CITY OF HOUSTON
HOUSTON AIRPORT SYSTEM
REQUEST FOR PROPOSALS (RFP)
SOLICITATION NO.: H27-C/SUPPS-2021-004
COMMON/SHARED USE PASSENGER PROCESSING SYSTEM FOR HOUSTON AIRPORT SYSTEM (HAS)

Date Issued:	September 25, 2020
Pre-Proposal Virtual Conference:	October 8, 2020, 10:00 A.M., CST Microsoft Teams Tele-Conference: https://bit.ly/3lFqyWx
Questions Deadline:	October 15, 2020 @ 2:00 P.M., CST
Proposal Due Date:	November 19, 2020 @ 2:00 P.M., CST
Solicitation Contact Person:	Al Oracion Sr. Procurement Specialist Supply Chain Management, Houston Airport System alfredo.oracion@houstontx.gov

Project Summary: This RFP is to solicit proposals that will provide HAS a curb-to-gate solution with an integrated approach to Common Use Terminal Equipment (CUTE), Common/Shared Use Passenger Processing Systems (C/SUPPS), common use self-service kiosks and/or a single platform integrating self -service check in, self-service bag drop and an identity management system.

NIGP Code: 953-13

MWBE Goal: 16% (MBE – 11%; WBE – 5%)

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DocuSigned by:
Jerry Adams
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Jerry Adams
Chief Procurement Officer
City of Houston

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PART I: SOLICITATION

1.0 GENERAL INFORMATION

1.1 The City of Houston (City), Houston Airport System (HAS), invites interested firms to submit proposals for the implementation, maintenance and support of a full curb-to-gate Common/Shared Use Passenger Processing System (C/SUPPS) for the Houston Airport System at George Bush Intercontinental Airport (IAH), William P. Hobby Airport (HOU) and future expansions at either airport. The curb-to-gate solution would include design, installation/operational services and equipment to provide an integrated approach to Common Use Terminal Equipment (CUTE), Common/Shared Use Passenger Processing System (C/SUPPS), common use self-service kiosks and/or a single platform integrating self -service check in, self-service bag drop and an identity management system. An agreement with the successful firm will require the firm to provide equipment for the complete end to end solution for a single platform including common use and passenger facilitation from check in to boarding. Agreement would be for an initial contract term of eight (8) years with two (2) one-year options. The selected firm will be required to interface with HAS Technology, HAS, and its business partners, such as airlines, other tenants, concessions consultants/contractors (architectural and engineering firms), vendors and or service providers for completion of the assignment(s) and to do so in accordance with the City Charter and the Code of Ordinances of the City of Houston and applicable state and federal regulations. The firm, and its sub-consultants, must be able to perform all or part of the services as requested. It is very important to note that this RFP is requesting responses for a solution for the entire passenger experience and have broadened the term of “Common/Shared Use Passenger Processing System (C/SUPPS) to include Mobile Identity, Assisted Check-in, Self-Service Check-In, Self Service Bag Drop, Security Screening, Self-Service Boarding, Assisted Boarding and Border Control.

1.2 HAS provides a safe and dynamic air services network that fosters economic vitality for the transportation industry and the greater Houston region. HAS operates three major airports: (1) George Bush Intercontinental Airport (IAH), (2) William P. Hobby Airport (HOU), and (3) Ellington Airport (EFD).

1.2.1 IAH is a large hub airport, and in calendar year 2019, 45.2 million passengers travelled through IAH. IAH is an important international gateway providing services to all 6 inhabited continents and offers more destinations to Mexico than any other airport in the US. IAH is the busiest connecting hub for United Airlines.

1.2.2 HOU is a medium hub airport, and in calendar year 2019, 14.4 million passengers travelled through HOU. In October 2015, HOU opened its new

international terminal and now provides services to 62 domestic and 11 international destinations. HOU serves as an important domestic and international hub for Southwest Airlines.

1.2.3 EFD is a former U.S. Air Force base that is now operated as a joint civilian-military airport serving businesses and general aviation and is home to the Houston Spaceport.

1.3 The vision for HAS is to establish Houston as a five-star global air service gateway where the magic of flight is celebrated. HAS is seeking Proposals from firms who will partner with HAS to provide a full curb-to-gate Common/Shared Use Passenger Processing System (C/SUPPS) that will enhance passenger experience and serve our airline partners.

2.0 PRE-PROPOSAL CONFERENCE

2.1 A virtual Pre-Proposal Conference via Microsoft Teams will be held at the date, time, and location as indicated on the first page of this RFP document. Interested Proposer(s) should plan to attend. It will be assumed that potential Proposer(s) attending virtual meeting have reviewed the RFP in detail and are prepared to raise any substantive questions not already addressed by HAS.

2.2 The purpose of this conference is to allow potential proposers an opportunity to present questions and obtain clarification relative to any facet of this solicitation. While attendance at the conference will not be a prerequisite to submitting a proposal, proposers who intend to submit a proposal, are encouraged to attend. Make sure you have a copy of the solicitation for reference during the virtual Pre-Proposal Conference. Any changes resulting from this conference will be issued in a written Letter of Clarification (LOC) to the solicitation. Verbal responses will not alter the specifications and terms related to this solicitation.

2.3 Questions are due on Thursday, October 15, 2020, 2:00 P.M., CST. Please include the phrase H27-C/SUPPS-2021-004: Common/Shared Use Passenger Processing System" in the subject line and provide all applicable contact information.

2.4 Communication regarding the Pre-Proposal Conference must be received in writing and directed only to:

Al Oracion
Sr. Procurement Specialist
Houston Airport System
Supply Chain Management
Phone: 281-230-8009
alfredo.oracion@houstontx.gov

3.0 SOLICITATION SCHEDULE

3.1 The following schedule has been established for this solicitation process. HAS reserves the right to modify the schedule during the solicitation process. Changes/updates will be posted on HAS' website via Letter(s) of Clarification.

3.2 HAS reserves the right to extend the due date for this Request for Proposal (RFP) as deemed necessary and in its best interests. Any postponement of the due date will be issued as a Letter of Clarification (LOC) to this RFP. The submission of a Request for Proposal does not, in any way commit HAS to enter

into an agreement with that Respondent or any other Proposer. HAS reserves the right to reject any or all Request for Proposal(s) for any reason.

Description	Date
Advertisement of Solicitation	09/25/2020
Virtual Pre-Proposal Conference	10/08/2020
Deadline for Submittal of Questions	10/15/2020
Letter of Clarification(s) Posted on HAS Website	10/29/2020
Response to RFP Due Date	11/19/2020
Oral Presentations (*if required*)	01/07/2021
Submit to Council for Approval *(Estimated)*	05/19/2021

PART II: GENERAL SOLICITATION INFORMATION

4.0 GENERAL INFORMATION

4.1 Background

4.1.1 The Houston Airport System (HAS) is seeking proposals from qualified firms to implement a new Curb-to-Gate Common/Shared Use Passenger Processing System (C/SUPPS) at Houston Airport System at George Bush Intercontinental Airport (IAH), William P. Hobby Airport (HOU) and future expansions at either airport and any other airport Terminals that HAS may designate as Common Use. The new C/SUPPS will replace the existing common use installation and will provide the ability for multiple airlines to utilize a set of common, or shared, resources providing additional flexibility for HAS. As part of this RFP, the Proposer shall provide system design services, project management services, implementation of software, hardware, and interfaces, technical advisory and consulting services, on-going maintenance and support, and plans for future improvements due to advances in technology, industry standards, and governmental regulations.

4.2 Common Use Vision

4.2.1 The key to this Contract's success is to support HAS's vision to establish Houston as a five-star global air service gateway where the magic of flight is celebrated. Proposers shall embrace the following HAS core values as they relate to the planning, design, implementation, and support of the C/SUPPS at HAS:

Relationships	**Service**
• We work together with integrity and treat every individual with courtesy and respect.	• We WOW our customers through a “can do” attitude and respond quickly to meet and exceed their expectations.
• We honor our commitments and behave in a manner that earns trust.	• We find ways to bring fun and joy into our work and bring customers along for the ride.
• We promote collaboration and teamwork across the organization.	• We respond promptly and effectively.
• We are reliable and trustworthy; we honor our promises and commitments.	• We show respect, compassion and let people know we care.
• We are open, positive, and constructive in our feedback.	• We willingly provide the necessary time and effort to meet the customer’s needs.
• We treat people as they want to be treated.	• We are flexible and adaptive in a dynamically changing business environment.
• We take responsibility for our actions.	• We display enthusiasm and passion for our work.
• We lead by example	
Innovative	**Excellence**
• We have the courage and willingness to consider new and unconventional ways of thinking.	• We strive for quality and skillful execution without compromise.
• We assume responsibility for learning new things.	• We use the power of total employee involvement to achieve our organizational goals.
• We embrace new ideas.	• We foster a culture of shared values that gets things done.
• We listen with an open mind.	• We take calculated risks needed to achieve results.
• We are future-focused; “I’ve always done it this way” does not exist in our vocabulary.	• We look for new and more effective ways to do business.
• We recognize change as an opportunity.	• We encourage continuous improvement.

4.2.2 To support the HAS Mission and Core Values, the new C/SUPPS design will adhere to the following overarching themes:

Convenient, simple, functional, and intuitive for the entire passenger experience.

Flexible design to safeguard for innovation and changes to technology, operations, and security.

Technology-driven for latest automated processing and customer convenience.

Responsive to the ever-changing needs of airlines, passengers, and HAS operations.

Contemporary design that reflects a state-of-the-art, high-tech, and world-class airport.

Maintainable systems that consider whole-life cycle costing.

Aiming for **Sustainability**, **Energy Efficiency**, and **Technology Recycling.**

5.0 PROJECT DESCRIPTION

5.1 Great travel experiences start when passengers begin their travel at home and as soon as they arrive at the airport. In order to make their journey more convenient, safe, secure, and effortless, HAS desires to explore and implement a complete C/SUPPS. HAS embraces the future of air travel, passenger convenience, and security made possible by advances in technology and governmental regulations. A full C/SUPPS shall include, but is not limited to the following:

- Mobile passenger enrollment
- Common use biometric support
- Identity management systems
- Common use self-service check-in kiosks
- Common use self-bag drop systems
- Common use terminal equipment
- Passenger pass-through security screening systems
- Common use self-service boarding systems
- Automated border control systems

5.2 The current C/SUPPS installation includes gate and ticket (check-in) counter positions in Terminals A that are currently supporting a total of eight (8) domestic and two (2) international airlines.

5.3 The current C/SUPPS installation includes gate and ticket (check-in) counter positions in Terminals D that are currently supporting a total of twenty (20) domestic and international airlines. The common use installation in Terminal D includes current and estimated with the redesigned Mickey Leland International Terminal (MLIT).

5.4 Currently, there is not a C/SUPPS at HOU, however, HAS desires to implement a new curb-to-gate C/SUPPS that can be used by all existing airlines operating at HOU, as well as future entrants to the HOU market.

Current and Future C/SUPPS Positions (Table 1)								
IAH								
	Ticket Counter Positions	Gate Positions	Self-Service Kiosks	C/SUPPS Training Room	Airline Offices and Lounges	Re-Check Counters	Biometric Exit Solutions	Self-Service Bag Drop
Terminal A Current	14	13	4	0	0	0	1	0
Terminal A Estimated	14	28	10-12	0	0	0	28	25
Terminal D Current	40	24	0	4-6	24	20	12	0
Terminal D Estimated	81	36	120	6	24	20	36	76
HOU								
Terminal Current	0	0	0	0	0	0	7	0
Terminal Estimated	10	18	10	4	0	0	18	10

1. Biometric Exit Solutions (Current) have been installed by HAS. These units shall be supported by the selected Contractor.
2. Contractor is encouraged to propose any other technology available related to C/SUPPS not covered in this chart.
3. Final positions installed are subject to design and coordination with stakeholders.

5.5 First phase of implementation of the curb-to-gate passenger processing system, C/SUPPS station equipment, CUSS kiosks, self-bag drop system, system design services, implementation services and support services will be in Terminal A of Bush Intercontinental Airport and William B. Hobby Airport and shall commence immediately after issuance of NTP for the Agreement.

5.6 Second Phase of implementation, a written notification will be provided by HAS for MLIT, and/or the current CUTE support contract expires, estimated to be in June 2023, the C/SUPPS in Bush Intercontinental Airport Terminal A and William P. Hobby implemented in First Phase will be required to expand to MLIT. The expansion will require complete support by the contractor including but not limited to a new curb-to-gate passenger processing system, C/SUPPS station equipment, CUSS kiosks, self-bag drop systems, system design services, implementation services, and support services.

5.7 HAS desires to implement a new curb-to-gate C/SUPPS that can be used by all existing airlines operating at IAH, as well as future entrants to the IAH market. The airlines currently operating at IAH include the following:

Airlines at IAH (Table 2)	
Aeromexico	Air Canada
Air China	Air France
Air New Zealand	Alaska Airlines
All Nippon Airways (ANA)	American Airlines
Avianca	Boutique Air
British Airways	Delta
Emirates	Ethiopian
Eva Air	Frontier Airlines
Interjet	JetBlue Airways
KLM	Lufthansa
Qatar Airways	Singapore Airlines
Spirit Airlines	Turkish Airlines
United Airlines	VivaAerobus
Volaris	WestJet

5.8 HAS desires to extend the new C/SUPPS at IAH to HOU that can be used by all existing airlines operating at HOU, as well as future entrants to the HOU market. The airlines currently operating at HOU include the following:

Airlines at HOU (Table 3)	
Allegiant Air	American Airlines
Delta	Southwest Airlines

5.9 This project is intended to provide a new C/SUPPS implementation that provides all required functionality to support airline operations while providing a base installation that can be expanded and augmented in the future to support the dynamic IAH and HOU environment and the future redesigned Mickey Leland International Terminal (MLIT).

6.0 ESTIMATED PROJECT TIMELINE

6.1 This is a critical project to support airline operations at IAH and certain components must be substantially complete within ninety (90) days of Notice To

Proceed (NTP) as agreed between HAS and the Contractor during the RFP process. The airlines currently operating in Terminal A (IAH), as part of the existing Common Use deployment, will require priority.

7.0 SPECIFICATIONS/SCOPE OF SERVICES

7.1 SCOPE OF WORK – The Contractor shall perform the general Scope of Work described herein and as further discussed in "Attachment A." This project is intended to provide a curb-to-gate C/SUPPS implementation that provides all required functionality to support airline operations while providing a base installation that can be expanded and/or augmented in the future to support the dynamic HAS environment. During the implementation phase, HAS may require additional ticket and/or gate counters or additional airlines to be added to the scope of work. This will be at the sole discretion of HAS.

PART III: EVALUATION AND SELECTION CRITERIA

8.0 EVALUATION AND SELECTION PROCESS

8.1 Evaluation Summary – Proposals from Proposers that meet the Minimum Qualifications will be evaluated. HAS, at its sole discretion may choose to develop a shortlist of proposers for further consideration. Shortlisted Proposers may be scheduled for structured oral presentation and/or interview. Such presentations will be at no cost to HAS. At the end of the oral presentation and/or interview, the evaluation of the shortlisted Proposers will be completed. The Houston Airport System will utilize the consensus scoring methodology to evaluate this RFP.

8.2 Selection Process – The award of this contract will be made to the Proposer offering the response that meets the needs of HAS. HAS may make investigations, as it deems necessary, to determine the capabilities of the Proposer to successfully render the Scope of Services anticipated in this RFP. The Proposer shall furnish HAS such data as HAS may require for this purpose. HAS reserves the right to reject any Proposal if the evidence submitted by, or the investigation of, a Proposer fails to satisfy HAS that a Proposer is deemed qualified to provide the services contemplated in this RFP.

8.3 Evaluation Scores – Respondents meeting the Minimum Qualifications of this RFP shall be scored as follows:

Evaluation Criteria (Table 4)	Max Score
Firm and Individual Professional Experience and Knowledge	**15**
Project Plan And Schedule	**10**
Technical/Design Approach (current ability and proven integration and interface with airlines systems that are listed in RFP document)	**20**
Live Demo Airport Environment	**25**
Maintenance and Support	**20**
Proposal Pricing	**10**
Total	**100**
MWBE Compliance	**Pass/Fail**
Financial Capabilities (Separate Envelope)	**Pass/Fail**

8.4 Evaluation Criteria – Proposals will be evaluated on the following criteria:

8.4.1 **Firm and Individual Professional Experience and Knowledge (15 Points)**

8.4.1.1 The purpose of this criterion is to assess the degree to which Proposers are qualified, possess the knowledge and have the requisite experience to provide the Scope of Services outlined in this RFP. This criterion also considers the key personnel that firms will dedicate toward the provision of services in this RFP.

8.4.1.2 Describe the organization of the proposing team. Include the point of contact to HAS. Specify the project manager for the project. Include the names and brief resumes of key individuals who would be responsible for specific tasks in the Scope of Work. Include an estimate of time available for the individual to dedicate to this project. Describe the ability of the firm and proposed project team to initiate the services defined in the Scope of Work in a timely manner.

8.4.1.3 Provide documentation confirming that the Proposer has been in the business of selling, designing, installing, and maintaining qualified curb-to-gate passenger processing system, C/SUPPS station equipment, CUSS kiosks, self-bag drop systems, system design services, implementation services, and support services for use in passenger processing systems at large-hub airports for a minimum of five (5) years. The Proposer shall demonstrate experience as the primary entity responsible for the overall design, implementation, interfacing, and integration of common/shared use passenger processing systems.

8.4.1.4 Responses should indicate both technical experience and experience in the aviation industry for all proposed team members. Provide a work history on key members of the proposed project team, showing their work experience on projects of similar size and complexity to the George Bush Intercontinental Airport.

8.4.1.5 The Proposer shall provide a list of all airlines that are currently using their system. This information shall also include the airlines' current software revision level that is supported by the proposed C/SUPPS platform.

8.4.1.6 The Proposer shall describe how the project and implementation process will be managed to ensure that all required timeline, quality control, and budget requirements are met.

8.4.2 **Project and Plan Schedule (10 Points)**

8.4.2.1 This criterion considers the technical approach that the Proposer would propose for HAS, in light of the unique challenges and opportunities that may be associated with this project. This criterion seeks to elicit a technical narrative response and project phasing approach and proposed focus on the Scope of Services.

8.4.2.2 The Proposer shall describe how the project and implementation process will be managed to ensure that all required timeline, quality control, and budget requirements are met.

8.4.2.3 Proposer shall prepare a project plan and schedule for phasing the final design, installation, testing, and acceptance of the C/SUPPS. Schedule should be prepared using a Notice to Proceed date of TBD.

8.4.2.4 The plan must take into account the phasing required by the priority given to the airlines operating in Terminal A of IAH, as stated in RFP.

8.4.2.5 Overall project schedule to provide a typical schedule that includes all steps and lead times to install C/SUPPS equipment on gate and ticket counter. This process shall assume that all supporting infrastructure will be in place. The final project plan shall conform to all HAS IT, Project Management and Constructions requirements.

8.4.2.6 The Proposer shall provide a minimum of three (3) qualified reference sites where the Proposer acted as the single entity responsible for the design, implementation, interfacing, configuration, testing, and on-going support for C/SUPPS at large-hub airports. Refer to Exhibit B for the required response format for additional information regarding your references.

8.4.3 **Technical /Design Approach (20 Points)**

8.4.3.1 The Proposer shall provide a narrative and detailed technical response to the requirements detailed. The detailed technical response shall describe how all of the technical requirements of the RFP will be met and will identify any specification requirements that cannot be met by the proposed solution. A high-level narrative shall be provided that addresses overall project management and operation, design approach, backup and recovery approach, and system support and maintenance. The Proposer must indicate that airlines that the proposer has current technical system integrations with and at what airports and for each system i.e. mobile application, kiosk, self-tagging bag system, facial biometric exit, CUTE, CUSS, etc.

8.4.3.2 The description should, at a minimum, include the proposed architecture of the system, any interface/integration requirements, the hardware and software installation strategy, and how the design process will be completed by the Proposer to ensure that the airlines and HAS's requirements are incorporated into the C/SUPPS design.

8.4.3.3 In addition to the information provided above, the Proposer shall confirm the ability to add new airlines to their system. As part of the technical response, the Proposer shall clearly describe the process for adding new airlines to the proposed system and include the typical lead times for this process. Additionally,

the process for supporting modifications to airline directed changes to their software platforms that are currently operating on the proposed system shall be clearly described. This shall be a separate section as part of the overall technical response.

8.4.3.4 The Proposer shall provide a description of the technical design and approach for expanding C/SUPPS to HOU, other Terminals at IAH and the future MLIT.

8.4.3.5 Attachments

A. System Drawings: The Proposer shall submit sketches that clearly illustrate the proposed system(s) architecture and show the normal flow of data throughout the system(s).

B. Example Disaster Recovery Plans: The Proposer shall submit an example and a proposed approach for recovery after a critical system error(s).

C. Example Training Plans: The Proposer shall submit training plan examples that meet the requirements for training identified in Section 11.8, Attachment A - Scope of Work.

8.4.4 **Live Demo Airport Environment (25 Points)**

8.4.4.1 Houston Airport System (HAS) desires to select a business partner who has demonstrated implementation for common use systems for each path of the passenger journey therefore it is requested that the responder please digitally record the passenger (or demo of a passenger) in a live airport environment for which the respondents systems resides, demonstrating each path of the passenger common use system.

8.4.4.2 Houston Airport System's environment dictates that a number of airlines and passenger processes will need to be integrated or "connected" with the solution that we ultimately procure. In general, "Common Use" has traditionally been focused on ticketing and boarding process, HAS is choosing to include the complete processing of a passenger or an identity within the scope of this RFP.

8.4.4.3 Respondents are welcome to partner with "best of bread" sub-contractors for certain journey points, however, during the live demo, the respondent must show how the passenger will be transparently processed through the "journey" in a transparent manner.

8.4.4.4 Please also note the following general guidelines:

8.4.4.4.1 The demonstration environment must be at an airport where the system that is being demoed is currently in a live and production environment.

8.4.4.4.2 Respondent may show different common use systems from different airports.

8.4.4.4.3 Respondent shall provide time stamping or record process time. Shall model the flow, que size needed, the amount of equipment when comparing the flight schedules peak times, staffing and requirements.

8.4.4.4.4 It is the respondent's responsibility to capture quality video demo, however it does not have to be of professional quality.

8.4.4.4.5 Please make sure the video, photos and any other documents are available for access during your scheduled timeframe.

8.4.4.4.6 Please submit an external drive with responses of all the demos, however we may or may not have access to the drive during the demos.

8.4.4.4.7 **Deviation from the specified requirements will have a drastic effect on the score your proposed solution receives.**

8.4.4.5 Please refer to the next section named "Script".

Live Demo Airport Environment "Script" (Table 5)
1.0 Mobile Identity and application
1.1 Describe and show how a passenger is enrolled through your mobile device system and how that user than can use the common use systems for airlines in an airport?
1.2 Explain how it integrates with the airline system.
1.3 List the airlines that your mobile device application has already integrated with.
1.4 List the airport(s) where your mobile application is used.
1.5 Demonstrate all functionality of your mobile application.
2.0 Assisted Check-In
2.1 Demonstrate the process for a passenger who already has been enrolled into the system, walking up to a ticketing counter for assisted check-in functionality at a live airport environment.
2.2 Show the user interface including ADA compliance
2.3 Show all functionality of the user interface of the assisted check-in system from the agent's view
2.3a Facial biometric to pull up the record?
2.3b Bar code to pull up the record?
2.3c Mobile device functionality?
2.5 List the airlines that your assisted check-in has integrated with back-end departure control systems
2.6 List the airports that your assisted check-in has integrated with back-end departure control systems or other related systems.
3.0 Self-Service Check in
3.1 Demonstrate the process for a passenger who already has been enrolled into the system, walking up to a self-service kiosk for a complete self-service processing at a live airport environment. Show what the system will do if they passenger is not enrolled.
3.2 Show any "touchless" functionality
3.2a facial biometric to pull up the record?
3.2b bar code to pull up the record?
3.2c mobile device functionality?
3.2d ADA Compliance
3.3 List the airlines that your self-service check-in is implemented at and how it is integrated with back-end systems
3.4. List the airports that you have the kiosks installed in
3.5 show the bag-tag printing functionality
3.6 Show the booking, changing a reservation, checking in, paying for upgrades or services and border control functionality and any other relevant functionality
3.7 Demonstrate how the system can integrate with a conveyer (baggage systems) or stand-alone
4.0 Self-Service Bag Drop

4.1 Demonstrate the various self-service bag drop solutions at an airport and show how a passenger can use their facial biometric to validate and drop their bag for a one or two step process.
4.2. Demonstrate multi-airline common use environment user interface
4.3 Demonstrate various hardware such as scanners etc.
4.4 Demonstrate how the system weighs and charges passenger for overweight bag
4.5 Demonstrate how the system can be integrated and be compatible with baggage handling system control systems or stand-alone
4.6 Demonstrate how self-service bag drops reduce bottle necks (this can be done separately rather than a live airport environment)
4.7 List the airlines that your self-service bag drop is integrated with an discuss the back-end integration process.
4.8 List the airports that your self-service bag drops are installed at and discuss the agreements with TSA.
4.9 Demonstrate ADA Compliance.
5.0 Security Screening
5.1 Demonstrate biometric one-step screening capabilities in a live airport environment
5.2 List the airports and airlines that your company has implemented with
5.3 List the domestic airports that you have pilots or in discussion with TSA with
5.4 Discuss the process for setting up security screening with TSA airlines and an airport, talk about your company's successes and potential barriers to success
6.0 Self-Service Boarding/eGates
6.1 Demonstrate the self-service boarding functionality
6.2 Demonstrate a person in a wheelchair being assisted going through a self-service boarding gate
6.3 Demonstrate the manual over-ride functionality of the gate
6.4 Show a live flight being boarded using the self-service boarding gates
6.5 List the airlines and airports that your company has integrated with for one-step integration
7.0 Assisted Boarding and Border Protection
7.1 Demonstrate the functionality of assisted exit facial biometric boarding and integration with Customs and Board Protection
7.2 Demonstrate a flight being boarded with the facial biometric one-step solution
7.3 Demonstrate the user interface from an agent's perspective
7.4 Demonstrate the troubleshooting of the unit
7.5 Describe training required for the agents
7.6 List the airlines your company has integrated one-step solution with
7.7 List the airports your company has implemented in

8.4.5 **Maintenance and Support (20 Points)**

8.4.5.1 Exceptions – Provide a "Matrix of Exceptions" to the requirements of the RFP. Identify the requirement, describe the nature of the deviation, and provide an explanation or an alternative. The Proposer's "Matrix of Exceptions" shall be for all of the articles and sections of the RFP and technical specifications of the RFP. If no deviations are identified and HAS accepts Proposer's proposal, Proposer shall conform to all of the requirements specified therein.

8.4.5.2 Warranty Plan – The Proposer shall submit with their Proposal a warranty plan with costs covering the warranty as described in Attachment A (Scope of Work). The Proposer shall also submit with their proposal, information that will allow HAS to evaluate the Proposer's warranty program to ensure reliable operations and a cost-effective approach.

8.4.5.3 Maintenance Plan – The Proposer shall submit a comprehensive maintenance plan, which addresses the on-going 24/7 maintenance and support requirements of all hardware and software included in the RFP in Attachment A (Scope of Work). The Proposer shall also submit with their proposal, information that will allow HAS to evaluate the Proposer's maintenance program to ensure continued reliable operations after the completion of the initial warranty period.

8.4.6 **Proposal Pricing (10 Points)**

8.4.6.1 Complete the Cost Proposal Form provided in Attachment B.

8.4.6.2 Options and Alternates – The Proposer shall submit a detailed narrative of any recommended options and alterations proposed as compared to the functional design requirements included in the RFP Functional Specifications. This narrative should clearly delineate the proposed modifications and include the reason(s) for the proposed modification as well as detailing any cost, interface, or integration impacts.

8.4.6.3 Attachment B Cost Proposal Form includes an option for HAS to own or lease all of the equipment described herein. Ultimate decision to option own, lease or a combination will be up to HAS.

9.0 MWBE COMPLIANCE (PASS/FAIL)

9.1 Minority and Women Business Enterprises (MWBE) Contractors shall comply with the City's Minority, Women, and Small Business Enterprise (MWSBE) programs as set out in Chapter 15, Article V of the City of Houston Code of Ordinances. Contractors shall make Good Faith Efforts to awards subcontracts or supply agreements in at least the value stated in the Agreement to MWSBE's. Contractor acknowledges that it has reviewed the requirements for Good Faith Efforts on file with the City's Office of Business Opportunity and will comply with them.

9.2 MWBE and Local Business Participation Plan If the total Construction Cost Estimate for the Project is greater than One Million Dollars or if the contract has a Professional Services component, the contractor shall make Good Faith Efforts to comply with the City Ordinances and the Requirements for the City of Houston Program for Minority, Women, and Small Business Enterprises. The contract goals are as follows:

9.2.1 The MWBE goal is **16%** (MBE – 11% and WBE – 5%)

9.3 Failure by Contractor to comply with the Good Faith Efforts policy will be considered non-compliant with the MWSBE program. Failure to be compliant will result in any and all actions permitted by City Ordinance or the Office of Business Opportunity's Policies and Procedures Manual.

9.4 "Good Faith Efforts Policy" is defined in the Office of Business Opportunity's Policy and Procedures Manual, which is available at http://www.houstontx.gov/obo/index.html.

10.0 **FINANCIAL CAPABILITIES (PASS/FAIL)**

10.1 Proposer is required to submit, in a separate, sealed envelope, clearly marked "Financial Statements", one (1) stamped "Original" and one (1) copy of its Financial Statements with its Submittal.

10.2 Submit audited financial statements for the last two years. If audited financial statements are not available, please submit tax returns for the two previous years and two years of unaudited financial statements.

11.0 INTERVIEWS/ORAL PRESENTATIONS

11.1 Following the evaluation of the written proposals, HAS may interview short-listed Respondents at its sole discretion. Submission of a proposal does not guarantee the right to an interview. HAS reserves the right to accept or reject any or all Proposals in response to this Request for Proposal (RFP). Additional information will be provided to those Respondents being interviewed, should this step be required.

11.2 The evaluation committee may arrive at a short list of proposers. These short-listed proposers may be scheduled for a structured oral presentation and interview and will be further evaluated based on the proposal and presentation. Short-listed proposers may receive clarifying questions from the evaluation committee in advance of their presentation and interview. Should oral presentations be required, invited proposers may be asked to revise their proposal to reflect things revealed or explicated in the oral presentation and interview. Please note that HAS is not responsible for costs associated with oral presentations and interviews.

12.0 SELECTION PROCESS AND CONTRACT AWARD

12.1 Submission of Proposals in response to this RFP indicates Proposer's acceptance of the selection process and the evaluation criteria described herein.

12.2 Responses will be evaluated by an Evaluation Committee consisting of City of Houston personnel. The Evaluation Committee may include non-voting, non-City personnel to observe the process. Selection will be based on the Evaluation Criteria described in Sections 8.0 thru 11.0.

12.3 Step ONE of the selection process:

12.3.1 Based on the number and quality of Proposals to this RFP, the evaluation committee may form a short list of proposers whose proposals provide the most desirable methods for providing the services. In developing the short-list, the committee will consider, among other things, the criteria described in Section 8.0. The Houston Airport System will utilize the consensus scoring methodology to evaluate this RFP.

12.3.2 NOTE: If a clear, first-place proposer is identified, the proposers will be notified of such, and there will be no Step TWO. If no oral presentation/interview is required by the evaluation committee, the initial scores will become the final scores. However, in the event the evaluation committee identifies no clear, first-place Proposer, the evaluation committee may request oral presentations/interviews for short-listed Proposers identified in Step ONE.

12.4 Step TWO of the selection process:

12.4.1 Proposers will be notified in writing of the date/time and location of their presentation if they have been chosen for further consideration.

12.4.2 After the oral presentations/interviews (if required) are completed, final scores will be established by the evaluation committee. The scores from the oral presentations/interviews will serve as the FINAL scores. Scores from the first round (Step ONE) will not be added or averaged as part of the final scores.

12.4.3 The City reserves the right to request clarifying information from and ask additional questions of any individual proposer at any time during the evaluation process. The City also reserves the right to contact any references provided by the Proposer within its Response.

12.5 Step THREE of the selection process:

12.5.1 After Step TWO (or Step ONE if no oral presentation/interview is required), the City will begin contract negotiations with the highest ranked Proposer(s) based upon the sample contract form attached to this RFP. As part of its Step ONE submittal, proposer shall provide the City with any comments it has regarding the sample contract. If negotiations result in agreement, the proposed contract will be submitted to the City Council for approval.

12.5.2 Notwithstanding the foregoing, the City makes no representation that an award will be made as a result of this RFP. The City reserves the right to award a contract for all or any portion of the project requirements addressed in this RFP, award multiple contracts, or to reject any and all proposals if deemed to be in the best interest of the City and to re-advertise. In addition, the City reserves the right to waive any formalities or technical inconsistencies or delete any requirements from this RFP when deemed by the City to be in its best interest. HAS reserves the right to cancel this RFP, accept or reject, in whole or in part any or all Proposal(s) received in the best interest of the HAS.

12.5.3 Any failure by the Proposer to acquaint itself with the available information will not relieve it from the obligation of entering into a contract with the City should it be the successful Proposer. The City shall not be responsible for any conclusions or interpretations made by the Proposer of the information made available by the City in this RFP or independent of this RFP.

PROPOSER QUALIFICATIONS/SUBMITTAL PROCEDURES

13.0 MINIMUM QUALIFICATIONS

13.1 The Proposer shall have been in the business of selling, designing, installing, and maintaining qualified common/shared use passenger processing systems including but not limited to items in Section 5.1 at large-hub airports that meet or exceeds an annual throughput of ≥10 million passengers per year for a minimum of five (5) years.

14.0 REFERENCES

14.1 The Proposer shall provide a minimum of three (3) qualified reference sites where the Proposer acted as the single entity responsible for the design, implementation, interfacing, configuration, testing, and on-going support for C/SUPPS and CUSS at large-hub airports.

15.0 PERSONNEL EXPERIENCE REQUIREMENTS

15.1 Each member of the proposing team shall be certified by the manufacturer of the system as being trained in the installation of the portion of the overall system that the team member is installing. Refer to the required response format for additional information regarding personnel experience requirements.

16.0 SUBMITTAL PROCEDURES

16.1 Provide ten (10) printed copies of the Proposal (numbered x of xx), including one (1) printed original signed in BLUE ink, and marked as "Original" on the outside cover. Additionally, provide ten (10) complete copies on a memory stick (USB Thumb drive) labeled with the appropriate Solicitation name and number that includes a complete copy of all information in the printed original. Please submit all items in a sealed envelope or package bearing the assigned Title and RFP Number to:

Cathy Vander Plaats
Procurement Officer
Houston Airport System
Supply Chain Management
18600 Lee Road
Humble, Texas 77338

16.2 The envelope or package should clearly identify the name and address of the Proposer and indicate the contents as "Response to H27-C/SUPPS-2021-004 for Common/Shared Use Passenger Processing System."

16.3 The deadline for the submittal of the Response to the Houston Airport System (HAS), Supply Chain Management Office is no later than the date and time as indicated on the first page of the Solicitation document. Failure to submit the required number of copies as stated above may be subject for disqualification from the proposal process.

16.4 Proposers may elect to either mail or personally deliver their Response to the Supply Chain Management Office. HAS bears no responsibility for submitting Proposals on behalf of any Proposer. Proposer(s) may submit their Proposals to the Supply Chain Management Office any time prior to the stated deadline.

16.5 In the event that there are discrepancies among the various Proposals submitted, the "Original" Response signed in BLUE ink shall govern.

16.6 All proposals must be labeled on the outside of the envelope or box with the Proposer's name and the name of the Solicitation. Proposers should follow the required format in preparing their Proposal in order to enable HAS to efficiently evaluate the Proposals.

16.7 Each copy of the Response shall be bound using GBC or other semi-permanent binding method, to ensure that pages are not lost. Pages shall be no larger than letter-size (8 ½" by 11") or folded to that dimension, twice letter size (11" by 17"). A tabbed divider shall separate each section (defined below). Document text should be in Arial (or similar standard sans serif font) 10 point or Times New Roman (or similar standard serif font) 12 point, but must be consistent throughout the document.

16.8 At least one copy must carry the original signature of an officer or individual having legal authority to enter into agreements on behalf of the Proposer. The deadline for submission is on Thursday, November 19, 2020, 2:00 P.M. (CST).

Each envelope or package should be clearly marked "Response to H27-C/SUPPS-2021-004 for Common/Shared Use Passenger Processing System." Proposals received after this date and time will be returned unopened and not considered.

17.0 PROPOSAL OUTLINE AND MINIMUM CONTENT REQUIREMENTS

17.1 Each Response shall be organized in the following order and tabbed appropriately:

17.1.1 **Outside Cover**

17.1.1.1 This shall contain the RFP number and title "H27-C/SUPPS-2021-004 Common/Shared Use Passenger Processing System," the name of the Proposer, and the submittal date. Remember to label the original documents as "ORIGINAL" on the outside cover.

17.1.2 Table of Contents

17.1.3 **TAB 1 - Transmittal Lette**r

17.1.3.1 Submit a one (1) page letter transmitting the Proposal to Cathy Vander Plaats, Houston Airport System. The transmittal letter shall state, "This Proposal is valid for 180 days," and that the signer of the document is authorized by the Proposer to sign the document.

17.1.3.2 Letter shall contain the names and roles/responsibilities of all individuals proposed for the Team, and the Proposer must certify that each Key Personnel of the Team was selected based on demonstrated competence and qualifications.

17.1.3.3 The letter must include a statement committing the availability of the key personnel.

17.1.3.4 One copy of the transmittal letter shall contain the original signature of the team lead. NOTE: Acknowledge receipt of all RFP Letter(s) of Clarifications, if any, in this Transmittal Letter.

17.1.4 **TAB 2 – Description of Firm**

17.1.4.1 Provide a general description of the firm, including systems, services, and staffing offered, number of employees, office locations, and the number of years in business.

17.1.5 **TAB 3 – Executive Summary**

17.1.5.1 The Executive Summary should provide an overview of the qualifications necessary to accomplish the project, which includes a narrative statement of the Proposer's understanding of the Project and key points in their Proposal. At a minimum, the Executive Summary must contain the following information:

17.1.5.1.1 Complete legal name of the Proposer, the name of the legal entities that comprise the Proposer, and all proposed subcontractors. The Proposer must provide the domicile where each entity comprising it is organized, including entity name, brief history of the entity, contact name, address, phone number, as well as the legal structure of the entity and a listing of major satellite offices. If the Proposer is made up of more than one firm, the legal relationship between these firms must be described.

17.1.5.1.2 Prepare narrative statements that describes the Proposer's understanding of the work involved in performing the Scope of Work that is described in the Functional Specification.

17.1.6 **TAB 4** – Response to Firm and Individual Professional Experience and Knowledge as described in Section 8.4.1.

17.1.7 **TAB 5** – Response to Project Plan and Schedule as described in Section 8.4.2.

17.1.8 **TAB 6** – Response to Technical Design/Approach as described in Section 8.4.3.

17.1.9 **TAB 7** – Live Demo Airport Environment 8.4.4

17.1.10 **TAB 8** – Response to Maintenance Support as described in Section 8.4.5.

17.1.11 **TAB 9** – Response to Proposal Pricing as described in Section 8.4.6.

17.1.12 **TAB 11** – Response to MWBE Compliance as described in Section 9.0.

17.1.13 **TAB 12** – Response to Financial Capabilities as described in Section 10.0.

17.1.14 **TAB 13** – Provide all the Forms to be submitted with the Proposal as described in Section 19.0.

PART V: GENERAL TERMS AND CONDITIONS

18.0 GENERAL TERMS AND CONDITIONS

18.1 DRUG DETECTION AND DETERRENCE PROCEDURE

18.1.1 Please complete the related drug detection and deterrence procedures City Required Documents (Exhibit G).

18.2 INSURANCE REQUIREMENTS

18.2.1 The selected Respondent shall obtain and maintain in effect during the term of the Agreement, insurance coverage as set out below, and shall furnish certificates of insurance, in duplicate form, prior to the beginning of the services hereunder. All such policies except Professional Liability, Workers' Compensation and Employer's Liability shall be primary to any other insurance and shall name the City as an additional insured. All liability policies shall be issued by a company with a Certificate of Authority from the State Department of Insurance to conduct insurance business in Texas or a rating of at least B + with a financial size of Class VI or better according to the current year's Best's rating. The selected Proposer shall maintain the following insurance coverages in the following amounts:

18.2.1.1 Professional Liability insurance $1,000,000 per occurrence; $2,000,000 aggregate.

18.2.1.2 Automobile Liability insurance (including non-owned and hired auto coverage) $1,000,000 combined single limit per occurrence.

18.2.1.3 Commercial General Liability insurance including Contractual Liability insurance: $1,00,000 per occurrence; $2,000,000 aggregate

18.2.1.4 Workers' Compensation in the amount set by statute.

18.2.2 Defense costs excluded from face amount of policy Aggregate limits are per 12-month policy period unless otherwise indicated.

18.2.3 All insurance policies required by the Contract shall require on their face, or by endorsement, that the insurance carrier waive any rights of subrogation against the City. Respondent shall give thirty (30) days advance written notice to the City before they may be canceled or materially changed. Within such thirty (30) day period, the selected Respondent shall covenant that it will provide other suitable policies in lieu of those about to be canceled or materially changed, so as to maintain in effect the coverage.

18.3 **FAIR CAMPAIGN ORDINANCE**

18.3.1 The City of Houston Fair Campaign Ordinance (Section 18-36 of the City Code of Ordinances) makes it unlawful for a contractor to offer any contribution to a candidate for City elective office during a certain period of time prior to and following the award of the contract by City Council. The term "contractor" includes sole proprietors, partners of partnerships, and all officers, directors, and holders of ten percent or more of the outstanding shares of corporations. A statement disclosing the names and business addresses of each of those persons will be required to be submitted with the Response. A blank copy of "Contractor Submission List - City of Houston Fair Campaign Ordinance" (Form A) is included in this RFP in Exhibit E (See Chapter 18 of the Code of Ordinances, Houston, Texas, for further information).

18.4 **PAY OR PLAY PROGRAM**

18.4.1 The requirements and terms of the City of Houston Pay or Play policy, as set out in Executive Order 1-7, are incorporated into the Agreement for all purposes. Contractor has reviewed Executive Order No. 1-7 and shall comply with its terms and conditions as they are set out at the time of City Council approval of the Agreement.

18.4.2 Review Document 00840: Pay or Play Program; and fill out Documents 00630 and 00631 for submittal.

18.5 **DELINQUENT TAX**

18.5.1 Prior to consideration by City Council, evidence must be submitted by each owner/operator(s) demonstrating that no delinquent taxes are owed to the City of Houston. Complete form attached as Exhibit D (Affidavit of Ownership).

18.6 **MISCELLANEOUS**

18.6.1 All Proposals submitted in response to this RFP are the property of the City and are not available for public review or debriefing by any Respondent until after selection and approval of an Agreement by City Council. All information submitted becomes public record and subject to the Texas Public Information Act including information marked proprietary or confidential.

18.6.2 Any cost associated with the submittal of a response to the RFP will be solely the expense of the Respondent.

18.6.3 This RFP is not to be construed as a contract offer or as a commitment of any kind; and receipt by the City of a response by a Respondent in no way obligates the City in any manner whatsoever.

18.6.4 Copies of City Ordinances and Policies noted in the RFP may be obtained from the City Secretary's Office, Plaza Level, City Hall Annex, Room 101, 900 Bagby, Houston, Texas 77001.

18.6.5 It is believed that this RFP contains all the information related to the project that is needed to prepare an adequate response. However, any questions or requests for information that are deemed necessary should be made in writing or e-mail no later than 2:00 p.m. CST on October 15, 2020, to Al Oracion, Senior Procurement Specialist – Houston Airport System, Supply Chain Management, 18600 Lee Road, Humble, Texas 77338 (Alfredo.Oracion@houstontx.gov). Responses to all questions will be in writing and will be distributed to all RFP holders.

18.7 **NO CONTACT PERIOD**

18.7.1 Neither bidder(s) nor any person acting on bidder(s)'s behalf shall attempt to influence the outcome of the award by the offer, presentation or promise of gratuities, favors, or anything of value to any appointed or elected official or employee of the City of Houston, their families or staff members. All inquiries regarding the solicitation are to be directed to the designated City Representative identified on the first page of the solicitation. Upon issuance of the solicitation through the pre-award phase and up to the date the City Secretary publicly posts notice of any City Council agenda containing the applicable award, aside from bidder's formal response to the solicitation, through the pre-award phase, written requests for clarification during the period officially designated for such purpose by the City Representative. However, nothing in this paragraph shall prevent a bidder from making public statements to the City Council convened for a regularly scheduled session after the official selection has been made and placed on the City Council agenda for action, or to a City Council committee convened to discuss a recommendation regarding the solicitation.

18.8 **EQUAL OPPORTUNITY EMPLOYMENT**

18.8.1 The City of Houston Ordinance Section 15-17 establishes Equal Employment Opportunity Contract Compliance requirements for all City of Houston contracts involving the expenditure of Fifty Thousand Dollars ($50,000) or more. Any contract that results from this RFP will provide that the failure to carry out the requirements set forth in the City of Houston Equal Employment Opportunity Program shall constitute a breach of contract and may result in termination of the agreement or contract. In addition, the City may take any such additional remedy as deemed appropriate.

18.9 **PROTEST**

18.9.1 Protests should be filed in accordance with the City of Houston Administrative Policy (A.P. No. 5-12)
http://www.houstontx.gov/policies/administrative_policies.html

18.10 **ANTI-BOYCOTT OF ISRAEL**

18.10.1 Vendor certifies that Vendor is not currently engaged in and agrees or the duration of the contract not to engage in, the boycott of Israel as defined by Section 808.001 of the Texas Government Code.

18.11 **EXECUTIVE ORDER 1-56 ZERO TOLERANCE FOR HUMAN TRAFFICKING IN CITY SERVICE CONTRACTS AND PURCHASING**

18.11.1 The City has a zero tolerance for human trafficking and, per Executive Order 1-56, City funds shall not be used to promote human trafficking. City vendors are expected to comply with this Executive Order and notify the City's Chief Procurement Officer of any information regarding possible violation by the vendor or its subcontractors providing services or goods to the City. The Executive Order is available on the City's website: http://www.houstontx.gov/execorders/1-56.pdf

18.12 **PRESERVATION OF CONTRACTING INFORMATION**

18.12.1 "The requirements of Subchapter J, Chapter 552, Government Code, may apply to this (include "bid" or "contract" as applicable) and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter."

(https://statutes.capitol.texas.gov/Docs/GV/htm/GV.552.htm#552).

CITY REQUIRED DOCUMENTS

PART VI: CITY REQUIRED DOCUMENTS AND ATTACHMENTS

19.0 FORMS TO BE SUBMITTED WITH PROPOSAL

Exhibit A – Offer and Submittal

Exhibit B – References

Exhibit C – List of Subcontractors

Exhibit D – Contractor Ownership Disclosure Ordinance & Affidavit of Ownership

Exhibit E – Fair Campaign Ordinance

Exhibit F – Statement of Residency

Exhibit G – Drug Detection and Deterrence Procedures

Exhibit H – Pay or Play Acknowledgement Form

Exhibit I – Anti-Collusion Statement

Exhibit J – Conflict of Interest Questionnaire

Exhibit K – Bidder’s MWBE Participation Plan – Document 00470

Exhibit L – Pre Bid Good Faith Efforts - Document – Document 00471

Exhibit M – Bidder’s MWSBE Goal Deviation Request – Document 00472

Exhibit N – Insurance Requirements

Attachment B – Required Pricing Response Form

Attachment C – Required Submittal Checklist

Attachment D – Sample Agreement

20.0 FORMS TO BE SUBMITTED AFTER RECEIPT OF NOTICE OF INTENT TO AWARD

(To be provided by the recommended firm)

Exhibit O – Affidavit of Compliance with Affirmative Action Program

Exhibit P – Certification of Compliance with Pay or Play Program (POP-2) Program

Exhibit Q – Pay or Play Program List of Subcontractors (POP-3) Program

Exhibit R – Contractor's Revised MWBE Participation Plan – Document 00570

Exhibit S – Record of Post-Bid Good Faith Efforts – Document 00571

Exhibit T – Plan Deviation Request Form – Document 00572

Exhibit U – Performance Bond

Exhibit V – Statutory Payment Bond

ATTACHMENT A

SPECIFICATIONS/SCOPE OF SERVICES

1.0 SCOPE OF WORK

1.1 General

1.1.1 Great travel experiences start when passengers arrive at the airport. In order to make their journey more convenient, safe, secure, and effortless, HAS desires to explore and implement a complete curb-to-gate common use passenger processing system (C/SUPPS). HAS embraces the future of air travel, passenger convenience, and security made possible by advances in technology and governmental regulations. A full curb-to-gate common use passenger processing system may include, but is not limited to the following:

- Mobile passenger enrollment
- Common use biometric support
- Identity management systems
- Common use self-service check-in kiosks
- Common use self-bag drop systems
- Common use terminal equipment
- Passenger pass-through security screening systems
- Common use self-service boarding systems
- Automated border control systems

1.1.2 The Contractor shall perform the general scope of work described herein. This project is intended to provide a full curb-to-gate C/SUPPS and CUSS implementation that provides all required functionality to support airport and airline operations while providing a base installation that can be expanded and/or augmented in the future to support the dynamic HAS environment. The full implementation of a curb-to-gate solution will meet the future demands for passenger convenience, ease of use, and security, safety, and health requirements. During the implementation phase, HAS may require equipment and support for passenger processing systems, additional ticket and/or gate counters, additional CUSS equipment, and/or additional airlines to be added to the scope of work. This will be at the sole discretion of HAS.

1.1.3 The Contractor shall be responsible for the design, implementation and support of C/SUPPS and CUSS at the George Bush Houston Intercontinental Airport (IAH) and William P. Hobby Airport (HOU). In doing so, the Contractor shall provide the following services, including but not limited to:

1.1.3.1 Project management and coordination

1.1.3.2 System design services

1.1.3.3 System fabrication/development, delivery, installation, configuration, interface, testing, and integration.

1.1.3.4 All required coordination with airlines, the Director and/or designee, other system Contractors, and project representatives System testing.

1.1.3.5 End user training

1.1.3.6 System warranty, warranty management and

1.1.3.7 Maintenance report

1.1.3.8 The Contractor shall prepare the necessary documents required for installing, testing, and bringing the C/SUPPS and CUSS online including self-bag drop systems. Such documents include, but are not limited to:

1.1.3.8.1 Project management and quality assurance plans

1.1.3.8.2 System design plans

1.1.3.8.3 Implementation schedule

1.1.3.8.4 Component and system submittal documents

1.1.3.8.5 Installation plans

1.1.3.8.6 Testing plans

1.1.3.8.7 System user documentation

1.1.3.8.8 As-built drawings and documentation according to specifications found in HAS CAD/Geospatial Data Standards and documentation

1.1.4 The Contractor shall coordinate with the Director and/or designee and the airlines to ensure the installed system meets the required goals of HAS and the specific requirements of each airline that will utilize the system. The Contractor is required to perform all coordination with HAS and airline representatives to ensure that the system meets all the functional, security, and technical requirements of each airline stakeholder. Elements that must be coordinated with the airlines include, but are not limited to:

1.1.4.1 Peripheral devices that may include but are not limited to self-service kiosks, self-bag drop systems, passenger pass-through and self/automated boarding systems, PCs, bag tag printers, boarding pass printers, boarding pass readers, magnetic card swipe keyboards, document printers, biometric screening devices, etc.

1.1.4.2 Interfaces to each airline’s host system

1.1.4.3 Interfaces to 3rd party systems such as:

1.1.4.3.1 Service Now and INFOR Enterprise Asset Management System (EAMS)

1.1.4.3.2 Electronic Visual Information Display Systems (EVIDS)

1.1.4.3.3 Financial and property management systems (PropWorks®)

1.1.4.3.4 Resource Management Systems

1.1.4.3.5 Others to be determined during the final scope of work/negotiation process

1.1.4.4 To provide these services the Contractor shall perform stakeholder design workshops to develop, review, and finalize all functional and technical requirements.

1.1.5 The Contractor shall coordinate with the HAS IT Service Now Administrators to integrate the HAS Service Now application or any other IT Service Management application in the future with the Contractor’s IT service management application. Preventative Maintenance Plans, Request, Incident, Problem, and Change tickets opened, worked, and closed by the Contractor shall be reflected in the HAS Service Now IT service management application or any other IT service management application in the future.

1.1.6 The Contractor shall perform all necessary coordination with third party vendors (i.e. Multi-user Flight Information Display System (MUFIDS) vendor, Resource Management System (RMS) vendor, financial system(s) vendor, etc.) to ensure all integration components are properly implemented.

1.1.7 The Contractor shall supply all software and hardware necessary for the system to function as required. In addition, the Contractor shall provide all end-user connectivity cabling components for the interconnection of system equipment and connection to the campus-wide communications infrastructure, Premises Distribution System (PDS). This shall consist of CommScope Systimax Category 6 UTP patch cords for interconnection from data jacks to end devices. The Contractor shall follow all HAS structured cabling requirements in accordance with the HAS Division 27 specifications found in “SECTION 271300 BACKBONE AND RISER MEDIA INFRASTRUCTURE” and “SECTION 271500 HORIZONTAL MEDIA INFRASTRUCTURE.”

1.1.8 The Contractor shall be responsible for the design, implementation, and on-going maintenance and support of a Local Area Network (LAN) to support the C/SUPPS and CUSS implementation. The network hardware (e.g. switches, firewalls, line cards, power supplies, network uplink modules, etc.) for this LAN shall be furnished and installed by the Contractor and shall follow all HAS networking requirements in accordance with the HAS Division 27 specifications “SPECIFICATION 271100 COMMUNICATIONS CABINETS AND EQUIPMENT ROOMS” and “SECTION 272100 DATA COMMUNICATION NETWORK EQUIPMENT.” The Contractor shall be required to coordinate with HAS and the airlines in order to facilitate the required integrations between the C/SUPPS LAN as required to meet the functional requirements of this RFP. In addition, HAS will require access to the C/SUPPS LAN in order to complete security audits of the infrastructure. The proposed LAN solution shall be submitted for review and approval by HAS. The quantity of switches will be dependent upon the design completed by the Contractor. However, as a point of reference, the existing C/SUPPS solution in Terminal A is supported by a LAN consisting of approximately six (6) access layer switches, one (1) core layer switch, and one (1) firewall device. The Contractor shall assign a project manager that directly reports to the HAS Project Manager to support the specific coordination requirements associated with the installation of the C/SUPPS and CUSS. The Project Manager shall have a minimum of 10-years working experience on C/SUPPS and CUSS aviation implementation projects of a similar nature and scale.

1.1.9 The Contractor shall assign a project manager that directly reports to the Director and/or designee to support the specific coordination requirements associated with the installation of the C/SUPPS and CUSS. The Project Manager shall be PMI certified and have a minimum of 10-years working experience on C/SUPPS and CUSS aviation implementation projects of a similar nature and scale.

Contractor shall provide a Project Manager for the Implementation Phase(s) and a Project Manager for the Basic Services portion of the Agreement.

1.1.10 The Contractor shall be responsible for providing all proposals as identified in the Agreement.

1.1.11 The Contractor shall be responsible for providing the following installation items as they relate to the C/SUPPS and CUSS:

1.1.11.1 All required hardware components to provide a fully functional system.

1.1.11.2 All fiber and copper patch cords to provide connection between devices and the PDS that are required for a complete, fully functional system.

1.1.11.3 Coordination with the Director and/or designee to ensure the Local Area Network is properly configured to support the C/SUPPS and CUSS requirements.

1.1.11.4 The labeling of all newly installed components in accordance with direction provided by the Director and/or designee which may include attaching RFID tags to Common Use hardware and peripherals and maintaining an inventory in HAS's RFID inventory database.

1.1.11.5 Warranty as specified in the Agreement.

1.1.11.6 Maintenance and support services as specified in the RFP documentation.

1.1.12 The Contractor shall verify system operability and proper installation via completion of all required test plans.

1.1.13 All installation work shall be performed in a manner that will minimize disruption to the airlines, HAS, and the travelling public. The Contractor shall coordinate with the Director and/or designee to schedule any work in public areas during times that minimize impact to operations. Any work performed during "off peak" operating hours will not incur additional costs to HAS. Additionally, any maintenance work performed on the system, such as application updates and upgrades, application security updates, operating system updates and upgrades, and operating system security updates shall be performed during HAS's designated maintenance window which shall be coordinated with the Director and/or designee.

1.1.14 The Contractor shall utilize existing data drops and electrical power outlets. If is determined that the existing power or data configurations are inadequate to support the new equipment, the Director and/or designee shall be notified to determine a course of action for rectifying. If it is determined that it is necessary to perform any millwork modifications to support the new C/SUPPS equipment in the existing counters, the Contractor shall submit a plan to the Director and/or designee and then, upon approval of the plans, perform the millwork.

1.1.15 The Contractor shall provide six (6) workstations that include all peripheral devices in use at IAH for end user training purposes and user acceptance testing. The workstations shall be in a room as directed by the Director and/or designee. The training room shall be kept clean and organized and the workstations and peripheral equipment shall be kept clean, operational, and updated with the latest application releases and operating system patches.

1.1.16 Once the C/SUPPS is expanded to HOU, the Contractor shall provide four (4) workstations that include all peripheral devices in use at HOU for end user training purposes. The workstations shall be in a room as directed by the Director and/or designee. The training room shall be kept clean and organized and the workstations and peripheral equipment shall be kept clean, operational, and updated with the latest application releases and operating system patches.

1.1.17 The proposed C/SUPPS and CUSS approach may be based on an on-site, non-hosted solution, a cloud solution, or a hybrid solution.

1.1.18 Contractor shall provide C/SUPP and CUSS operation & maintenance services for the Houston Airport System. Contractor shall provide all labor, management, supervision, parts, equipment, materials, tools, instruments, supplies, expendable items, incidentals, transportation, and training necessary to provide maintenance services. Contractor shall provide the highest standards of service

prevailing in the industry. These standards will be achieved by continuous improvement through open communication with HAS, regular management reviews, and industry guidelines.

1.1.19 Local Departure Control System – Provide a LDCS in accordance with the requirements provided herein.

1.1.20 At any time throughout the contract term, the dynamic environment in which HAS operates may require the addition or deletion of devices, workstations, peripherals, etc. The Contractor shall be required to adjust its solution to address these needs at the direction of HAS in order to ensure a high level of service is provided at the facilities operated by HAS.

1.1.21 The Contractor is not responsible for the following items:

1.1.21.1 Design or construction of the communications rooms that will be used to house the C/SUPPS and CUSS equipment. However, unique mounting equipment to support installation in existing racks/cabinets shall be provided by the Contractor, as necessary.

1.1.21.2 Supply of communications racks/cabinets that will house C/SUPPS and CUSS components. However, coordination by the Contractor shall be required with the Director and/or designee to identify locations for mounting of all C/SUPPS and CUSS equipment and to ensure adequate space within the rack/cabinet(s) is available.

1.1.21.3 The cabling infrastructure (with the exception of patch cords) that will be used to interconnect C/SUPPS and CUSS components. This includes all fiber optic backbone cabling, copper backbone cabling, horizontal cabling, communications room hardware, termination blocks, patch panels, and telecommunication outlets. However, the Contractor shall be responsible for performing coordination with HAS Project Manager to ensure the physical connectivity requirements are in place and identifying any new requirements for cabling installations.

1.1.22 Contractor shall be responsible for providing safe, cost effective and high-quality services using qualified and properly trained employees and shall carry out all the responsibilities under this contract with the fact that he/she has been covenanted a public function which he/she performs as an independent contractor for the City. All services shall be in accordance with the highest standards prevailing in the industry, as well as applicable codes, rules, regulations, laws, and practices governing the said services.

1.1.23 If HAS selects to own all equipment, all equipment, software licenses, and appurtenances shall be the property of HAS once Substantial Completion of each installation has been completed.

1.1.24 All equipment moves or relocations requested by the Airline and/or HAS shall be covered by the Contractor at no additional cost to HAS.

2.0 SYSTEM TECHNICAL REQUIREMENTS

2.1 C/SUPPS and CUSS General Requirements

2.1.1 The C/SUPPS shall allow check-in, self-bag drop, biometric screening, gate, boarding, etc., IT hardware to be used by multiple airlines, both those identified as currently operating at HAS and future additional airlines.

2.1.2 The technical requirements provided herein serve as a high-level performance, functional, operational, and maintenance framework for the C/SUPPS. As the baseline technical requirement, successful respondents must meet the

requirements specified herein. It is understood that qualified Contractors (or their selected Sub-Contractor) have a range of effective approaches for delivering C/SUPPS, which vary significantly regarding hardware and software elements, but provide similar performance, functional, operational, and maintenance results. Technically equivalent solutions to specific technical approaches described herein will be given equal consideration.

2.1.3 Payment Card Industry (PCI) Data Security Standards – The Contractor shall comply with the latest PCI data security standards and shall ensure that the Contractor's S/CUSS system remains in compliance with the latest PCI Data Security standards during the term of the contract. The Contractor shall submit a PCI Attestation of Compliance on an annual basis and provide compliance documentation to the Director and/or designee and to each airline utilizing the S/CUSS system at HAS.

2.2 **C/SUPPS and Common Use Self-Service (CUSS) Expansion and Airline Requirements**

2.2.1 The implemented C/SUPPS solution shall be capable of expanding to support a minimum of 200 ticket counter positions and 100 gates.

2.2.2 The implemented C/SUPPS solution shall be capable of supporting the airlines currently at IAH and HOU and any other future airline partners during the entire duration of the contract. The following is a list of airline partners currently at IAH and HOU.

Airlines at IAH (Table 5)	
Aeromexico	Air Canada
Air China	Air France
Air New Zealand	Alaska
All Nippon Airways (ANA)	American Airlines
Avianca	Boutique Air
British Airways	Delta
Emirates	Ethiopian
Eva Air	Frontier Airlines
Interjet	JetBlue Airways
KLM	Lufthansa
Qatar Airways	Singapore Airlines
Spirit Airlines	Turkish Airlines
United Airlines	VivaAerobus
Volaris	WestJet

Airlines at HOU (Table 6)	
American Airlines	Delta
Southwest	

2.2.3 The Contractor shall provide host connectivity for each airline's host feed (a shared, redundant, multi-host feed may be proposed). All WAN circuits shall be delivered to the location of the C/SUPPS servers which will be located in the computer/server room located on the HAS campus. The Contractor is responsible for final connection, gateway (if required), and/or coordination of final connection of airline feeds into the C/SUPPS.

However, the CUSS shall have the capability to support any of the airlines listed in on Table 5 and Table 6 and any future airline partners should expansion of the CUSS occur.

2.3 **Field Equipment Requirements**

2.3.1 Millwork modifications supporting new equipment shall be performed by the Contractor upon approval of the modification plans by the Director and/or designee.

2.3.2 Passive data and electrical infrastructure are provided by HAS. However, the Contractor is required to review existing configurations and notify HAS within 10 business days of the start of any implementation phase if the existing infrastructure cannot support the new equipment. HAS will determine the appropriate plan of action for providing new supporting infrastructure.

2.3.3 Phone and paging microphones are provided by HAS.

2.3.4 Remove existing equipment and return in accordance with direction from the Director and/or designee.

3.0 SYSTEM STANDARDS

3.1 General

3.1.1 The standards in the following sections apply to the entire C/SUPPS and its associated systems and modules unless noted otherwise.

3.1.2 Each individual system and application provided shall meet these standards as a minimum.

3.1.3 The C/SUPPS shall facilitate integration of other applications.

3.2 **SOFTWARE**

3.2.1 General

3.2.1.1 The Contractor shall deliver all required system and application software for a fully functioning C/SUPPS and CUSS. Each shall be identified by the generic, off-the-shelf name. The software provided by the Contractor to operate the systems shall be delivered in a ready-to-run form, including all necessary utility programs and documentation.

3.2.1.2 The systems shall use industry standard components. The systems shall not contain any proprietary interfaces or components. The system shall use industry standard application development software.

3.3 **SYSTEM PERFOMANCE REQUIRMENTS**

3.3.1 General

3.3.1.1 Capacity – The C/SUPPS shall be designed to support the operational, functional, and performance requirements, specified herein, for a minimum of 75 flight operations per hour and 20 different airlines with a total of 75 users simultaneously conducting 30 user operations per minute.

3.3.1.2 System Availability – At any given time, the overall C/SUPPS shall be considered unavailable if 15 percent or more of the end devices are non-operational, not fully functional, or do not meet response time criteria for any given tenant. Software and system devices shall execute, without degradation, at the scheduled periods and response times for the systems to be considered available. The systems shall operate as specified twenty-four (24) hours per day, seven 7 days per week. Availability of the overall C/SUPPS shall be at least 99.99 percent (not more than 52 minutes per year of downtime).

3.3.1.3 Device Availability – A system server, workstation, switch, router, hub, kiosk, screening device, bag-drop equipment, display, etc. shall be considered available only if all components are operating and fully functional. A peripheral device shall be considered unavailable if it cannot be placed on-line and perform its intended function(s). Besides scheduled downtime, as identified below, individual device availability shall exceed 99.99 percent (not more than 87.5 hours per year of downtime).

3.3.1.4 Scheduled Downtime – Downtime to update the computer operating system or repair a component shall be acceptable reasons for downtime, but at no time shall more than 15 percent of the system be non-operational. Maintenance and updates shall be performed during the HAS maintenance window and shall follow the HAS change management guidelines. The following reasons are acceptable causes of down time:

3.3.1.4.1 If the operating system of the servers require maintenance or updates, or if the servers require system maintenance, each server shall be brought down individually to be updated/maintained, such that at no time is more than one server down at the same time. Maintenance and updates shall be performed during the HAS maintenance window and shall follow the HAS change management guidelines.

3.3.1.4.2 If the operating system of the end device computer requires maintenance or updates, or if the end device computers require system maintenance, the end device that requires the maintenance shall be brought down during the HAS maintenance window. Maintenance and updates shall be performed during the HAS maintenance window and shall follow the HAS change management guidelines.

3.3.1.4.3 It shall be acceptable to perform maintenance/updates on an end device computer system during other than non-peak hours if the particular end device is non-functional without having the maintenance or updates performed.

3.3.2 SSAE 18 Compliance.

3.3.2.1 For as long as Contractor has City data or on behalf of the City, Contractor will maintain an information security program that provides for the security and protection of the City data, including, but not limited to, processes and procedures to respond to security incidents. Contractor will operate in conformance with the physical, technical, operational and administrative

measures and protocols regarding data security as set forth in its then current Standards for Attestation Engagements (“SSAE”) No. 18 SOC1 Type II Report or SOC2 (or equivalent report), received from its third party auditors. Contractor will, upon written request, provide City with copies of then-current SSAE No. 18 report issued by its third party independent auditors in relation to the data security policies and procedures designed to meet the requirements set forth in this Agreement with regard to the services.

4.0 CUSS PERFORMANCE REQUIREMENTS

4.1 General

4.1.1 The CUSS shall meet all performance requirements as set by the IATA Common Use Working Group (CUWG) Recommended Practices, Technical Specifications and Certification Criteria pertaining to CUSS as published on the IATA Passenger Experience Management Group (PEMG) Extranet.

5.0 SYSTEM MANAGEMENT

5.1 General

5.1.1 All devices connected to the network shall have SNMP management capability.

5.1.2 System failures, including workstation failures, shall be viewable at a central control point (i.e., the system administrator's workstation). A failure shall initiate an alarm and add a failure record to the failure database table. Additionally, the system administrator shall receive a warning message on the system administrator workstation, notifying him of the failure. The system shall also provide text and e-mail notification to the HAS staff members designated by the Director and/or designee. Server failure shall include any hardware or software-based failure.

5.1.3 Network devices shall have remote administration and monitoring capabilities. This capability shall allow the specific machine to be remotely configured and to provide a status report to the management system. Data included in the reporting capabilities shall include data pertaining to the machine's memory, storage devices, network connections, and general health of the machine.

5.1.4 In the event that a workstation or end device goes out of service, the central control log shall be updated. Therefore, where practical, a positive relationship (e.g., system heartbeat) shall exist between all components of the systems at all time.

5.1.5 Any workstation removed from service due to equipment lifecycle refresh, hardware failure, or any other reason, and will not be redeployed into HAS Common Use service again, shall have the hard drive(s) or other data storage devices removed and given to the Director and/or designee for hard drive/data storage device destruction. The Contractor shall complete the required documentation provided by the Director and/or designee and give the hard drives/data storage devices to the Director and/or designee for destruction.

5.1.6 Any hard drive or data storage device removed from any workstation or CUSS kiosk due to equipment lifecycle refresh, hardware failure, or any other reason, and will not be reinstalled into HAS Common Use service again, shall be given to the Director and/or designee for hard drive/data storage device destruction. The Contractor shall complete the required documentation provided by the Director and/or designee and give the hard drives/data storage devices to the Director and/or designee for destruction.

5.2 **Operating System Updates and Security Patches**

5.2.1 The Contractor shall perform monthly operating system updates and security patches to all Common Use system servers, workstations, and kiosks, and any networking devices maintained by the Contractor. The Contractor shall follow ITIL best practices. Updates may be performed remotely.

5.2.2 Prior to performing the monthly updates, The Contractor shall submit a monthly Change Request using HAS's IT Service Management application ServiceNow at least 10 days prior to the scheduled work. The Contractor's on-site manager shall attend the Change Advisory Board meeting to discuss the upcoming changes and provide a remediation plan. Upon Change Advisory Board (CAB) approval of the Change Request, the Contractor shall perform the updates during the hours of the HAS maintenance window. The HAS maintenance window is currently 12:00am to 4:00am and is subject to change. The Contractor shall provide notification of the scheduled updates to the airline partners who are using the Common Use equipment at least 3 days prior to the scheduled work.

5.2.3 In the event that a severe operating system security threat has been identified by the operating system manufacturer, and immediate remediation is required and/or highly recommended, the Contractor shall notify the Director and/or his designee. An emergency Change Request shall be submitted by the Contractor and the Contractor's on-site manager shall notify the HAS CAB manager or his designee. Upon approval of the emergency Change Request, system backups shall be completed, and the updates shall be applied as soon as operationally feasible.

5.2.4 The Contractor shall provide to the Director and/or designee a documented report of the updates. The on-site manager shall report to the CAB any problems, system failures, or issues that affect airline operations, as a result of any updates performed.

5.3 Firmware and Driver Updates

5.3.1 The Contractor shall perform bi-annual equipment firmware and driver checks to ensure the latest firmware and drivers are installed on all equipment including workstations, printers, scanners, and kiosks. The installation of critical security patches shall be installed within one month of release. The Contractor shall perform the recommended updates with minimal interruption to operations.

5.3.2 Prior to performing the firmware and driver updates, The Contractor shall submit a Change Request using HAS's IT Service Management application such as Symantec or ServiceNow at least 10 days prior to the scheduled work. The Contractor's on-site manager shall attend the Change Advisory Board meeting to discuss the upcoming changes and provide a remediation plan. Upon Change Advisory Board (CAB) approval of the Change Request, the Contractor shall perform the updates during the hours of the HAS maintenance window. The HAS maintenance window is currently 12:00am to 4:00am and is subject to change. The Contractor shall provide notification of the scheduled updates to the airline partners who are using the Common Use equipment at least 3 days prior to the scheduled work.

5.4 System Anti-Virus

5.4.1 The system shall include anti-virus software in accordance with HAS requirements.

6.0 LOCAL DEPARTURE CONTROL SYSTEM (LDCS) REQUIREMENTS

6.1 General

6.1.1 A Local Departure Control System (LDCS) provides automated check-in and departure control for non-hosted airlines and irregular flight operations. The LDCS enables these airlines/flights to perform computerized passenger check-in and boarding using a common Graphical User Interface (GUI). The LDCS includes a database that stores the passenger reservation information for each airline and flight that is entered by the carrier. Reservation information is entered into the database prior to the irregular flight operation or periodically depending on the airline. The flight data is initially entered using manual data entry, removable storage media, or other agreed upon method. Once flight data is entered into the database, the authorized airline agent can check-in passengers, issue boarding passes, print bag tags, and scan boarding passes using the LDCS software and GUI. The LDCS shall utilize the C/SUPPS common equipment including the workstation and peripherals.

6.1.2 The LDCS shall maintain passenger status (e.g. boarded, not boarded) for each departing flight and update it as passengers board. Other LDCS functionality shall include the ability to generate, open, and close flights, record number of bags and generate bag tags, and provide seat selection and assignment.

6.1.3 The LDCS shall provide computerized passenger check-in and boarding services for airlines that lack a host-based Carrier Reservation System (CRS). The LDCS shall include a database that stores the passenger reservation information for each participating airline and flight.

6.1.4 Each participating airline shall have the ability to load reservation information (Passenger Name List – PNL data) into the LDCS database by one of several methods (e.g. data link, manual data entry). Any data links to a CRS or other PNL source is the responsibility of the Contractor. Agents shall be able to check in passengers and issue boarding passes and bag tags as if using a host-based system. Agents shall use the common equipment (C/SUPPS workstations, etc.) to access the LDCS and perform check-in and boarding processes.

6.1.5 The LDCS shall include an interface to the government “no fly” list and provide the ability to cross-reference PNL data to this list. If matches are found, the system shall flag the passenger for further action by the airline using the system.

7.0 HARDWARE PLATFORM REQUIREMENTS

7.1 General Hardware Requirements

7.1.1 The C/SUPPS shall include all configured hardware necessary for a fully functional system. The Contractor shall supply all cabling, connectors, adapters, and termination equipment necessary to interconnect all system hardware. All hardware and materials shall be new.

7.1.2 Coordinate final equipment selection with the Director and/or designee for written approval. The Contractor shall ensure all selected equipment fits within millwork restrictions.

7.2 Expansion and Spares

7.2.1 The Contractor shall clearly state the limitations of the base system proposed in terms of adding additional servers and end devices. Particular attention should be given to the number of additional end devices that can be added without requiring additional processing power, memory, and/or disk storage.

7.2.2 At the time of final system acceptance, all hardware shall have a minimum of 25 percent reserve capacity, with the capability to double the capacity with no change to the system design.

7.2.3 The Contractor shall furnish a bill of materials, catalogue numbers, unit prices, and a list of local distribution sources for replacement parts. The Contractor shall propose a recommended spare parts list to support the system(s) in accordance with the maintenance and support requirements. Required spares shall be on-site at the time of final system acceptance. The parts are to be inventoried at the beginning of the project and accounted for at the end of the warranty and service period.

7.2.4 The Contractor shall provide spares (quantities based on the Contractor recommendations) of each required component of the C/SUPPS and CUSS to be located on-site to allow faulty equipment to be replaced in accordance with the Response Time Matrix (Table 6). At its sole expense, the Contractor shall immediately replenish such inventory are used.

7.3 **Servers**

7.3.1 The Contractor shall provide a server configuration that meets the recommended hardware requirements of the proposed system. The proposal shall clearly state the proposed server configurations as part of the proposal.

7.3.2 The Contractor shall provide a redundant system to ensure high-availability.

7.3.3 Physical servers shall be of a high level of maintenance and service. In the event the manufacturer does not manufacture servers that meet C/SUPPS recommended system requirements, the contractor must recommend a similar solution to be approved by HAS.

7.3.4 The Contractor shall submit the C/SUPPS core configuration for review and approval. Core configuration details shall include:

7.3.4.1 Specific hardware specifications and components

7.3.4.2 COTS software loaded and configuration

7.3.4.3 Applications and services loaded on each physical server

7.3.4.4 Topology of core system configuration

7.4 **End User Workstations and Peripherals**

7.4.1 The Contractor shall provide a workstation configuration that meets the recommended hardware requirements of the proposed system. The Contractor shall clearly state the proposed system workstation configurations as part of the proposal. The Contractor shall provide system workstations and monitors of the same brand such as Dell and may not mix brands around the airports. Monitors will be of the same size and resolution as agreed upon by the Director and/or designee.

7.4.2 The peripherals submitted by the Contractor to support the proposed system shall be IATA compliant, and be compatible with the set of supported airlines at the Airport. The Contractor shall include all peripherals required to support the proposed system as part of the RFP response.

7.5 **Equipment Lifecycle Management**

7.5.1 In the effort to achieve a five-star airport experience, it is vitally important to maintain optimal system performance as well as maintain the look and feel of a world-class airport that has just opened its doors to customers.

7.5.2 All front-end, public-facing workstations, monitors, printers, scanners, and workstation peripheral equipment shall be replaced every three (3) years or sooner if conditions require. HAS will consider Contractor-proposed C/SUPPS

equipment replacement best practices. The Contractor shall keep the Director and/or designee informed as to the physical condition of the common use hardware.

7.5.3 All back-end system hardware including servers, networking hardware, firewalls, etc. shall be replaced every five (5) years.

7.5.4 All CUSS kiosks shall be replaced every 3 years or sooner if conditions require. HAS will consider Contractor-proposed CUSS kiosk replacement best practices.

7.5.5 The Contractor shall provide presentations and recommendations on an annual basis to the Director and/or designee as to the latest kiosk technologies, designs, and implementation practices.

7.5.6 All workstations, servers, and kiosks removed from service shall have all hard drives and/or data storage devices removed and processed for destruction. Please refer to sections 5.1.5 and 5.1.6.

7.5.7 Equipment removed from service shall be processed through the Buy Back Program.

7.6 **Buy-Back Program**

7.6.1 Throughout the term of the Agreement, the Contractor shall provide a Buy Back Program that allows HAS to exchange obsolete, end-of-life, and removed-from-service equipment for discounts or credits on future purchases. This shall include peripheral printers, scanners, and PCs and CUSS kiosks that have had hard drives and other data storage devices removed and destroyed.

7.6.2 Proceeds from the sale of equipment will be passed through to HAS in the form of a credit against future services or new equipment purchases under the Agreement.

8.0 REPORTING REQUIREMENTS

8.1 General

8.1.1 The C/SUPPS shall have full reporting capabilities. The system shall support the utilization of a generic report writer module providing the ability to develop customized reports. The reporting tool shall be capable of building reports from any fields in the database and on any subset of records that user authority allows.

8.1.2 The Contractor shall detail the capabilities, functionality, and the user interface for both types of reporting.

8.1.3 For any and all reports, including both "canned" reports and "ad hoc" reports, only authorized users shall have access to the reporting features.

8.1.4 For any and all reports, including both "canned" reports and "ad hoc" reports, only the System Administrator, or users with a sufficient level of security access authorization shall be able to see all airlines' information on the reports. Airline users shall be limited to reporting data from their airline only.

8.1.5 The Contractor shall provide their standard report package for the C/SUPPS that shall include, as a minimum:

8.1.5.1 Utilization report detailing the utilization of resources by the specific airline. The report shall detail the airline, the resource utilized, and the duration.

8.1.5.2 The Contractor shall coordinate with HAS to identify additional reporting requirements. As a minimum, three (3) scanned reports shall be provided.

9.0 PROJECT SUBMITTAL REQUIREMENTS - IMPLEMENTATION

9.1 **General:** This section describes the basic procedures for the implementation of the C/SUPPS First Phase in Terminal A and HOU and Second Phase in MLIT Terminal D or any other phases where the system is implemented and/or expanded.

9.1.1 The Contractor shall keep accurate and detailed records of progress on the project during all stages of development and implementation.

9.1.2 The Contractor shall submit weekly progress reports to the Director and/or designee which outline the following information:

9.1.2.1 Key work performed during the past 7 days

9.1.2.2 Key work to be performed in the next 7 days

9.1.2.3 Percentage complete information for key phases of development and implementation

9.1.2.4 Number and amounts of modifications and claims

9.1.2.5 Project schedule including information where schedule slippage may occur or has already occurred including the Contractor's recommendation to mitigate or eliminate delays

9.1.2.6 Any other analysis to compare actual performance with the Contractor's planned performance

9.1.3 The Contractor shall submit for review and evaluation by the Director and/or designee, product sheets of each major product and item. The Contractor shall not purchase or install an item prior to receipt of written approval from the Director and/or designee.

9.1.4 Major Items required for submittal are identified in the following sections. This list is not considered complete but is a representative sample of the major items required. Unless noted otherwise, a minimum of four (4) hardcopies and one (1) digital copy of all documentation shall be provided.

9.2 **Final Design Deliverables**

9.2.1 Systems Design Document – The Contractor shall provide a complete system design document according to HAS specifications found in HAS CAD/Geospatial Data Standards for the C/SUPPS and CUSS within twenty (20) business days of NTP. The document shall include, at a minimum, descriptions and drawings for design detail of core system configuration including servers, services, applications, connectivity, and network, firewall, and IP scheme (coordinate with the Director and/or designee for IP addresses and other network settings, if applicable).

9.2.2 Final Design submittals include, but are not limited to:

9.2.2.1 Design summary

9.2.2.2 Logic diagrams and system flow diagrams

9.2.2.3 Design details of core system configuration including servers, services, applications, and connectivity.

9.2.2.4 Detailed integration and integration functionality description

9.2.2.5 Interface Control Document (ICD) defining each systems interface with other systems.

9.2.2.6 Location plans illustrating equipment locations

9.2.2.7 Engineering drawings, stamped by a licensed Engineer, where applicable.

9.2.2.8 Software/Hardware documentation for each type of software and hardware used on the project. Documentation shall outline complete description of hardware / software, version, manufacturer contact information, license information, product keys, product numbers and cut-sheets.

9.2.2.9 Manufacturer's documentation for hardware used in the project; complete description of hardware features, proposed options and functionality. Specific features to be included / excluded shall be indicated on cut sheets – manufacturer's contact information for technical support, including address, telephone numbers, fax numbers and e-mail /Web.

9.2.2.10 Complete description of software features and functionality; software version & revision identification; software manufacturer's contact information for technical support, including address, telephone numbers, fax numbers and e-mail /Web URL's

9.3 **Implementation Documents**

9.3.1 Unless otherwise outlined, implementation documents shall be submitted and maintained throughout the project. Documents must be submitted 5 business days prior to the start of any implementation phase. Shall include, but not be limited to:

9.3.1.1 Project Management Plan

9.3.1.2 Quality Management Plan

9.3.1.3 Airline Coordination Plan

9.3.1.4 Safety Plan

9.3.1.5 Phasing and Migration Plan

9.3.1.6 System Test Plan

9.3.1.7 Test Plan: Supply test plans as defined in this specification

9.3.1.8 Acceptance Plan: Supply acceptance documents from stakeholders.

9.3.1.9 End User Training Plan and Materials: Supply training plan and materials as defined in this specification.

9.3.1.10 Interoperability with existing systems such as baggage conveyor in ticket counters and others.

9.3.2 Contractor shall submit a Project Baseline Schedule to be approved by HAS. The Baseline Schedule shall not change unless approved by HAS. The Baseline Schedule will be utilized for payment processing according to milestones completed. See Fee Schedule - Attachment B.

9.3.3 If Contractor does not meet the Project Baseline Schedule HAS shall apply Liquidated Damages as outlined in Section 25.

9.4 **User Documentation**

9.4.1 Shall explain how C/SUPPS operates from an end user perspective

9.4.2 Shall be in accordance with and contain at least as much information that is included within the online help system.

9.4.3 The information included in this documentation shall be covered during system end user training provided by the Contractor. An electronic copy of all user documentation shall be provided prior to project closing.

9.5 **As-Built Documentation**

9.5.1 At project closeout, Provide HAS with as-built documentation defining the C/SUPPS and CUSS, modules, interfaces, configurations, and related information. Compiled and updated versions of previously approved submittals may be included to meet this requirement.

9.5.2 As-built shall include finalized equipment locations, room routing notes, and installation details. The as-built shall not be redlined copies, but be finalized AutoCAD drawings according to HAS specifications found in the HAS CAD/Geospatial Data Standards. The as-built shall build on the initial design details and further developed based on specific installation details.

9.5.3 The level of detail defined in these As-built documents shall be suitable to allow any third party to support the C/SUPPS and CUSS maintenance as well as support future integration and expansion of the C/SUPPS and CUSS at the Airport.

9.5.4 A minimum of two (2) hardcopy sets and an electronic copy set of As Built documentation and drawings shall be provided. Acceptance of as built documentation shall be part of final system acceptance process.

9.5.5 Format of all documentation shall be approved by the Director and/or designee.

9.6 **System Administration Documentation**

9.6.1 Supply System Administrator documentation that details the operation of the provided system.

9.6.2 This documentation shall provide complete information on the operation, maintenance, and troubleshooting of the C/SUPPS.

9.6.3 All software shall be delivered with full documentation. Documentation shall include software error messages, description, and troubleshooting guide.

9.6.4 The documentation shall include textual explanations and instructions and be supported by appropriate graphs, flowcharts and/or block diagrams.

9.6.5 The information included in this documentation shall be covered during the system administrator training provided by the Contractor.

9.6.6 All manuals shall be provided in an electronic format. The format shall be a .pdf document that is searchable (i.e. the .pdf document will have recognized text that allows searches to be performed and is not a scanned image).

9.6.7 The Contractor shall provide system hardware and equipment part’s list.

9.6.8 The Contractor shall provide warranty, support and maintenance plan.

9.7 **Maintenance Manuals**

9.7.1 Manuals including maintenance instructions and other descriptive material as received from the manufacturers shall be provided that will enable designated personnel to maintain and test equipment.

9.7.2 As applicable, this documentation shall include descriptions, specifications, theory of operation, layout drawings (showing component types and positions), and back-panel and assembly wiring diagrams.

9.7.3 Instructions shall be provided for preventive maintenance procedures that include examinations, tests, adjustments, and periodic cleaning.

9.7.4 The manuals shall provide guidelines for isolating the causes of hardware malfunctions and for localizing faults.

9.7.5 The manuals shall provide instructions on the use of any specialized test equipment needed for hardware maintenance.

9.7.6 All manuals shall be provided in an electronic format. The format shall be a .pdf document that is searchable (i.e. the .pdf document will have recognized text that allows searches to be performed and is not a scanned image).

9.8 **Quality Assurance**

9.8.1 Equipment and materials: The Contractor shall provide standard products of a manufacturer regularly engaged in the manufacture of each of the required equipment types and shall be the manufacturer's latest standard design.

9.8.2 Provided products shall meet the following requirements:

9.8.2.1 Electrically powered equipment shall be UL approved

9.8.2.2 Items of the same classification shall be identical. This requirement includes equipment, modules, assemblies, parts, and components

9.8.2.3 Similar types of devices (e.g., printers, boarding pass readers) shall be of the same manufacturer.

9.9 **Software Licensing**

9.9.1 Commercial software packages shall have all registration and licensing documentation filed indicating Houston Airport System (HAS) as the owner of the software. Costs for commercial off-the-shelf software licenses shall be included.

9.9.2 Software developed for this proposal shall be licensed to Houston Airport System (HAS). This license shall include all executable, library, object, and source code required to maintain and modify the delivered product. Where possible this information will be delivered on Flash Drive or DVD ROM.

9.9.3 Provide all required licenses for the equipment and software provided.

9.9.4 All software licenses shall be perpetual.

9.9.5 All and any software developed specifically for the project shall be licensed to HAS.

9.9.6 Fully licensed software shall be provided for use in the live operational environment as well as testing and training facilities.

9.9.7 Hardware changes shall not affect the licenses supplied.

9.9.8 It shall be possible to replace any part of the hardware without affecting the working of any license keys.

9.9.9 License Key issues shall never cause an outage to a system that is in the live operational environment.

9.10 **Warranty**

9.10.1 The Contractor shall provide a joint written warranty of the manufacturer(s) and the installer(s), on a single document. The warranty shall warrant complete installation of the equipment, system, and software to be free from defects in materials and workmanship for a period of no less than twelve (12) months.

9.10.2 Warranty shall list Houston Airport Systems (HAS) as the Owner. Contractor is to manage warranties on behalf of HAS.

9.10.3 The starting point for the warranty shall be from final system acceptance.

9.10.4 Hardware Warranty

9.10.4.1 All hardware shall have a minimum warranty of three (3) years.

9.10.4.2 The warranty shall allow for replacement or repair of failed items at the discretion of HAS.

9.10.4.3 Warranty hardware replacement for items not included in spare parts shall be delivered to the Airport within 72 hours. Warranty hardware replacement for items included in spare stores shall be delivered to the Airport within ten (10) business days.

9.10.4.4 Warranty hardware replacement shall be delivered fully configured.

9.10.5 Software Warranty

9.10.5.1 All software supplied as a part of this Specification shall have a minimum of a one (1) year warranty. The warranty shall allow for replacement or repair at the discretion of HAS.

9.10.5.2 C/SUPPS software upgrades shall be provided and installed at no additional cost during the warranty period.

9.10.6 Warranty Service Response Times

9.10.6.1 Warranty response times for system failures during the warranty period shall be governed by selected maintenance agreement. However, the following shall be provided during the warranty period, as a minimum:

9.10.6.2 24/7/365 on-call support to provide technical assistance to HAS personnel performing troubleshooting of the system/software.

9.10.6.3 24-hour onsite response for operational failure, 72-hour total resolution period from help desk call.

9.10.6.4 The Contractor shall describe any additional elements that are recommended for the base maintenance services agreement.

9.10.6.5 Failures definitions are provided in the Maintenance and Support section of this document.

9.11 **Other Requirements**

9.11.1 Spare Components and Parts Replacement: The Contractor shall provide, at the outset of the onsite testing a store of consumables and spare parts as required. Those consumables and spare parts shall be available to the Contractor for use during the equipment demonstration test, warranty periods, and extended support period in order to maintain system response time criteria as detailed below.

9.11.2 The Contractor shall replenish the store as it is used, so that at the end of the test and warranty periods, the store shall be equal to that initially provided. Based upon the maintenance experience of the warranty period, the Contractor shall recommend, at the end of the warranty period, any changes in spare component and small part stores that may prove to be appropriate. The Contractor shall maintain the spare component store during any extended support period.

9.11.3 Special Equipment: The Contractor shall supply a list of special tools, test equipment, and outside inventory required for this project. The Contractor may recommend specific items to facilitate long-term support of the system.

9.11.4 Store of Consumables: Consists of printer ink for all printers included in the C/SUPPS solution, and ticket and bag tag stock for CUSS kiosks only (bag tag stock is future). All printer ink or toner, document paper, ticket and bag tag stock for the C/SUPPS shall be provided by the Contractor.

10.0 MAINTENANCE AND SUPPORT SERVICES

10.1 General

10.1.1 Refer to Section 12.0 Basic Services.

10.2 Remote Access

10.2.1 An acceptable approach to providing the required maintenance and support service is through the provisioning of remote access. If the Contractor desires to provide remote access support, all current HAS security policies and procedures shall be followed.

10.3 System Failure Definitions

10.3.1 Inoperative: A device shall be considered inoperative when the device does not perform its intended function(s) within defined performance criteria. Response services shall include inspections and necessary tests to determine the causes of equipment or software malfunction or failure. The failure services shall include the furnishing and installation of components, parts, or software changes required to replace malfunctioning system elements.

10.3.2 Operational Failure – Defined as an end device (workstation, printer, display, etc.) that is inoperative.

10.3.3 Critical Failure – Defined as a redundant head end component that is inoperative or when a system failure results in (2) or more C/SUPPS or CUSS positions being inoperable. Additionally, the fourth and subsequent occurrence of an operational failure with the same root cause shall be deemed a critical failure.

10.3.4 Emergency Failure – Defined as a head end failure that results in more than fifteen percent (15%) of the C/SUPPS workstations being inoperative or when fifteen percent (15%) of any individual airline is inoperative on the system, excluding WAN failure. Additionally, the fourth and subsequent occurrence of a critical failure with the same root cause shall be deemed an emergency failure. A formal report shall be submitted to HAS on the cause and resolution of the problem. Resolution shall not be considered formally complete until written approval is provided by HAS.

10.4 Other Service Requirements

10.4.1 The Contractor shall conduct a full equipment inventory including spare components and parts for replacement bi-annually or as requested by the Director and/or designee and provide HAS a full accounting of C/SUPPS and CUSS parts and equipment.

10.4.2 If HAS recognizes the contractor is not maintaining adequate stock of spare components and parts for replacements, the Contractor, at no additional cost to the City, shall replenish the stocks within 5 business days.

10.4.3 Support Personnel: The Contractor shall commit approved support personnel for the duration of the maintenance agreement. Technicians performing installation and maintenance on the proposed system shall meet the following requirements:

10.4.3.1 The Contractor shall provide fully qualified and factory trained service technicians who shall be available during non-working hours to respond to emergency service.

10.4.3.2 Service technicians performing installation and maintenance on the proposed system shall be manufacturer certified on all hardware / software applications. These service technicians shall have the appropriate experience to perform such work, as determined by HAS. Pre-assigned backup technicians shall be available to replace on-site technicians who are on vacation, in training, or who are out sick.

10.4.3.3 When required and when it does not impact with the service technicians' ability to provide warranty service requirements, HAS may, at no additional cost, use the on-site service technicians for additional services such as the installation of additional C/SUPPS equipment.

10.4.3.4 The On-site manager and the services technicians shall be approved by HAS.

10.4.3.5 Shall attend a one (1) week manufacturer training class each year.

11.0 NEW C/SUPPS AND CUSS IMPLEMENTATION REQUIREMENTS

11.1 General

11.1.1 System installation and construction methods shall conform to the requirements of HAS and local codes.

11.1.2 Where undefined by codes and standards, the Contractor shall apply a safety factor of at least 2 times the rated load to all fastenings and supports of system components.

11.1.3 The Contractor shall install all system components in accordance with the manufacturer's instructions, NEC, ANSI-C2 and shall furnish all cables, connectors, terminators, interconnections, services, and adjustments required for a complete and operable system.

11.1.4 Grounding shall be installed as necessary to preclude ground loops, noise, and surges from adversely affecting system operation.

11.1.5 For equipment mounted in drawers or on slides, provide the interconnecting cables with a service loop of not less than two feet and ensure that the cable is long enough to allow full extension of drawer or slide.

11.1.6 The Contractor's Quality Assurance Inspector shall conduct a visual inspection of all installations to verify that the installations are in accordance with HAS's and manufacturer's specifications. Records of the inspections signed and dated by the Quality Assurance Inspector shall be provided to the Director and/or designee. The Director and/or designee shall be notified at least 5 days prior to the inspection by the Contractor of any inspection(s) and the Director and/or designee may elect to participate in any inspection(s).

11.1.7 The Contractor shall be responsible for the patching of the horizontal cable runs at the equipment and within the associated communications room.

11.1.8 All products shall be new, undamaged, and covered by the original manufacturer's warranty and licensed as applicable to meet project intent.

11.1.9 Products shall be shipped, handled, and stored as recommended by the manufacture.

11.1.10 The Contractor shall furnish and install products in accordance with manufacturer's recommendations and as illustrated in the project drawings.

11.1.11 Should discrepancies be noted regarding quantities in schedules, specifications and/or on Project drawings, the Contractor shall provide the greater number of units.

11.1.12 All installation work shall be performed in a manner that will minimize disruption to the airlines, HAS, and the travelling public. The Contractor shall coordinate with the Director and/or designee to schedule any work in public areas during times that minimize impact to operations.

11.2 **Delivery and Storage**

11.2.1 The Contractor shall coordinate product delivery and movement to installation locations with the Director and/or designee.

11.2.2 Store products in accordance with manufacturer's instructions, within the Contractor's staging area and with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.

11.3 **Hardware Installation**

11.3.1 The Contractor shall install and inspect all hardware required in this Specification in accordance with the manufacturer's installation instructions. Final placement of hardware is subject to Director and/or designee's approval.

11.3.2 End user devices shall be labeled with IP address and device name.

11.3.3 The Contractor shall be responsible for any and all loss or damage in the shipment and delivery of all material.

11.3.4 The Contractor shall coordinate installation with HAS, to minimize disruption of existing business functions at HAS.

11.3.5 The Contractor shall place materials only in those locations that have been previously approved. Any other locations shall be approved, in writing, by HAS.

11.3.6 The Contractor shall provide all tools and test equipment required to install, verify, and test the installation and to determine that it meets the specifications. The Contractor shall furnish all necessary materials required to implement and to achieve the required work performance.

11.4 **System Start-up**

11.4.1 The Contractor shall not apply electrical power to the system until after:

11.4.1.1 System and components have been installed and inspected in accordance with the manufacturer's installation instructions.

11.4.1.2 A visual inspection of the system components has been conducted to ensure that defective equipment items have not been installed and that there are no loose connections.

11.4.1.3 All system grounding and transient protection systems have been verified as properly installed and connected, as indicated.

11.4.1.4 Power supplies to be connected to the system and equipment have been verified as the correct voltage, phasing, and frequency as indicated.

11.4.1.5 Satisfaction of the above requirements shall not relieve the Contractor of responsibility for incorrect installations, defective equipment items, or collateral damage as a result of the Contractor's work/equipment.

11.5 **Testing and Acceptance Requirements**

11.5.1 Phases of Testing and Acceptance – The Contractor shall prepare, submit for review, and execute test plans to demonstrate system completion and performance. Except as otherwise specified, the Contractor shall test all components, connections, and subsystems comprising the total system as a complete operational system. The phases of testing and acceptance will include the following:

11.5.1.1 Proof-of-Concept Test / Factory Acceptance Testing

11.5.1.2 Functionality and Performance Testing (preceded by system installation)

11.5.1.3 Endurance Testing (preceded by successful functionality and performance testing)

11.5.2 The Contractor shall coordinate all testing activities with the owner.

11.5.3 Test Plan/Procedure: The Contractor shall provide electronic copies of the test plan/procedures for each testing phase for the review and approval of HAS. The test plan for each phase of testing shall detail the objectives of all tests. The tests shall clearly demonstrate that the system and its components fully comply with the requirements specified in the contract drawings and specifications. Test plans shall contain at a minimum:

11.5.3.1 Functional procedures including use of any test equipment

11.5.3.2 Test equipment is to be identified by manufacturer and model

11.5.3.3 Interconnection of test equipment and steps of operation shall be defined

11.5.3.4 Test records shall include test equipment serial number, calibration date and calibration certification of test equipment. All calibrations shall be current.

11.5.3.5 Expected results required to comply with specifications

11.5.3.6 Traceability matrix referencing Specification requirements with specific test procedures

11.5.3.7 Record of test results with witness initials or signature and date performed

11.5.3.8 Pass or fail evaluation with comments

11.5.4 The test procedures shall provide conformity to all system requirements. Satisfactory completion of the test procedure is necessary as a condition of system acceptance.

11.5.5 The Contractor shall review all formal test procedures prepared by the Contractor and deliverable under the contract to assure the tests cover all requirements and that there is a conformity between the conducted test, the test results and Specification requirement.

11.5.6 The Contractor shall provide HAS the opportunity(s) to participate observe in any or all of tests.

11.5.7 Test Reports: The Contractor shall prepare, for each test, a test report document that shall certify successful completion of that test. An electronic copy of the test report shall be submitted to HAS for review and acceptance. The test report

shall be submitted to HAS within 5 days after the test has been completed. The test report shall contain, at a minimum:

11.5.7.1 Commentary on test results

11.5.7.2 A listing and discussion of all discrepancies between expected and actual results and of all failures encountered during the test and their resolution

11.5.7.3 Complete copy of test procedures and test data sheets with annotations showing dates, times, initials, and any other annotations entered during execution of the test

11.5.7.4 Signatures of persons who performed and witnessed the test

11.5.8 Test Resolution: Any discrepancies or problems discovered during these tests shall be corrected by the Contractor at no cost to HAS. The problems identified in each phase shall be corrected and the percentage of the entire system and re-tested determined by the Director and/or designee before any subsequent testing phase is performed.

11.5.9 Factory Acceptance Testing / Proof of Concept Testing

11.5.10 Test Setup Equipment: Equipment shall be actual products or identical models of products to those designated to be delivered and installed at the site. The following equipment shall be setup and used for conducting pre-delivery test:

11.5.10.1 Operator equipment associated with system.

11.5.10.2 End devices and displays associated with system.

11.5.10.3 Software associated with system.

11.5.10.4 Administrative console equipment.

11.5.10.5 Sufficient signal transmission media (STM) and associated equipment and accessories to provide a fully integrated system model. Include at least one of each type STM circuit.

11.5.10.6 Number of field processors required for system to be installed at site.

11.5.10.7 Enough load and data simulators to provide simulation of full load operational conditions as required by design. Loads shall be manually or software generated.

11.5.11 Preparation: Ensure that development of system is complete, required approvals of submittals have been obtained, and sufficient equipment procured to completely demonstrate and test system.

11.5.12 Time: Prior to deployment of any equipment to the field. Conduct on weekdays during standard business working hours.

11.5.13 Location: Contractor’s offices or other location approved by HAS.

11.5.14 Items to be tested shall be set up and performance verified prior to arrival of the Director and/or designee at test site.

11.5.15 Test: The purpose is to test the complete system and demonstrate that all specified features and performance criteria are met. All requirements of the specification shall be tested including, but not limited to:

11.5.15.1 Functionality including reporting and response

11.5.15.2 System capacity

11.5.15.3 Hardware interaction

11.5.15.4 Hardware and software interaction

11.5.15.5 Demonstrate report generation

11.5.16 Acceptance:

11.5.16.1 Acceptance of system to perform sufficiently and provide specified functions shall be determined by HAS witnessing the factory acceptance test. In addition to HAS, testing shall be witnessed by up to six (6) additional HAS representatives.

11.5.16.2 If system does not perform satisfactorily, the Contractor shall make corrections and modifications and schedule new test. Compliance is at the sole discretion of HAS.

11.5.17 Reporting:

11.5.17.1 Record all test procedures and results.

13.5.17.2 Submit report to HAS within 5 business days after completing the test.

11.5.18 Functionality and Performance Testing: Functionality testing will include the software and hardware components of the system and demonstrate that the specified features and performance criteria are met once all components have been installed. All major requirements of the system shall be tested including:

11.5.18.1 Operational testing of the head-end system

11.5.18.2 Operational testing of end user devices

11.5.18.3 Functionality and response of core system and subsystems

11.5.19 A Failure Recovery test procedure shall be conducted. The Failure Recovery will include a full system failure and recovery procedures:

11.5.19.1 Data interaction

11.5.19.2 System capacity

11.5.19.3 Hardware interaction

11.5.19.4 Hardware and software interaction

11.5.19.5 Integration Interfaces

11.5.19.6 Demonstrate report generation

11.5.20 Schedule test with HAS providing a minimum of ten calendar days' notice prior to performance. Do not begin testing until:

11.5.20.1 Factory Acceptance Testing / Proof of Concept testing has been successfully completed

11.5.20.2 All required system elements have been installed and individually and jointly tested to ensure they are operating properly

11.5.20.3 Written permission from the Director and/or designee has been received.

11.5.21 Acceptance: Acceptance of system to perform sufficiently and provide specified functions shall be determined by HAS.

11.5.22 If the system does not perform satisfactorily, the Contractor shall make corrections and modifications and schedule new test with HAS.

11.5.23 Completion: Functionality and performance test shall be complete when testing or retesting of each component has produced a positive result and has been approved in writing by HAS.

11.5.24 Reporting:

11.5.24.1 Record all test procedures and results.

11.5.24.2 Submit report to the Director and/or designee

11.5.25 Substantial Completion:

11.5.25.1 Once system is fully installed, operational, in use, and end user training is complete, the system will be considered Substantially Complete. Written notice of Substantial Completion will be provided to the Director and/or designee.

11.5.25.2 Endurance Testing shall not commence until written notice of Substantial Completion is received.

11.5.26 Endurance Testing: Provide personnel to operate/monitor the system 24 hours per day, including weekends and holidays during Endurance Testing. Start test after:

11.5.26.1 Successful completion of Functionality and Performance Testing

11.5.26.2 End User Training as specified has been completed.

11.5.26.3 Correction of deficiencies has been completed.

11.5.26.4 Receipt of written notice of Substantial Completion and approval to commence Endurance Testing is received from the Director and/or designee.

11.5.27 Monitor all systems during Endurance Testing. Coordinate monitoring with the Director and/or designee.

11.5.28 Recording: Record data on approved forms so as to provide a continuous log of systems performance. Include:

11.5.28.1 Date and time for all entries

11.5.28.2 Name of individual making entry

11.5.28.3 Environmental conditions

11.5.28.4 Airport activities in process

11.5.28.5 Description of all alarm annunciations, responses, corrective actions, and causes of alarms. Classify as to type of alarm.

11.5.28.6 Description of all equipment failures, including software errors

11.5.28.7 Description of all maintenance and adjustment operations performed on system

11.5.28.8 Daily and weekly tabulations

11.5.28.9 Entries of performance data shall be reviewed by the Director and/or designee

11.5.29 The Director and/or designee may terminate testing at any time when the system fails to perform as specified. Upon termination of testing the Contractor shall commence an assessment period as described in Stage II.

11.6 **Testing**

11.6.1 Stage I - Initial Phase Testing:

11.6.1.1 Time: 24 hours per day for 15 consecutive calendar days (8 hr./day Contractor system engineer available onsite during testing period)

11.6.1.2 Make no repairs during this stage unless authorized in writing by the Director and/or designee.

11.6.1.3 If system experiences no emergency, critical failures, or recurring operational failures (defined as same operational failure more than 3 times during 10 days), proceed to Stage III - Final Testing.

11.6.2 Stage II - Initial Phase Assessment:

11.6.2.1 After conclusion of Stage I, or terminating of testing, identify all failures, determine causes, and repair. Submit report explaining: Nature of each failure, corrective action taken, results of tests performed to verify corrective action as being successful, and recommended point for resumption of testing.

11.6.2.2 After submission of report, schedule review meeting at job site. Schedule date and time with the Director and/or designee.

11.6.2.3 At review meeting, demonstrate that all failures have been corrected by performing verification tests.

11.6.2.4 Based on report and review meeting, the Director and/or designee will direct Contractor to repeat Stage I, restart Stage I, or proceed to Stage III - Final Testing.

11.6.3 Stage III - Final Phase Testing:

11.6.3.1 Time: 24 hours per day for 15 consecutive calendar days (may be monitored remotely).

11.6.3.2 Make no repairs during this stage unless authorized in writing by the Director and/or designee.

11.6.3.3 If system experiences no emergency, critical failures, or recurring operational failure (defined as same operational failure 3 times in 24 hours or more than 7 times during 15 days), proceed to Stage III – Final Phase Assessment.

11.6.4 Stage IV - Final Phase Assessment:

11.6.4.1 After conclusion of Stage III or termination of testing, identify all failures, determine causes, and repair. Submit explaining the nature of each failure, corrective action taken, results of tests performed, and recommended point for resumption of testing.

11.6.4.2 After submission of report schedule review meeting at job site. Schedule date and time with the Director and/or designee.

11.6.4.3 At review meeting, demonstrate that all failures have been corrected by performing verification tests.

13.6.4.4 Based on report and review meeting, the Director and/or designee will approve Endurance Test or direct Contractor to repeat all or part of Stages III and IV.

11.6.5 Adjustment, Correction, and Maintenance:

11.6.5.1 During Endurance Testing make adjustments and corrections to system only after obtaining written approval of the Director and/or designee

11.6.5.2 During Endurance Testing, perform required maintenance on systems including provision of replacement parts.

11.7 Final Inspection and Acceptance

11.7.1 After Endurance Testing is complete, review tabulated records with the Director and/or designee.

11.7.2 Contractor will not be responsible for failures caused by:

11.7.2.1 Outage of main power in excess of backup power capability provided that automatic initiation of all backup sources was accomplished and automatic shutdowns and restarts of systems performed as specified.

11.7.2.2 Failure of any HAS furnished power, communications, and control circuits provided failure not due to Contractor furnished equipment, installation, or software.

11.7.2.3 Failure of existing HAS equipment provided failure not due to Contractor furnished equipment, installation, or software.

11.7.2.4 When performance of system does not fall within the above parameters, determine cause of deficiencies, correct, and retest.

11.7.3 Submit final report of Endurance Testing containing all recorded data.

11.7.4 Final System Acceptance:

11.7.4.1 Upon successful completion of Endurance Testing written notice of Final System Acceptance will be provided by the Director and/or designee.

11.7.4.2 Final System Acceptance will mark the beginning of the system Warranty and Maintenance period.

11.8 **Training**

11.8.1 When a new C/SUPPS and/or CUSS is implemented including self-bag drop, whether it be a system replacement or a new deployment to another HAS terminal, the Contractor shall prepare training materials and conduct all training for all airline users and designated HAS personnel. HAS will provide a training classroom to conduct project training.

11.8.2 The Contractor shall supply the appropriate training for designated HAS and airline personnel. The training shall provide personnel with a working knowledge of the network design and layout and shall provide troubleshooting methods and techniques. In addition, the training shall cover testing, maintenance, and repair procedures for all equipment, which is provided under this Specification.

11.8.3 The Contractor shall supply a detailed plan of end user training and system administrator training. The Contractor shall provide a course outline, course materials and syllabus to HAS for approval 15-days prior to the scheduled training date. Each course shall require HAS's approval prior to presentation.

11.8.4 Course materials shall be delivered to the Director and/or designee for future presentation. Final delivery of the course materials shall include a master hard copy of all materials and an electronic copy in a format approved by the Director and/or designee.

11.8.5 All training shall be performed on an HAS campus at a specific location as directed the Director and/or designee.

11.8.6 The following general training guidelines shall be followed:

11.8.6.1 By means of training classes augmented by individual instruction as necessary, the Contractor shall fully instruct HAS's designated staff and airline personnel in the operation, adjustment and maintenance of all products, equipment and systems. The Contractor shall be required to provide all training aids (e.g., notebooks, manuals).

11.8.6.2 All training shall be completed a minimum of two weeks prior to any new system becoming operational and utilized by tenants. Training schedule is subject to the Director and/or designee's approval.

11.8.6.3 System Administrator Training shall be conducted by experienced personnel and supported by training aids. An adequate amount of training material shall be provided by the Contractor. The following is considered a minimum:

a) Functional flow charts, overall block diagrams, and descriptive material for all software

b) Schematic drawings for each of the hardware components

c) All procedure manuals, specification manuals, and operating manuals

d) As-built drawings.

11.8.6.4 Participants shall receive individual copies of technical manuals and pertinent documentation 7-days in advance of the training course. The courses shall be scheduled such that HAS personnel can participate in all courses (no overlap).

11.8.6.5 A final course schedule and syllabus shall be prepared by the Contractor for each course to be conducted for HAS personnel, and submitted for review at least four (4) weeks prior to the scheduled date of the course commencement.

11.8.7 End User Training:

11.8.7.1 End User training shall be conducted on site at HAS.

11.8.7.2 System end users shall be instructed in all aspects of operations of the system. A minimum of two (2) C/SUPPS courses with six (6) hours of basic user training shall be provided (two 6-hour courses for up to 10 attendees each).

11.8.8 Administrator Training:

11.8.8.1 System Administrator Training shall include both classroom work and on-the-job training.

11.8.8.2 Classroom Training: A minimum of twenty (20) hours (class repeated 1 time for up to 3 system administrators) shall be provided. The Contractor shall structure the course to describe all systems, software and applications and support programs. This course shall include a functional overview of the complete software system. The course material shall be presented in depth with the instructor covering detailed system elements.

11.8.9 On-the-Job Training: An additional seven (7) working days of on-the-job training shall be provided. On-the-job training of the designated HAS personnel shall be scheduled with HAS and shall commence no later than two months prior to expiration of the equipment warranty period. This training shall be conducted on site at HAS. The Contractor shall answer any and all questions regarding the operation, repair, and maintenance of the system, software, and equipment.

11.8.10 Technician (Maintenance) Training:

11.8.10.1 The Contractor shall ensure that all on-site personnel and substitute personnel are fully trained and certified on the C/SUPPS system that is currently in service at that time.

11.8.10.2 The Contractor shall be solely responsible for all costs associated with the training of on-site personnel and substitute personnel training, including training-related travel expenses.

11.8.10.3 Technician training shall include both classroom training and on-the-job training.

11.8.10.4 Twenty-four (24) hours of maintenance training shall be provided by the Contractor, as a minimum. Training for maintenance technicians shall be

provided on site, or off-site if required, and shall include, but not be limited to, installation, operation, renovation, alteration, inspection, maintenance, and service on each system and subsystem provided, so as to enable troubleshooting and repair to the component level. Maintenance training shall be conducted at a location that is coordinated with HAS.

12.0 BASIC SERVICES

12.1 General

12.1.1 After the completion of any Implementation phase, covered in Section 9.0 the contract shall commence Basic Services under this section. Basic Services shall include, but not limited to, all management, supervision, labor, parts/materials/consumables, equipment, diagnostics, lubricants, tools, instruments, reports, inspection, testing, software upgrades/installations, permits, transportation, insurance, sub-contracts, bonds, incidentals, and other related services. In addition, other associated electrical services for equipment and appurtenances as required to maintain safety, maximum operational efficiency, and to ensure Common/Share Used Passenger Processing System (C/SUPPS) adequately support the HAS mission and vision statements.

12.1.2 Basic Services shall include the replacement of failed or defective equipment, components, hardware and software. If the replacement of failed or defective equipment is the result of a verifiable act of force majeure or vandalism as stated in the Agreement, it shall be replaced per Section 21 as applicable.

12.1.3 No modifications shall be made to existing equipment or components without written approval from HAS.

12.1.4 The Contractor shall perform preventative maintenance on the Common Use all systems covered under the Agreement daily in accordance with standards and procedures recommended as required by the Original Equipment Manufacturer (OEM) for keeping the System in First-Class Condition.

12.1.5 Basic Services shall include performance of certain administrative tasks including preparation of reports, attending meetings, and completing certain housekeeping duties.

12.1.6 Contractor shall provide a Warranty Administration program for parts and equipment. The Contractor will receive the benefit of the warranty when repairs are subject to reimbursement from the OEM.

12.2 Maintenance Services

12.2.1 As a part of Basic Services, the Contractor shall preform Preventive Maintenance (PM) on all systems covered under the Agreement.

12.2.2 Preventative Maintenance services and associated parts, labor, sub-contracted services and other associated costs shall be considered included in the Basic Services cost unless specifically allowed under a provision of this contract.

12.2.3 Contractor shall provide PM services immediately after its Phase-In, on the date specified in the Notice to Proceed.

12.2.4 PM shall include regular inspections, tests, scheduled service routines, detection and correction of potential failures, replacement of parts that fail due to improper maintenance or lack of maintenance, parts cleaning, and adjusting of systems, establishment of work control systems, records, and reports as required to accomplish the service.

12.2.5 Contractor shall keep all parts and components inside all C/UPPS and CUSS systems clean and shall maintain work and equipment areas in a clean, neat and organized manner.

12.2.6 Contractor shall make the submitted Maintenance and Support Plan in the bid process as part of the Agreement.

12.2.7 Maintenance Plan - Upon receipt of the Notice to Proceed, Contractor shall:

12.2.7.1 Develop a PM plan capable of meeting the KPI targets described in section 11.0 using Contractors knowledge and the Original Equipment Manufacturers (OEM) specifications when available.

12.2.7.2 Submit the PM program for HAS approval 30 days after the Contractors Notice to Proceed date.

12.2.7.3 Contractor's Maintenance Plan shall address all services required by the Agreement.

12.2.7.4 The PM plan shall include requirements for daily, weekly, monthly, quarterly, semi-annually and annual requirements

12.2.8 Contractor shall utilize the OEM's PM program until HAS approves the Contractor's new plan.

12.2.9 Once approved the PM plan and its associated checklists shall be uploaded to the HAS IT Service Management Application and shall be utilized by the Contractor unless approved by HAS in advance.

12.2.10 Review PM program annually for any deficiencies and incorporate HAS approved changes into the PM program for the remainder of the contract.

12.2.11 Contractor must request and receive an approval before making any changes to the monthly PM schedule.

12.2.12 PM checklists should include the following information:

12.2.12.1 C/SUPPS and CUSS Asset Number and or RFID Tag Number

12.2.12.2 System Location

12.2.12.3 Maintenance Tasks

12.2.12.4 Contractor Allotted time for PM completion.

12.2.13 At a minimum the Preventive Maintenance shall include, but not limited to the following:

12.2.13.1 The Contractor shall conduct a daily cleaning, sanitizing, and inspection of the CUSS kiosks, Self-Service bag drops and any other customer facing touch points and ensuring that all equipment is loaded with adequate paper supplies.

12.2.13.2 The Contractor shall clean and inspect on a weekly basis all deployed common use workstations including the keyboards, monitors, printers, scanners, mice, and other peripheral equipment and ensure that adequate paper supplies are available. The deployed common use equipment includes hardware at the ticket counters, gate check-in counters, and workstations used for training. Keyboards will be cleaned, and air blown with industry accepted methods. PC hardware, peripheral hardware, and monitors will be dusted and cleaned to help ensure HAS provides our passengers and airline partners a clean, five-star travel environment and experience.

12.2.13.3 The Contractor shall conduct nightly system backups and ensure that the backups are stored offsite. Offsite can include HAS's datacenter, HAS's cloud services, the Contractor's cloud services, or a combination of these services14.2.13.4 The daily and weekly, maintenance, cleaning and paper supply check activities will take place while the C/SUPPS and CUSS kiosks equipment is not in use by the airline partners or airline passengers, typically between the hours of 12am and 4:00am.

12.3 **Records and Reports**

The Contractor shall submit all reports and records as may be required by the Director and/or designee:

12.3.1 Monthly Reports

Monthly maintenance reports are to be submitted as follows:

12.3.1.1 One (1) hard copy & one (1) digital copy to the HAS Director and/or Designee

12.3.1.2 One (1) hard copy & one (1) digital copy to the Senior Contract Administrator – Supply Chain Management.

12.3.1.3 Contractor shall submit monthly maintenance reports to HAS by the fifth (5th) day following the reported month and an annual report concurrently with the November monthly reports. All reports must be computer generated. Upon termination of the Agreement, all report data becomes the property of HAS.

Table 5: Monthly Report Titles and Frequencies

Report	Title	Frequency
1	KPI Results	Monthly
2	Change Requests	Monthly
3	Active OSR Status Report	Monthly
4	Monthly Meeting Minutes	Monthly
5	Quality Control Program	Annually
6	Annual System Report	Annually
7	PCI Attestation of Compliance Report	Annually
8	Operating System Security Plan	Annually
9	Irregular Operations Plan	As Requested
10	IT Security Report	As Requested

12.3.2 Annual Report:

On November 5th, the Contractor shall provide to an Annual Report detailing the following:

12.3.2.1 Status of all components in the C/SUPP environment by airport.

12.3.2.2 Summary of KPI results for the previous year by airport.

12.3.2.3 Annual Preventive Maintenance (PM) and Clean-down Schedule for each airport.

12.3.2.4 Changes to any components during the previous year.

12.3.2.5 Other Services Work completed during the previous year.

12.3.2.6 Major repair work completed during the previous year.

12.3.2.7 A look ahead to work planned during the coming year.

12.3.2.8 Recommendations to improve the C/SUPP system by airport.

12.3.2.9 Recommendations to enhance the currently adopted PM program.

Contractor shall submit for each location and Airport detailed and itemized invoices that meet the requirements of Attachment B of this solicitation.

12.3.3 Contractor Staffing

12.3.3.1 General: Contractor shall submit a list of all potential employees to HAS. The list shall state each employee's name, job title, certification, and assigned responsibilities. Contractor shall provide a final list of personnel during the Phase-In period and before the Agreement start date.

12.3.3.2 Contractor shall submit their proposed management and staffing plan for each airport.

12.3.3.3 Although the dedicated on-site personnel will be assigned primary Airport locations, HAS reserves the right to utilize any/all on-site personnel at any/all HAS locations.

12.3.3.4 The Contractor's on-site personnel will be expected to retrieve and update the status of work assignments via HAS-provided computers, applications, and the HAS IT Service Management application, and Microsoft Outlook.

12.3.3.5 The Contractor agrees to meet or exceed HAS's standards, now or hereinafter in effect as same may be amended at any time, which are referenced in Houston Airport System Technology Specifications located on HAS website https://www.fly2houston.com/biz/resources/building-standards-and-permits.

12.3.3.6 In the event that any conflict arises between the provisions of the Scope of Work and HAS Technology Specifications, the provisions of the Technology Specifications shall govern. Contractor shall adhere to revised standards within 30 days of posted revisions.

12.3.4 Personnel

12.3.4.1 During the Contractor's Phase-in period, The Contractor shall develop and submit for HAS approval a staffing plan which shall include.

12.3.4.2 A Project Manager to oversee all work performed.

12.3.4.3 A Qualified number of (Need positions names from fee scheduled) functions necessary to successfully meet the performance objectives and ensure PM's are completed on schedule.

12.3.4.4 Contractor or Sub-Contractor staff to comply with the unit cleaning requirements.

12.3.4.5 Upon notification from HAS, the Contractor shall coordinate and provide additional staffing during peak periods or special events when passenger traffic is expected to increase. This includes but is not limited to major sporting events, spring break, Thanksgiving week, Christmas week, and Offshore Technology Conference as a part of basic services.

12.3.4.6 Contractor shall provide an appropriate level of staffing starting on the date of "Notice to Proceed Letter" 24/7/365, including weekends, holidays, vacations, sick leave, training, leap year, and severe weather events.

12.3.4.7 For the equipment cleaning, Contractor shall provide additional staff to complete the cleaning.

12.3.4.8 Contractor shall notify HAS of all staff changes and request approval for changes to staffing before they are implemented.

12.3.5 Staff Hours and Scheduling

12.3.5.1 The Project Manager should be on site Monday through Friday, 7:00 a.m. to 4:00 p.m. to oversee all aspects of work.

12.3.5.2 For OSR purposes, Contractor shall provide a normal and after-normal hour labor rate for the positions in the fee schedule Attachment B. The normal labor rate shall be used during normal business hours which are Monday through Friday, 7:00 a.m. to 4:00 p.m. The afterhours labor rate shall be used outside of normal business hours and holidays.

12.3.6 Experience and Licensing Requirements

12.3.6.1 It is a requirement for the Contractor's designated on-site technicians be fully qualified to maintain the current and planned common use systems.

12.3.6.2 The Contractor shall make recommendations or propose technical staff to support technician duties. Proposed on-site personnel shall have no other employment obligations to Contractor or other third parties and must be approved in writing by the Director and/or designee. The proposed on-site personnel shall be on-site at the assigned Airport locations during Normal Business Hours and shall not be removed or replaced by Contractor without the prior written consent of the Director and/or designee.

12.3.6.3 Contractor shall furnish to the Director and/or designee the required current professional certifications and documentation of on-site personnel qualifications. All on-site and replacement personnel are required to maintain professional certifications valid and current while in the term of the Agreement.

12.3.6.4 Contractor may change personnel only with equally qualified personnel and then only after obtaining written approval from the Director and/or designee.

12.3.6.5 Contractor shall replace any personnel assigned to provide services under the Agreement whose work product or conduct is not satisfactory to the Director and/or designee.

12.3.7 Contractor Project Manager

12.3.7.1 The Contractor's Project Manager shall directly report to the Director and/or designee The Project Manager shall be PMI certified and have a minimum of 10-years working experience on C/SUPPS and CUSS aviation implementation projects of a similar nature and scale.

12.3.7.2 Contractor shall designate in writing to the Director a Project Manager (PM). Project Manager shall be approved in writing by the Director before commencing performance herein.

12.3.7.3 Contractor shall provide a dedicated and qualified Project Manager who shall serve as the main point of contact with HAS and shall be approved by HAS.

12.3.7.4 The Project Manager shall be required to be on-site at IAH during the hours of 7:00 a.m. through 4:00 p.m., Monday through Friday and visit HOU when

requested by HAS. The Project Manager shall be available and on-call 24 hours daily.

12.3.7.5 The Project Manager will be responsible for acceptance of all after hour trouble calls from the HAS Technology Service Desk representative. -Project Manager will determine the appropriate response and/or escalate to HAS Director and/or designee.

12.3.7.6 The Director shall be notified in writing and an acting project manager identified and approved by the Director when the project manager is off site for an extended duration (corporate meetings, vacation, illness, etc..). The acting project manager shall be fully authorized by the Contractor to act for the Contractor in all matters.

12.3.7.7 Project Manager shall attend regularly scheduled meetings to discuss the maintenance and operation of the systems. Project Manager shall prepare a typed meeting agenda covering the topics to be discussed and prepare minutes of the meetings in a form satisfactory to the Director. Project Manager shall issue copies of the minutes to all attendees within three (3) business days following each meeting. HAS shall approve the minutes prior to distribution by the Contractor.

12.3.7.8 The Project Manager shall not be a working technician

12.3.7.9 The Project Manager shall not be reassigned without prior approval of the Director. Such approval shall not be unreasonably withheld if the replacement Project Manager has equal experience, and skilled in a like position with a contract of similar size and scope.

12.3.7.10 HAS reserves the right upon written request, to require the Contractor replace the Project Manager within ten (10) business days. The new Project Manager shall meet all the experience requirements listed in the Agreement.

12.3.7.11 The Project Manager when designated in charge, shall be on HAS property during the designated times. When required, the PM shall notify the appropriate airport staff when they leave IAH for business at HOU or their corporate offices, and how they may be reached in case of an emergency.

12.3.8 Technical Personnel

12.3.8.1 All personnel assigned to work under the Agreement shall the required certifications and years of experience as outlined in the Personnel Matrix on Table 6 below. Personnel shall also hold a current and valid license and certifications issued by OEM and or an organization determined by HAS.

12.3.8.2 If Contractor is not able to find qualified personnel with requirements on Section 12.3.4, contractor must submit resumes and references of suggested personnel for HAS to approve.

Table 6

Personnel Matrix

Positions	Certifications	Years' Experience
Desktop and Support	Microsoft 365 Certified Modern Desktop Admin Associate	2

If On-Premises Server Administrator	MCSA Server Certification	3
Network Administrator	CCNA	3
If Cloud/Hybrid Cloud Systems Admin	AWS (AWS Certified SysOps Administrator or Similar) or Azure (Azure Administrator Associate or Similar)	3
If Cloud/Hybrid Server Administrator	MCSA Server Certification	3
On-Site Project Manager	ITIL 4, and CCNA, MCSA, AWS, or Azure - PMI (Preferred)	5 years of site management and 5 years of CCNA, AWS, Azure, or MCSA experience
All certifications must be current and kept current during time of contract.		
On-site personnel must be able to handle all level 1 and most level 2 support issues.		

12.3.9 Response Time

12.3.9.1 Contractor must provide 24/7/365 (including Holidays) remote help desk support for all HAS and airlines serving IAH.

12.3.9.2 An acceptable approach to providing the required maintenance and support service is through the provisioning of remote access. If the Contractor desires to provide remote access support, all current HAS security policies and procedures shall be followed.

12.3.9.3 The Contractor shall respond to all requests within the following Response Times. The determination of the request classification shall be in the sole judgement of the Director and/or designee.

Response Time Matrix (Table 6)				
Type	Time To Respond Remotely	Time To Respond When technicians are on Site	Time to Respond during off-peak hours	Time To Restore
Operational Failure	15 Minutes	4 Hours	8 Hours	24 Hours
Critical Failure	15 Minutes	1 Hour	2 Hours	24 Hours
Emergency Failure	5 Minutes	20 Minutes	1 Hour	24 Hours
Technicians must be on site from 0500 until 0100 24/7/365				
Off-Peak Hours are from 0101 until 0459 24/7/365				
Remote Support shall be 24/7/365				

13.0 OTHER WORK/SERVICES REQUEST

13.1 General

13.1.1 Within the general scope of the Agreement, Other Work/Services may be required for system and equipment to meet desired conditions and/or services not covered in the Basic Services of the Agreement. Other Work/Services shall be performed in accordance with all provisions of the Agreement and any special provisions issued with authorization for work that are consistent with the Agreement. Other Work/Services shall be provided by Contractor on an "as needed" basis and then, only after receipt of a written Other Work/Services Request ("OSR"), signed by the Director and/or designee. Contractor shall perform Other Work/Services to the same standards identified for Basic Services.

13.2 Performing Other Work/Services

13.2.1 Other Work/Services shall be performed in accordance with all provisions of the Agreement and any special provisions issued with the Other Service/Request (OSR)

13.2.2 Before issuing an OSR, the Director will first issue a written notice to the Contractor detailing the specific OSR to be performed by the Contractor.

13.2.3 In response to any such written notice, Contractor shall provide the Director with a written agreement within five (5) business days of receipt of OSR. Contractor shall include a description of the services to be performed, applicable labor rates, estimated labor hours, performance schedule, total estimated cost, and any other requirements set forth in the written notice to the Contractor.

13.2.4 Contractor shall furnish all materials, labor, tools, equipment, transportation, and incidentals for accomplishing the described services or as otherwise specified by the Director. Director will not approve an OSR without a specified completion date. Contractor shall complete all such Other Work/Services within the time specified in the OSR. Contractor can request in writing an extension to the completion date. However, the Director may or may not allow the extension. Director’s decision is final

13.2.5 In some situations, HAS may supply parts to Contractor for Other Work/Services Work. HAS will bear full responsibility for the parts.

13.2.6 Upon receipt of the Contractor’s agreement, the Director has the option to reject the Contractor’s agreement, require resubmission with revised or additional information, or issue an OSR. Should the Director reject the Contractor’s agreement and require resubmission, the Contractor shall resubmit a modified agreement within five (5) business days of the rejection.

13.2.7 Upon approval by the Director of the modified agreement, an OSR will be issued. Contractor shall commence as stated in the OSR. Contractor shall diligently work to the completion in accordance with the terms and conditions of the Agreement and the approved OSR.

13.2.8 Contractor’s labor cost shall not exceed the rate stated in the Fee Schedule. Contractor’s labor cost stated in the Fee Schedule only applies to the Contractor’s employees who are “not” performing work in conjunction with their regular duties. Labor is inclusive of supervision, transportation, tools, and expendables.

13.2.9 Prices for equipment, parts, supplies, and sub-contracted requirements which may be required for authorized Other/Work Services shall be the Contractor’s actual cost-plus percent (____%) mark-up proposed on the Fee Schedule (mark-

up excludes freight and travel). Copies of invoices from Contractor's suppliers for these items shall be submitted with Contractor's invoices at the time of submittal to HAS for payment. The mark-up percentages stated shall not increase during the term of the Agreement. The quantity of equipment, parts and supplies will depend on the needs of HAS.

13.2.10 Should a required service exceed $5,000, Contractor shall obtain three (3) itemized bids/estimates within five (5) business days from separate/different vendors/suppliers, not affiliated with Contractor, for the required equipment, parts, supplies, and sub-contracted work/items. Contractor shall submit the bids/estimates to the Director and obtain written approval from the Director before proceeding with the Work. Contractor shall be compensated at actual cost-plus percent (____%) mark-up proposed on the Fee Schedule (mark-up excludes freight and travel).

13.2.11 If a required service is less than $5,000, Contractor shall obtain one (1) itemized bid/estimate within five (5) business days, for the required equipment, parts, supplies, and sub-contracted work/items. Contractor shall submit the bid/estimate to the Director and obtain written approval from the Director before proceeding with the Work. Contractor shall be compensated at actual cost-plus percent (____%) mark-up proposed on the Fee Schedule (mark-up excludes freight and travel).

13.2.12 After completion of Other Work/Services, a copy of the approved OSR shall accompany the invoice.

13.2.13 While performing Work on any OSR, if hidden damage or additional cost is discovered, Contractor shall notify the Director immediately. After determining the extent of hidden damage, a supplemental OSR must be submitted.

13.2.14 Contractor shall submit to the Director, copies of original purchase orders and invoices evidencing Contractor's acquisition costs.

13.2.15 In the case of emergency services, Contractor may perform Other Work/Services upon the verbal approval of the Director. However, during the next business day, the Director will submit a written Emergency Service Request to the Contractor.

13.2.16 If it is determined this scope of work should be covered under Basic Services, any amount paid to the Contractor under Other/Services Request will be reimbursed to HAS by the Contractor. HAS does not waive any of its rights and remedies whether by statue, at law, in equity, or under this Contract.

13.2.17 If Other Work/Services are performed by the on-site crew in conjunction with their regular duties, the Contractor shall not receive additional compensation for their labor.

13.2.18 Contractor shall be responsible for ensuring all work done under an Other Service Request is in compliance with all regulatory plan review and permitting requirements in effect. Contractors work schedule will not be approved without submitting the appropriate permits to HAS.

13.2.19 Contractor shall not subcontract work to companies affiliated with the contractor without prior written approval form the Director.

13.2.20 Unless specifically allowed under a section of the Agreement, preventative maintenance parts, tools and services shall not be an OSR candidate.

13.2.21 Other/Work Services include, but are not limited to, the following:

13.2.21.1 Optional System Upgrades/Modifications approved by HAS

13.2.21.2 Additional workstations, printers, kiosks, networking equipment, servers, or new technologies as needed for replacements, expansions, or implementations.

13.2.21.3 New software upgrades not included in the Agreement.

13.2.21.4 License/Hardware to implement new Common Use systems and features

13.2.21.5 Peripheral Upgrades/Modifications

13.2.21.6 Common Use equipment such as software, licenses, cameras, services, and labor.

13.2.21.7 Cabling materials and services for data and video devices

13.2.21.8 Repair or replace components damaged by vandalism, force majeure, or other third parties as determined by Section 21 in the Agreement.

13.2.22 Provide the services of independent consultants, engineers, or other professionals to perform special studies or investigations of C/SUPPS and CUSS systems.

13.2.23 Provide labor and material to modify or upgrade equipment in accordance with revisions to governing regulations; recommendations by consultants, engineers, or other professionals; or HAS requirements.

13.2.24 Proof of Concepts (POC) initiatives related to C/SUPPS and CUSS systems.

14.0 QUALITY CONTROL

14.1 The Quality Control requirements described under this section shall apply to all C/SUPPS and CUSS systems and equipment.

14.2 The Contractor shall develop, implement, and maintain a Quality Control Program that will assure HAS that the C/SUPP and CUSS Operation & Maintenance Services are in accordance with the highest standards prevailing in the industry and Contractor always adheres to the provisions of the Agreement. The Contractor's QC plan, at a minimum, must include the following:

14.2.1 The QC Program should include an inspection plan that must specify areas to be inspected on a scheduled or unscheduled basis, frequency of inspection, and titles of Contractor's personnel who will be performing the inspections.

14.2.2 Contractor's staff conducting Quality Control functions shall at a minimum meet the experience requirements of Section 12.3.8 for all the positions mentioned in the fee schedule Attachment B.

14.2.3 The inspection plan must specify the type and number of inspections to be conducted, and the types of deficiencies to be targeted.

14.2.4 Deficiency Prevention – Contractor shall establish a method of identifying and correcting deficiencies (and their cause) in order to improve the quality of service before the level of performance is impaired.

14.2.5 Inspection Files – Inspection files must include documentation on all inspections conducted by the Contractor and the corrective action taken. The documentation must be made available to HAS at any time it is requested during the term of the Agreement.

14.2.6 Inventory Files – During the term of the Agreement, the Contractor shall make available to HAS a file of all inventories.

14.2.7 Contractor shall develop a QC Inspection sheet in a format acceptable to the Director. The Contractor shall maintain a file of all inspections conducted by

Contractor and the corrective actions taken. This file must be made available to the Director immediately upon request.

14.3 Contractor shall submit the QC program in writing to HAS for approval before implementation and review it annually to ensure that the program produces the desired results.

14.4 Contractor shall document and incorporate the Quality Control program into the HAS IT Service Management Application.

15.0 INCLUSION NOTICE

15.1 Inclusion Notices for additional HAS equipment, labor, and/or services will describe the additional unit(s) by manufacturer, model, serial number, HAS property tag numbers where applicable, and a brief description of the unit or services provided. Contractor shall be responsible for all parts and labor to maintain or replace the unit once the unit is added to the Agreement.

15.2 Respondent shall provide annual equipment true up for C/SUPPS.

15.3 From time to time during a HAS construction project, the Contractor may be required to move or add new equipment, etc. on HAS property. The Contractor may be required to enter into an agreement with a construction Contractor. The Contractor will be reimbursed for this work performed via an allowance in the construction contract with the approval of the Director and/or designee and as long as funds have been appropriated and authorized. At the time of system acceptance, the Houston Airport System will process an inclusion notice to incorporate new equipment into the Agreement. Maintenance costs will commence upon expiration of the warranty period and in accordance with the agreement.

15.4 HAS shall incur no costs under this provision without express written consent of the Director and/or designee.

16.0 EXCLUSION NOTICE

16.1 During the Contract Term, the existing Common Use equipment or systems may be upgraded and/or new equipment or systems may be added to meet the changing needs of the HAS. At HAS's option, such upgrades or additions may be supplied and installed by the Common Use services Contractor or others. The Contractor shall be responsible for maintenance of any upgrades and/or new equipment or systems following completion of installation, acceptance, and the warranty period. Such system upgrades, new equipment, or components installed as an integral part of existing systems without increasing overall system requirements more than 5% are to be maintained by Contractor without additional compensation. Cost adjustments for inclusion or exclusion of equipment that increases or decreases overall system requirements by more than 5% shall be at the rates stipulated in the Cost Proposal Form (Attachment B), or if not stated therein, ordinary and reasonable rates as mutually agreed upon between the Director and Contractor.

16.2 Any equipment or service that is subject to the Agreement may be excluded from the Agreement by means of an Exclusion Notice. Price adjustment as a result of exclusion shall be mutually agreed upon by both parties. The Exclusion Notice will describe the unit by manufacturer and serial number and include a brief description of the unit to be excluded.

17.0 TEST EQUIPMENT

17.1 The Contractor shall furnish and maintain adequate quantities and types of on-site test equipment as required for diagnostics and repairs of the C/SUPPS and CUSS equipment at HAS facilities.

18.0 SECURITY AND BADGING

18.1 The Contractor shall refer to www.fly2houston.com/biz/resources/badging for all HAS badging related information, questions, badging application forms, office hours, etc.

18.2 All onsite personnel are required to meet the requirements in order to obtain an HAS badge with CBP access and maintain an active status for the badge.

18.3 All onsite personnel are required to meet the requirements in order to obtain and HAS badge with SIDA and Air Operations Area (AOA) access and maintain an active status for the badge. AOA driving privileges are not required.

18.4 The Contractor shall comply with all applicable Federal rules governing security at the Airport, as may be amended from time to time.

18.5 All on-site personnel of the Contractor, including subcontractors, are required to undergo a fingerprint-based criminal history records check.

18.6 The Contractor will be required to provide Customs Border Protection Security Access at IAH and HOU airports, which will require the Contractor to purchase a Customs Security Bond for employees requiring access to CBP Security areas.

18.7 Costs for the fingerprint-based criminal history records check are reflected in the cost of the badges. Contractor must pay for the cost of badges, including replacements thereof. Contractor personnel losing badges will be charged for lost badge in addition to replacement badges at the then current rate.

18.8 Contractor acknowledges that fines or penalties associated with non-compliance with security regulations must be reimbursed to HAS.

19.0 TRANSPORTATION AND PARKING

19.1 The Contractor shall provide vehicles for onsite personnel for their employee's use and shall park its vehicles in areas designated by the Director and/or designee at its own cost, if any. HAS will provide a limited number of Contractor parking spaces at no charge. All transportation activities and related costs of Contractor, or its sub-contractors, necessary to perform under the Agreement shall be provided by Contractor. All of Contractor's and its sub-contractor's company vehicles shall be clearly identified according to FAA and HAS guidelines and regulations with at a minimum company decals and or magnetic signs as required by the Director and/or designee.

20.0 PERSONAL PROTECTIVE EQUIPMENT

20.1 The Contractor shall provide all the essential and necessary personal protective equipment for each member of the on-site personnel and any substitute personnel. The personal protective equipment that shall be provided shall include, but not limited to, the following:

20.1.1 A continuous, adequate supply of disposable medical-grade face masks or face coverings

20.1.2 A continuous, adequate supply of disposable gloves

20.1.3 A continuous, adequate supply of hand sanitizer for the office to be used by personnel

20.1.4 A continuous, adequate supply of sanitizing wipes and/or spray for the office to be used by personnel

21.0 FORCE MAJEURE, THIRD PARTY DAMAGE OR VANDALISM

21.1 Any instance of force majeure that is proven by the Contractor and verified by HAS shall be replaced at a cost not to exceed rate proposed through the Other Work Services section.

21.2 Any instance of third-party damage or vandalism that is proven by the Contractor and verified by HAS shall be replaced at a cost not to exceed rate proposed through the Other Work Services section.

22.0 CUSTOMER SERVICE AND OTHER REQUIREMENTS

22.1 Because the duties will require that Contractor's personnel often interact with airline staff, HAS staff, and our passengers the personnel must:

22.2 All on-site personnel will be required to have the company's uniform and the Contractor's personnel will present a clean and neat appearance at all times.

22.3 All on-site personnel will be required to maintain a professional, friendly, helpful, and courteous attitude at all times.

22.4 The Contractor shall make arrangements for the on-site Project Manager to be on-call 24 hours per day, 7 days per week, 365 days per year, (including all HAS holidays) to respond to urgent/emergency response. When on-site Manager is not available, Contractor must provide equally qualified personnel, must hold an active HAS badge, and must inform HAS in advance.

22.5 The Contractor shall make arrangements for a sub-set of "standby", equally qualified substitute technicians who may be called upon to fulfill the duties of assigned on-site technicians during vacations, training, or absences due to illness. Substitute technicians must hold valid HAS badges for the respective airports, and must be included in the airport familiarization process. Contractor may not substitute technicians who are unfamiliar with the airport facilities, tenants, and personnel.

22.6 Contractor shall pay all of its Administrative/Overhead Cost including, but not limited to, payroll vacation, sick time, training, etc. processing orders, tracking invoices, sales quotations, and engineering documents. Such costs shall not be billed to HAS.

22.7 Maintain a clean, drug-free and safe working environment.

22.8 The Contractor shall provide HAS with an Organization Chart complete with names and resumes for each position on the Chart.

22.9 If Contractor fails to meet any of the KPI performance standards for a period of three (3) consecutive months, or the Director determines that the Contractor's requirements and responsibilities can only be met with additional on-site staff, Contractor shall provide such staff at no additional cost to HAS.

22.10 Contractor's personnel shall work additional hours as required to meet Contractor's obligations at the Contractor's expense.

23.0 INVOICING

23.1 Contractor shall submit its invoices electronically in accordance with the specifications and shall invoice for work accepted by an HAS representative.

23.2 The City shall certify the correctness of each invoice and arrange for payment. The invoice must be identified by the agreement name and agreement number. Certification and/or payment does not preclude the City from indicating that a certification or payment was incorrect. In addition, it does not preclude the City from recovering excess payments.

23.3 All work shall be scheduled with HAS representatives and shall be accomplished during the hours scheduled. HAS shall have the right to request work to be performed during regular and non-regular hours.

23.4 No payment for services shall be payable by HAS for any services for which the Contractor fails to complete all the scheduled work as specified or fails to obtain an approved work schedule prior to beginning work.

23.5 Contractor shall be compensated at the agreed price located in Attachment B (Cost Proposal Form).

23.6 Invoices submitted for services performed as the result of Other Work/Services shall include a copy of the Director's written request.

23.7 Invoices submitted for services performed as the result of Change Orders shall require copies of the applicable Change Order attached to the original invoice.

23.8 Contractor shall provide separate monthly invoices for any completed work at each location and Airport

23.9 Invoice Requirements

23.9.1 The Houston Airport System shall only accept invoices submitted electronically along with required support information. Each invoice should be in a PDF or TIFF format. Multiple invoices can be submitted in a single email with one invoice per file. Requirements are as follows:

- Submit invoices in "PDF" or "TIFF" format.
- Submit to has.accountspayable@houstontx.gov

23.9.2 Contractor shall make timely payments to all suppliers and/or sub-contractors that furnish labor, materials and/or furnishings related to the Agreement.

24.0 INTERLOCAL AGREEMENT

Under the same terms and conditions hereunder, the Contract may be expanded to other government entities through inter-local agreements between the City of Houston and the respective government entity that encompass all or part of the products/services provided under this contract. Separate contracts will be drawn to reflect the needs of each participating entity.

25.0 LIQUIDATED DAMAGES

Liquidated Damages will be assessed throughout the contract term. Prior to implementing Liquidated Damages, the Contractor and HAS will come to an agreement on the dollar amount of Liquidated Damages. Dollar amount will be agreed up on during RFP negotiations.

25.1.1 If Contractor does not meet the Project Baseline Schedule approved by HAS. Section 9.3.2 of Attachment A. Cost shall range between $250 and $500 per day per delay.

25.1.2 If Contractor does not meet the items in the Response Time Matrix (Table 6) Section 12.3.9 of Attachment A. Cost shall range between $250 and $500 per hour per occurrence.

25.1.3 Any other Liquidated Damages agreed during RFP negotiations.

End of Attachment A

ATTACHMENT B

COST PROPOSAL FORM

(See Attachment)