Revenue Reports

All revenue reports (total revenue and/or any given revenue typed) described in this section shall present 99% accurate information on any given Day for any given \$1,000, i.e. for any given \$1,000, on any given Day, the report shall be accurate within +/- \$10.

The MMS shall provide the following functionality/reports:

- a. User shall be able to select any given time range with the smallest increment being one hour (e.g. hour, Day, month, quarter, year, fiscal year).
- b. Summary revenue reports shall be based on any of the inventory geographical attributes.
- c. Detailed revenue reports, to the space level.
- d. Coin revenue by coin denomination.
- e. Revenue broken down by payment type (i.e., coin, SFMTA parking card, credit card, PBP, and other).
- f. Transaction Detail Report that lists the Post ID, MS ID (if available), Space ID, Transaction ID and Transaction Date, Transaction Start Time, Transaction End Time, the Amount Paid, the Payment Type, and the Time Purchased.
- g. Revenue distribution shown as a percentage of total revenue.
- h. Transactions by payment type.
- i. Average payment type.
- j. Collection details.
- k. Collection summary.
- l. Credit card settlements (summary and daily).
- m. Revenue between coin collections.
- n. Revenue based on credit card number (either last four numbers or first six and last four numbers of the credit card number).
- o. Revenue based on smart card number and date range.
- p. The MMS shall include a standard report showing the number of rejected smart cards and credit cards per machine, broken out by reason for rejection including at least the following three reasons:

- i. Bank declined the charge,
  - ii. Communications failure prevented an authorization from being approved;  
and,
  - iii. The card was unreadable.
  
- q. The MMS shall include a standard report showing revenue from each collection day to the following collection day.
- r. The SFMTA shall have the option to introduce new payment types and have them reflected in the Revenue Reports.



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8. PBP Reports (used for visual indication of PBP transactions)
    - a. The MMS shall include PBP reports searchable by date range. This report shall present received PBP events (i.e. PBP visual indication).
    - b. The MMS PBP report shall include but is not limited to the following information:
      - i. Post ID and MS ID.
      - ii. Date/time of receipt of Pay-By-Phone transaction by the MMS.
      - iii. Transaction amount.
      - iv. Time purchased.
      - v. Date/time of receipt of Pay-By-Phone transaction by the Meter.
      - vi. Transmission status (successful, pending, failed).

## 9. Hotlist Management (Smart Card Related)

- a. The MMS shall allow for creation and deployment of a Hotlist.
- b. The Hotlist shall prohibit any listed smart card number on the list from being used.
- c. The MMS shall have a report for current and past hotlist versions (including time stamp of Meter hardware deployment and detailed content of the hotlist).
- d. The MMS shall maintain records of declined transactions from smart cards, with serial numbers listed in the current hotlist.

## 10. Standard Meter Hardware Settings

- a. The MMS shall accommodate at least twelve symbols in alpha numeric format of the Meter identification numbering sequences, including but not limited to Meter number (e.g. Post ID, PS ID, collection route number, enforcement zone number). The current format is nine characters: eight numeric & one symbol (e.g. 102-02990).
- b. The following settings shall be programmable via the MMS:
  - i. Standby mode and times,
  - ii. Card payment settings,
  - iii. Coin payment settings,
  - iv. Screen parameters (e.g. time format and location, brightness, sharpness, text font size),
  - v. Backlight settings,
  - vi. LED settings,
  - vii. Pay-by-Phone payment display settings,
  - viii. Out of Order settings (e.g. only display OOO when card and coin payment options are not available),
  - ix. Payment options settings (e.g. to display Coin Only when the card reader is out or Card Only when coin payment is out); and,
  - x. Other Meter settings as applicable.
- b. Card payment sequence shall include a programmable variable for a customizable time delay to give the customer an option to cancel a transaction.
- c. Contractor shall include the ability to have a grace period (e.g. should the grace period be defined as 60 seconds, then every completed transaction receives an extra minute before Meter expires).

## 11. RMA Administration and Management

- a. The RMA system shall provide the ability to create, track and filter all returns between SFMTA and the Contractor by shipping dates, and provide data related to repairs, including but not limited to:
  - i. Create – The ability for SFMTA to create, enter and revise RMA entries within the MMS (for all applicable Jurisdictions).
  - ii. Track – All Meter hardware data, utilizing a bar code serial/terminal system.
- b. The RMA system shall provide the following reports:
  - i. Warranty status report, including a summary of inventory including in-warranty and out-of-warranty status.
  - ii. Service history including replaced parts for each piece of equipment.
  - iii. Provide diagnosis and solutions, with an explanation, for each replaced component.
- c. The RMA system shall be able to provide a price quote for vandalized and out of warranty equipment, giving SFMTA the option to proceed with repairs.
- d. The RMA system shall be able to provide the ability to print shipping labels for equipment and part returns within the RMA module.

## SECTION IV: METER PROGRAMMING

The Contractor must provide the following with regard to Meter programming. The equipment capabilities and supporting software that the Contractor delivers upon execution of the contract shall match the Meter hardware and software specifications in the Contractor's submitted proposal. The Meter Programming section contains requirements for both single and multi-space Meter hardware.

### 1. General

- The Contractor must utilize SFMTA's API service for its Meter hardware programming for Meter inventory attributes, policy and special events is SFMTA's API service, without exception. The SFMTA will not install Meter hardware unless this requirement is met.
- a. Sample process would look as following:
    - i. A policy change is made within SFMTA's data warehouse.
    - ii. Appropriate SFMTA's API end point is updated.
    - iii. Contractor queries SFMTA's API.
    - iv. Contractor validates and propagates the changes to the specified Meter Hardware.
    - v. Contractor sends a confirmation to SFMTA's API that changes have been applied.
  - b. Meter hardware shall accept programming in two different modes:
    - i. API: Inventory, Policy and Special Event policies (Attachment 01 and 02).
    - ii. Manual: programming via MMS.
  - c. All programming modes shall support the concept of an effective date or a deferred Meter schedule of rates, Operating Hours, Time Limit and other schedule attributes.
  - d. All programming modes shall support the acknowledgement of inventory, policy and SE configuration changes propagated to the Meter hardware (i.e. API web service "APPLIED" message to SFMTA's data warehouse, corresponding to each affected space).
  - e. All programming modes shall include an audit trail listing all configuration changes, and download (if available) timestamps.
  - f. Programming audit report shall include but is not limited to the following:
    - i. Person/entity (i.e. API, MMS) responsible for changes.
    - ii. Data changed (i.e. previous value and current value).
    - iii. Effective date of change.

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- g. All programming modes shall result in the following exception lists. Exception lists shall be available via email and as a report in MMS.
    - i. Changes received but not applied.
    - ii. Changes applied but not downloaded.
  - h. All programming modes shall support editing and cancelation of the Special Events policy.
  - i. The Contractor must program all Meter holidays (i.e. free parking days) during the term of the Agreement. Current Meter holidays are: New Year's Day, Thanksgiving and Christmas.
  - j. All programming modes shall support deployment within 12 hours for 100% of all Active and communicating assets.
  - k. On any given Day, 100% of Accepted and normally communicating Meters shall behave in accordance with assigned programming.
  - l. Programming via MMS shall not involve any specific software (i.e. Java or other special plugins) and should perform using standard internet browsers such as Firefox, Chrome etc.

## 2. Programming Rules

- a. Meter hardware shall accept programming of following rules:
  - i. FREE – no rate is assigned, does not accept any payment, “Free Parking” message is displayed. Deposited coins shall still be accounted for in revenue audits; albeit, no time will be given.
  - ii. PREPAY – Meter accepts payment before the beginning of the Operating Hours, according to scheduled daily rates.
  - iii. RATE – Meter accepts payment and credits time based on programmed rate for specified hours of the Day.
  - iv. TOW – does not accept payment, “TOW Away” message is displayed. Deposited coins shall still be accounted for in revenue audits; albeit, no time will be given.
  - v. NO PARKING – does not accept payment, “No Parking” message is displayed. Deposited coins shall still be accounted for in revenue audits; albeit, no time will be given.
  - vi. TIME LIMIT – Meter has Time Limit assigned so that the amount of time a Customer can purchase is restricted.
- b. The Meter hardware shall validate/conform with Meter programming based on the following business rules:
  - i. Prepay can only precede time rule type RATE (e.g. should the Meter schedule begin with TOW, there could not be a PREPAY).
  - ii. Time periods programmed with behaviors FREE, PREPAY, RATE, and TOW must be mutually exclusive (i.e. no period of the Day can have two of these rules assigned at the same time period).
  - iii. Time periods programmed for FREE or TOW may not have TIME LIMIT assigned.
  - iv. TIME LIMIT is programmed independently from RATE and may or may not coincide with RATE buckets (i.e. for RATE bucket 12noon - 3p, 12noon – 1p TL = 30 min and from 1p – 3p TL = 120 min).
- c. The SFMTA shall have the option to determine the configuration name rules for Meter hardware.
- d. Meter hardware shall never allow a Customer to purchase parking time in excess of the following:
  - i. The total number of Operating Hours for the day (i.e. if Meter operates from 9am to 6pm, the maximum number of hours a Customer can purchase is 9, if selected space has no Time Limit).

- ii. The total number of hours left in the Operating Hours at the time the Customer conducts the transaction.
  - iii. The maximum number of continuous Operating Hours from the time of payment until the TOW period begins.
  - iv. The Time Limit programmed in the Meter.
- e. SFMTA configuration uses "1440" value as "no Time Limit" designation. This means that the Customer may purchase parking time up to the end of the Operating Hours. The Meter hardware shall support this setup.
- f. Operating Hours shall serve as an ultimate boundary for any programming rules (i.e. Should RATE exist outside of the Operating Hours, it shall not be applied beyond the end of the Operating Hours.
- g. Cap Color/Space Type designated as WHITE and/or ORANGE is identical in its Behavior to TOW AWAY.
- h. Meter hardware shall allow purchasing parking time past midnight (should it be configured to do so).
- i. Meter hardware shall support configuration of different space types (i.e. Meter loading, GMP and motorcycles). Such configurations may vary in hourly rates, Operating Hours and Time Limits based on different space numbers within the same Meter.



### 3. Programming Buckets and Time Limits

- a. Meter hardware shall be able to accept programming for 24 unique time rates within a 24-hr period between 0:00:00 and 24:00:00 hours, each with its own rule.
- b. Meter hardware shall accept programming for time increments as small as  $\frac{1}{4}$  of an hour.
- c. Meter hardware shall be able to accommodate a different setup for each day of the week (i.e. seven different setups M-Su).
- d. Meter hardware shall accept programming be able to program rates in \$0.05 increments.
- e. Should the Meter hardware be programmed with two different rates in adjacent time periods and Customer pays for time starting in one time period and ending in the next, the Meter shall prorate the amount charged for the time purchased.

#### 4. Programming Initial Behavior and Reconciliation

- a. Meter hardware shall support automatic initial programming of any new set of Metered spaces at any time via API (Attachment 01) or manually via MMS.
- b. Meter hardware shall support automatic SE programming of any new set of Metered spaces at any time via API service (Attachment 02).
- c. The Contractor shall allocate resources for routine reconciliation and comparison for the attributes of Metered spaces between SFMTA and Contractor databases for the purposes of verifying programming and correcting any discrepancies that may arise.
- d. Meter hardware shall support variable configurations of the screen backlight (e.g. always on, on after any button press, always off).
- e. If Meter hardware uses LED lights for visual enforcement, then the SFMTA shall be able to configure LED lights for following parameters:
  - i. Brightness
  - ii. Flashing frequency
  - iii. Color
  - iv. Dependency on Meter behavior (e.g. yellow = out of order, purple = needs service)

## 5. Programming Special Events

- a. For detailed specifications please refer to Attachment 02.
- b. Meter hardware shall be able to accommodate four different special event (SE) types:
  - i. Price override - Rate override over dates defined by a SE calendar
  - ii. TOW override - TOW Away override over dates defined by a SE calendar
  - iii. No Parking override – Restricts parking but results in No Parking message rather than in TOW Away message
  - iv. Time Limit override - Time Limit override over dates defined by a SE calendar
- c. SE programming may never override regular TOW schedule.
- d. Meter hardware shall be able to support a full calendar year of SE formatting.
- e. Meter hardware shall be able to support multiple SE overrides during any one Day.
- f. Meter hardware shall be able to support SE related configurable display messages (e.g. Special Event Areas).
- g. Special events overrides are mutually exclusive (i.e. no two overrides can be scheduled for the same space/time bucket combination).

## 6. Programming Meter Display (Content and Format)

- a. Meter hardware shall be able to accept programming for 24 unique time slots within a 24-hour period between 0:00:00 and 24:00:00 hours, each with its own rule.
- b. Meter hardware shall be able to collapse time slots with identical policy settings (e.g. should Meter charge \$2 for every hour between 9a and 12noon, display message should be 9a – 12noon @ \$2/hr and not 9a – 10a @ \$2/hr, 10a – 11a @ \$2/hr, 11a – 12noon @ \$2/hr).
- c. Screens shall be able to communicate rates and regulations for every time slot in one line.
- d. If Meter hardware display requires more than one screen to show all time periods and rates for one day, then SFMTA shall be able to program lines that repeat across all screens and lines that change from screen to screen.
- e. All time periods, rates and screens messages shall be fully programmable by SFMTA staff within MMS.
- f. Programming technology shall be able to support dynamic messages based on various conditions (e.g. TOW Away during TOW, Special Event Area during SE Days, See Signs for Restrictions on all Days). All messaging shall be configurable within MMS by SFMTA staff. Dynamic messages shall support two deployment types:
  - i. Based on individual Meter profile.
  - ii. Based on group of spaces determined by SFMTA.
- g. Programming technology shall be able to support editing/deployment of screen messages separately and independently from deploying Meter policies (regular and SE alike).
- h. Programming technology shall be able to support validation and uniformity of screen layout and messaging across all Meter programming profiles.
- i. SFMTA shall be able to set default formats for displaying rates, times, Time Limits and other information on the screens.
- j. SFMTA shall be able to set various screen properties:
  - i. Brightness

- ii. Contrast
  - iii. Sharpness
  - iv. Font
  - v. Typeface
  - vi. Backlight
  - vii. Change rate (from one panel to another)
  - viii. Messages placement (e.g. right corner, top line center corner)
  - ix. Capitalization
  - x. Reverse lettering
  - xi. Time format: am/pm and 24-hour format
- k. SFMTA shall be able to program spacing between the lines on the display screen.
- l. SFMTA shall be able to use custom time labels. For example, instead of 12PM to display 12noon or instead of 12AM to display 12midnight.

## SECTION V: INTEGRATION

The Contractor must provide the following with regard to integration services. The equipment capabilities and supporting software that the Contractor delivers upon execution of the contract shall match the Meter hardware and software specifications in the Contractor's submitted proposal. The integration section contains requirements for both single and multi-space Meter hardware.

The Contractor shall be able to enhance and/or to modify any API and/or integration functionality listed in this SOW at no cost to SFMTA for the duration of the Agreement. Such enhancement shall not exceed 500 development hours during the term of the Agreement. Any additional work beyond 500 hours shall be negotiated with the SFMTA and charged on a time and material basis per the consultant rates set forth in Appendix G, Part 2.

### 1. General

- a. The Contractor shall constantly monitor SFMTA policy, inventory and SE API services and integration points (i.e. visual indication integration with PBP, enforcement integration with Conduent) for availability and up time, at no cost to SFMTA.
- b. The Contractor shall implement a monitoring and alerting system (aka "watchdog software") to monitor all data transmissions to and from SFMTA and its SFTP portal, at no cost to SFMTA.
- c. The Contractor shall, at SFMTA's request, send inventory, policy and SE policy changes exceptions alerts (e.g. which spaces were scheduled for SE policy but did not apply it) directly to SFMTA staff via email or other agreed-upon communication methods, at no cost to SFMTA.
- d. Each Meter hardware communication session with the MMS shall update hardware's internal clock, calendar, and day of week information.
- e. The Contractor shall monitor and resend all maintenance and revenue events that were not accepted by SFMTA data warehouse. All failed/undelivered maintenance and revenue events shall continue to be send until received by SFMTA.
- f. The Contractor shall dedicate an appropriate technical and administrative resource to support SFMTA's integration points (no less than ten hours per month), at no cost to SFMTA.

- g. Should SFMTA request development of a new integration point or changes to an existing API, the Contractor shall allocate appropriate administrative and technical resources within 30 Days of the request. The Contractor and the SFMTA must agree upon the scope of the requested enhancements before the NTP is issued. The delivery schedule for requested enhancements shall not exceed six calendar months from the NTP, unless an extension is authorized in writing by the SFMTA.

## 2. Policy API

- a. The Contractor shall conform to SFMTA policy API specifications (Attachment 01), at no cost to SFMTA.
- b. The Contractor shall support API functionality for the term of the Agreement at no cost to SFMTA.
- c. Policy API consist of two modules: Inventory and Policy. Inventory module includes information about all inventory data attributes and policy module includes all policy details such as Operating Hours, Time Limits, closures, prepay, rates.
- d. The Contractor shall develop the ability to store previous configuration, current configuration and future configuration for every space in the Accepted inventory. City should have the ability to query past, current and future configurations via MMS API module.
- e. The Contractor shall develop the ability to deploy previous space configuration in case when a current configuration was determined to be inaccurate.

### 3. Special Event API

- a. The Contractor shall conform to SFMTA SE API specifications (Attachment 02), at no cost to SFMTA.
- b. The Contractor shall support API functionality for the term of the Agreement at no cost to SFMTA.
- c. The Contractor shall support year-round SE programming.
- d. The Contractor shall develop the ability to store previous configuration, current configuration and future configuration for every space in the Accepted inventory.
- e. The Contractor shall develop functionality to support deletion of the scheduled SE.
- f. The Contractor shall develop functionality to modify scheduled SE.



#### 4. Enforcement API (Paid Spaces and License Plates)

- a. The Contractor shall develop real-time API integration with SFMTA's citation processing vendor (currently Conduent) as it relates to "paid" space status. The result of such integration would be to provide paid sessions in minutes.
- b. The Contractor shall be able to communicate "paid" space status on Meter (e.g. Post ID 419-02070) and block-face level (e.g. even side of 11<sup>th</sup> Street 500 block or odd side of Geary 4400 block).
- c. The Contractor shall support this API functionality for the term of the Agreement at no cost to SFMTA.

## 5. Visual Indication (PayByPhone API)

- a. The Contractor shall be able to integrate visual indication of the PBP payment on Meter hardware with SFMTA's pay-by-phone vendor (currently PayByPhone Technologies Inc.).
- b. The integrated solution shall support communicating PBP payments to the Meter hardware within 45 seconds of receiving the data from PBP vendor for 90% of Accepted inventory, measured by inspecting and testing 50 Metered spaces over a 1-Day period.
- c. The Contractor shall support visual indication functionality for the term of the Agreement at no cost to SFMTA.

## 6. Real-Time Meter Payments

- a. The Contractor shall develop an ability to submit Meter payments to SFMTA API service in accordance with "Attachment 03 – Real-time Meter Payment".
- b. The Contractor shall differentiate between two possible transaction event types: new session (NS) and add-time session (AS), where an AS is defined as one where a Customer adds time to a parking session already in progress (i.e. the Meter is already paid when the Customer conducts his/her transaction).
- c. The Contractor shall differentiate between payment time and parking session start time.
- d. Mixed payment transaction: When a Customer uses more than one payment type (i.e. coins and credit card) within a payment window to pay for a single parking session, system shall transmit separate transactions for the different payment types.
- e. The Contractor shall deliver Meter payments to SFMTA's API service within 120 seconds from the time of the transaction (at the Meter hardware level). This condition should be true for 96% of Accepted inventory. This should be measured by inspecting and testing 50 Metered spaces over one Day period.
- f. The Contractor shall ensure that submitted Meter payments are 99% accurate with compared with MMS totals. This condition should be true for each payment method (coin, credit card, smart card, PBP) for 99% of Accepted inventory. This should be measured over a seven Day period.
- g. The Contractor shall support real-time Meter payment functionality for the term of the Agreement at no cost to SFMTA.

## 7. Weekly Revenue Reconciliation

- a. The Contractor shall develop an ability to submit actual weekly revenue summary totals to SFMTA API service in accordance with "Attachment 04 – Weekly Revenue Recon".
- b. The Contractor shall deliver weekly revenue summary data 100% of the time, assuming SFMTA's API service is available.
- c. The Contractor shall support weekly revenue summary functionality for the term of the Agreement at no cost to SFMTA.

## 8. Meter Revenue API – Provided by Contractor

- a. The Contractor shall develop a Meter revenue API service at no cost to SFMTA and support this service for the term of the Agreement.
- b. The API service shall provide revenue details identical to “real-time feed”, see Section 6 above.
- c. Contractor’s Meter Revenue API’s main purpose is to serve as a “backup service” for Meter hardware real-time revenue feed. In case when SFMTA revenue data is not accurate, SFMTA shall be able to connect with Contractor’s API service and query for missing data.
- d. Detailed specifications of such API shall be agreed to between SFMTA and the Contractor.
- e. General request parameters shall be the following:
  - i. Jurisdiction.
  - ii. From date.
  - iii. To date.
- f. Return data parameters shall be identical to “Attachment 03 – Real-time Meter Payment”.

## 9. Maintenance

- a. The Contractor shall develop an ability to submit a real-time Meter maintenance feed to SFMTA API service in accordance with "Attachment 05 – Maintenance Feed".
- b. The Contractor shall be able to provide three different Meter maintenance statuses:
  - i. Meter is Out of Order.
  - ii. Meter Needs Service (i.e. coin and card reader jams, low and critical battery alarms, and communication failures).
  - iii. Meter is Back in Order.
- c. Contractor shall be able to accurately track the time stamp of Meter fault (regardless of what that is) start time.
- d. Contractor shall be able to accurately track the time stamp of when Meter fault resolution.
- e. Contractor shall deliver daily Meter maintenance data 100% of the time, assuming SFMTA's API service is available.
- f. Contractor shall support Meter maintenance data feed functionality for the term of the Agreement at no cost to SFMTA.

## 10. Optional Service: Credit Card Aggregation

- a. At the SFMTA's request, the Contractor shall be able to work with SFMTA's credit card processor on "credit card aggregation process". This shall allow SFMTA to utilize merchant fees savings by combining Meter transactions from the same credit card under the same authorization over a period of Days.
- b. SFMTA is currently working on specifications for such integration with its current merchant provider (CityBase).

The parties shall negotiate this work in in good faith in accordance with the consultant rates set forth in Appendix G, Part 2.