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**City and County of San Francisco
 Airport Commission
 P.O. Box 8097
 San Francisco, California 94128**

**Software License, Maintenance and Technical Services Agreement
 Agreement between the City and County of San Francisco and**

**SITA Information Networking Computing USA Inc.
 Ct. 50387
 1000034023**

This Agreement is made this 3rd day of December, 2024, in the City and County of San Francisco ("City"), State of California, by and between SITA Information Networking Computing USA Inc. ("Contractor") and City.

Recitals

- A. On July 10, 2018, by Resolution 18-0202, the Commission awarded a contract for the passenger processing system through Contract No. 11211.44 with Contractor; and
- B. On March 5, 2019, by Resolution 19-0045, the Commission awarded a contract for the information display system through Contract No. 11211.45 with Contractor; and
- C. The Airport Commission ("Department" or "Commission") wishes to enter into a new support and maintenance contract for the San Francisco International Airport (the "Airport" or "SFO") passenger processing system ("PPS") and information display system ("IDS") from Contractor; and
- D. Contractor represents and warrants that it is qualified to perform the Services required by City as set forth under this Agreement; and
- E. On October 10, 2024, Contractor was selected as required by the San Francisco Administrative Code Section 21.5(b) and approved by the Office of Contract Administration under waiver OCAWVR0010600 and
- F. The City's Airport Commission approved this Agreement by Resolution No. 24-0254 on December 3, 2024 in the amount of \$2,000,000 for the period commencing December 13, 2024 and ending December 31, 2025; and
- G. This is a contract for Services and the Local Business Enterprise ("LBE") subcontracting participation requirement for the Services has been waived as required under waiver CMD14B0003619; and
- H. Approval for the Agreement was obtained from the Civil Service Commission under DHRPSC0004669 in the amount of \$6,000,000 for the period of three years.

Now, THEREFORE, the Parties agree as follows:

Article 1 Definitions

The following definitions apply to this Agreement:

1.1 "Acceptance" means a notice from City to Contractor that the Licensed Software meets the specifications contained in the Documentation. City's Acceptance of the Licensed Software shall be governed by the procedures set forth in Section 4.3.

1.2 “Agreement” means this contract document, including all attached appendices, and all applicable City Ordinances and Mandatory City Requirements specifically incorporated into this Agreement by reference as provided herein.

1.3 “City” means the City and County of San Francisco, a municipal corporation, acting by and through both its Director of the Office of Contract Administration or the Director’s designated agent, hereinafter referred to as “Purchasing” and “Airport Commission.”

1.4 “City Data” means that data as described in Article 15 of this Agreement which includes, without limitation, all data collected, used, maintained, processed, stored, or generated by or on behalf of City in connection with this Agreement. City Data includes, without limitation, Confidential Information. City Data does not include Contractor Data.

1.5 “Contractor Data” means that anonymous or anonymized data generated from the use of the equipment, software or services provided by Contractor under this Agreement that relates to or is the performance of Contractor-provided Software systems or Services, i.e. number of passengers processed using a passenger processing system or the number of service tickets or reports. Contractor Data does not include City Data.

1.6 “CMD” means the Contract Monitoring Division of the City.

1.7 “Confidential Information”

1.7.1 “Confidential Information” means confidential City information including, but not limited to, personal identifiable information (“PII”), protected health information (“PHI”), or individual financial information (collectively, “Proprietary or Confidential Information”) that is subject to local, state or federal laws restricting the use and disclosure of such information, including, but not limited to, Article 1, Section 1 of the California Constitution; the California Information Practices Act (Civil Code § 1798 et seq.); the California Confidentiality of Medical Information Act (Civil Code § 56 et seq.); the federal Gramm-Leach-Bliley Act (15 U.S.C. §§ 6801(b) and 6805(b)(2)); the privacy and information security aspects of the Administrative Simplification provisions of the federal Health Insurance Portability and Accountability Act (45 CFR Part 160 and Subparts A, C, and E of part 164); and San Francisco Administrative Code Chapter 12M (“Chapter 12M”). Confidential Information includes, without limitation, City Data.

1.7.2 “Confidential Information” also means any and all nonpublic information, whether written, electronic, or oral, concerning or relating to Airport technology, computer, or data systems, processes, or procedures, or Critical Infrastructure Information or Protected Critical Infrastructure Information as defined under the Homeland Security Act of 2002 and 6 CFR § 29.2, which information or access to such information is supplied by the Airport or on behalf of the Airport to Contractor or otherwise acquired by Contractor during the course of dealings with the Airport. Additionally, “Confidential Information” includes security or security-related information, whether or not such information constitutes sensitive security information (“SSI”) as provided under 49 CFR Part 1520. In the event Contractor acquires SSI, it shall treat such information in conformance with federal law and the provisions of this Agreement.

1.7.3 “Confidential Information” is confidential regardless of whether such information is in its original form, a copy, or a derivative product. “Derivative” means written or electronic material created from or with, or based on Confidential Information (i.e., a report analyzing Confidential Information shall also be considered Confidential Information). Confidential Information shall also mean proprietary, trade secret or other protected information identified as Confidential Information by the Airport.

1.8 “Contractor” means SITA Information Networking Computing USA Inc., 600 Galleria Parkway SE, Suite 1000, Atlanta, GA 30339.

1.9 “Deliverables” means Contractor’s work product resulting from the Services that are provided by Contractor to City during the course of Contractor’s performance of the Agreement, including without limitation, the work product described in the “Scope of Services” attached as Appendix A.

1.10 “Documentation” means the technical publications relating to the use of the Licensed Software, such as reference, installation, administrative and programmer manuals, provided by Contractor to City.

1.11 “Errors, Defects and Malfunctions” means either a deviation between the function of the Software and the Documentation furnished by Contractor for the Software, or a failure of the Software which degrades the use of the Software.

1.12 “Fix” means repair or replacement of source, object or executable code in the Software to remedy an Error, Defect or Malfunction.

1.13 “Hardware” means consists of the physical components of a computer that are tangible and essential to its functionality and operation, and provide output, storage, communication, and processing. These components include specialized on-premises servers, network switches, and other devices.

1.14 “Licensed Software” or “Software” means one or more of the proprietary computer software programs identified in Appendix A, all related materials, Documentation, all corrections, patches or updates thereto, and other written information received by City from Contractor, whether in machine-readable or printed form.

1.15 “Mandatory City Requirements” means those City laws set forth in the San Francisco Municipal Code, including the duly authorized rules, regulations, and guidelines implementing such laws that impose specific duties and obligations upon Contractor.

1.16 “Object Code” means the machine-readable form of the Licensed Software provided by Contractor.

1.17 “Party” or “Parties” means, respectively, City and Contractor either individually or collectively.

1.18 “Patch” means a temporary repair or replacement of code in the Software to remedy an Error, Defect or Malfunction. Patches may be made permanent and released in Subsequent Releases of the Software.

1.19 “Priority Category” means a priority assigned to an Error, Defect or Malfunction, designating the urgency of acknowledging, diagnosing and correcting an Error, Defect or Malfunction. Assignment of a Priority Category to an Error, Defect or Malfunction is based on City’s determination of the severity of the Error, Defect or Malfunction and Contractor’s reasonable analysis of the priority of the Error, Defect or Malfunction.

1.20 “Priority Protocol” means the Contractor response protocol, based on the Priority Category, including without limitation rules specifying the turnaround time for acknowledging, diagnosing and correcting Errors, Malfunctions and Defects, escalation procedures, personnel assignment, and so forth, as provided in this Agreement.

1.21 “Services” means the work performed by Contractor under this Agreement as specifically described in the “Scope of Services” attached as Appendix A, including all services, labor, supervision, materials, equipment, actions and other requirements to be performed and furnished by Contractor under this Agreement.

1.22 “Source Code” means the human readable compilable form of the Licensed Software to be provided by Contractor.

1.23 “Specifications” mean the functional and operational characteristics of the Licensed Software as described in Contractor’s current published product descriptions and technical manuals.

1.24 “Subsequent Release” means a release of the Software for use in a particular operating environment which supersedes the Software. A Subsequent Release is offered and expressly designated by Contractor as a replacement to a specified Software product. A Subsequent Release will be supported by Contractor in accordance with the terms of this Agreement. Multiple Subsequent Releases may be supported by Contractor at any given time. A Subsequent Release excludes an Upgrade.

1.25 “Support Services” means the Software support service required under this Agreement. Support Services include correcting an Error, Defect or Malfunction; providing telephone and/or online support concerning the installation and use of the Software; training in the installation and use of the Software; on-site consulting and application development services; detection, warning and correction of viruses; and disabled/disabling code.

1.26 “System Component” means any network devices, servers, computing devices, virtual components, or software included in or connected to any PPS or IDS device that falls within the purview of this Agreement.

1.27 “Update” means any and all code changes, modifications, patches, bug fixes, enhancements, and other updates to the Services (which term, for purposes of this definition, includes Software maintained and/or supported by Contractor under this Agreement) that Contractor implements to correct non-conformities and deficiencies in the Services or otherwise optimize the functionality of the Services consistent with Section 6.6 of this Agreement.

1.28 “Upgrade” means either a change to the Software code to add materially new features or functions to the system or a major version change. For example, from version 7.x to version 8.x. Any Upgrade work would be handled under the task order process for as-needed Services.

1.29 “Warranty Period” means a period commencing with the installation of the Software product during which reported Errors, Defects and Malfunctions for Software products are corrected without charge in accordance with the provisions below.

1.30 “Workaround” means a change in the procedures followed or end user operation of the Software to avoid an Error, Defect or Malfunction without significantly impairing functionality or degrading the use of the Software.

Article 2 Term of the Agreement

2.1 License Term. The terms of the City’s licenses to use the Licensed Software are as detailed under Section 4.1 (“Grant of License”) of this Agreement.

2.2 Term of Services and Support Services.

2.2.1 Term. The term of this Agreement shall commence on December 13, 2024 and expire on December 31, 2025, unless earlier terminated as otherwise provided herein.

2.2.2 Options to Extend. City has two options to extend the term for Services and Support Services under the Agreement for a period of one year each. City may exercise this option at City’s sole and absolute discretion by modifying this Agreement as provided in Section 13.5, “Modification of this Agreement.” Extensions may be for the whole or partial period provided for above.

Article 3 Financial Matters

3.1 Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation. This Agreement is subject to the budget and fiscal provisions of Section 3.105 of the City's Charter. Charges will accrue only after prior written authorization certified by the Controller, and the amount of City's obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Contractor's assumption of risk of possible non-appropriation is part of the consideration for this Agreement.

THIS SECTION CONTROLS AGAINST ANY AND ALL OTHER PROVISIONS OF THIS AGREEMENT.

3.2 Maximum Costs. City's payment obligation to Contractor cannot at any time exceed the amount certified by City's Controller for the purpose and period stated in such certification. Absent an authorized emergency per the City Charter or applicable Code, no City representative is authorized to offer or promise, nor is City required to honor, any offered or promised payments to Contractor under this Agreement in excess of the certified maximum amount without the Controller having first certified the additional promised amount and the Parties having modified this Agreement as provided in Section 13.5, "Modification of this Agreement."

3.3 Authorization to Commence Work. Contractor shall not commence any work under this Agreement until City has issued formal written authorization to proceed, such as a purchase order, task order or notice to proceed. Such authorization may be for a partial or full scope of work.

3.4 Compensation.

3.4.1 Calculation of Charges and Contract Not to Exceed Amount.

(a) **Payment.** The amount of this Agreement shall not exceed \$2,000,000, the breakdown of which appears in Appendix B, "Calculation of Charges." City shall not be liable for interest or late charges for any late payments. City will not honor minimum service order charges for any Services covered by this Agreement.

3.4.2 Payment Limited to Satisfactory Services and Delivery of Goods. Contractor is not entitled to any payments from City until City approves the goods and/or Services delivered pursuant to this Agreement. Payments to Contractor by City shall not excuse Contractor from its obligation to replace unsatisfactory delivery of goods and/or Services even if the unsatisfactory character may not have been apparent or detected at the time such payment was made. Goods and/or Services delivered pursuant to this Agreement that do not conform to the requirements of this Agreement may be rejected by City and in such case must be replaced by Contractor without delay at no cost to City.

3.4.3 Withhold Payments. If Contractor fails to provide goods and/or Services in accordance with Contractor's obligations under this Agreement, City may withhold any and all payments due to Contractor until such failure to perform is cured, and Contractor shall not stop work as a result of City's withholding of payments as provided herein.

3.4.4 Invoice Format. Invoices submitted by Contractor under this Agreement must be in a form acceptable to the Controller and City and include a unique invoice number and a specific invoice date. Payment shall be made by City as specified in Section 3.4.8, or in such alternate manner as

the Parties have mutually agreed upon in writing. All invoices must show the PeopleSoft Purchase Order ID Number, PeopleSoft Supplier Name and ID, Item numbers (if applicable), complete description of goods delivered or Services performed, sales/use tax (if applicable), contract payment terms and contract price. Invoices that do not include all required information or contain inaccurate information will not be processed for payment.

3.4.5 LBE Payment and Utilization Tracking System - Reserved.

3.4.6 Getting paid by City for Goods and/or Services.

(a) City utilizes a commercial product through its banking partner to pay City contractors electronically. Contractors shall sign up to receive electronic payments to be paid under this Agreement. To sign up for electronic payments, visit [SF City Partner at sfgov.org](https://sfcitypartner.sfgov.org).

(b) At the option of City, Contractor may be required to submit invoices directly in City's financial and procurement system. Refer to <https://sfcitypartner.sfgov.org/pages/training.aspx> for more information.

3.4.7 Grant Funded Contracts - Reserved.

3.4.8 Payment Terms.

Payment Due Date. Unless City notifies the Contractor that a dispute exists, Payment shall be made within 30 calendar days, measured from (1) the rendering of the Services, or (2) the date of receipt of the invoice, whichever is later. In case of a dispute that only relates to part of the charges of a relevant invoice, the Contractor shall reissue the invoice listing only the undisputed charges, the Airport shall pay the undisputed charges within 30 calendar days. Payment is deemed to be made on the date City issued a check to Contractor or, if Contractor agreed to electronic payment, the date City has posted electronic payment to Contractor.

(a) Payment Discount Terms – Reserved.

3.5 Audit and Inspection of Records. Contractor agrees to maintain and make available to City, during regular business hours, accurate books and accounting records relating to its Services. Contractor will permit City to audit, examine and make copies of such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Agreement, whether funded in whole or in part under this Agreement. Contractor shall maintain such data and records in an accessible location and condition for a period of not less than five years after final payment under this Agreement or until after final audit has been resolved, whichever is later. The State of California or any Federal agency having an interest in the subject matter of this Agreement shall have the same rights as conferred upon City by this Section. Contractor shall include the same audit and inspection rights and record retention requirements in all subcontracts.

3.6 Submitting False Claims. The full text of San Francisco Administrative Code Section 21.35, including the enforcement and penalty provisions, is incorporated into this Agreement. Any contractor or subcontractor who submits a false claim shall be liable to City for the statutory penalties set forth in that section.

3.7 Payment of Prevailing Wages.

3.7.1 Covered Services. Services to be performed by Contractor under this Agreement may involve the performance of trade work covered by the California Labor Code Sections 1720 and 1782, as incorporated within Section 6.22(e) of the San Francisco Administrative Code (collectively, "Covered Services"), which is incorporated into this Agreement as if fully set forth herein and will apply to any Covered Services performed by Contractor and its subcontractors.

3.7.2 Wage Rates. The latest prevailing wage rates for private employment on public contracts as determined by the San Francisco Board of Supervisors (BOS) and the Director of the California Department of Industrial Relations (“DIR”), as such prevailing wage rates may be changed during the term of this Agreement, are hereby incorporated as provisions of this Agreement, as applicable. For trade work covered by the provisions of Labor and Employment Code Article 102, Contractor agrees that it shall pay not less than the prevailing wage rates, as fixed and determined by the BOS, to all workers employed by Contractor who perform such Covered Services under this Agreement. Copies of such rates are available from the Office of Labor Standards and Enforcement (“OLSE”) and on the Internet at <https://sfgov.org/olse/prevailing-wage-non-construction>. For trade work covered by the provisions of Administrative Code Section 6.22(e), Contractor agrees that it shall pay not less than the prevailing wage rates as fixed and determined by the California Department of Industrial Relations for the County of San Mateo to all workers employed by Contractor who perform Covered Services under this Agreement. Copies of such rates are available from the OLSE and on the Internet at <http://www.dir.ca.gov/DLSR/PWD>.

Article 4 License

4.1 Grant of License.

4.1.1 Grant of License – On-Premises Solutions. Contractor hereby acknowledges and affirms that, pursuant to the previous agreements noted in the Recitals section above (and for good and valuable consideration, the sufficiency of which Contractor acknowledges), City was granted a non-exclusive and non-transferable perpetual license to use the IDS Licensed Software hosted on-premises and a non-exclusive and non-transferable perpetual license to use the PPS Licensed Software hosted on-premises (excluding SITA Smart Path, together, the Licensed Software as further defined in Section 1.13 of this Agreement). In the event the City wishes to use the Licensed Software of Contractor’s on-premises solutions after the expiration of this Agreement and any extensions thereof, then such use shall only be of the version of such Licensed Software that was current at the time of expiration of this Agreement. Contractor shall not be required to provide any updates, patches, upgrades or future versions, nor support and maintenance of such Licensed Software after the expiration of this Agreement and any extensions thereof.

4.1.2 Contractor hereby acknowledges and affirms the continuing validity of said grants of license referred to in Section 4.1.1 (Grant of License – On Premises Solutions) above, and, to avoid any uncertainty as to the validity of City’s license to use the Licensed Software, Contractor hereby grants City a non-exclusive and non-transferable perpetual license to use the Licensed Software hosted on-premises, subject to the terms and conditions of this Agreement.

4.1.3 Contractor’s Rights – Grant of License for Off-Premises Solutions. For and during the term of this Agreement, Contractor hereby grants City a non-exclusive, non-transferable license to access any solution that is or becomes a cloud-based solution. City acknowledges and agrees that Contractor’s cloud-based solution is the proprietary information of Contractor and that this Agreement grants City no title or right of ownership in the cloud-based solution. In the event the City wishes to have continued access to Contractor’s cloud-based solution after the term of this Agreement, such subscription based access shall be facilitated through a separate agreement or amendment hereto.

4.1.4 Grant of License – SITA Smart Path. For purposes of this Section 4.1.4 (Grant of License – SITA Smart Path), “Solution” means Smart Path™ and PaxControl used in conjunction with FacePods. Contractor hereby grants to the City a non-transferrable, non-exclusive license to use the Solution and other materials provided by Contractor solely for the purposes of this Agreement and solely for the duration of this Agreement. The City undertakes not to use, or authorize any third party to use, the Solution or any other materials related to the Solution provided by Contractor except as authorized by this Agreement, without Contractor’s consent.

4.1.5 Reserved.

4.1.6 Other than the licenses expressly acknowledged and/or granted under this Agreement, City acknowledges and agrees that the Licensed Software is the proprietary information of Contractor and that this Agreement grants City no title or right of ownership in the Licensed Software.

4.1.7 **Restrictions on Use.** City is authorized to use the Licensed Software only for City's municipal purposes. City agrees that it will, through its best efforts, not use or permit the Licensed Software to be used in any manner, whether directly or indirectly, that would enable any other person or entity not authorized by this Agreement, to use the Licensed Software.

4.1.8 **Disaster Recovery Copy.** For the purpose of any bona fide City disaster recovery plan or with respect to the use of computer software in its municipal operations, Contractor agrees to perform scheduled back-ups of the System for the purposes of restoring the System in the event of a disaster. The use of such back-up copy shall be limited to (i) the purpose of conducting limited testing of the disaster recovery plan's procedures and effectiveness; and (ii) during any period subsequent to the occurrence of an actual disaster during which Contractor requires the use of the back-up to enable System restoration.

4.1.9 Transfer of Products – Reserved.

4.1.10 **Documentation.** Contractor shall provide City with a minimum of two copies of the Documentation per installation, for any newly installed Software. Contractor grants to City permission to duplicate all printed Documentation for City's municipal use.

4.1.11 **Proprietary Markings.** City agrees not to remove or destroy any proprietary markings or proprietary legends placed upon or contained within the Licensed Software or any related materials or Documentation.

4.1.12 Application Program Interfaces (APIs); COTS and/or Third-Party Software.

(a) **Contractor's Rights – General.** Any Application Program Interfaces (APIs), macros or other interfaces developed by Contractor shall remain the intellectual property of Contractor ("Contractor's Intellectual Property"), and the development of such shall not grant City any right, title or interest in Contractor's Intellectual Property, except as noted herein. Contractor hereby grants City a non-exclusive, non-transferrable license to use Contractor's Intellectual Property solely for the purposes of using the Software and Services provided by Contractor hereunder.

(b) **City's Rights.**

(i) City shall be permitted to develop, use and modify Application Program Interfaces, macros and interfaces. Any such APIs, macros or other interfaces developed by the City shall become the property of the City ("City's Intellectual Property"). The development, use or modification of APIs, macros, and interfaces by City shall not grant Contractor any right, title, or interest in City's Intellectual Property. Any APIs that are City's Intellectual Property including macros and interfaces developed by the City to communicate with or apply to Contractor's Software and/or Services shall only be implemented upon the mutual agreement of the Parties. City hereby grants Contractor a non-exclusive, non-transferrable license to use City's Intellectual Property solely for the purposes of using the Software and/or Services provided by Contractor hereunder.

(ii) To the extent Contractor provides COTS and/or Third-Party Software in the performance of its duties in this Agreement, Contractor shall use best efforts to require the third-party to transfer the licenses to the City. The terms of the third-party licenses will control.

4.1.13 Contractor recognizes that City has and will license third party programs that City will use with Contractor's products under this Agreement. City will seek Contractor's written

authorization to integrate any new third party programs into Contractor's products and Contractor reserves the right to request a task order for as-needed Services to the extent Contractor may need to provide integration services for use with Contractor's products. Contractor is not responsible any changes that may be necessary to the third-party program. Based on information provided to Contractor as to the Effective Date, Contractor agrees that use of third-party programs in place currently does not constitute an unauthorized modification or violate the licenses granted under this Agreement.

4.1.14 Neither Party is permitted to modify or use the other Party's intellectual property in a manner not authorized by the terms of this Agreement or by a written modification of this Agreement pursuant to Section 13.5 (Modification of this Agreement) herein.

4.2 Delivery.

4.2.1 **Delivery.** Any Software delivered by Contractor under this Agreement will be delivered electronically and not by tangible, physical media.

4.2.2 **Installation.** Any Software installed by Contractor under this Agreement will be installed electronically and not by tangible, physical media.

4.2.3 **Risk of Loss.** If any of the Licensed Software products are lost or damaged during delivery or installation, or before installation is completed, Contractor shall promptly replace such products at no additional charge to City. If any of the Licensed Software products are lost or damaged while in the possession of City, Contractor will promptly replace such products without charge.

4.3 **Acceptance Testing.** After Contractor has installed and configured any new Licensed Software, City shall have a period of 30 days ("Acceptance Testing Period") from the date of installation to verify that the Licensed Software substantially performs to the specifications contained in the Documentation. In the event that City determines that the Licensed Software does not meet such specifications, City shall notify the Contractor in writing, and Contractor shall modify or correct the Licensed Software so that it satisfies the Acceptance criteria. The date of Acceptance will be that date upon which City provides Contractor with written notice of satisfactory completion of Acceptance testing. If City notifies Contractor after the Acceptance Testing Period that the Licensed Software does not meet the Acceptance criteria of this section, then City shall be entitled to terminate this Agreement in accordance with the procedures specified in Section 10.2 ("Termination for Default; Remedies") herein.

4.4 **Training.** Upon request by City, Contractor will provide training in the use and operation of the Licensed Software training as priced and agreed to by both Parties.

4.5 **Contractor's Default.** Failure or refusal of Contractor to perform or do any act herein required shall constitute a default. In the event of any default, in addition to any other remedy available to City, this Contract may be terminated by City upon ten days written notice. Such termination does not waive any other legal remedies available to City.

4.6 **Warranties: Right to Grant License.** Contractor hereby warrants that it has title to and/or the authority to grant a license of the Licensed Software to City.

4.7 **Warranties: Conformity to Specifications.** Contractor warrants that when the Licensed Software specified in the Agreement and all updates and improvements to the Licensed Software are delivered to City, they will be free from defects as to design, material, and workmanship and will perform in accordance with the Contractor's published specifications for the Licensed Software for a period of 30 days from City's Acceptance of such Licensed Software.

4.8 **Nondisclosure.** City agrees that it shall treat the Licensed Software with the same degree of care as it treats like information of its own, which it does not wish to disclose to the public, from the date the Licensed Software is Accepted by City until the license is terminated as provided herein. City's obligations set forth above, however, shall not apply to the Licensed Software, or any portion thereof, which:

- 4.8.1 is now or hereafter becomes publicly known;
- 4.8.2 is disclosed to City by a third party which City has no reason to believe is not legally entitled to disclose such information;
- 4.8.3 is known to City prior to its receipt of the Licensed Software;
- 4.8.4 is subsequently developed by City independently of any disclosures made hereunder by Contractor;
- 4.8.5 is disclosed with Contractor's prior written consent;
- 4.8.6 is disclosed by Contractor to a third party without similar restrictions.

Article 5 Services and Resources

5.1 Services Contractor Agrees to Perform. In addition to the Software License maintenance and Support Services described in Article 6, Contractor agrees to perform the Services provided for in Appendix A ("Scope of Services").

Appendix A includes a defined Scope of Services and as-needed Services. As-needed Services shall be performed by Contractor only upon request by City through the issuance of a written task order signed by City and Contractor, which task order shall be made a part of and incorporated into the Agreement as though fully set forth in this Agreement without the need for a formal amendment to the Agreement. Only the Airport Director or the Airport Director's designee has the authority to execute task orders for the City. Task orders shall be executed on Contractor's behalf by an authorized representative of Contractor. Each task order shall be on the City's task order template and shall include a description of the as-needed Services, the deliverables, schedule for performance, cost, and method and timing of payment. All Contractor costs associated with the development of any task order shall be borne by Contractor. The calculation of cost and the method and timing of payment for all task orders shall be in accordance with Appendix B, "Calculation of Charges," and Article 3, "Financial Matters." Pricing for as-needed Services will be agreed to by both Parties based upon the agreed scope of work in a written task order as detailed in this Section. The cumulative total compensation due to Contractor for all task orders issued under this Agreement shall not exceed the amount of compensation set forth for as-needed Services in Appendix B, "Calculation of Charges." Contractor shall only be compensated for as-needed Services performed under an authorized, executed task order as detailed in this Section 5.1. All task orders are governed by and subject to the terms and conditions of this Agreement.

5.2 Qualified Personnel. Contractor represents and warrants that it is qualified to perform the Services required by City, and that all Services will be performed by competent personnel with the degree of skill and care required by current and sound professional procedures and practices. Contractor will comply with City's reasonable requests regarding assignment and/or removal of personnel, but all personnel, including those assigned at City's request, must be supervised by Contractor which shall commit sufficient resources for timely completion within any relevant project schedule for the Services to be provided under this Agreement.

5.3 Subcontracting. Contractor may subcontract portions of the Services only upon prior written approval of City. Contractor is responsible for its subcontractors throughout the course of the work required to perform the Services. All subcontracts must incorporate the terms of Article 12 "Additional Requirements Incorporated by Reference" of this Agreement, unless inapplicable. Neither Party shall, on the basis of this Agreement, contract on behalf of, or in the name of, the other Party. Any agreement made in violation of this provision shall be null and void. City's execution of this Agreement constitutes its approval of the subcontractors listed: Alstef New Zealand.

5.4 Independent Contractor; Payment of Employment Taxes and Other Expenses.

5.4.1 Independent Contractor. For the purposes of this Section 5.4, “Contractor” shall be deemed to include not only Contractor, but also any agent or employee of Contractor. Contractor acknowledges and agrees that at all times, Contractor is an independent contractor and is wholly responsible for the manner and means by which it performs the Services and work required under this Agreement. Contractor, and its agents and employees will not represent or hold themselves out to be employees of the City at any time. Contractor shall not have employee status with City, nor be entitled to participate in any plans, arrangements, or distributions by the City pertaining to or in connection with any retirement, health or other benefits that City may offer its employees. Contractor is liable for its acts and omissions. Contractor shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Contractor’s performing Services and work, or any agent or employee of Contractor providing same. Nothing in this Agreement shall be construed as creating an employment or agency relationship between City and Contractor, or any of its agents or employees. Contractor agrees to maintain and make available to City, upon request and during regular business hours, accurate books and accounting records demonstrating Contractor’s compliance with this Section. Should City determine that Contractor is not performing in accordance with the requirements of this Section, City shall provide Contractor with written notice of such failure. Within five (5) business days of Contractor’s receipt of such notice, and in accordance with Contractor policy and procedure, Contractor shall remedy the deficiency. Notwithstanding, if City believes that an action of Contractor warrants immediate remedial action by Contractor, City shall contact Contractor and provide Contractor in writing with the reason for requesting such immediate action.

5.4.2 Payment of Employment Taxes and Other Expenses. Should City, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Contractor is an employee for purposes of collection of any employment taxes, the amounts payable under this Agreement shall be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Contractor which can be applied against this liability). City shall then forward those amounts to the relevant taxing authority. Should a relevant taxing authority determine a liability for past Services performed by Contractor for City, upon notification of such fact by City, Contractor shall promptly remit such amount due or arrange with City to have the amount due withheld from future payments to Contractor under this Agreement (again, offsetting any amounts already paid by Contractor which can be applied as a credit against such liability). A determination of employment status pursuant to this Section 5.4 shall be solely limited to the purposes of the particular tax in question, and for all other purposes of this Agreement, Contractor shall not be considered an employee of the City. Notwithstanding the foregoing, Contractor agrees to indemnify and hold harmless City and its officers, agents and employees from, and, if requested, shall defend them against any and all claims, losses, costs, damages, and expenses, including attorneys’ fees, arising from this Section.

5.5 Assignment. The Services to be performed by Contractor are personal in character. This Agreement may not be directly or indirectly assigned, novated, or otherwise transferred unless first approved by City by written instrument executed and approved in the same manner as this Agreement. Any purported assignment made in violation of this provision shall be null and void.

5.6 Warranty. Contractor warrants to City that the Services will be performed with the degree of skill and care that is required by current, good and sound professional procedures and practices, and in conformance with generally accepted professional standards prevailing at the time the Services are performed so as to ensure that all Services performed are correct and appropriate for the purposes contemplated in this Agreement.

5.7 Liquidated Damages – Reserved.

5.8 Performance Bond – Reserved.

5.9 Fidelity Bond - Reserved.

5.10 Emergency - Priority 1 Service. In case of an emergency that affects any part of the San Francisco Bay Area, Contractor will give the City and County of San Francisco Priority 1 service with regard to the Services procured under this Agreement unless preempted by State and/or Federal laws. Contractor will make every good faith effort in attempting to deliver Services using all modes of transportation available. In addition, the Contractor shall charge fair and competitive prices for Services ordered during an emergency and not covered under the awarded Agreement.

Article 6 Software Maintenance and Support Services

6.1 Maintenance and Support Services.

6.1.1 Maintenance and Support Services. Contractor will provide City with maintenance and Support Services for the Licensed Software as follows: (i) Contractor will provide such assistance as necessary to cause the Licensed Software to perform in accordance with the Specifications as set forth in the Documentation; (ii) Contractor will provide, for City's use, whatever improvements, enhancements and Updates to the Licensed Software Contractor may make commercially available to its other customers; and (iii) Contractor will update the Licensed Software, as required, to cause it to operate under new versions or releases of the operating system specified in this Agreement so long as such updates are made generally available to Contractor's other licensees and the relevant Hardware is compliant with such operating system requirements.

6.1.2 Changes in Operating System – Reserved.

6.2 Priority Category Definitions. During the term of this Agreement, Contractor will furnish Error, Defect or Malfunction correction in accordance with the Priority Categories listed below, based on City's determination of the severity of the Error, Defect or Malfunction and Contractor's reasonable analysis of the priority of the Error, Defect or Malfunction. Contractor shall be available 24x7x365 for handling incident calls. The costs for Level 2 support are included in the maintenance fees under Appendix B (Calculation of Charges).

6.2.1 Priority 1 – Major Failures: An Error, Defect or Malfunction which renders the Software and/or Service inoperative, or causes the Software and/or Service to fail catastrophically, such as but not limited to:

(a) Failures which affects the overall safety, security, or operation of the Airport. A major PPS failure is defined as a hardware or software failure which is the responsibility of Contractor and which affects three (3) or more units or affects two (2) or more airlines.

(b) Any failure of the Airport Operational Database (AODB) or Resource Management System (RMS) software or hardware is considered a major failure.

(c) A PPS root cause analysis report of all Contractor's major system failures, including outages impacting more than one airline's shared use application, shall be submitted to SFO within two (2) days of the incident, and follow up reports if the root cause analysis is not complete within two (2) days.

(d) An IDS major failure is defined as a hardware or software problem that affects seven (7) or more display units or if an information feed from Airport Information Integration Solution (AIIS) or another source is no longer operational.

6.2.2 Priority 2 – Minor Failures: An Error, Defect or Malfunction which substantially degrades the performance of the Hardware or Software, but does not prohibit the City's use of the Hardware or Software, such as but not limited to:

(a) Failures which do not affect the overall safety, security, or operation of the Airport. A minor PPS failure is defined as a hardware or software problem which is the responsibility

of Contractor and which affects no more than two (2) units or affects only one (1) airline for no more than 50% of the units.

(b) An IDS minor failure is defined as a hardware or software problem that affects no more than six (6) display units.

6.3 Service Level Commitments and Priority Protocols. Contractor will furnish Error, Defect or Malfunction correction in accordance with the following service level commitments (“Service Level Commitments”) as part of the Contractor’s Priority Protocols, based on the Priority Category of the Error, Defect or Malfunction:

6.3.1 Priority 1 – Major Failure Protocol: Contractor must respond within 30 minutes on a 24x7x365 basis to troubleshoot. Contractor must close out the incident with the Service Manager within 4 hours. If the problem is not resolved within 4 hours, Contractor must notify SFO management personnel verbally and in writing and open a bridge line at SFO’s request, and provide status reports every 2 hours until the issue is resolved.

6.3.2 Priority 2 – Minor Failure Protocol: Contractor must respond within 1 hour to isolate the problem. Contractor must close out the incident with its service manager within 24 hours or escalate to SFO’s support point of contact.

6.4 Service Level Availability.

6.4.1 PPS Requirements

(a) Availability of the Shared Use System (SUS) in an off-premises solution shall be an average of 99.9%, which is the availability of Azure active directory service.

(b) Availability of the remaining services for the SUS off-premises solution shall be an average of 99.95%.

(c) Availability of the Contractor’s on-premises production systems shall be an average of 99.99%.

(d) Availability is for all software and hardware that is the Contractor’s direct responsibility excluding any dependencies on SFO or others, such as but not limited to, LAN infrastructure, system integration, airline responsibility and VPN token process that may impact control of the Contractor to achieve resolution and availability of individual workstations and peripherals. Lack of availability is defined as a major failure.

(e) Availability shall not take into account scheduled maintenance, changes or scheduled outages.

(f) Time to recover operations with secondary server if primary fails shall be less than 20 seconds.

6.4.2 Shared Use Requirements

(a) Response time from login shall be less than 2 seconds.

(b) Time to load application and be ready for airlines operations from system shall be an average of no more than one minute, however, this average time to load is outside of Contractor’s responsibility and shall not be measured by Contractor.

(c) Time to reboot after individual system freeze or failure shall be less than 1 minute.

6.4.3 AODB Requirements

(a) AODB application will record data transactional logs every 15 minutes so as to have a Recovery Point Objective (RPO) of 15 minutes.

(b) Response time from login to “loading” window shall be less than 999

milliseconds.

(c) Time to distribute updates to interfacing systems shall not exceed 5 seconds.

6.4.4 RMS Requirements

(a) RMS application will record data transactional logs every 15 minutes so as to have a Recovery Point Objective (RPO) of 15 minutes.

(b) Response time from login to “loading” window shall be less than 999 milliseconds.

(c) Time to distribute updates to interfacing systems shall not exceed 5 seconds.

6.4.5 IDS Requirements

(a) If the IDS availability is less than 99.99%, it shall be deemed a major failure. If the primary server fails, the time to recover operations with the secondary server shall be less than 20 seconds.

(b) IDS application must record data transactional logs every 15 minutes to have a Recovery Point Objective (RPO) of 15 minutes. Given the required build-in redundancy of the IDS system, there should never be more than 15 minutes of lost data for any failure scenario.

(c) IDS Response time for login shall be less than one (1) second. Time to display new data/data updates shall be less than five (5) seconds from receipt of data.

6.5 Software Support including Database Management. Contractor shall be responsible for all database administration functions for the local database used by the application while the Airport’s database administrator performs administration functions for the PPS and IDS systems.

6.6 Application Security Patches, Bug Fixes, and Updates. Contractor shall perform all software patches and updates to the Licensed Software and other programs using remote software support services or Contractor’s on-site personnel including:

6.6.1 Contractor shall provide software security updates and general bug fix updates developed by Contractor for all software elements required for the proper operation of the PPS and IDS systems including all required third-party Software including, without limitation, Linux based or Microsoft Windows and Microsoft Windows Server operating systems. All work regarding Software updates will need to be coordinated and scheduled with the City prior to the work being performed.

6.6.2 The Airport will make available all necessary internet connectivity from the servers to the internet to perform software updates as recommended by Contractor. Contractor shall honor the policies and procedures as provided by the Airport with as-needed updates regarding access to the system.

6.6.3 In the case of third-party applications installed as a component of the PPS and IDS system, the Contractor shall determine the compatible Patches to be installed in the production system. These include all Hardware provided by the Contractor supporting the PPS and IDS servers and devices.

6.6.4 Contractor shall deploy security patches and other patches which effect stability and security of the PPS and IDS environment as required under Section 14.7, “Airport Commission Cyber Security Requirements.”

6.6.5 Contractor shall provide accurate and complete documentation for all Software modules.

6.6.6 Contractor shall provide normal improvement releases (updates) when they become available or when delivered to other clients.

6.6.7 For all Software Patches and updates, the Contractor shall provide thorough documentation that describes: (1) patch/update designation, (2) detailed description of what the patch/update does, and (3) exact procedures to restore the system to pre-patch update condition.

6.6.8 Contractor shall not require Airport to maintain authentication credentials and/or privileged access to any System Component managed by the Contractor as part of the services provided under this Agreement.

6.6.9 Contractor shall correct all known software bugs for software provided by the Contractor that are reported by PPS Level 1 Support Contractor for maintenance. Contractor will implement a Software Problem/Change Request process for reporting and correcting software issues.

6.6.10 Maintain all SUS application software, COTS software and firmware at its most current release following system acceptance; however, if the most current software or application release is not supported and certified by airlines, then Contractor shall maintain the prior supported and certified version unless otherwise instructed by SFO. The AODB/RMS software will be maintained at the version accepted as part of the Final System Acceptance.

6.6.11 Schedule all software updates with ITT ahead of time and follow the approved Airport's change management process. Prior to software release updates, Airport must be advised with two (2) weeks advance written notice that a new software release is available. Notice must outline all of the enhancements, fixes, and remaining known problems.

6.6.12 Maintain configuration management of all software currently in production environment at all times. This includes application and COTS software configuration management.

6.6.13 Contractor shall use the Test Lab Environment for debugging and testing software fixes. After successful test in the Test Lab Environment, Contractor will load all software, and test in the Production Staging Environment, and conduct functional and regression tests to ensure no negative impacts to other aspects of the system will occur.

6.7 System Upgrades. Contractor shall perform upgrades to the Licensed Software and other programs using remote software support services or Contractor's on-site personnel including:

6.7.1 Implementation of System Upgrades is defined in the following paragraphs of this section. All work regarding System Upgrades will need to be coordinated and scheduled with the Airport prior to the work being performed.

6.7.2 The City will make available all necessary internet connectivity from the servers to the internet to perform System Upgrades as recommended by Contractor. Contractor shall honor the policies and procedures as provided by the Airport with as-needed updates regarding access to the system.

6.7.3 In the case of third-party applications installed as a component of the PPS and IDS systems, the Contractor shall determine the compatible Patches to be installed in the production system. These include all Hardware provided by the Contractor supporting the servers and devices.

6.7.4 When System Upgrades include new functions and/or exclude current processes, Contractor shall provide a written evaluation of the Software's impact on the Airport two weeks prior to the installation of System Upgrade.

6.8 Maintenance Logs. Contractor shall maintain and submit to the City a monthly Maintenance Log of all preventative maintenance and corrective/repair services performed during the term of the Agreement. The log shall be in a City-approved format. The log shall be available for inspection by the Airport at any time during the contract term. The Maintenance Log shall be turned over to the Airport at the end of the contract term upon request. The log shall include a parameter-driven

maintenance log (by date opened, by problem type, by date resolved, resolution notes) and inventory reports. The log shall itemize the history of preventative maintenance and corrective/repair activities including but not limited to: (1) identification of the problem, (2) priority level, (3) date/time failure reported, (3) reporting party, (4) assigned party, (5) acknowledgement/assignment time, (6) corrective action time, and (7) root cause.

6.9 Integrations. Contractor shall notify the City if there are any interface changes in API as that term is defined in Section 4.1.12 (Application Program Interfaces (APIs); COTS and/or Third Party Software). Contractor shall notify the City immediately if there is an outage and/or performance degradation in APIs. Contractor shall maintain and support all existing integrations with third-party applications/systems/data services and guarantee all integrations are in operation after any changes such as update, patch, and database migration.

Article 7 Insurance and Indemnity

7.1 Insurance.

7.1.1 Required Coverages. Without in any way limiting Contractor's liability under the "Indemnification" section of this Agreement, Contractor must maintain in force, during the full term of the Agreement, insurance in the following amounts and coverages:

- (a) Commercial General Liability Insurance with limits not less than \$2,000,000 each occurrence for Bodily Injury and Property Damage, including Contractual Liability, Personal Injury, Products and Completed Operations.
- (b) Commercial Automobile Liability Insurance with limits not less than \$2,000,000 each occurrence, "Combined Single Limit" for Bodily Injury and Property Damage, including Owned, Non-Owned and Hired auto coverage, as applicable.
- (c) Workers' Compensation Liability Insurance, in statutory amounts, with Employers' Liability Limits not less than \$1,000,000 each accident, injury, or illness.
- (d) Professional Liability Insurance - Reserved.
- (e) Technology Errors and Omissions Liability Insurance, with limits of \$2,000,000 for each claim and each loss. The policy shall at a minimum cover professional misconduct or lack of the requisite skill required for the performance of Services defined in this Agreement and shall also provide coverage for the following risks:
 - (i) Network security liability arising from the unauthorized access to, use of, or tampering with computers or computer systems, including hacker attacks; and
 - (ii) Liability arising from the introduction of any form of malicious software including computer viruses into, or otherwise causing damage to City's or third person's computer, computer system, network, or similar computer-related property and the data, software, and programs thereon.
- (f) Cyber and Privacy Liability Insurance - Reserved.
- (g) Pollution Liability Insurance - Reserved.

7.1.2 Additional Insured.

(a) The Commercial General Liability Insurance policy must include as Additional Insured the City and County of San Francisco, the Airport Commission and its members, and all of their officers, directors, and employees.

(b) The Commercial Automobile Liability Insurance policy must include as Additional Insured the City and County of San Francisco, the Airport Commission and its members, and all of their officers, directors, and employees.

7.1.3 Waiver of Subrogation. The Workers' Compensation Liability Insurance policy(ies) shall include a waiver of subrogation in favor of City for all work performed by the Contractor, and its employees, agents and subcontractors.

7.1.4 Primary Insurance.

(a) The Commercial General Liability Insurance policy shall provide that such policies are primary insurance to any other insurance available to the Additional Insureds, with respect to any claims arising out of this Agreement, and that the insurance applies separately to each insured against whom claim is made or suit is brought.

(b) The Commercial Automobile Liability Insurance policy shall provide that such policies are primary insurance to any other insurance available to the Additional Insureds, with respect to any claims arising out of this Agreement, and that the insurance applies separately to each insured against whom claim is made or suit is brought.

7.1.5 Other Insurance Requirements.

(a) Thirty (30) days' advance written notice shall be provided to City of cancellation, intended non-renewal, or reduction in coverages, except for non-payment for which no less than ten (10) days' notice shall be provided to City. Notices shall be sent to City address set forth in Section 13.1 entitled, "Notices to the Parties."

(b) Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, be maintained for a period of three (3) years beyond the expiration of this Agreement, to the effect that, should occurrences during the Agreement term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

(c) Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit or provides that claims investigation or legal defense costs be included in such general annual aggregate limit, such general annual aggregate limit shall be double the occurrence or claims limits specified above.

(d) Should any required insurance lapse during the term of this Agreement, requests for payments originating after such lapse shall not be processed until City receives satisfactory evidence of reinstated coverage as required by this Agreement, effective as of the lapse date. If insurance is not reinstated, City may, at its sole option, terminate this Agreement effective on the date of such lapse of insurance.

(e) Before commencing any Services, Contractor shall furnish to City certificates of insurance including additional insured and waiver of subrogation status, as required, with insurers with ratings comparable to A-, VIII or higher, that are authorized to do business in the State of California, and that are satisfactory to City, in form evidencing all coverages set forth above. Approval of the insurance by City shall not relieve or decrease Contractor's liability hereunder.

(f) If Contractor will use any subcontractor(s) to provide Services, Contractor shall require the subcontractor(s) to provide all necessary insurance and to name the City and County of San Francisco and its officers, agents, and employees, and the Contractor as additional insureds and waive subrogation in favor of City, where required.

7.2 Indemnification.

7.2.1 General Indemnification. Contractor shall indemnify and hold harmless City and its officers, agents and employees from, and, if requested, shall defend them from and against any and all liabilities (legal, contractual, or otherwise), losses, damages, costs, expenses, or claims for injury or damages (collectively, “Claims”), arising from or in any way connected with Contractor’s performance of the Agreement, including but not limited to, any: (i) injury to or death of a person, including employees of City or Contractor; (ii) loss of or damage to property; (iii) violation of local, state, or federal common law, statute or regulation, including but not limited to privacy or personal identifiable information, health information, disability and labor laws or regulations; (iv) strict liability imposed by any law or regulation; or (v) losses arising from Contractor’s execution of subcontracts not in accordance with the requirements of this Agreement applicable to subcontractors; except to the extent such indemnity is void or otherwise unenforceable under applicable law, and except where such Claims are the result of the active negligence or willful misconduct of City and are not contributed to by any act of, or by any omission to perform some duty imposed by law or agreement on, Contractor, its subcontractors, or either’s agent or employee. The foregoing indemnity shall include, without limitation, reasonable fees of attorneys, consultants, experts, and related costs, and City’s costs of investigating any claims against City.

In addition to Contractor’s obligation to indemnify City, Contractor specifically acknowledges and agrees that it has an immediate and independent obligation to defend City from any claim which actually or potentially falls within this indemnification provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such Claim is tendered to Contractor by City and continues at all times thereafter.

7.2.2 Infringement Indemnification. If notified promptly in writing of any judicial action brought against City based on an allegation that City’s use of the Licensed Software infringes a patent, copyright, or any right of a third party or constitutes misuse or misappropriation of a trade secret or any other right in intellectual property (Infringement), Contractor will hold City harmless and defend such action at its own expense. Contractor will pay the costs and damages awarded in any such action or the cost of settling such action, provided that Contractor shall have sole control of the defense of any such action and all negotiations or its settlement or compromise. If notified promptly in writing of any informal claim (other than a judicial action) brought against City based on an allegation that City’s use of the Licensed Software constitutes Infringement, Contractor will pay the costs associated with resolving such claim and will pay the settlement amount (if any), provided that Contractor shall have sole control of the resolution of any such claim and all negotiations for its settlement.

In the event a final injunction is obtained against City’s use of the Licensed Software by reason of Infringement, or in Contractor’s opinion City’s use of the Licensed Software is likely to become the subject of Infringement, Contractor may at its option and expense: (a) procure for City the right to continue to use the Licensed Software as contemplated hereunder, (b) replace the Licensed Software with a non-infringing, functionally equivalent substitute Licensed Software, or (c) suitably modify the Licensed Software to make its use hereunder non-infringing while retaining functional equivalency to the unmodified version of the Licensed Software. If none of these options is reasonably available to Contractor, then the Agreement may be terminated at the option of either Party hereto and Contractor shall refund to City all amounts paid under this Agreement for the license of such infringing Licensed Software. Any unauthorized use, modification or attempted modification, of the Licensed Software, by City, or any failure by City to implement any improvements or updates to the Licensed Software, as supplied by Contractor, shall void this indemnity unless City has obtained prior written authorization from Contractor permitting such use, modification, attempted modification or failure to implement. Contractor shall have no liability for any claim of Infringement based on City’s use or combination of the Licensed Software with products or data of the type for which the Licensed Software was neither designed nor intended to be used.

7.2.3 Under no circumstances will City indemnify or hold harmless Contractor.

Article 8 Liability of the Parties

8.1 Liability of City. CITY'S PAYMENT OBLIGATIONS UNDER THIS AGREEMENT SHALL BE LIMITED TO THE PAYMENT OF THE COMPENSATION PROVIDED FOR IN SECTION 3.4.1(a) ("PAYMENT") OF THIS AGREEMENT. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, IN NO EVENT SHALL CITY BE LIABLE, REGARDLESS OF WHETHER ANY CLAIM IS BASED ON CONTRACT OR TORT, FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE SERVICES PERFORMED IN CONNECTION WITH THIS AGREEMENT.

8.2 Liability for Use of Equipment. City shall not be liable for any damage to persons or property as a result of the use, misuse or failure of any equipment used by Contractor, or any of its subcontractors, or by any of their employees, even though such equipment is furnished, rented or loaned by City.

8.3 Liability for Incidental and Consequential Damages. Contractor shall be responsible for incidental and consequential damages resulting in whole or in part from Contractor's acts or omissions.

Article 9 Payment of Taxes

9.1 Contractor to Pay All Taxes. Except for any applicable California sales and use taxes charged by Contractor to City, Contractor shall pay all taxes, including possessory interest taxes levied upon or as a result of this Agreement, or the Services delivered pursuant hereto. Contractor shall remit to the State of California any sales or use taxes paid by City to Contractor under this Agreement. Contractor agrees to promptly provide information requested by City to verify Contractor's compliance with any State requirements for reporting sales and use tax paid by City under this Agreement.

9.2 Possessory Interest Taxes. Contractor acknowledges that this Agreement may create a "possessory interest" for property tax purposes. Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to timely report on behalf of City to the County Assessor the information required by San Francisco Administrative Code Section 23.39, as amended from time to time, and any successor provision. Contractor further agrees to provide such other information as may be requested by City to enable City to comply with any reporting requirements for possessory interests that are imposed by applicable law.

9.3 Withholding. Contractor agrees that it is obligated to pay all amounts due to City under the San Francisco Business and Tax Regulations Code during the term of this Agreement. Pursuant to Section 6.10-2 of the San Francisco Business and Tax Regulations Code, Contractor further acknowledges and agrees that City may withhold any payments due to Contractor under this Agreement if Contractor is delinquent in the payment of any amount required to be paid to City under the San Francisco Business and Tax Regulations Code. Any payments withheld under this paragraph shall be made to Contractor, without interest, upon Contractor coming back into compliance with its obligations.

Article 10 Termination and Default

10.1 Termination for Convenience.

10.1.1 City shall have the option, in its sole discretion, to terminate this Agreement, at any time during the term hereof, for convenience and without cause. City shall exercise this option by giving Contractor at least sixty (60) days written notice of termination. The notice shall specify the date on which termination shall become effective.

10.1.2 Upon receipt of the notice of termination, Contractor shall commence and perform, with diligence, all actions necessary on the part of Contractor to effect the termination of this Agreement on the date specified by City and to minimize the liability of Contractor and City to third parties as a result of termination. All such actions shall be subject to the prior approval of City. Such actions may include any or all of the following, without limitation:

- (a) Halting the performance of all Services under this Agreement on the date(s) and in the manner specified by City.
- (b) Terminating all existing orders and subcontracts, and not placing any further orders or subcontracts for materials, Services, equipment or other items.
- (c) At City's direction, assigning to City any or all of Contractor's right, title, and interest under the orders and subcontracts terminated. Upon such assignment, City shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.
- (d) At City's direction, assigning to City any or all of Contractor's right, title, and interest under the orders and subcontracts terminated. Upon such assignment, City shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.
- (e) Completing performance of any Services that City designates to be completed prior to the date of termination specified by City.
- (f) At the election of City, Contractor shall deliver to City all or designated portions of the unused Consumables, Parts and Materials for which Contractor has sought and received reimbursement under Appendix B of this Agreement, as designated by City, prior to the date of termination specified by City.
- (g) Taking such action as may be necessary, or as the City may direct, for the protection and preservation of any property related to this Agreement which is in the possession of Contractor and in which City has or may acquire an interest.

10.1.3 Within thirty (30) days after the specified termination date, Contractor shall submit to City an invoice in accordance with Section 3 for the Services completed through the date of termination specified by City.

10.1.4 In no event shall City be liable for costs incurred by Contractor or any of its subcontractors after the termination date specified by City, except for those costs specifically listed in Section 10.1.3. Such non-recoverable costs include, but are not limited to, anticipated profits on the Services under this Agreement, post-termination employee salaries, post-termination administrative expenses, post-termination overhead or unabsorbed overhead, attorneys' fees or other costs relating to the prosecution of a claim or lawsuit, prejudgment interest, or any other expense which is not reasonable or authorized under Section 10.1.3.

10.1.5 In arriving at the amount due to Contractor under this Section, City may deduct: (i) all payments previously made by City for Services covered by Contractor's final invoice; (ii) any claim which City may have against Contractor in connection with this Agreement; (iii) any invoiced costs or

expenses excluded under the immediately preceding subsection 10.1.4; and (iv) in instances in which, in the opinion of the City, the cost of any Service performed under this Agreement is excessively high due to costs incurred to remedy or replace defective or rejected Services, the difference between the invoiced amount and City’s estimate of the reasonable cost of performing the invoiced Services in compliance with the requirements of this Agreement.

10.1.6 City’s payment obligation under this Section shall survive termination of this Agreement.

10.2 Termination for Default; Remedies.

10.2.1 City shall have the right, without further obligation or liability to Contractor (except as specified in Section 10.3 “Disposition of Licensed Software on Termination,” hereof), to immediately terminate this Agreement if Contractor defaults on this Agreement and fails to remedy such default within thirty (30) days after written notice by City of such default, in which event, Contractor shall reimburse City in the same manner as for the removal of the Licensed Software due to infringement under Section 7.2.2; or (ii) to terminate this Agreement upon ninety (90) days prior written notice for any reason if the license granted hereunder is for any term other than perpetual. In the event the license granted is perpetual, termination of this Agreement by City shall be effective upon receipt by Contractor of written notice of said termination.

10.2.2 Each of the following shall constitute an immediate event of default (“Event of Default”) under this Agreement:

(a) Contractor fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Agreement:

3.6	Submitting False Claims	12.10	Alcohol and Drug-Free Workplace
5.5	Assignment	13.10	Compliance with Laws
Article 7	Insurance and Indemnity	Article 15	Data and Security
Article 9	Payment of Taxes	= =	= =

(b) Contractor fails or refuses to perform or observe any other term, covenant or condition contained in this Agreement, including any obligation imposed by ordinance or statute and incorporated by reference herein, and such default is not cured within ten days after written notice thereof from City to Contractor. If Contractor defaults a second time in the same manner as a prior default cured by Contractor, City may in its sole discretion immediately terminate the Agreement for default or grant an additional period not to exceed five days for Contractor to cure the default.

(c) Contractor (i) is generally not paying its debts as they become due; (ii) files, or consents by answer or otherwise to the filing against it of a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors’ relief law of any jurisdiction; (iii) makes an assignment for the benefit of its creditors; (iv) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Contractor or of any substantial part of Contractor’s property; or (v) takes action for the purpose of any of the foregoing.

(d) A court or government authority enters an order (i) appointing a custodian, receiver, trustee or other officer with similar powers with respect to Contractor or with respect to any substantial part of Contractor’s property; (ii) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors’ relief law of any jurisdiction; or (iii) ordering the dissolution, winding-up or liquidation of Contractor.

10.2.3 Default Remedies. On and after any Event of Default, City shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Agreement or to seek specific performance of all or any part of this Agreement. In addition, where applicable, City shall have the right (but no obligation) to cure (or cause to be cured) on behalf of Contractor any Event of Default; Contractor shall pay to City on demand all costs and expenses incurred by City in effecting such cure, with interest thereon from the date of incurrence at the maximum rate then permitted by law. City shall have the right to offset from any amounts due to Contractor under this Agreement or any other agreement between City and Contractor: (i) all damages, losses, costs or expenses incurred by City as a result of an Event of Default; (ii) any liquidated damages levied upon Contractor pursuant to the terms of this Agreement; and (iii) any damages imposed by any ordinance or statute that is incorporated into this Agreement by reference, or into any other agreement with City. All remedies provided for in this Agreement may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be deemed to waive any other remedy. Nothing in this Agreement shall constitute a waiver or limitation of any rights that City may have under applicable law.

10.2.4 Any notice of default must be sent in accordance with Section 13.1 (“Notices to the Parties”).

10.3 Disposition of Licensed Software on Termination. Upon termination of this Agreement for any reason other than as provided for in Section 4.1 (“Grant of License”), if the term of the Software License City has paid for is other than perpetual, City shall immediately: (i) return the Licensed Software to Contractor together with all Documentation; (ii) purge all copies of the Licensed Software or any portion thereof from all CPU’s and from any computer storage medium or device on which City has placed or permitted others to place the Licensed Software; and (iii) give Contractor written certification that through its best efforts and to the best of its knowledge, City has complied with all of its obligations under Section 10.3.

10.4 Non-Waiver of Rights. The omission by either Party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants, or provisions hereof by the other Party at the time designated, shall not be a waiver of any such default or right to which the Party is entitled, nor shall it in any way affect the right of the Party to enforce such provisions thereafter.

10.5 Rights and Duties upon Termination or Expiration.

10.5.1 This Section and the following Sections of this Agreement listed below, shall survive termination or expiration of this Agreement:

3.4.2	Payment Limited to Satisfactory Services	10.4	Non-Waiver of Rights
3.4.7(a)	Grant Funded Contracts – Disallowance	11.1	Ownership of Results
3.5	Audit and Inspection of Records	11.2	Works for Hire
3.6	Submitting False Claims	13.6	Dispute Resolution Procedure
4.1	Grant of License	13.7	Agreement Made in California; Venue
5.4	Independent Contractor; Payment of Employment Taxes and Other Expenses	13.8	Construction
Article 7	Insurance and Indemnity	13.9	Entire Agreement
8.1	Liability of City	13.10	Compliance with Laws

8.3	Liability for Incidental and Consequential Damages	13.11	Severability
Article 9	Payment of Taxes	Article 15	Data and Security
10.2.3	Default Remedies	= =	= =

10.5.2 Subject to the survival of the Sections identified in Section 10.5.1, above, if this Agreement is terminated prior to expiration of the term specified in Article 2, this Agreement shall be of no further force or effect. Contractor shall transfer title to City of any deliverables created for City pursuant to this Agreement, and deliver in the manner, at the times, and to the extent, if any, directed by City, any work in progress, completed work, supplies, equipment, and other materials produced as a part of, or acquired in connection with the performance of this Agreement, and any completed or partially completed work which, if this Agreement had been completed, would have been required to be furnished to City.

Article 11 Rights in Deliverables

11.1 Ownership of Results – Reserved.

11.2 Works for Hire. All copyrights in Deliverables that are considered works for hire under Title 17 of the United States Code, shall be the property of City. If any such Deliverables are ever determined not to be works for hire under federal law, Contractor hereby assigns all Contractor's copyrights to such Deliverables to City, agrees to provide any material and execute any documents necessary to effectuate such assignment, and agrees to include a clause in every subcontract imposing the same duties upon its subcontractors. With City's prior written approval, Contractor and its subcontractors may retain and use copies of such works for reference and as documentation of their respective experience and capabilities provided that any such use is in conformance with the confidentiality provisions of this Agreement. Contractor and City agree that Contractor is not providing work for hire as part of its Scope of Services in Appendix A in the form of Deliverables. Regarding all Deliverables to be provided to City under the Scope of Services herein, such as reports regarding Software system failures, root cause analysis, or other similar Deliverables, Contractor hereby grants City a non-transferable, perpetual license to use such Deliverables for City's internal and operational purposes only.

Article 12 Additional Requirements Incorporated by Reference

12.1 Laws Incorporated by Reference. The full text of the laws listed in this Article 12, including enforcement and penalty provisions, are incorporated by reference into this Agreement. The full text of the San Francisco Municipal Code provisions incorporated by reference in this Article and elsewhere in the Agreement ("Mandatory City Requirements") are available at: https://codelibrary.amlegal.com/codes/san_francisco/latest/overview .

12.2 Conflict of Interest. By executing this Agreement, Contractor certifies that it does not know of any fact which constitutes a violation of Section 15.103 of the City's Charter; Article III, Chapter 2 of City's Campaign and Governmental Conduct Code; Title 9, Chapter 7 of the California Government Code (Section 87100 *et seq.*); or Title 1, Division 4, Chapter 1, Article 4 of the California Government Code (Section 1090 *et seq.*), and further agrees promptly to notify City if it becomes aware of any such fact during the term of this Agreement.

12.3 Prohibition on Use of Public Funds for Political Activity. In performing the Services, Contractor shall comply with San Francisco Administrative Code Chapter 12G, which prohibits funds appropriated by City for this Agreement from being expended to participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure. Contractor is subject to the enforcement and penalty provisions in Chapter 12G.

12.4 Consideration of Salary History. Contractor shall comply with San Francisco Labor and Employment Code Article 141, the Consideration of Salary History Ordinance or “Pay Parity Act.” Contractor is prohibited from considering current or past salary of an applicant in determining whether to hire the applicant or what salary to offer the applicant to the extent that such applicant is applying for employment to be performed on this Agreement or in furtherance of this Agreement, and whose application, in whole or part, will be solicited, received, processed or considered, whether or not through an interview, in City or on City property. The ordinance also prohibits employers from (1) asking such applicants about their current or past salary or (2) disclosing a current or former employee’s salary history without that employee’s authorization unless the salary history is publicly available. Contractor is subject to the enforcement and penalty provisions in Article 141. Information about and the text of Article 141 is available on the web at <https://sfgov.org/olse/consideration-salary-history> . Contractor is required to comply with all of the applicable provisions of Article 141, irrespective of the listing of obligations in this Section.

12.5 Nondiscrimination Requirements.

12.5.1 Nondiscrimination in Contracts. Contractor shall comply with the provisions of San Francisco Labor and Employment Code Articles 131 and 132. Contractor shall incorporate by reference in all subcontracts the provisions of Sections 131.2(a), 131.2(c)-(k), and 132.3 of the San Francisco Labor and Employment Code and shall require all subcontractors to comply with such provisions. Contractor is subject to the enforcement and penalty provisions in Articles 131 and 132.

12.5.2 Nondiscrimination in the Provision of Employee Benefits. San Francisco Labor and Employment Code Article 131.2 applies to this Agreement. Contractor does not as of the date of this Agreement, and will not during the term of this Agreement, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for City elsewhere in the United States, discriminate in the provision of employee benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees, subject to the conditions set forth in San Francisco Labor and Employment Code Article 131.2.

12.6 Local Business Enterprise and Non-Discrimination in Contracting Ordinance. Contractor shall comply with all applicable provisions of Chapter 14B (“LBE Ordinance”). Contractor is subject to the enforcement and penalty provisions in Chapter 14B.

12.7 Minimum Compensation Ordinance. Labor and Employment Code Article 111 applies to this Agreement. Contractor shall pay covered employees no less than the minimum compensation required by San Francisco Labor and Employment Code Article 111, including a minimum hourly gross compensation, compensated time off, and uncompensated time off. Contractor is subject to the enforcement and penalty provisions in Article 111. Information about and the text of Article 111 is available on the web at <http://sfgov.org/olse/mco>. Contractor is required to comply with all of the applicable provisions of Article 111, irrespective of the listing of obligations in this Section. By signing and executing this Agreement, Contractor certifies that it complies with Article 111.

12.8 Health Care Accountability Ordinance. Labor and Employment Code Article 121 applies to this contract. Contractor shall comply with the requirements of Article 121. For each Covered Employee, Contractor shall provide the appropriate health benefit set forth in Article 121.3 of the HCAO. If Contractor chooses to offer the health plan option, such health plan shall meet the minimum standards set forth by the San Francisco Health Commission. Information about and the text of Article 121, as well as the Health Commission’s minimum standards, is available on the web at <http://sfgov.org/olse/hcao>. Contractor is subject to the enforcement and penalty provisions in Article 121. Any Subcontract entered into by Contractor shall require any Subcontractor with 20 or more employees to comply with the requirements of the HCAO and shall contain contractual obligations substantially the same as those set forth in this Section.

12.9 First Source Hiring Program. Contractor must comply with all of the applicable provisions of the First Source Hiring Program, Chapter 83 of the San Francisco Administrative Code, that apply to this Agreement; and Contractor is subject to the enforcement and penalty provisions in Chapter 83.

12.10 Alcohol and Drug-Free Workplace. City reserves the right to deny access to, or require Contractor to remove from, City facilities personnel of any Contractor or subcontractor who City has reasonable grounds to believe has engaged in alcohol abuse or illegal drug activity which in any way impairs City's ability to maintain safe work facilities or to protect the health and well-being of City employees and the general public. City shall have the right of final approval for the entry or re-entry of any such person previously denied access to, or removed from, City facilities. Illegal drug activity means possessing, furnishing, selling, offering, purchasing, using or being under the influence of illegal drugs or other controlled substances for which the individual lacks a valid prescription. Alcohol abuse means possessing, furnishing, selling, offering, or using alcoholic beverages, or being under the influence of alcohol.

12.11 Limitations on Contributions. By executing this Agreement, Contractor acknowledges its obligations under Section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with, or is seeking a contract with, any department of City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, for a grant, loan or loan guarantee, or for a development agreement, from making any campaign contribution to (i) a City elected official if the contract must be approved by that official, a board on which that official serves, or the board of a state agency on which an appointee of that official serves; (ii) a candidate for that City elective office; or (iii) a committee controlled by such elected official or a candidate for that office, at any time from the submission of a proposal for the contract until the later of either the termination of negotiations for such contract or twelve months after the date City approves the contract. The prohibition on contributions applies to each prospective party to the contract; each member of Contractor's board of directors; Contractor's chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than ten percent (10%) in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Contractor certifies that it has informed each such person of the limitation on contributions imposed by Section 1.126 by the time it submitted a proposal for the contract, and has provided the names of the persons required to be informed to the City department with whom it is contracting.

12.12 Slavery Era Disclosure - Reserved.

12.13 Working with Minors - Reserved.

12.14 Consideration of Criminal History in Hiring and Employment Decisions.

12.14.1 Contractor agrees to comply fully with and be bound by all of the provisions of Article 142, "City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions," of the San Francisco Labor and Employment Code ("Article 142"), including the remedies provided, and implementing regulations, as may be amended from time to time. The provisions of Article 142 are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of Article 142 is available on the web at <http://sfgov.org/olse/fco>. Contractor is required to comply with all of the applicable provisions of Article 142, irrespective of the listing of obligations in this Section. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Article 142.

12.14.2 The requirements of Article 142 shall only apply to a Contractor's or Subcontractor's operations to the extent those operations are in furtherance of the performance of this Agreement, shall apply only to applicants and employees who would be or are performing work in

furtherance of this Agreement, and shall apply when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City of San Francisco which excludes Airport property. Article 142 shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law.

12.15 Nonprofit Contractor Requirements – Reserved.

12.16 Food Service Waste Reduction Requirements. Contractor shall comply with the Food Service Waste Reduction Ordinance, as set forth in San Francisco Environment Code Chapter 16, including but not limited to the remedies for noncompliance provided therein.

12.17 Distribution of Beverages and Water.

12.17.1 Sugar-Sweetened Beverage Prohibition. Contractor agrees that it shall not sell, provide, or otherwise distribute Sugar-Sweetened Beverages, as defined by San Francisco Administrative Code Chapter 101, as part of its performance of this Agreement.

12.17.2 Packaged Water Prohibition. Contractor agrees that it shall not sell, provide, or otherwise distribute Packaged Water, as defined by San Francisco Environment Code Chapter 24, as part of its performance of this Agreement.

12.18 Tropical Hardwood and Virgin Redwood Ban. Under the San Francisco Environment Code Section 804(b), City urges Contractor not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood or virgin redwood wood product.

Article 13 General Provisions

13.1 Notices to the Parties. Unless otherwise indicated in this Agreement, all written communications sent by the Parties may be by U.S. mail or e-mail, and shall be addressed as follows:

To City: Enrique Guadamos, Director, Terminal Systems & Wayfinding, San Francisco International Airport, P.O. Box 8097, San Francisco, CA 94128, 650-821-5145, enrique.guadamos@flysfo.com

To Contractor: Oleksandr (Sasha) Poljanycka, Account Sales Director, SITA, USA Southwest Territory, 600 Galleria Parkway SE, Suite 1000, Atlanta, GA 30339, 770-371-8726, oleksandr.poljanycka@sitaaero

Any notice of default must be sent by registered mail or other trackable overnight mail. Either Party may change the address to which notice is to be sent by giving written notice of the change to the other Party. If email notification is used, the sender must specify a receipt notice.

13.1.1 The Parties consent to the use of Digital Signatures, affixed using the City's DocuSign platform, to execute this Agreement and all subsequent modifications and task orders (if any).

13.2 Compliance with Laws Requiring Access for People with Disabilities.

13.2.1 Contractor acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a contractor, must be accessible to people with disabilities. To its understanding and belief, Contractor provided the services specified in this Agreement in a manner that complied with the ADA and all other applicable federal, state and local disability rights legislation at the time of the delivery of the services in the prior contracts. Contractor shall continue to provide the Services specified in this Agreement in a manner that complies with the ADA and all other applicable federal, state and local

disability rights legislation. Contractor agrees not to discriminate against people with disabilities in the provision of services, benefits or activities provided under this Agreement and further agrees that any violation of this prohibition on the part of Contractor, its employees, agents or assigns will constitute a material breach of this Agreement. Contractor reserves the right to charge for material changes to the ADA that impact the Services provided hereunder as may be needed for the City to remain in ADA compliance, which would be implemented via the task order process for as-needed Services as provided for in this Agreement.

13.2.2 Reserved.

13.3 Incorporation of Recitals. The matters recited above are hereby incorporated into and made part of this Agreement.

13.4 Sunshine Ordinance. Contractor acknowledges that this Agreement and all records related to its formation, Contractor's performance of Services, and City's payment are subject to the California Public Records Act, (California Government Code §7920.000 et seq.), and the San Francisco Sunshine Ordinance, (San Francisco Administrative Code Chapter 67). Such records are subject to public inspection and copying unless exempt from disclosure under federal, state, or local law.

13.5 Modification of this Agreement. This Agreement may not be modified, nor may compliance with any of its terms be waived, except by written instrument executed and approved in the same manner as this Agreement.

13.6 Dispute Resolution Procedure.

13.6.1 Negotiation; Alternative Dispute Resolution. The Parties will attempt in good faith to resolve any dispute or controversy arising out of or relating to the performance of services under this Agreement. Disputes will not be subject to binding arbitration. The status of any dispute or controversy notwithstanding, Contractor shall proceed diligently with the performance of its obligations under this Agreement in accordance with the Agreement and the written directions of City. Neither Party will be entitled to legal fees or costs for matters resolved under this Section.

13.6.2 Government Code Claim Requirement. No suit for money or damages may be brought against City until a written claim therefor has been presented to and rejected by City in conformity with the provisions of San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq. Nothing set forth in this Agreement shall operate to toll, waive or excuse Contractor's compliance with the California Government Code Claim requirements set forth in San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq.

13.7 Agreement Made in California; Venue. The formation, interpretation and performance of this Agreement shall be governed by the laws of the State of California. Venue for all litigation relative to the formation, interpretation and performance of this Agreement shall be in San Francisco.

13.8 Construction. All paragraph captions are for reference only and shall not be considered in construing this Agreement.

13.9 Entire Agreement. This contract including the appendices, sets forth the entire Agreement between the Parties, and supersedes all other oral or written provisions. This Agreement may be modified only as provided in Section 13.5 ("Modification of this Agreement").

13.10 Compliance with Laws. Contractor shall keep itself fully informed of the City's Charter, codes, ordinances and duly adopted rules and regulations of the City and of all state, and federal laws in any manner affecting the performance of this Agreement, and must at all times comply with such local codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

13.11 Severability. Should the application of any provision of this Agreement to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then

(i) the validity of other provisions of this Agreement shall not be affected or impaired thereby, and (ii) such provision shall be enforced to the maximum extent possible so as to effect the intent of the Parties and shall be reformed without further action by the Parties to the extent necessary to make such provision valid and enforceable.

13.12 Cooperative Drafting. This Agreement has been drafted through a cooperative effort of City and Contractor, and both Parties have had an opportunity to have the Agreement reviewed and revised by legal counsel. No Party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the Party drafting the clause shall apply to the interpretation or enforcement of this Agreement.

13.13 Order of Precedence. The Parties agree that this Agreement, including all appendices, sets forth the Parties' complete agreement. Contractor agrees to perform the services described below in accordance with the terms and conditions of this Agreement. If the Appendices to this Agreement include any standard printed terms from the Contractor, Contractor agrees that in the event of discrepancy, inconsistency, gap, ambiguity, or conflicting language between City's terms and Contractor's printed terms, City's terms shall take precedence. Any hyperlinked terms included in Contractor's terms shall have no legal effect.

13.14 Notification of Legal Requests. Contractor shall immediately notify City upon receipt of any subpoenas, service of process, litigation holds, discovery requests and other legal requests ("Legal Requests") related to any City Data under this Agreement, and in no event later than twenty-four (24) hours after Contractor receives the request. Contractor shall not respond to Legal Requests related to City without first notifying City other than to notify the requestor that the information sought is potentially covered under a non-disclosure agreement. Contractor shall retain and preserve City Data in accordance with City's instruction and requests, including, without limitation, any retention schedules and/or litigation hold orders provided by City to Contractor, independent of where City Data is stored.

Article 14 Airport Commission Specific Terms

14.1 Airport Commission Rules and Regulations. Contractor agrees to comply with the Airport Commission's Rules and Regulations for the San Francisco International Airport ("Airport Rules and Regulations"), as amended from time to time. A copy of the current Rules and Regulations can be found at: <http://www.flysfo.com/about-sfo/the-organization/rules-and-regulations>.

14.2 Airport Intellectual Property. Under Resolution No. 01-0118, adopted by the Airport Commission on April 18, 2001, the Airport Commission affirmed that it will not tolerate the unauthorized use of its intellectual property, including the SFO logo, CADD designs, and copyrighted publications. No proposers, bidders, contractors, tenants, permittees, and others doing business with or at the Airport in connection with this Agreement (including subcontractors and subtenants) may use the Airport intellectual property, or any intellectual property confusingly similar to the Airport intellectual property, without the Airport Director's prior written consent.

14.3 Labor Peace/Card Check Rule. Without limiting the generality of other provisions in this Agreement requiring Contractor to comply with all Airport Rules and Regulations, for all Covered Contracts, Contractor shall comply with the Airport's Labor Peace/Card Check Rule, a revised version of which was adopted as Rule 12.1 on February 7, 2023 by Airport Commission Resolution No. 23-0018 (as amended the "Labor Peace/Card Check Rule"). To comply with the Labor Peace/Card Check Rule, each Covered Employer shall comply with the Labor Peace/Card Check Rule, Section C, Covered Employer Duties, Items 1-13. If the Airport determines that Contractor violated the Labor Peace/Card Check Rule, the Airport shall have the option to terminate this Agreement, in addition to exercising all other remedies available to the Airport. Capitalized terms not defined in this provision are defined in the Labor Peace/Card Check Rule.

14.4 Federal Fair Labor Standards Act. This Agreement incorporates by reference the provisions of 29 USC Section 201, the Federal Fair Labor Standards Act (“FLSA”), with the same force and effect as if set forth in this Agreement. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers. Contractor has full responsibility to monitor compliance with the FLSA and its implementing regulations. Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

14.5 Occupational Safety and Health Act of 1970. This Agreement incorporates by reference the requirements of 29 CFR Section 1910, Occupational Safety and Health Act of 1970, with the same force and effect as if set forth in this Agreement. Contractor must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. Contractor retains full responsibility to monitor its compliance and their subcontractors’ compliance with the applicable requirements of the Occupational Safety and Health Act of 1970. Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

14.6 Federal Nondiscrimination Requirements. During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as “Contractor”) agrees as follows:

14.6.1 Compliance with Regulations. The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts And Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

14.6.2 Nondiscrimination. The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin (including limited English proficiency), creed, sex (including sexual orientation and gender identity), age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

14.6.3 Solicitations for Subcontracts. Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by Contractor of the contractor’s obligations under this contract and the Nondiscrimination Acts and Authorities on the grounds of race, color, or national origin.

14.6.4 Information and Reports. The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Airport or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts and Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Airport or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

14.6.5 Sanctions for Noncompliance. In the event of a Contractor’s noncompliance with the Non-discrimination provisions of this contract, the Airport will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

(a) Withholding payments to the Contractor under the contract until the contractor complies; and/or

(b) Cancelling, terminating, or suspending a contract, in whole or in part.

14.6.6 Incorporation of Provisions. The Contractor will include the provisions of paragraphs 12.6.1 through 12.6.6 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Airport or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Airport to enter into any litigation to protect the interests of the Airport. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

14.6.7 Title VI List of Pertinent Nondiscrimination Acts and Authorities. During the performance of this contract, Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 USC §2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination in Federally-Assisted programs of the Department of Transportation—Effectuation of Title VI of the Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 USC §4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 USC. §794 *et seq.*), as amended (prohibits discrimination on the basis of disability); and 49 CFR part 27 (Nondiscrimination on the Basis of Disability in Programs or Activities Receiving Federal Financial Assistance);
- The Age Discrimination Act of 1975, as amended (42 USC §6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 47123), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-259), (broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990 (42 USC § 12101, *et seq*) (prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities) as implemented by U.S. Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 USC §47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations);
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (“LEP”). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. 74087 (2005));

- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 USC § 1681 *et seq.*).

14.7 Airport Commission Cyber Security Requirements.

14.7.1 Should the Services provided under this Agreement require Contractor to access Airport information systems residing within Airport managed networks, Contractor shall use the Airport's VPN solution to access such Airport systems and is prohibited from implementing any other remote access solution without the express written permission of the Airport's Chief Information Security Officer.

14.7.2 For the purposes of this Agreement, known exploitable vulnerabilities, as that term is defined by the Department of Homeland Security Cybersecurity & Infrastructure Security Agency ("DHS/CISA"), and all software on the DHS/CISA Known Exploited Vulnerabilities Catalog ("KEV catalog"), shall be designated as a "high risk" or "critical" vulnerability until an assessment done by the Contractor as below.

This designation shall remain until such time as the Contractor completes a cyber-security assessment and determines, in their capacity as a subject matter expert, whether the software associated with said vulnerability, as said software it is used in the delivery and execution of the Services provided under this Agreement, may be safely recharacterized at a lower severity level.

This recharacterized severity level, once communicated in writing to the Airport's Chief Information Security Officer, shall establish the timeframe under which the Contractor agrees to remediate said vulnerability. In the absence of such communication, the severity level of the KEV assigned by DHS/CISA shall remain in effect.

For the purposes of section 14.7, "remediation" means to "reduce the significant risk of known exploited vulnerabilities" as these terms are used by DHS/CISA in relationship to the KEV catalog. Possible remediation options include, without limitation, removing or disabling said software, providing a replacement or patch for said software, or the implementation of compensating controls that mitigate the risk said vulnerable software has on the Services provided under this Agreement. Contractor, considering the nature of the vulnerability and the requirements of addressing such, shall use best efforts to remediate said vulnerability in the context of the below:

- Vulnerabilities assessed as Critical shall be remediated within 15 calendar days.
- Vulnerabilities assessed as High shall be remediated within 30 calendar days.
- Vulnerabilities assessed as Moderate shall be remediated within 60 calendar days.
- Vulnerabilities assessed as Low shall be remediated within 90 calendar days.

14.7.3 In the absence of a DHS/CISA published KEV, the Common Vulnerability Scoring System (CVSS) shall be used to assess the severity of a cybersecurity vulnerability and establish the timeframe, considering the nature of the vulnerability and the requirements of addressing such, under which the Contractor agrees to use best efforts to remediate said vulnerability in the context of the below:

- Vulnerabilities assessed as Critical shall be remediated within 15 calendar days.
- Vulnerabilities assessed as High shall be remediated within 30 calendar days.
- Vulnerabilities assessed as Moderate shall be remediated within 60 calendar days.
- Vulnerabilities assessed as Low shall be remediated within 90 calendar days.

14.7.4 For software and services managed by the Contractor, Contractor is required to provide a report to the Airport Chief Information Security Officer of any known or suspected software vulnerabilities that, if exploited, could adversely impact the software and services being provided under this Agreement.

14.7.5 Contractor shall comply with City's requirements for Cybersecurity Risk Assessment as outlined in the OCA Technology Purchasing Handbook (which may be found at: https://sfgov.org/oca/sites/default/files/OCA%20Technology%20Purchasing%20Guidelines%20v9.1_8-1-21.pdf), and, where applicable under such handbook, provide the Airport Chief Information Security Officer with a completed City Cyber Risk Assessment Questionnaire or SSAE 18 SOC-2 Type 2 report.

14.7.6 City acknowledges and agrees that the provisions of this Section 14.7 have been proposed by the City after Contractor has provided its products and services and that as such, related costs are not included in the Agreement and that the requirements are not part of the Contractor's current offering. City and Contractor agree that Contractor will provide costs within the first six months of the Agreement for the requirements of Section 14.7 and funds for such costs can be addressed through the as-needed services.

Article 15 Data and Security

15.1 Nondisclosure of Private, Proprietary or Confidential Information.

15.1.1 **Protection of Private Information.** If this Agreement requires City to disclose "Private Information" to Contractor within the meaning of San Francisco Administrative Code Chapter 12M, Contractor and subcontractor shall use such information only in accordance with the restrictions stated in Chapter 12M and in this Agreement and only as necessary in performing the Services. Contractor is subject to the enforcement and penalty provisions in Chapter 12M.

15.1.2 **City Data; Confidential Information.** In the performance of Services, Contractor may have access to, or collect on City's behalf, City Data, which may include proprietary or Confidential Information that if disclosed to third parties may damage City. If City discloses proprietary or Confidential Information to Contractor, or Contractor collects such information on City's behalf, such information must be held by Contractor in confidence and used only in performing the Agreement. Contractor shall exercise the same standard of care to protect such information as a reasonably prudent contractor would use to protect its own proprietary or Confidential Information. Notwithstanding the foregoing provisions of this Section 15.1.2, Contractor is licensed to use City Data to report industry statistics regarding the performance and usage of Contractor's Software systems, provided that any such use of City Data to report industry statistics is in the aggregate, is not specific to the Airport or any person, is fully anonymized, and is in compliance with applicable federal, state and local data privacy laws and regulations. Contractor hereby grants a non-transferable, perpetual license to City to use Contractor Data for City's internal and operational purposes only. Contractor Data is Confidential Information of Contractor and such must be held in confidence consistent with this Section 15.1.2, subject to Section 13.4 (Sunshine Ordinance) of this Agreement.

15.2 **Payment Card Industry ("PCI") Requirements.** Contractors providing services and products used to process, transmit or store cardholder data and/or connect with the cardholder data environment ("CDE"), as that term is defined under the Payment Card Industry Data Security Standard ("PCI DSS"), are required to support City by ensuring services and products deployed in accordance with vendor instruction will not prevent the City from implementing controls mandated by PCI DSS requirements and are subject to the following requirements:

15.2.1 To the extent Contractor is deemed to be a Service Provider, as that term is defined by the PCI DSS, Contractor shall provide the City with a copy of a valid, compliant and executed

Attestation of Compliance (“AOC”) associated with a Report on Compliance (“ROC”) applicable to the products and /or services being provided under this Agreement. If said AOC and ROC are not available, Contractor shall provide an expected completion date for the delivery of said AOC.

15.2.2 The Contractor who processes, stores, or transmits cardholder data on behalf of City shall comply with evolving payment brand specifications and with security programs such as and without limitation Visa Cardholder Information Security Program (“CISP”) and MasterCard Site Data Protection (“SDP”) programs. As the Contractor only transmits the data, responsibility for compliance to Visa and MasterCard programs are the responsibility of the individual airlines and their payment service provider/bank.

15.2.3 The Contractor who provides products and services used to process, store, or transmit payment card data shall maintain ongoing compliance with the PCI DSS and Attestation of Compliance (“AOC”) applicable to the products and /or services being provided under this Agreement. The Contractor will provide the AOC promptly upon receipt from the PCI Qualified Security Assessor.

15.2.4 To the extent Contractor utilizes any third-party services (e.g. third-party service providers) to fulfil any or all of Contractor’s compliance activities under PCI-DSS, the Contractor’s AOC shall include this scope to ensure that such third-party services are themselves fully compliant with PCI-DSS.

15.2.5 As required under PCI DSS, Contractor shall document and maintain “business as usual” activities as part of their overall cyber-security strategy and make this documentation available for review by the Airport’s cyber-security team.

15.2.6 Contractor is required to keep all software under their purview properly patched in accordance with PCI requirements and vendor recommendations.

15.2.7 For the purposes of this Agreement, exploitable vulnerabilities, as that term is defined by PCI DSS, all software on the DHS/CISA Known Exploited Vulnerabilities Catalog (“KEV”), shall be designated as a “high risk” or “critical” vulnerability until an assessment is done by the Contractor as in Section 14.7.2.

15.2.8 Unless otherwise agreed to by the City, all costs associated with Contractor efforts to establish and maintain ongoing compliance with PCI DSS are the sole responsibility of the Contractor.

15.2.9 Contractor shall not delegate, novate, or assign any of its PCI compliance obligations without the written approval of the City.

15.2.10 **Bank Accounts – Reserved.**

15.3 Business Associate Agreement - Reserved.

15.4 Management of City Data.

15.4.1 **Use of City Data.** Contractor agrees to hold City Data received from, or created or collected on behalf of, City, in strictest confidence. Contractor shall not use or disclose City Data except as permitted or required by the Agreement or as otherwise authorized in writing by City. Any work by Contractor or its authorized subcontractors using, or sharing or storage of, City Data outside the United States is prohibited, absent prior written authorization by City. Access to City Data must be strictly controlled and limited to Contractor’s staff assigned to this project on a need-to-know basis only. City Data shall not be distributed, repurposed or shared across other applications, environments, or business units of Contractor. Contractor is provided a limited non-exclusive license to use City Data solely for performing its obligations under the Agreement and not for Contractor’s own purposes or later use. Nothing herein shall be construed to confer any license or right to City Data, by implication, estoppel or otherwise, under copyright or other intellectual property rights, to any third-party. Unauthorized use of

City Data by Contractor, subcontractors or other third-parties is prohibited. For purpose of this requirement, the phrase “unauthorized use” means the data mining or processing of data and/or machine learning from the data, stored or transmitted by the service, for unrelated commercial purposes, advertising or advertising-related purposes, or for any purpose that is not explicitly authorized other than security or service delivery analysis.

15.4.2 Disposition of City Data. Upon request of City or termination or expiration of this Agreement, Contractor shall promptly, but in no event later than thirty (30) calendar days, return all City Data given to, or collected or created by Contractor on City’s behalf, which includes all original media. Once Contractor has received written confirmation from City that City Data has been successfully transferred to City, Contractor shall within ten (10) business days clear or purge all City Data from its servers, any hosted environment Contractor has used in performance of this Agreement, including its subcontractor’s environment(s), work stations that were used to process the data or for production of the data, and any other work files stored by Contractor in whatever medium. Contractor shall provide City with written certification that such purge occurred within five (5) business days of the purge. Secure disposal shall be accomplished by “clearing,” “purging” or “physical destruction,” in accordance with National Institute of Standards and Technology (NIST) Special Publication 800-88 or most current industry standard.

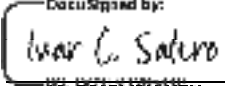
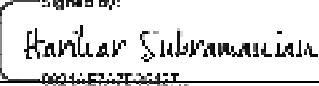
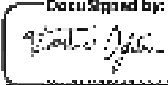
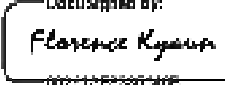
15.5 Ownership of City Data. The Parties agree that as between them, all rights, including all intellectual property rights, in and to City Data and any derivative works of City Data is the exclusive property of City.

15.6 Loss or Unauthorized Access to City’s Data; Security Breach Notification. Contractor shall comply with all applicable laws that require the notification to individuals in the event of unauthorized release of PII, PHI, or other event requiring notification. Contractor shall notify City of any actual or potential exposure or misappropriation of City Data (any “Leak”) within seventy-two (72) hours of the discovery of such, but within forty-eight (48) hours if the Data Leak involved PII or PHI. Contractor, at its own expense, will reasonably cooperate with City and law enforcement authorities to investigate any such Leak and to notify injured or potentially injured parties. The remedies and obligations set forth in this subsection are in addition to any other City may have. City shall conduct all media communications related to such Leak.

Article 16 MacBride And Signature

16.1 MacBride Principles - Northern Ireland. The provisions of San Francisco Administrative Code Chapter 12F are incorporated herein by this reference and made part of this Agreement. By signing this Agreement, Contractor confirms that Contractor has read and understood that City urges companies doing business in Northern Ireland to resolve employment inequities and to abide by the MacBride Principles, and urges San Francisco companies to do business with corporations that abide by the MacBride Principles.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the day first mentioned above.

CITY	CONTRACTOR
AIRPORT COMMISSION CITY AND COUNTY OF SAN FRANCISCO	
By:  Ivar C. Satero, Airport Director	Signed by:  Authorized Signature
Attest: By:  Kantrice Ogletree, Secretary Airport Commission	Harihar Subramanian, Regional CFO SITA Information Networking Computing USA Inc. 600 Galleria Parkway SE, Suite 1000, Atlanta, GA 30339 770-850-4500
Resolution No: <u>24-0254</u> Adopted on: <u>December 3, 2024</u> Approved as to Form: David Chiu City Attorney By:  Cassie Coleman, Deputy City Attorney	City Supplier Number: 0000030095 Federal Employer ID Number: 
Approved: By:  Sailaja Kurella, Director, Office of Contract Administration/Purchasing	

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- B: Calculation of Charges

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Scope of Services

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1 BACKGROUND

Contractor shall provide support and maintenance, as well as professional services, for all the Passenger Processing System (PPS) and Information Display System (IDS) systems, equipment and software at the San Francisco International Airport (Airport) (except with regard to PPS Level 1 support as detailed in the paragraph immediately below). The Airport currently has combined the independent common use systems with the Airport Operational Database (AODB) and Resource Management System (RMS) as well as the IDS into one support and maintenance contract. Contractor shall be responsible for Level 2 maintenance as well as responsibility for the IDS server platform, commercial off-the-shelf software, compliance with system requirements, and application software.

Contractor shall not perform the PPS Level 1 Support Contractor work which is captured in a separate contract (Ct 50354.01). The separate PPS Level 1 Support Contractor shall provide 24x7, 365 days per year, on-site support and maintenance. The PPS Level 1 Support Contractor's work includes answering incident calls regarding the PPS and IDS and creating incidents, pulling and replacing faulty hardware, performing preventive maintenance and replacing consumable stock as required, and monitoring and receiving system alerts. If the PPS Level 1 Support Contractor deems an incident to be IDS hardware related, they will refer the call to the SFO Electronic Tech Shop. If issues are not resolved, the PPS Level 1 Support Contractor will call the Contractor help desk if it appears to be a software problem. In such event, Contractor will open a Level 2 ticket.

Table 1 - Terms and Acronyms

Acronym	Full Phrase	Brief Description
A-VDGS	Advanced Visual Docking Guidance System	Intelligent sensors and system to collect and distribute real-time gate and flight data
AIIS	Airport Information Integration Solution	A software architecture model used for interconnecting information systems, centralizing the collection of data and the analysis and distribution information.
AODB	Airport Operational Database	A single database used to store flight schedules, and resource assignments.
AOS	Airport Operational Services	A composite of solution services comprising business services, user interfaces and a centralized database used to store and share flight schedules, resource assignments, and other airport data with other airport systems.
API	Application Programming Interface	A set of routines, protocols, and tools for building software applications.
ATB	Automated Ticket and Boarding Pass Printer	A high volume, thermal boarding pass printer.
ATP	Acceptance Test Plan	A plan with test objectives and test procedures to test all system and functional requirements in order to accept the system.
BGR	Boarding Gate Reader	Boarding pass scanner at gateroom podium used for scanning 2D/3D barcodes on airline boarding passes or mobile devices.
BHS	Baggage Handling System	A physical conveyer transportation system for airport baggage between the check-in positions and airside baggage makeup.
BID	Baggage Information Display	Displays at Airport arrival areas which provide information on arriving flights, baggage claims, etc.

Acronym	Full Phrase	Brief Description
BIC	Baggage Input Console	Device used by baggage handlers to input the flight number for arriving bags being unloaded and sent to a baggage carousel.
BPM	Baggage Processed Message	Message with specific format from baggage handling system to Airlines.
BPP	Boarding Pass Printer	Device for printing a boarding pass at airport check-in or kiosks.
BRS	Baggage Reconciliation System	The Baggage Reconciliation Systems provides positive reconciliation matching of checked baggage with correct flight.
BSM	Baggage Source Message	Message with specific format from Airline systems to baggage handling systems of bag tags that have been issued.
BTM	Baggage Transfer Message	Message with specific format form Airline systems to baggage handling systems containing baggage transferring from one airline to another.
BTP	Bag Tag Printer	Device for printing bag tags at airport check-in or kiosks.
CMC	Change Management Committee	Change management organization within SFO Information Technology and Telecommunications responsible for the coordination of technology changes.
COTS	Commercial Off-the-Shelf	Software application that is built ready-made for sale by a vendor. The software can be enhanced by user, when necessary.
CRR	Cutover Readiness Review	A system life cycle review used to determine the readiness of systems to move from test to operational production capabilities.
CUPPS	Common Use Passenger Processing System	Software and hardware standards designed to allow a single passenger processing station to serve multiple airlines. These standards overhaul the original CUTE standards.
CUSS	Common Use Self-Service	Software and hardware developed to allow a single self-service kiosk to serve multiple airlines.
CUTE	Common Use Terminal Equipment	Refers to the shared IT equipment that allows any airline to utilize that equipment to access their host system.
DBMS	Database Management System	Software system used for storing and retrieving data in the system.
DCP	Document Control Printer	Serial impact dot matrix printer used by airlines for printing passenger manifests. Typically, on continuous feed computer paper.
DDC	Digital Device Controller	PC attached to a display device for controlling the content of that display.
FID	Flight Information Display	Displays at Airport which provide information on departing and arriving flights.
GID	Gate Information Display	Displays at Airport departure gates which provide information on departing flights, weather at destination cities, waitlists, etc.
HHT	Handheld Terminal	Handheld baggage scanner device used by airport/airline/ground handlers to scan 2D barcodes on bag tags for the Baggage Reconciliation System.
IATA	International Air Transport Association	The international association whose membership is airlines.
ICD	Interface Control Document	Document used to define the design of interfaces between two systems.

Acronym	Full Phrase	Brief Description
IDS	Information Display System	A display system that portrays flight information, gate assignments, wayfinding, visual paging and other information as required.
IOC	Initial Operating Capacity	The point in time a system(s) goes live in an operational environment.
ITB	International Terminal Building	The terminal building connected to the Federal Inspection Service facility handling international operations. The ITB includes Boarding Areas A, G and Swing Gates in B.
ITT	Information Technology and Telecommunications	The organization at SFO responsible for overseeing all information technology systems and infrastructure installed at the airport.
LAN	Local Area Network	A computer network covering a smaller physical space, such as an airport terminal, without the need for long-distance cabling.
LDCS	Local Departure Control System	A check-in system that manages passenger seat assignments, baggage, and boarding for airlines.
LEC	Local Exchange Carrier	A regulatory term in telecommunications for the local telephone company.
LSR	Laser Scanner	A handheld barcode scanner connected to the CUTE workstations for scanning barcodes on boarding passes or bag tags.
MAC	Moves, Adds, and Changes	An alteration of Airport network indicating that cabling has been added, moved, or altered.
MPOE	Main Point of Entry	The demarcation point at which the public switched telephone network ends and connects with the customer's on-premises wiring.
MSR/OCR	Magnetic Strip Reader /Optical Character Reader	Device used for acquiring data from a mag-stripe on a credit card or thru use of Optical Character Recognition technology.
MTTR	Mean Time to Resolve	The average time it takes to fully resolve a failure, fix a device or return to an operational state.
NOC	Network Operations Center	Location where a network's day to day operations is managed.
NTP	Notice to Proceed	Notice given to a Contractor that they may proceed to start work on a project.
O&M	Operations and Maintenance	A life cycle phase of a system after successful implementation.
PDS	Premises Distribution System	The planned physical cabling system designed to transmit voice and data within a campus.
PPS	Passenger Processing System Project	SFO has designated this as the name for this Project to replace existing systems at the Airport.
PMP	Project Management Plan	A document used at the start of the contract to organize the work associated with building a system.
RAID	Ramp Area Information Display	Displays housed in baggage make up areas and other locations on the apron level that provide flight related data to ramp personnel.
REST API	Representational State Transfer Application Programming Interface	Architectural style that defines a set of constraints to be used for creating web services.
RID	Ramp Information Display	Displays showing flight, gate, and other pertinent information to ramp crews via exterior dynamic signs and monitors.

Acronym	Full Phrase	Brief Description
RMS	Resource Management System	A computer system that uses the planned flight schedule and operational updates to allocate check-in counters, gates, and bag belts to certain flights. It is often used in conjunction with a common use system.
SBD	Self Bag Drop System	Passenger self service system where passengers can check-in, print a bag tag, scan boarding pass, and check their baggage directly into the baggage handling system. Also known as an Automated Bag Drop (ABD) system.
SDD	System Design Document	Life cycle document that describes the detailed design of a system.
SDR	System Design Review	A life cycle review to review the design of a system.
SIEM	Security Information and Event Management	Software products and services combine that security information management (SIM) and security event management (SEM). They provide real-time analysis of security alerts generated by network hardware and applications.
SLA	Service Level Agreement	Sets the expectations between the service provider and the customer and describes the products or services to be delivered.
SMI	System Manager Interface	Interface to a system management module for administrators to manage an application.
SPCR	Software Problem/Change Request	Document that describes a problem or a requested change to a software application.
SRR	System Requirements Review	Life cycle review that reviews the documented requirements of a system.
SSD	System Specification Document	High level system architecture and requirements document.
SSR	Special Systems Room	A room where a business houses servers and wiring, which may serve as a distribution point for multi-pair cables from the main distribution frame.
SUS	Shared Use System	System that allows airlines to operate on a shared hardware environment. Airlines may use their own browser based web client, virtualized proprietary applications, or IATA CUTE/CUPPS applications, or an LDCS application.
TDM	Time Division Multiplexing	A method of transmitting and receiving independent signals over a common signal path by means of synchronized switches at each end of the transmission.
TID	Train Information Display	An information display at the AirTrain station integrated with rail systems to show train data.
TRR	Test Readiness Review	A life cycle review to ensure a system is implemented and ready for acceptance testing.
USB	Universal Serial Bus	An industry standard that defines the cables, connectors and communications protocols used in a bus for connection, communication, and power supply between computers and electronic devices.
VLAN	Virtual Local Area Network	The virtual segregation of a single physical LAN into multiple LANs operating on the same infrastructure.

Acronym	Full Phrase	Brief Description
VM	Virtual Machine	A virtual machine is an emulation of a particular computer system. Virtual machines operate based on the computer architecture and functions of a real, or hypothetical computer, and their implementations may involve specialized hardware, software, or a combination of both.
VRF	Virtual Routing and Forwarding	A technology that allows multiple instances of a routing table to co-exist within the same router at the same time.
WAN	Wide Area Network	A computer network covering a vast area, in contrast to a LAN. WANs often require leased external cables and stretch over distances measured in miles.
WBS	Work Breakdown Structure	A work breakdown structure, in project management is a deliverable-oriented decomposition of a project into smaller components. It is a key project deliverable that organizes the work into manageable sections.
WS	Workstation	A workstation is a special computer designed for technical or scientific applications. Intended primarily to be used by one person at a time, they are commonly connected to a local area network.

Table 2 - Current Airlines Using Shared Use System

Aer Lingus	China Southern Airlines	Lufthansa
Aeroméxico	Condor - Flugdienst GmbH	Philippine Airlines
Air Canada	Copa Airlines	Porter Airlines
Air China	Delta Air Lines	Qantas
Air France	Emirates Airline	Qatar Airways
Air India Limited	EVA Air	Scandinavian Airlines
Air New Zealand	Fiji Airways	Singapore Airlines
Air Transat	Flair Airlines	Southwest Airlines
Alaska Airlines, Inc.	French Bee	STARLUX Airlines
All Nippon Airways	Frontier Airlines	Sun Country Airlines
American Airlines	Hawaiian Airlines	Swiss International Air Lines
Asiana Airlines	Iberia Airlines	TAP Air Portugal
AVIANCA	ITA Airways	Turkish Airlines
Breeze Airways	Japan Airlines	United Airlines
British Airways	JetBlue Airways	Vietnam Airlines
Cathay Pacific	KLM	Virgin Atlantic
China Airlines	Korean Air	WestJet
China Eastern Airlines	LEVEL	ZIPAIR - Tokyo

Note: The list above is current as of December 2024 and will likely change in the future.

2 OVERVIEW

2.1 Passenger Processing System

As a general definition, the Passenger Processing System includes the following:

- Shared Use System (SUS)
 - Shared Use Check-in and Boarding System
 - Local Departure Control System
- SITA Common Use Self Service Kiosks (CUSS)
- SITA Smart Path - Biometric FacePods
- SITA Self Bag Drop (SBD)
- Airport Management Solution (AMS) consisting of Airport Operations Database (AODB) and Resource Management System (RMS)
- Baggage Processing Systems – Provided and maintained by SFO and not part of this

Agreement.

- Message Broker
- Baggage Reconciliation System Scanners (BRS)

2.2 Information Display System

The Information Display System includes the following:

- IDS server platform
- COTS software and application software
- DDC, small form factor CPUs
- Display hardware such as monitors and mounts, and
- SITA Transit Solution

3 PASSENGER PROCESSING SYSTEM

The hardware in the International Terminal Building (ITB) was upgraded for all passenger processing workstations and some associated equipment. This included new on-premises server hardware and software. In the domestic terminals there is a combination of on-premises and serverless hardware and software. The end user devices and peripherals in the ITB workstations have been upgraded with Windows 10 to support the current systems. The Airport will continue to deploy the PPS systems to include all terminal buildings as needed.

The Shared Use System (SUS) allows multiple airlines to operate at a particular location (gate or ticket counter position) using either a browser-based web client, Common Use Terminal Equipment (CUTE) applications, and/or virtualized airline CUTE application of choice, with a common set of compatible hardware, increasing the flexibility and efficiency of the facility. An integrated Local Departure Control System (LDCS) facilitates charter operators and other airlines and carriers who do not have access to a departure control system when operating at SFO.

AODB services include an integrated set of capabilities that support real-time messaging, storage and retrieval of information from all PPS related systems. It provides service capabilities that represent the master source of all flight data. The AODB provides a REST API for data and service integration to the Airport's enterprise domain data structure.

RMS is used by SFO Operations in assigning resources including but not limited to gates, ticket counters, baggage claims, baggage makeup conveyors and remote aircraft parking. The RMS provides planning functions, 'best fit' recommendations, and real-time conflict warnings to assist SFO Operations in the management of these resources.

PPS Integrated Systems, all Ethernet-based, uses passive (cabling and pathway) and active (local area network) components provided as part of the SFO Premises Distribution System (PDS).

3.1 PPS Existing Application Vendors

Table 3 - Existing Application Vendors (As of December 2024)

Technology	Vendor
Airport Management Solution (AMS) includes Airport Operational Database (AODB) and Resource Management System (RMS)	SITA
Information Display System (IDS)	SITA
Passenger Processing System (PPS)	SITA
Common Use Self Service Kiosks (CUSS)	SITA (T1&T2) and IER (ITB)
Baggage Message Broker	Brock
Baggage Reconciliation System	Brock

3.2 PPS Hardware Installed

As technology requires, existing PPS equipment will be replaced, and new equipment will be added under separate contracts. The separate PPS Level 1 Support Contractor shall maintain any new or replaced PPS equipment under their responsibilities under the City's separate agreement with the PPS Level 1 Support Contractor. Location and counts of the existing devices are provided in Table 4 below including 102 non-SITA CUSS Kiosks in the ITB.

Table 4 - Existing Equipment Locations and Counts (As of December 2024)

PPS EQUIPMENT	ITB	T1	T2	T3	GARAGES/ HOTEL/ MISC	TOTAL
CUTE Workstations	475	167	133	1	0	776
CUSS Kiosks	102	83	52	0	0	237
Passport Readers (OCR/MSR/MPR)	233	127	149	0	0	509
Bag Tag Printers (BTP)	226	120	129	0	0	475
Boarding Pass Printers (ATP)	252	107	106	0	0	465
Handwand Terminal Scanners (LSR)	255	135	151	0	0	541
Handheld Bag Scanners (for BHS)	89	49	0	0	0	138
General Printers (DCP)	94	65	34	0	0	193
Boarding Gate Readers (BGR)	56	29	26	0	0	111
Biometric Exit FacePods	104	14	3	0	0	121
Self Bag Drop (Standard)	0	15	0	0	0	15
Self Bag Drop (Hybrid)	0	10	0	0	0	10
TOTAL PPS EQUIPMENT	1886	921	783	1	0	3591

○ The Contractor's Shared Use Check-in and Boarding System software license is provided to the City as an enterprise-wide license and covers the current quantities of CUTE workstations (as shown in Table 4, above) up to a total of 820 workstations, at no additional cost. Any quantity beyond 820 workstations is chargeable as part of the As-Needed Services.

The following is a summary of existing hardware:

3.2.1 Shared Use Check-In Counter and Gate Workstations and Peripherals include the following:

Item	Features
CUTE Workstations	SITA CUTE HP Elite 800 G9, Intel Core i7,16GB, 512 SSDb, USB Keyboard and USB Mouse CAT6 Patch Cable 7ft Yellow (IWS) CAT6 Patch Cable 7ft Red (IWS) Monitor HP EliteDisplay E22 G5 FHD
MSR/OCR/MPR Device	DESKO MSR/OCR IDenty chrom w/5-year warranty
ATP	Epson TM-L500A w/stacker or Fujitsu F9870-GPP with Tray and stacker Printer Cable (Green) Serial Adapter
BTP	Epson TM-L500A LCD and Roll Holder (Non-RFID) or Fujitsu F9870-BTP and Roll Holder with/without RFID or Custom TK180 Printer Cable (Violet) Serial Adapter
DCP	Okidata ML320T 9 or Epson FX-890II, 24-Pin or Epson 831 or HP M506n LaserJet Printer Cable
BGR	DESKO BGR 504 Pro w/patch cord adapter Printer Cable (Orange)
LSR	Honeywell 1900G USB cable 9ft

3.2.2 **CUSS Kiosks.** The CUSS Kiosks in T1 and T2 are provided by SITA. Forty-one (41) kiosks are located in HMT1, and six (6) kiosks are in T2. An additional 88 kiosks were installed in July 2024 as part of the T1 North Project.

SITA CUSS kiosk specifications are:	
On-Board CPU	
Minimum CUSS V1.4	
Windows 10 Pro Operating System	
Airline Check-in Virtualization	
Full-page E-Passport scanner	
Minimum 17" diagonal Touch Screen display	
Minimum 3-track encrypted magnetic strip reader (MSR) (The magnetic stripe reader and EMV functionality is provided in a single device.)	
Barcode Reader	
Three printers: One Boarding Pass printer and two Bag Tag Printers (Approximately 28 BTPs are Radio-Frequency Identification (RFID) BTPs.)	
USB 3.0 Ports	
Europay, MasterCard® and Visa® (EMV) for Chip & Pin Payment, and NFC payment device.	
ADA Compliant accessibility keypad with integrated audio jack	
802.11 a/b/c/n/g Wi-Fi Connectivity	
Overhead Biometric Housing (Camera not included)	

3.2.3 **SITA Smart Path Biometric Facepods.** The SITA Biometric Exit Facepods devices are located in the ITB, T1 and T2.

SITA Biometric Exit Facepods	
On-Board CPU with i7 processor	
Windows 10 Pro Operating System	
Integrated Boarding Pass Scanner	
10" touchscreen	
Locking cabinet, hidden cables, internal wiring	
Base	

3.2.4 **SITA Self Bag Drop.** The SITA Self Bag Drop units are configured in both as Standard and Hybrid, both located in T1.

Self-Bag Drop System in T1 are:	
SITA Equipment minimum functionality (for both Standard and Hybrid) includes:	CUSS V1.4, IATA compliant
	Interphase with Airport CUTE/CUSS software system/platform
	CUPPS certified platform
	Onboard CPU, Windows 10 Operating System
	Passenger facing touchscreen, E-passport reader ready, paper and mobile device boarding pass reader
	Biometric face recognition equipped for future DSA ID verification system
	3-track encrypted Magnetic Script Reader (MSR) payment
	Near Field Communication (NFC) payment
	2 Passenger facing continuous feed barcode bag tag printer
	1 thermal boarding pass printer
	Remote monitoring system to track system status
	Take away bag belts

3.3 Airport Operational Database

AODB provides capabilities for a central repository for Airport-wide data collection, integration, distribution, and management, and provides all flight-related data accurately and efficiently in real-time. AODB supports all Airport scheduling and operative processes, ranging from the automatic transfer of the Seasonal Flight Schedule data, the generation of Daily Flight Schedules, to the processing and provision of billing data. AODB provides services with capabilities as an archival and real-time retrieval database and an information exchange mechanism. The principal role of the AODB is to be the primary holder of all data that relates to flight information and facility resources. It maintains seasonal and day to day operational schedules, and archives historical information.

SFO intends to implement an Airport Collaborative Decision Making (A-CDM) capability. The AODB will be instrumental in accomplishing the data sharing objectives for the A-CDM.

The AODB system contains all functionality specified in this section, and Contractor shall provide and maintain a REST API for retrieval and distribution of the data on SFO's domain structure. SFO will leverage additional methods of integration in the future, and when requested by the Airport, Contractor shall provide a technical resource to provide the services as described below in Section 7.0 (As-Needed Services) of this Appendix A.

3.3.1 AODB Functional Requirements

3.3.1.1	AODB shall implement data validation rules and business rules defined by SFO. AODB must have a graphical user interface to support manual user interface for the creation of these rules by authorized individuals.
3.3.1.2	Must be capable of receiving data both digitally from other systems and manually by data entry.
3.3.1.3	Must be capable of sending/receiving automated messages to/from appropriate interfacing systems based on business rules and event triggers.
3.3.1.4	Must be capable of prioritizing flight data received from multiple sources based on defined business rules.
3.3.1.5	Must be capable of sending real time changes of flight data and resource allocations to the IDS for immediate display.
3.3.1.6	Must alert users to irregular operations that are either flight or facility related.
3.3.1.7	Must be capable of performing data record archiving.
3.3.1.8	Must be capable of providing data record retrieval, alarm notification and logging.
3.3.1.9	Must be capable of holding numerous flight related fields including, but not limited to: ▪ aircraft dimensional data; ▪ airline data; ▪ registration (tail) number; ▪ start and stop times of aircraft rotational activity; ▪ start and stop times of aircraft parking activity; ▪ code share information; ▪ origins; ▪ multiple destinations; and ▪ resource elements such as: check-in desks; ticket counters; recheck ticket counters; gates, (with ability to sub-define a single gate into multiple aircraft parking 'spots'); baggage claims; baggage break down areas; and bag make up areas.
3.3.1.10	Design of the AODB permits the inclusion of additional fields and tables on an as- needed basis. The number of additional fields and tables to be supported are be no less than a minimum of two times the amount of initially populated database structure.

3.3.1.11	All manual entry of data into the AODB are via a graphical user interface and not directly input into data tables. All manual updates are verified as being valid records prior to any updates being implemented.
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3.3.2 AODB REST API. AODB includes a REST API that allows third parties to integrate with all functional aspects, components and services of the AODB. The API supports both inbound and outbound calls for each functional aspect, component and service as well as all REST verbs per API. AODB publishes all its data and services available to the AIIS infrastructure and organizes the data according to the Airport's domain structure.

3.3.3 Airport Collaborative Decision Making (A-CDM). AODB will be used to support the Airport's A-CDM initiatives, its goal of improving event predictability, and optimizing resource utilization. The AODB is capable of supporting information sharing functions among airport partners (e.g. Airlines, Ground Handlers, Air Traffic Control, Airport Operations) on an as needed basis. AODB implements interactive utilities that support A-CDM defined by EUROCONTROL such as improved quality of information, more timely exchange of information, and dashboards. AODB provides an aggregated view of the status of the operational activities, based on real time data throughout SFO.

3.3.4 AIDX. AODB supports an AIDX compliant feed of data into and from the baggage handling system. Other systems that support AIDX use the standard when possible.

3.3.5 Read Only Data. AODB has the capability of publishing read only data across AIIS to locations and systems that are external to SFO.

3.3.6 Interface Requirements:

3.3.6.1	AODB interfaces with several other systems providing information exchange and archiving. Some systems may use a direct interface (e.g. Airline hosts, third party flight data sources). The preferred method of integration is through the AIIS with REST API.
3.3.6.2	AODB is the source of flight data for the Airport. It interfaces to the following to receive flight data: ▪ 3rd party flight data services (e.g. Flight view, Passur); ▪ Local Airline Ops direct input; ▪ Airline Host systems; ▪ BIC direct input; and ▪ 3rd party seasonal flight schedules (e.g. OAG).
3.3.6.3	AODB implements business rules to determine priorities of flight data input into the system.
3.3.6.4	Required system interfaces must be revalidated with SFO stakeholders. For each interface, Contractor shall be responsible for updating the current Interface Control Document (ICD) developed by the System provider. In updating these documents, Contractor shall coordinate with the appropriate Airport and tenant stakeholders.
3.3.6.5	Airline Host Systems – AODB system has the ability to accept data feeds from dedicated airline host systems if airlines desire. The system has the ability to capture, parse, and convert un-buffered data from airline host systems into the proper data types to create and update the database fields. The airline host system provides the following data fields as a minimum: Flight Number, Tail Number, Aircraft Type, Origin Cities, Destination Cities, Estimated Time of Arrival, Estimated Time of Departure, Actual Time of Arrival, and Actual Time of Departure.
3.3.6.6	Interfaces to other systems to automatically input data into the AODB shall be part of the updating of the ICD for each interface. Electronic data transfer shall be validated by the AODB prior to the record being automatically updated.

3.3.6.7	All systems sending/receiving standard aviation messages will follow AIDX standards.
3.3.6.8	AODB publishes flight data through a REST API that can be accessed by SFO's messaging services.
3.3.6.9	Airline agents with proper User ID and passwords are able to input real time flight updates from any shared use workstation.
3.3.6.10	AODB provides real-time updates of flight information to the BHS, BRS, RMS and IDS.
3.3.6.11	AODB receives seasonal and real time updates from the RMS so that resource allocations (e.g. gates and baggage claims) can be displayed immediately on the FIDS displays.
3.3.6.12	AODB receives first bag/last bag data from the BIC.
3.3.6.13	AODB provides real-time updates of resource allocations to the BHS, BRS, SUS and IDS.
3.3.6.14	AODB provides resource usage statistics to the billing system.
3.3.6.15	AODB provides aircraft reference data and gate assignment information to the A-VDGS and receive actual arrival departure times from the A-VDGS.
3.3.6.16	AODB provides an archive capability within another partition of the same database. Data held within the "operational" portion of the database includes current month plus last month only. This prevents the historical records from having any impact on the operational data and thereby impact the transaction and response time of the graphical user interface. There is a secondary archive outside the primary AODB database either on-premises or in the cloud for off-line data analytics.
3.3.6.17	AODB (and overall PPS) includes integration to and licenses for 3rd party flight data sources (e.g. Passur flight data, Flight View and OAG). Third party flight data sources provide, at a minimum, live flight data sources and seasonal schedules.

3.4 Resource Management System

Resource Management System schedules and manages, the following:

3.4.1 Airport Resources. The system, as designed, is capable of adding additional resources of the same type or resources of a new type which do not change the overall system design and does not adversely affect the operation of the RMS. As examples, in the future the RMS may be used to schedule video displays in IDS, or mobile devices at the Airport.

3.4.1.1	Gates, including the ability to sub-define a single gate into multiple aircraft parking 'spots' for commuter aircraft, with the ability to manage those spots as individual boarding and gate resource elements.
3.4.1.2	Aircraft parking stands.
3.4.1.3	Departure lounges.
3.4.1.4	Ticket counters.
3.4.1.5	Recheck counters.
3.4.1.6	Baggage makeup conveyors.
3.4.1.7	Baggage breakdown piers.
3.4.1.8	Baggage claims.
3.4.1.9	Other shared assets as required.

The RMS manages resources associated with flights solely from the ITB and other terminals. The software license is an enterprise-wide license and cover all additional expansion at no additional cost.

3.4.2 Rule Base. RMS includes a rule base that allows definition of SFO specific rules. The rule base is flexible enough to consider the many factors involved in assigning resources. The rule

base assist in both the planning of resource allocation and in real-time conflict resolution. RMS provides user definable rule-definitions including physical limitations (e.g., gate cannot support wide body aircraft), convenience rules (e.g., ground handling equipment location), and carrier preferences or restrictions. It also has rules for data consistency (i.e., Gate location information must be accurately represented in the RMS). The initial configuration of the rule-base was performed by Contractor in direct coordination with SFO Operations representatives. The RMS provides a simple to use and maintain graphical user interface (no programming required) for rule-based definitions. Contractor support should not be required. The rule-base is coupled with an optimization routine. The optimization routine includes the necessary algorithms to properly apply the rule-base to produce “best-fit” assignment(s).

3.4.3 RMS System Requirements

3.4.3.1	RMS has a user interface to manage data and the individual resources. The user interface provides a common look and feel for all RMS resources. Via the user interface, authorized users have the ability to select authorized resources to manage.
3.4.3.2	A color-coded Gantt chart listing each resource (e.g., gate, ticket counter, baggage make-up carousel, baggage breakdown pier) is used for each resource management. Time is shown on the horizontal axis and the resource is shown on the vertical axis.
3.4.3.3	Resource status is updated using text, color coding, and other graphical coding (e.g., flashing). The color code is user definable.
3.4.3.4	Gantt chart is capable of displaying contiguous resource allocations for multiple days. The user is able to easily and dynamically adjust the amount of time displayed from a minimum range of eight (8) hours to four (4) days.
3.4.3.5	Pan and zoom features are provided. The allows increasing/decreasing the number of resources and/or time frame displayed up/down to the maximum and minimum time frame. Pan allows the user to dynamically change the portion of the Gantt chart being displayed.
3.4.3.6	Real-time Gate allocation display provides a graphical representation of an aerial view of SFO in addition to the Gantt chart view. Gate status is updated using aircraft icons, color-coding, and other graphical coding. The user has the ability to toggle between the Gantt chart and aerial view in real-time Gate Management mode.
3.4.3.7	System provides standard templates for developing schedules and planning, including turn based templates and other operating model templates that SFO can utilize to build the custom schedule for SFO. The ability to create user definable templates is also included.
3.4.3.8	System has the ability to display both allocated resources and unassigned resources.
3.4.3.9	RMS provides standard and custom reporting capabilities.
3.4.3.10	A minimum of six (6) users are able to view resource assignments and concurrently modify allocations that are assigned to their control. Gantt chart provides an indication of which user “owns” a resource.
3.4.3.11	Various levels of access are definable and controlled based on user login. The following levels of access are provided at a minimum: ▪ View: User is able to view planning and real-time information. The user is not able to make any changes. ▪ Planning: User is only able to make changes in the resource planning mode. ▪ Real-time: User is only able to make changes in the real-time mode. ▪ Full: User is able to make changes in the planning and real-time mode. ▪ The system has the ability to limit a user’s access to a specified set of resources (e.g., gates 1-4, 9 and 10).

3.4.4 Modes of Operation. The RMS provides the following modes of operation:

3.4.4.1	Planning / Scheduling: The RMS aids in short- and long-term planning in order to prevent committing to overuse of resources, to schedule for maintenance and construction, and to evaluate future variables (e.g., passenger demand, marketing requirements) with the following functionality: - Software allows seasonal flight schedules to be available as defined by SFO staff - RMS is able to plan resources up to one year in advance. - Software provides an off-line mode for planning. - Software allows the schedule created to be saved and then retrieved later for further modifications. - Manual Planning: All resource assignments are performed manually. The system provides recommended resolutions at the user's request. The system provides warnings if any rules are violated by an assignment. - Automatic Planning: The RMS generates step by step recommended resource assignments with user confirmation required prior to committing each assignment.
3.4.4.2	Real-Time: RMS aids SFO personnel in managing terminal resources during day-to-day operations as follows: - Software responds to changes in the external data that affect the allocation of terminal resources (e.g., flight arrival time updates from AODB). - Software allows authorized users to directly input changes into the RMS (e.g., loading bridge out of commission). - Software provides warnings/recommendations or automatically adjust resource assignments based on the external system data changes and authorized user input changes. - Linked resources, (e.g. loading bridge to RIDS, Gate to GIDS), have a hierarchical relationship to follow out of commission or system warnings. - Changes to resource assignments are updated to external systems via the AODB. - Manual Real-time: All resource re-assignments are performed manually. The system automatically detects conflict conditions when changes in flight data are equipment malfunction are received, but only provide a warning. The system provides recommended resolutions at the user's request. The system provides warnings if any rules are violated by an assignment. - Automatic Real-time: The RMS automatically detects conflict conditions when changes in flight data or equipment malfunctions are received and provides recommended resolutions (in a prioritized list) requiring user confirmation.
3.4.4.3	Optimization Algorithms: RMS uses optimization algorithms. Optimization routines meet the following minimum requirements: - logically evaluate rules and provide "best fit" resource assignments; - take into account rule weighting factors; - account for all time-based information (e.g., flight arrival and departure); - have the ability to perform "what if" scenarios, e.g., a gate can be temporarily subtracted as an available gate and then optimization routines be run.
3.4.4.4	Various levels of access are definable and controlled based on user login. The following levels of access are provided at a minimum: - View: User is able to view planning and real-time information. The user is not able to make any changes. - Planning: User is only able to make changes in the resource planning mode. - Real-time: User is only able to make changes in the real-time mode. - Full: User is able to make changes in the planning and real-time mode. - The system has the ability to limit a user's access to a specified set of resources (e.g., gates 1-4, 9 and 10).

3.4.5 **RMS REST API.** RMS includes a REST API that allows third parties to integrate with all functional aspects, components and services of the RMS. The API supports both inbound and outbound calls for each functional aspect, component and service as well as all REST verbs per API. The RMS makes all its data and services available to the AIIS infrastructure and shall organize the data according to the Airport's domain structure.

3.4.6 **Interface/Integration Requirements**

3.4.6.1	RMS interfaces with other systems. Some systems may use a direct interface (e.g. AODB). The preferred method of integration is through the AIIS with REST API. No migration, duplication, or integration from the current AODB/RMS systems is required.
3.4.6.2	RMS receives all flight updates and flight schedules (both real time and seasonal) from the AODB. No flight data will be accepted from other systems.
3.4.6.3	RMS sends all resource reference data and resource allocations directly to the AODB. AODB is responsible for updating all systems that need the data and publishing that data on the AIIS. ▪ Gate assignment changes are distributed to IDS and BHS through the AODB ▪ Baggage claim assignments are sent to IDS and BHS through the AODB ▪ Baggage make up and breakdown assignments are sent to BHS through the AODB ▪ Ticket counter and gate allocations are sent to SUS through AODB.
3.4.6.4	RMS interfaces with SUS system to ensure Airlines can only log onto shared use workstations during the time slot they have been allocated those resources; airline agents are automatically logged off shared use workstations when their time slot expires unless they call asking for exception. A 15-minute notice of time remaining will be sent to the shared use workstation by RMS when time is to expire.
3.4.6.5	RMS interfaces with video surveillance system (CCTV) so that if operator clicks on a gate, the camera feed of that gate is displayed on a nearby monitor.

3.5 SITA Smart Path

3.5.1 SITA Smart Path Service expedites the boarding of international outbound flights using biometrically enabled FacePod devices integrated with the U.S. Custom and Border Protection (CBP) Traveler Verification Service (TVS) Unique Identifier (UID). During the passenger's check-in process, the passenger's facial image is sent to the CBP TVS, and upon receipt of the UID, the UID is linked to the passenger's boarding pass data. SITA Smart Path uses Biometric Facepod devices, Smart Path Hub software, and other 3rd party software to provide an integrated Service for the City.

3.5.2 SITA's Smart Path Service allows international airlines operating in SFO to board their passengers using one of three boarding modes:

3.5.2.1 1-step / Biometric Mode – If an airline's application and Departure Control System (DCS) supports the UID data format from the TVS, then the FacePod Boarding Gate Reader (BGR) will operate in Biometric Mode. Biometric Mode requires only the passenger's face to be captured for boarding, and no boarding pass;

3.5.2.2 2-step / Hybrid Mode – If an airline's application and DCS cannot support the UID data format, and if the airline still prefers to use the TVS for passenger verification, Hybrid Mode requires passengers to scan both their boarding pass and their face during the boarding process. If the TVS returns the UID, the barcode data from the boarding pass is sent to the airline's DCS. Using the hybrid mode will ensure that 100% of the airlines at SFO's International Terminal may use TVS for passenger verification, even where an airline's DCS lacks the UID supported application;

3.5.2.3 BGR Mode – If an airline chooses to opt out of the biometric service provided by the TVS or it cannot support the UID data format, the FacePod can be configured in the standard BGR mode whereby passengers are required to scan their boarding pass to board the aircraft. Passengers may use the integrated barcode scanner within the SITA FacePod device, or the existing BGR device at the existing gates.

3.5.3 SITA Smart Path Biometric Hub is the central interface and gateway between all FacePods and the CBP's TVS. This configuration requires only one network connection from SFO to the CBP's TVS to simplify network communications. The connection between the Smart Path Hub and the TVS will be via a SFO-provided Internet service. The connection between the FacePod and the Smart Path Hub will be via a hard-wired LAN connection provided by SFO.

3.5.4 The SITA Smart Path Hub forwards the passenger's facial image taken on the FacePod devices to CBP's TVS and between the TVS and the airlines' DCS. Smart Path Hub performs the following functions:

3.5.4.1 When the Smart Path Hub receives a passenger's facial image from a FacePod, it forwards the image, along with the flight number and flight date, to the TVS. The TVS will either reply with the TVS UID, confirming that the passenger has been cleared for travel, or a rejection message is issued.

3.5.4.2 The Smart Path Hub then sends the UID or the rejection message to the airlines' DCS for processing. The airlines' DCS will return the boarding status to the Smart Path Hub.

3.5.4.3 Each airline is responsible for providing the boarding application installed on the Common Use platform, which is connected to the airline's DCS. SITA provides the TVS's UID data via the existing BGR API, defined by the IATA Peripheral Technical Specifications.

3.5.5 Prior to the execution of this Agreement, SITA's SmartPath Hub software resided within the SFO on-premises server infrastructure. After the execution of this Agreement, Contractor will perform a migration of the SmartPath Hub server software to the SITA cloud/off-premises server infrastructure. The work will begin upon agreement with the City. No additional hardware is required for this migration. There are no additional charges to the City to complete this migration.

3.5.6 Responsibilities - Contractor

3.5.6.1 Provide technology to perform facial image capture and facilitate transmission the CBP TVS per CBP's specifications on the airlines' behalf, as communicated from the Airport

3.5.6.2 Provide a pass-through service to the Airport, retaining no data, including but not limited to facial images or CBP TVS response transmissions, and excluding log-files (i.e., files that record either events that occur in an operating system or other software rules, or messages between different users of a communication software), unless explicitly agreed among the Parties;

3.5.6.3 Not store or process any photo captured or matching response from CBP beyond the intended purpose of processing travelers for boarding;

3.5.6.4 shall perform the obligations of a systems integrator as provided in the CBP Business Requirements Document (BRD) in effect at the time of this Agreement. Following the BRD, passenger biometric data shall be deleted in accordance with the BRD; and

3.5.6.5 Comply with all applicable federal, state, local laws and regulations, including but not limited to CBP specifications, regulations and requirements.

3.5.7 Responsibilities – Airport/City

3.5.7.1 Obtain and maintain authorization from CBP to operate the Solution throughout the term of this Agreement;

3.5.7.2 Update SITA of any changes in specifications from CBP relating to the Solution, which changes are provided to the Airport by CBP;

3.5.7.3 Promptly update SITA regarding any changes in the Airport environment, CBP requirements or other such changes that could affect the Solution;

3.5.7.4 Permit the airlines to use the Solution only to facilitate CBP's TVS processing per CBP's technical specifications and/or the airline boarding process;

3.5.7.5 Not store or process any photo captured or matching response from CBP;

3.5.7.6 Comply with all applicable federal and state laws and regulations, including, but not limited to CBP specifications, regulations, and requirements.

3.5.7.7 City will perform the obligations of the business sponsor as provided in the BRD in effect at the time of this Agreement and shall engage with the participating airlines to ensure Smart Path usage agreements are in place.

3.6 Existing SFO Infrastructure

Existing SFO LAN consists of the following key elements relevant to the PPS Project:

3.5.1 SFO's Data Center. SFO's Data Center operates as a multi-tenant IP fabric architecture, utilizing Ethernet VPN-Virtual Extensible LAN (EVPN-VXLAN) overlay Juniper network, which supports the passenger processing system. The Data Center is a subset of the overall campus LAN network.

3.5.2 Campus Distribution LAN. Campus distribution LAN is responsible for connecting the end user devices to the Passenger Processing headend through the Data Center network. The SFO campus LAN is a Juniper network switches spread throughout the terminals and boarding areas in Special Systems Rooms (SSRs). The current LAN topology supports Virtual LAN (VLAN) and VRF (Virtual Route Forwarding) for network segregation up to the edge access switch devices. The existing LAN switches consist of a Core, Distribution and Access Layer three-tier topology.

3.5.3 Server Hardware. The current SFO ITT standards are the Dell PowerEdge R750 rack server system. The PPS Project procured a standalone R750 server environment to host the PPS software, databases, interfaces and applications servers. The number of R750 servers were sized as necessary to support the planned rollout and future capacity requirements of the Passenger Processing System.

3.5.4 Storage Hardware. The current SFO ITT standards are the Dell PowerStore series storage system. The PPS Project procured a standalone PowerStore storage environment to host the PPS software, databases, interfaces and applications servers. The number of PowerStore storages were sized as necessary to support the planned rollout and future capacity requirements of the Passenger Processing System.

3.5.5 Backup/Archive Software. VM and machine backups are to be supported by the Contractor using SFO existing backup/archiving solution. SFO currently uses Rubrik. Any changes to SFO's backup software may incur integration effort by Contractor.

3.5.6 Campus Wireless. As an extension of the SFO campus LAN, SFO ITT provides a wireless network in the terminal and boarding areas that supports the operational requirements for the PPS platform using wireless connectivity for mobile devices.

3.5.7 Airline Data Feed Network. Airlines are currently able to provide data feeds directly to the PPS and IDS platform in one of three ways:

3.5.7.1 SFO ITT provides a circuit from the back office of an airline tenant to the headend of the Shared Use Passenger Processing System and Information Display System over the SFO ITT transport network either as an Ethernet handoff or as a Time Division Multiplexing circuit. This is known currently as a Common Use Network Access (CUNA).

3.5.7.2 SFO ITT delivers an extended Telco circuit that is terminated in one of the SFO Main Points of Entrance (MPOE) facilities and hands it off to the PPS and IDS headend for connection.

3.5.7.3 Third party airline data feed providers, (such as OAG, Sabre, Passur and Flight View), provide an aggregation point connection to the headend of the PPS and IDS platforms. This aggregate handoff would still ride the SFO ITT transport or LAN networks to arrive at the Data Center facility where the PPS and IDS headend reside.

3.5.8 Horizontal Cabling. SFO ITT provides support for all horizontal cabling required for the PPS and IDS. The existing cabling throughout the terminals and Airport campus is a mix of Cat5/5e in the ITB and Boarding Area's A and G, Cat 6 in Terminal 3 and Terminal 2, and Cat6A in HMT1. Each device for the current PPS and IDS systems are connected using Airport-provided cabling back to an SSR.

3.5.8.1 Throughout the terminal buildings, the condition of cabling varies. The ITB has an older horizontal cable plant comprised of a mix of Category 5 and 5e cabling with Amphenol connectors using 66 block punch downs in the SSRs. These locations currently support the SITA PPS and IDS systems, and existing cabling shall be used in all locations.

3.5.8.2 Terminals 2, 3 and HMT1 use Cat 6 or above connections going to rack based patch panels. All cabling in these terminals is 10/100/1000 rated. Current cabling in the ITB is capable of supporting varying transmission speeds. The other Terminals and boarding areas are capable of supporting 10/100/1000Mbps speeds.

3.6 Description of Existing LAN

The existing SFO LAN consists of four key elements related to the IDS project:

3.6.1 Data Center Network. SFO's Data Center operates as a multi-tenant IP fabric architecture, utilizing Ethernet VPN-Virtual Extensible LAN (EVPN-VXLAN) overlay Juniper network, which supports the passenger processing system. The Data Center is a subset of the overall campus LAN network.

3.6.2 Campus Distribution LAN. Campus Distribution LAN. Campus distribution LAN is responsible for connecting the end user devices to the Passenger Processing headend through the Data Center network. The SFO campus LAN is a Juniper network switches spread throughout the terminals and boarding areas in Special Systems Rooms (SSRs). The current LAN topology supports Virtual LAN (VLAN) and VRF (Virtual Route Forwarding) for network segregation up to the edge access switch devices. The existing LAN switches consist of a Core, Distribution and Access Layer three-tier topology.

3.6.3 Airline Data Feed Network. The AODB receives all flight information from airlines. The AODB integrates with the IDS across the AIIS. Airlines are currently able to provide data feeds directly to the AODB platform in one of three ways:

3.6.3.1 SFO ITT provides a circuit from the back office of an airline tenant to the headend of the new AODB System over the SFO ITT transport network either as an Ethernet handoff or as a TDM circuit.

3.6.3.2 SFO ITT delivers an extended Telco circuit that is terminated in one of the SFO MPOE facilities and hands it off to the AODB headend for connection.

3.6.3.3 A third-party airline data feed provider, such as OAG, SITA or SABRE provides an aggregation point connection to the headend of the AODB platform. This aggregate handoff would ride the SFO ITT transport or LAN networks to arrive at the Data Center facility where the AODB headend resides.

There may be a need for airlines to interface directly with the IDS for other than Flight Information (e.g. GIDS display of destination weather, standby lists, upgrade lists). Airlines may connect to the IDS through the same methods described above, but Flight Information will only be received from the AODB.

3.6.4 Data Center Conditions: The current headend of the IDS is located in two different rooms in the ITB. The current headend of the PPS is a split core, high-availability VMWare platform installed in the SFO Data Center and the SFO-t3 Core Room. Contractor's IDS virtualized IDS headend servers will use this VMWare platform.

3.6.5 On-Premises Solution. On-Premises Solution: For on-premises solution, servers are physically located in the SFO Data Center(s), and use SFO-provided equipment cabinets. Contractor utilizes SFO networking equipment, and coordinates with SFO ITT staff for the configuration of this equipment. The Contractor may add networking equipment required for the security and overall operation of the PPS, which is segmented off and isolated from SFO's network to enable Contractor's external services. It is the City's responsibility to replace any hardware which becomes unsupported by the original equipment manufacturer (OEM). To the extend the Contractor is made aware of unsupported dates by the OEM, then the Contractor will advise the City and the Parties will agree on any needed actions.

3.6.5.1	All applications reside on virtualized servers in the Data Center. Contractor built its own VM infrastructure including VMware licenses.
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3.6.5.2	For the on-premises hosted solution, the server hardware is the property of SFO but it will be managed and maintained by the supplier for the life of the contract.
3.6.5.3	Server Hardware. The current SFO ITT standards are the Dell PowerEdge R750 rack server system. Standalone R750 server environment to host the PPS software, databases, interfaces and applications servers have been installed. The number of R750 servers were sized as necessary to support the planned rollout and future capacity requirements of the PPS.
3.6.5.4	Storage Hardware. The current SFO ITT standards are the Dell PowerStore series storage system. Standalone PowerStore storage environment to host the PPS software, databases, interfaces and applications servers have been procured. The number of PowerStore storages were sized as necessary to support the planned rollout and future capacity requirements of the PPS.
3.6.5.5	Backup/Archive software – VM and machine backups are supported by the Contractor, using SFO existing backup/archiving solution. SFO currently uses Rubrik. Any changes to SFO's backup software may incur integration effort by Contractor.
3.6.5.6	COTS Software ▪ VSphere – Server systems were built in a VSphere Enterprise environment. Any Virtualization of Server or workstations follows the most recent version as released by VMWare. ▪ VMotion – Systems support VMotion using the VMWare platform. The most recent version as released by VMWare is used. ▪ Virtual Load Balancer – Load balancing was completed via the SFO ITT managed load balancer for client and workstation connections. Virtual load balancing of the application loads in the VMWare environment are being managed by the PPS application or by the VMWare management interface. ▪ Backup/Archive software – VM and machine backups are to be supported by the Contractor, using SFO existing backup/archiving solution. SFO currently uses COMMVAULT. Any changes to SFO's backup software may incur integration effort by Contractor. ▪ Anti-virus – Antivirus shall be supported by the Contractor, using SFO existing Anti-virus solution. ▪ Remote Access – Remote system access via a VPN connection shall be supported and provided by SFO ITT, at no additional charge to Contractor. ▪ Imaging Software - Contractor shall provide the imaging software used for machine and system imaging and replication. ▪ Database Software – MS SQL full versions of software are acceptable. ▪ LAN and System Management – All Passenger Processing Systems shall be fully monitored and managed by Contractor. Contractor shall allow integration of the Airport's current network and system monitoring software solutions into the Passenger Processing systems and servers to be determined in the SDD. SFO shall have the ability to integrate the current Airport LAN and systems monitoring solutions (Solarwinds and Nagios) into the PPS platform for internal help desk and support monitoring. This monitoring will not supplement or replace the monitoring solution provided by Contractor to monitor the overall health of the PPS systems. For off-site solutions, the Airport requires the ability to monitor off-site application and system health via VPN or other secured network data transmissions. ▪ OS Software – Operating Systems (OS) software shall be supported by Contractor. Any OS software upgrades from Microsoft on existing workstations, if needed, shall be purchased by SFO, including any Key Management Service for license activation. Contractor shall coordinate with SFO at the time of procurement for new workstations to follow the Airport's current standard and OS solution.

3.6.6 Off-Premises Solution. For off-premises hosted solutions, Contractor must support the same types of COTS software requirements (Backup/Archive software, Antivirus, Remote Access, Database Software, and System Management) but on hardware of its choosing. Contractor may select servers of their choosing as long as the PPS system meets all performance criteria.

3.6.7 Shared Use System Hardware (Workstations and Peripherals). New shared use system hardware deployed during this Agreement must meet the specifications defined in this section. SFO desires new hardware to have long, efficient service life. General requirements for all hardware (unless explicitly specified below are):

- 3.6.7.1 Must accept power of 115VAC +/- 10%;
- 3.6.7.2 Must operate within temperature range of +5°C to +40°C;
- 3.6.7.3 Must operate satisfactorily after storage within temperature range of -20°C to +50°C;
- 3.6.7.4 Must be UL listed;
- 3.6.7.5 Must be FCC approved;
- 3.6.7.6 Must be PCI DSS compliant as applicable to payment card processing;
- 3.6.7.7 Must support download of new firmware/software with authentication of source;
- 3.6.7.8 Must operate satisfactorily in 40 % to 80% non-condensing relative humidity; and
- 3.6.7.9 Must have one (1) year manufacturer's warranty.

3.7 PPS Logging and Reporting Requirements

All applications of PPS system include a logging and reporting function that allows SFO system administrators to generate, format, and print reports on various aspects of the system's operation and performance. Report data is limited to the information logged/archived by the application. Logged data will be maintained on the systems for six (6) months and then archived on a monthly basis. All logged data shall be accessible to the Airport to view within Contractor's system, and must be accessible by the Airport utilizing a REST API.

3.7.1	Audit Trail: ▪ All applications will provide for an audit trail of all communications sent and received between systems, alerts and system events and failures. ▪ All logged items will be time stamped and tied to user-id. ▪ All activity logs will be maintained in the system for a minimum of 60 days. Logs will be archived after the agreed upon period. ▪ AODB/RMS must have the ability to display entire chronological history of a flight or resources with audit trail of all entries with time stamp and user id. ▪ PPS must keep an audit trail and store the history of usage data.
3.7.2	Reporting: ▪ Reporting function shall allow application operator to select the data in the reports to produce customized reports, to display the reports on the client workstation, to send the reports to an attached printer, and to save the reports. ▪ Applications must be capable of running reports on demand or automatic report generation based on predefined parameters. ▪ Standard reports will be defined during the requirements validation phase as applicable to the systems within the PPS. At a minimum, the reporting function shall include the following types of reports, subject to the availability of such data to the Contractor's systems:

	• flight summary – summary report of all flights, selectable by date/time range; • flight detail – detail report of one or more flights, chronological activity timeline, selectable by date/time range; • resource Usage report - summary report showing all resource history/utilization for a resource, selectable by date/time range; and • resource details/history, selectable by date/time range. ▪ Report access shall be based on operator permissions to access the report data. ▪ Applications shall provide the ability to maintain distribution lists for standard reports. ▪ Applications shall provide the ability to view output before printing. ▪ Contractor shall submit a Monthly Quality of Service (QOS) report. At a minimum, the QOS report must contain the following for each application: • Summary of Alerts/Events Log; • Head-end Hardware Maintenance Log (Failed components by system and MTBF); • Software changes occurring that month (e.g. application, Airline apps, COTS); and • System Availability Calculations: Total availability for the month, Types of failures, Time of day of failures and, Duration of failures. ▪ Performance metrics report as specified in the performance requirements. ▪ Where Contractor provides the above-mentioned reports, Contractor will provide access to the data, where available, in coordination with SFO.
3.7.3	Search Capabilities. The following search capabilities shall apply only to the AODB/RMS: ▪ All applications will support ad hoc query and reporting capability, limited to the information logged/archived by the application, with the ability to build and save queries and reports for future use. ▪ System shall provide search capabilities on all flight records. ▪ System shall provide search capabilities on all resource records. ▪ System shall provide search capability based on flight number. ▪ System shall display search results in a tabular structure that supports sorting results based on date/time, airline, resource type, or flight number. ▪ System shall display all flight/resource record details upon request by authorized users.
3.7.4	Executive Dashboard Requirements. The following executive dashboard requirements shall apply only to the AODB/RMS: ▪ The application shall provide supervisors with dashboard that indicates the overall daily operational status. ▪ System shall allow Supervisor to customize the dashboard data configuration and layout. ▪ Dashboard shall include performance data such as number of flight delays, number of cancellations, number of resource assignment changes related today of operation and over defined periods of time. Must be able to sort by airline, or resource type. ▪ The LDCS shall allow the airline station manager or supervisor to: • prepare schedules for seasonal and annual flights • integrate passenger lists received under various formats; and • create reports for business and operational analysis. ▪ LDCS shall allow airline agents to: • check-in passengers and issue boarding passes and bag tags; • graphically manage the seat allocation to passengers at the time of the boarding; • board the passengers with optical reading of boarding passes; • open boarding while the check-in is not yet closed with the automatic update of the passenger's file; • conduct transactions required for excess baggage and weight charges; • process local origin and transit baggage; and

	• conduct passenger and baggage reconciliation between checked-in and boarded passengers with automated alerts and links to the specific baggage information and bag tag reference for errant or incomplete reconciliation data. ▪ LDCS shall be launched by users from the standard shared use desktop interface with authenticated and authorized login and password. ▪ LDCS shall maintain passenger status (e.g. boarded, not boarded) for each departing flight and update it as passengers board. ▪ 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. ▪ LDCS shall interface with all SU peripheral devices including 2D Bar Code Boarding Pass Printer, BTP, document printer, MSR/OCR, and 2D Bar Code Scanner. ▪ LDCS shall maintain data associated with a departed flight on-line for a configurable period of time. LDCS shall be sized to maintain data for a minimum of twenty-four (24) hours for each departed flight. ▪ Reports and queries shall be able to be generated at any point from the time boarding is begun until the LDCS flight data is purged for that flight. A method for sending any or all of these reports via fax and/or email enclosure, to a remote office on or off network shall be available to the user. LDCS shall provide the following information (as a minimum): • flight manifests; • flight closure report; and • an audit trail of errors encountered during the boarding process. ▪ Every SU workstation shall have the ability to run the LDCS. These workstations shall be fully functional SU workstations. A simple pointing device or keyboard action shall allow the agent to switch between the LDCS and any other available applications. ▪ LDCS shall include the following functionality as a minimum: • provide seat configurations for each aircraft type; • ability to add or cancel passengers; • ability to check-in a passenger or group of passengers; • record number of bags per passenger; • address single sector flights; • address single class; • ability to handle charter and domestic flights; • issue (and cancel) bag tags, boarding passes, and itineraries on demand using the shared use peripherals; • provide ability for manual bag tag number recording; • provide split seating of groups; • ability to handle standby passengers; • seat selection and assigning; • storing of seat preferences; and • provide aircraft operation information.
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4 INFORMATION DISPLAY SYSTEM

The IDS is a special system that allows for multiple communication channels or groups to be able to provide messaging and display content to groups of audience with useful information about the Airport. This multi-functional digital signage system supports Airport specific display functions for flight and gate information, baggage, airport wayfinding, visual paging and other display functions such as: marketing information, emergency announcements, full motion videos and animated displays. The IDS interfaces with other special Airport systems such as, the PPS, RMS, AODB, public address system, etc. to provide passenger information and messages throughout the Airport.

The Contractor's IDS software provided under this Agreement is AirportVision 7.x.

4.1 IDS Hardware

4.1.1 The existing displays include SHARP/NEC Professional (P) Series monitors rated for 24x7 operation and minimum 1920x1080 resolution in 46" and 55" size as well as LG Business Solutions 88" with a minimum 3,840x1080 resolution minimum display brightness of information displays installed shall be 700 NITS. Public information displays are not required to comply with EnergyStar.

4.1.2 Existing Manufacturers are:

- SHARP/NEC Display Solutions Professional (P) Series
- Daktronics LED Displays
- LG Business Solutions

4.1.3 Existing Digital Device Controllers are Dell OptiPlex 3050/60/70/80 Micro desktop as follows:

- Intel Core i5-7500T
- 8GB DDR4
- 500 GB Solid State Drive
- Windows 10 Pro 64

4.2 IDS Displays and Formats

IDS will support the types of displays and formats as indicated in the Table 5 below.

4.2.1 IDS supports any type of display (e.g. LED, LCD, flat panel, video wall, touch screen).

4.2.2 IDS supports a "zero client" architecture, which allows the system to use HTML5 for display of data on displays. This architecture allows displays to operate without a dedicated DDC.

4.2.3 The information displayed on the video monitors for the IDS varies depending on the monitor's location and function; however, all monitors have the capacity to display all types of information (except those requiring interactive touch screens).

4.2.4 Fonts: The IDS is able to display screens in a variety of fonts including one ADA recommended font. The fonts are managed from a central user interface, and the IDS are able to update fonts across all displays without the need to configure each individual display. SFO Font should be used when directed.

4.2.5 Colors: The user is able to specify the colors to be used in any screen format from a palette of no less than 65,000 colors.

4.2.6 Graphics: The user is able to specify graphic images to be used within a video monitor display format.

4.2.7 Multi-language: System is capable of displaying multiple language alphabet and characters including right to left reading characters.

4.2.8 Display configuration: The System supports the display of all screens both horizontally and vertically on the display devices.

4.2.9 Video Clips: A variety of video clip formats are supported including AVI and .mp4 formats. FLASH must not be used for Video Streaming.

Table 5 - Display Types (As of December 2024)

IDS DISPLAYS	ITB	T1	T2	T3	GARAGES/ HOTEL/ MISC	TOTAL
Flight Info (FIDS)	185	174	93	86	34	572
Counter Info (CIDS)	239	144	57	0	0	440
Baggage Info (BIDS)	92	24	31	33	0	180
Gate Info (GIDS)	109	144	38	2	0	293
Wayfinding (WF) & Dashboard Master Clocks	31	61	30	9	0	131
Visual Paging (VP)	63	27	32	30	0	152
Curbside (Outdoor IDS)	0	18	10	0	0	28
Info Booth	4	2	1	3	0	10
LED	28	0	26	0	0	54
Ramp Info (RIDS)	28	43	4	7	0	82
Security Checkpoints (TSA info. and Xovis)	12	10	6	6	0	34
MISC. (Marketing, Lab, Maint, etc.)	6	0	0	0	0	6
TOTAL DISPLAYS	797	647	328	176	34	1982

4.3 IDS Formatting Requirements

The IDS system has an easy-to-use Graphical User Interface (GUI) for creating and managing display layouts and page editing and be capable of storing any number of page formats. IDS workstations are capable of importing display formats. The user interface facilitates interaction with the application and easy management of data and system using keyboard and pointing device.

The IDS allows both automatic and manual modification of text, graphics, and other data on the IDS display screens. Screens post information based on rules predefined for each display type and information received from the database, or manual updates to the information made from IDS workstations.

Contractor shall support all required screen formats and template designs. All formats shall be reviewed by SFO prior to implementation in the production environment. SFO manages and controls all displays.

Table 6 – Format Requirements

4.3.1	Screens shall display local time of day using the SFONet Network Time Protocol.
4.3.2	Airport logos and graphics information shall be stored and available within the system for use on various screens and screen template building.
4.3.3	Contractor shall provide customizable video page display formats with software tools to allow creation and editing by SFO via IDS workstation (GUI).
4.3.4	Using business rules internal to the information display system, the IDS must be capable of automatically displaying contents in appropriate languages based on flight destination.
4.3.5	IDS must perform automatic and immediate change of flight information displayed (e.g. gate change, flight delay, etc.) when received from AODB.
4.3.6	IDS must be capable of displaying check-in counter status above check-in counters (e.g. open, closed, first class, economy, etc.).
4.3.7	IDS must be capable of displaying at remote locations such as. hotels, parking garages car rental locations, etc.).
4.3.8	IDS displays should be grouped into zones (geographic areas) and/or categories (gates, ticket counters) whenever possible. Display formats can be assigned to zones or categories of displays.
4.3.9	<u>Multiple Formats/Split Screen:</u> The IDS is capable of displaying multiple formats on a display device using all of the following methods: ▪ A "split screen" where some data is shown in one defined screen section and other data is shown in a separately defined screen section. An example would be a video monitor displaying flight data for a specific airline with limited flights, with Arriving Flights shown in the upper half of the monitor and Departing Flights shown in the lower half of the monitor. ▪ Multi-Screen where content is scaled to display across multiple screens. A video wall would be an example where a single display format may span multiple displays. IDS must have the ability to synchronize multiple displays together for continuous viewing of content. ▪ A display device that has been designated to display certain formats in a rotating fashion. For example, Format 'A' would be shown for a user-defined number of seconds, then Format 'B' would be shown for a user-defined number of seconds, then repeat. Rotating formats shall allow up to eight (8) different formats to continuously cycle.
4.3.10	<u>User-Defined Parameters and Triggers:</u> An authorized user is able to specify a number of parameters or "triggers" that define how and when data will be displayed using any specific display format (e.g., color change, text appear/disappear, graphic appear/disappear, font change). Contractor shall maintain the following parameters or triggers already included as part of the IDS: ▪ Length of time a flight is displayed with a "DEPARTED" (or similar) status after the flight has actually departed. This shall be definable both on a system-wide basis, and on an airline-specific basis. ▪ Length of time before a flight arrives to display the arriving flight information. This function shall be definable both on a system-wide basis, and on an airline-specific basis. ▪ For flight departures, the user shall be able to specify how long before departure time the flight status changes to "Boarding" and/or "Final Boarding" This function shall be definable both on a system-wide basis, and on an airline-specific basis. ▪ In conjunction with this trigger, there shall be a parameter, changeable by the authorized user, which indicates whether to use this automatic timing feature, or to require manual input from an authorized user. ▪ For flight arrivals, the user shall be able to manually specify the amount of time before the flight actually arrives that the flight status changes to "In Range" and/or

	"Landing," and finally "At Gate."
4.3.11	<u>Sort Order</u>: Where there is more than one data record being displayed, the user shall be able to specify the sort order for data being displayed. ▪ The user shall be able to specify either ascending or descending order, with the default being ascending order. ▪ The IDS shall have the capability of specifying multiple fields for the sort and to select the sort priority of each field. If more than one field is specified, each may be designated as either ascending or descending order.
4.3.12	The authorized user shall be able to view the name of the format that is currently being displayed on any display device by accessing the particular record in the IDS GUI. When the user makes a change to the format being used by that device, the device shall use the new format immediately.
4.3.13	No shutting down or rebooting of any equipment shall be required in order to change the format being used on any screen.

4.4 IDS Integration Requirements

4.4.1	The IDS is integrated with the AODB. IDS receives all flight data and resource allocation data from the AODB, using the Airport's AIIS solution or a direct integration with the AODB.
4.4.2	AODB integrates with all sources of flight data and resource allocations that will be displayed by IDS.
4.4.3	No flight information can be modified manually from the IDS. All flight information updates must be entered through the AODB.
4.4.4	IDS receives resource allocations (e.g. gate assignments, baggage claim assignments, etc.) from the RMS through an interface with the AODB across the AIIS or through a direct integration. When resource allocations change, they are transmitted to IDS in real time and the displays must be automatically updated.
4.4.5	<u>Websites</u> . IDS are capable of interfacing with external websites and support REST API's and XML data feeds to receive data such as: Weather, Maps, Promotional material content (including full motion video), Twitter posts, Facebook posts.
4.4.6	<u>Queue Management System</u> . Queue wait time is received from the Airport Queue Management System (QMS) into the IDS for display, over the AIIS infrastructure or directly to the QMS.
4.4.7	<u>Airline Feeds</u> . IDS support the real-time dynamic feed directly from an airline host system if desired, or across the AIIS. This feed provides graphic content generated by the airline for display on a local approved display monitor. Flight data will come from AODB.
4.4.8	<u>Public Address System</u> . IDS interfaces to the public address system(s) to receive pages, which are projected on the visual paging displays. SFO currently supports an IED paging system.
4.4.9	<u>Ground Transportation Systems</u> . IDS is capable of interfacing with ground transportation systems such as AVI and Air Train to receive schedules for trains and buses for display in appropriate locations.
4.4.10	<u>Shared Use System</u> . IDS is capable of receiving an airline ID from a gate or ticket counter workstation in order to control back wall signage content.
4.4.11	<u>Other Applications</u> . IDS is capable of interfacing with other applications through an API across the AIIS or directly as necessary. Applications may include mapping, weather, wayfinding and others as necessary.
4.4.12	<u>Local Files</u> . IDS is capable of importing and exporting files from administration workstations, including static and video files. IDS must be capable of storing video and

	photographic archives for possible display. User will be able to extract files from archives for display as necessary.
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4.5 IDS Functional Requirements

- **Flight Information Displays**
 - The IDS displays all required flight information from data received from the AODB. This includes arrival times, departure times, cancellations, departure gate, destination city, flight number, etc.
 - The IDS fully support all code share flights and provide mechanisms for displaying the appropriate code share information on public displays. In addition, the system does not require duplicate entry of information for code share flights (i.e. a single data input will update multiple flight records where code sharing exists).
- **Baggage Information Displays** BID displays airline, specific flight number and originating city for bags arriving on baggage claims.
- **Gate Information Displays**
 - GID displays flight information specific to the respective airline and flight departing from that gate.
 - Airlines have the ability to enter message into the display content at the GID to show boarding information.
- **Ramp Information Displays.** RID provide flight specific information, flight arrivals and departures to LED RIDS signs that Contractor will provide and install on the exterior of the building at each gate. Contractor will provide and install a smaller tri-color LED sign within the loading bridge at each gate, which will be fed from the IDS system.
- **Counter Information Displays (CID).** CIDs display ticket counter status and identify check-in positions on these displays (e.g. open, closed, First Class, Economy, etc.).
- **Baggage Input Consoles** are connected to and controlled by the AODB. All BICs are IP addressable and use an Ethernet protocol to communicate with the AODB servers. Contractor shall specify any specific BIC protocol requirements that deviate from the IP protocol. Using a keypad, ground operator/baggage handlers shall indicate which flight is being unloaded onto the specific baggage carousel. The IDS do not allow the operator to specify a flight that is not an arriving flight contained in the current day's active flight schedule. Data entered by BIC will be passed to IDS by AODB for display.
- **Ramp Area Information Displays.** Ramp area workers have the ability to refer to information displays in baggage makeup areas and other apron locations which display baggage related data and information.
- **Weather.** IDS is able to draw weather information from external websites and display weather for destination cities or local weather.
- **Baggage Claim Directory Screens.** The displays located in the baggage claim area display flight baggage carousel assignments. These assignments are determined by the RMS and verified prior to unloading baggage by inputting the flight assignment into the Baggage Input Consoles.

- **Airline Directory Screens.** Ticket counter assignments can be placed on displays located in the departure hall that indicate what ticket counters are assigned to each airline for checking in passengers on their flights. These assignments shall be determined by the RMS.
- **Curbside Displays.** IDS control static displays at curbside indicating airlines and airline logos.
- **Ground Transportation Displays.** Displays in arrival hall, ground transportation areas indicating bus schedules and/or air train schedules. These displays also provide wait times for taxis, TNCs and other transportation modes. Airport provides the data feeds for such information.
- **Bag Drop Location Screens.** Static images are placed on displays in Departures Hall indicating location of bag drop or self-service bag drop locations.
- **Queue Wait Time Screens.** Displays in Security Checkpoint areas indicating wait times to get through security. Airport provides the data feeds for such information.
- **Train Information Display –** Located on the AirTrain station platform for providing digital content of rail operations such as Next Train Arriving, Doors Opening/Closing, etc.
- **Platform Information Display –** Located in the AirTrain station for providing wayfinding information to riders.
- **Emergency Messages.** The IDS has the capability to do all of the following:
 - Define emergency messages and check spelling,
 - Display emergency message on a single screen or group of screens,
 - Quickly and easily configure emergency messages to allow near immediate reaction to emergency events,
 - Support State of California Missing Alert Plan such as AMBER, Silver, Blue, etc.
 - Remove emergency messages on demand.
- **Visual Paging.** IDS displays have the capability of accommodating visual paging for hearing impaired passengers throughout the SFO terminals. The IDS provide delivery of messages on visual media to augment audio messages from the public address system. Local displays such as GIDs are capable of supporting visual paging for their local audio paging zone in the gate rooms. Additional visual paging requirements include:
 - Every IDS display is capable of displaying visual pages. IDS includes select display locations dedicated to visual paging.
 - Interface with Paging Systems: The IDS interfaces with the audio paging systems in SFO. The Contractor developed an interface that receives audio pages from the paging system and converts them into text for display on the visual paging displays.
 - Automatically display messages to passengers when triggered by defined events (e.g. gate changes, canceled or delayed flights).
 - From the IDS client, an authorized user is able to manually enter the following passenger paging information into the system:
 - Name of person that paging message is intended to reach Minimum of 30-character name field is required.
 - Message Contents: Information is manually entered into the IDS client and allows two options:
 - 1) Message logged into the IDS and posted to the display as a link to the intended recipient's name. (Name/Message), or

- 2) Message is logged for recall by operator and a generic message instructing the intended recipient to call the Airport paging office.
- Information Page: Authorized operators have the ability to enter free text message or pre-prepared message. Contractor provides a minimum of 35 pre-prepared messages for SFO approval to initially populate the Visual Paging Module. A mechanism for adding and updating pre-prepared messages shall be provided by the Contractor.
- Visual Paging Display Zones: The Visual Paging Module provides the authorized operator with zones for grouping displays the visual paging name, or name/message. Zone creation shall require SFO approval. Zone assignments are modifiable via a device assignment table or interface.
- Paging Queue Requirements
 - The paging operator screen allows the user to select the duration of a specific message.
 - Queue Priority: The visual paging software supports a minimum of four priority levels for visual paging messages. The priority levels were developed with collaboration with SFO. These levels are defined as follows:
 - 1) High Priority: Display high priority messages alternately with messages of normal priority.
 - 2) Normal Priority: Display in sequence with all other messages of normal priority.
 - 3) Low Priority: Display only when no messages of higher priority are active.
 - 4) Emergency Priority: Display message and override all other messages until reset.
 - 5) For Normal and High Priority messages, minimum display time for each message cycle shall be configurable from 1 second to 120 seconds when no Emergency Message is present in queue. Normal Messages shall default to 10 second display cycle and High Priority Messages shall default to a 15 second display cycle.
- **Multimedia Manager.** The IDS system provides a multimedia manager to control marketing content on monitors and video walls, including:
 - Content scheduling and control on IDS or dedicated displays,
 - Control of video walls and ability to aggregate display from one to all,
 - Support of full motion and static content,
 - An import feature for loading new promotional material content,
 - Dynamic content routines based on time, location, arriving flight origin, and departing flight destination,
 - Control of promotional material priority, duration and sequence. The module shall provide definition of content logic and triggers, and
 - A tracking feature that logs all promotional materials that have been played and details of the time, length, the display monitor that was used, a summary of the number of times each was played on each monitor, and the total number of times each ad was played in a given time period throughout the Airport.
- **Free Text Formats**
 - The IDS allow a free-text format (e.g., a GID monitor displaying “Boarding Time is 11:00am”) to be displayed on a monitor.
 - Only authorized users are able to use the free text formatting function.
 - The content to be displayed are determined by the system administrator.

5 ROLES AND RESPONSIBILITIES

The entities involved with the PPS and IDS applications are as follows:

- *SFO ITT* - Primarily responsible for LAN, server, system administration and support.
- *Contractor* - Responsible for designing, providing and maintaining PPS applications.
- *Airlines* - Primary users of Shared Use System and provider of flight information to the Airport.
- *SFOTEC* – The International Terminal Company responsible for the day to day use of the PPS application and resource allocation in the International Terminal. SFOTEC provides resource management for Airport commons use equipment in the Domestic Terminals 1 and 2.
- *Airport Tech Shop* – Internal SFO section responsible for operations and maintenance activities for many airport electronic systems.
- *PPS Level 1 Support Contractor* - Responsible for providing Level 1 maintenance, systems administration and monitoring activities for specifically defined components of the PPS, IDS, Baggage Reconciliation, Baggage Message Broker, AODB and CUSS systems at SFO.
- *SFO Help Desk* — 24x7 call center responsible for taking all trouble calls associated with the PPS systems, creating trouble tickets, and forwarding to the appropriate party for resolution.
- *SFO Terminal Systems* – Internal SFO section responsible for the Airport’s relationship with the airlines and providing applications for efficient passenger processing operations. Terminal Systems is the group within SFO to which PPS Level 1 Support Contractor shall directly report.

Contractor Roles and Responsibilities are depicted in Table 7 below.

Figure 1 - Reporting Structure

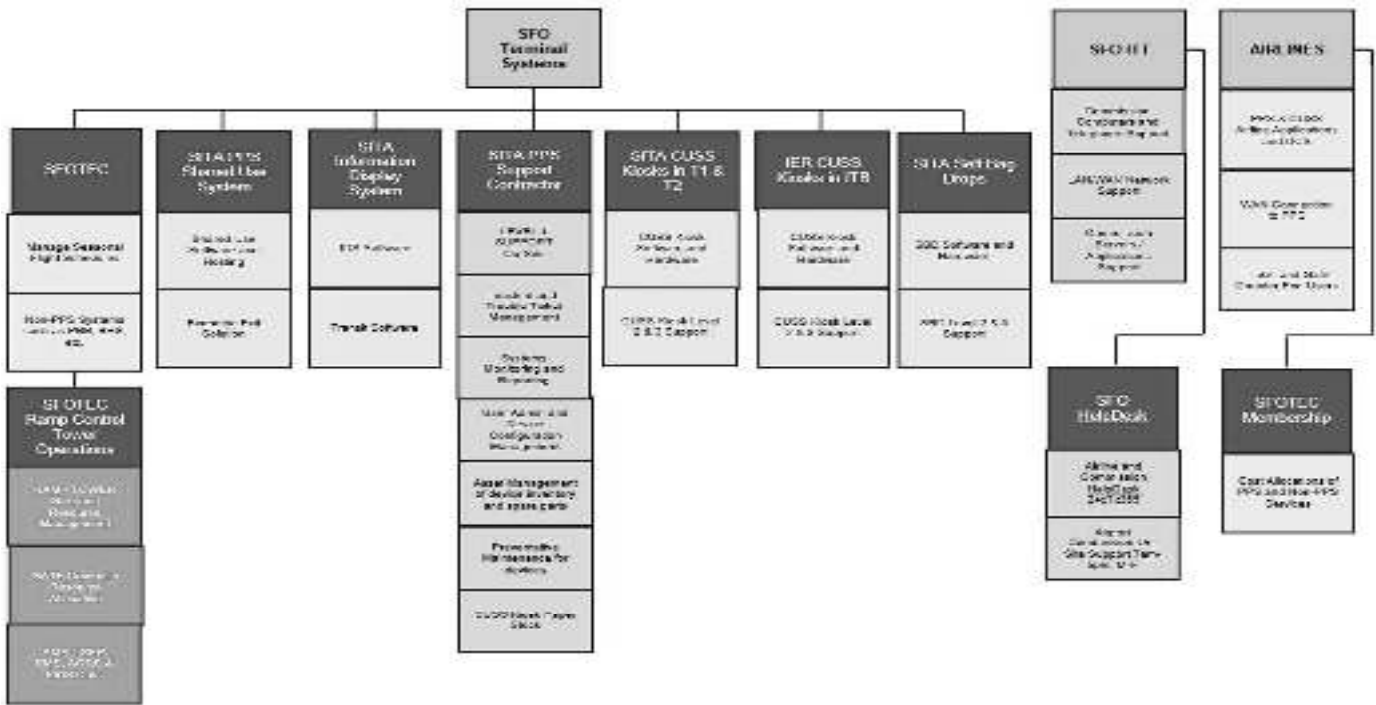


Table 7 – Contractor Roles and Responsibilities

OPERATIONS AND MAINTENANCE
Support Functions
Keeps operating System software fixes, patches and application operating in accordance to the requirements of this Agreement and implements latest Updates (but it does not include Upgrades).
Keeps application software provided by Contractor current to latest releases.
Implements Contractor provided software fixes/patches.
Monitors all systems deployed at SFO.
Receives alerts and event notifications for all applications.
2 nd level maintenance for systems deployed by Contractor – troubleshooting all problems not resolvable by 1 st level maintenance.
Software warranty, fixes, updates and maintenance for software provided by Contractor.
24x7 2nd level customer support for systems or software provided by Contractor.
Monthly and Quarterly Service Level Reports for systems or software provided by Contractor.
Hardware warranty procured for new hardware.
Keeps SUS airline applications current as released by the airlines (for on-premises solution).
Creates trouble tickets as necessary.
System Administration Functions
PPS and IDS software change management.
PPS and IDS user access and account management.
Configuration Management of all hardware and software
Server Management Monitoring.
Password administration
Administers user roles and privileges.
SHARED USE SYSTEM
Activates new ticket counter/gate locations
Adding/Removes airline applications
AODBs
Integrates AODB with new applications and AIIS
Adds new interfaces/sources of data.
IDS
Endpoint protection and anti-virus management for IDS servers and DDCs.
Monitor all systems.
Receives alerts and event notifications for IDS applications
Views dashboards for IDS applications
IDS software change management
IDS user access and account Management
Configuration Management of all hardware and software.
Server Management Monitoring
Password administration
Content management of displays (flight data, promotional material, wayfinding, etc.)
Adds new interfaces/sources of data.

6 ADDITIONAL REQUIREMENTS

6.1 Access Control

Contractor shall:

- 6.1.1 Configure each component of the procured product to operate using the principle of least privilege. This includes operating system permissions, file access, user accounts, application-to-application communications, and PPS/IDS services.
- 6.1.2 Provide user accounts with configurable access and permissions associated with one or more organizationally defined user role(s).
- 6.1.3 Provide a system administration mechanism for changing user(s) role (e.g., group) associations.
- 6.1.4 Configure the procured product such that when a session or inter process communication is initiated from a less privileged application, access shall be limited and enforced at the more critical side.
- 6.1.5 Provide a method for protecting against unauthorized privilege escalation.
- 6.1.6 Recommend methods for the Airport to prevent unauthorized changes to the Basic Input/output System (BIOS) and other firmware. If it is not technically feasible to protect the BIOS to reduce the risk of unauthorized changes, Contractor shall document this case and provide mitigation recommendations.
- 6.1.7 Deliver a product that enables the Airport to configure its components in a manner that limits access to and from specific locations (e.g., security zones, business networks, and demilitarized zones [DMZs]) on the network to which the components are attached, where appropriate, and provide documentation of the product's configuration as delivered.
- 6.1.8 Every authorized user of the PPS and IDS applications shall have a user profile that accomplishes the following:
 - 6.1.8.1 Contains information that identifies the user, including the user's id and password.
 - 6.1.8.2 Assigns the user to a role and/or group that determines the user's permissions regarding the various system features and functions.
 - 6.1.8.3 Allows Airport to grant access to functions, screens and/or data based upon user group.
 - 6.1.8.4 System shall provide the capability for Contractor administrative personnel to enter identifying information about the user and to assign the user to one (and only one) pre- defined role.
 - 6.1.8.5 Every authorized user of the PPS applications shall be assigned to a pre-defined role that will define the features and functions of the applications each user will be permitted to access.

6.2 Account Management

Contractor shall document all accounts (including, but not limited to, generic and/or default) that need to be active for proper operation of the procured product. Prior to delivery of the procured product to the Airport, Contractor shall remove or disable any accounts that are not needed for normal or maintenance

operations of the Airport System. As specified by the Airport, accounts for emergency operations shall be placed in a highly secure configuration and documentation on their configuration shall be provided to the Airport.

6.3 Session Management

Session Management. Contractor shall provide an appropriate level of protection (e.g., encryption and digital signing) for the session, commensurate with the technology platform, communications characteristics, and response time constraints. Unless specifically requested by the Airport, Contractor shall not allow multiple concurrent logins using the same authentication credentials, allow applications to retain login information between sessions, provide any auto-fill functionality during login, or allow anonymous logins. Contractor shall provide account-based and group-based configurable session-based logout and timeout settings (e.g., alarms and human-machine interfaces).

6.4 Authentication and Password/Policy Management

Contractor shall document the levels, methods, and capabilities for authentication and authorization. Contractor shall deliver a product that adheres to standard authentication protocols. Contractor shall provide a configurable account password management system that allows for, but is not limited to, the following:

- 6.4.1 Changes to passwords (including default passwords);
- 6.4.2 Selection of password length;
- 6.4.3 Frequency of change;
- 6.4.4 Setting of required password complexity;
- 6.4.5 Number of login attempts prior to logout;
- 6.4.6 Inactive session logout;
- 6.4.7 Screen lock by application;
- 6.4.8 Comparison to a library of forbidden strings;
- 6.4.9 Derivative use of the username; and
- 7.4.10 Denial of repeated or recycled use of the same password.

6.5 Malware Detection And Protection

- 6.5.1 Contractor shall provide the capability to automatically scan any removable media that is introduced to the product being acquired.
- 6.5.2 Contractor shall provide a host-based malware detection capability. Contractor shall quarantine (instead of automatically deleting) suspected infected files. Contractor shall provide an updating scheme for malware signatures. Contractor shall test and confirm compatibility of malware detection application patches and upgrades.
- 6.5.3 Contractor shall validate whether SFO provided cybersecurity services running on the procured product (e.g., virus checking and malware detection) conflict with other such services running on the procured product.

6.6 System Administration Requirements

- 6.6.1 Contractor's system administrators must be able to set user-ids and passwords for each user. Permissions, actions, views, and device restrictions will be configurable to user-ids, or user groups.
- 6.6.2 System must support user groups and user role definitions. User IDs will be associated to roles and be given associated privileges/permissions.
- 6.6.3 Contractor's system administrators must be able to determine and customize authentication policies for the PPS.
- 6.6.4 PPS must be able to support specific terminal/workstation authorization settings.
- 6.6.5 PPS must be able to log and track all logins access and unauthorized access attempts.
- 6.6.6 PPS must support configuration and customization capabilities determined by user-id, user group and permission levels.
- 6.6.7 PPS must support a monitoring tool indicating the status of all PPS components, impacting operations and performance, provided by Contractor.
- 6.6.8 Any software application configuration changes to the solution shall adhere to the Airport's change management process and procedures.
- 6.6.9 PPS shall allow Contractor's administrators to:

attempt; and

- terminate, block or force users to change passwords upon the next logon attempt; and
- support advanced authentication policies including password length, special characters and maximum number of log on attempts before denying access. The PPS applications shall interoperate with Microsoft's Active Directory (AD) to authenticate all personnel authorized to access the PPS.

6.7 PPS Monitoring Requirements

7.7.1 *Passenger Processing System Monitoring.* Contractor shall maintain the integration of the Airport's existing data network to allow for optimized and secure transactions over Airport's existing wired network. The system includes a PPS Monitoring System (MS) software package and a monitor and control workstation. MS provides system monitoring of all Contractor provided solutions. It provides alerts, alarms and notifications to the local monitor and control workstation and to Contractor's remote monitoring facility. The MS includes software that is compatible with and does not interfere with the existing Airport network management system. Contractor must provide its remote support monitoring requirements to the Airport. PPS Level 1 Support Contractor and designated SFO personnel must be able to access the Monitoring system from an Airport workstation. MS supports the following applications:

- Shared Use System,
- AODB, and
- RMS.

7.7.2 *Remote Diagnostics* - The monitoring system shall have remote diagnostic capabilities for the Contractor provided systems as a whole and for discrete components of the systems. This shall include remote (off-premises) access to the PPS, for purposes of supporting remote diagnostics, upgrades, and maintenance by the system provider, and remote access to individual devices. This

capability will include real-time tracking and reporting, and event logging over time. The system must report workstation devices up or down and send email alerts when a device is down.

All failures of the systems shall be viewable at a central control point locally in SFO (i.e., the system monitoring workstation or application), including failures in communication, such as network failures or failures in receiving scheduled or known data updates. The failure shall initiate both an audible and a visual alarm and add a failure record to the failure database table.

Upon server failures, the system administrator shall receive a warning message on the system administrator workstation and an e-mail, pager, or text message notification, notifying him/her of the failure. Server failure shall include any hardware or software based failure. Should a component fail, the system shall immediately notify the system administrator via the monitoring system. All failures of the systems shall be logged at a central control point (e.g. PPS Monitoring Server). The failure shall initiate alarms and reports (e.g., time and date of failure event).

PPS Monitoring System shall provide the local monitor and control workstation user with current operational status and notification alerts and alarms for the following:

- interfaces with airline hosts as available;
- system firewalls and routers;
- system servers; and
- system workstations.

PPS Monitoring System user workstation screen shall provide:

- active color icons indicating all equipment status;
- audible alerts for equipment failure; and
- text notification for alerts.

PPS Monitoring System shall provide critical alarm notifications in the following methods, based upon the mutually agreed classification of alarms:

- notification to on-site PPS MS user workstation as noted above;
- notification to Airport select staff via email;
- notification to Airport select staff via text message and/or pager; or
- notification to PPS System provider helpdesk.

Contractor shall provide a list of all IP addresses monitored by the system, including all servers. Contractor shall provide all PPS VLAN information required for monitoring by the system.

Contractor shall provide detail design information regarding data outlet types, locations and port counts needed to support the PPS System. This includes any local connections to airlines if necessary.

PPS Monitoring System shall provide 24x7x365 monitoring capability to include tracking, logging and notification of PPS System usage and failure events and alerts.

System shall include diagnostic capabilities that automatically detect and correct, when possible, failures in the system and automatically alert the system administrator when a failure occurs. A system console message and an error log will be part of the automated process.

PPS Monitoring System must monitor Shared Use workstations, AODB workstations, RMS workstations, and the PPS server equipment, airline host connections as available, LAN connections and WAN

connections as available. The monitoring system shall be capable of determining status of networks and if a path is available from any shared use workstation to any airline host.

All system failures shall be logged. The failure shall initiate alarms and reports (e.g. time and date of failure event).

Contractor shall provide a remote helpdesk/call center 24x7x365 and toll free phone number to receive incident calls from 1st level maintenance.

Contractor shall log and track all incoming incident calls and support troubleshooting and remote diagnostics until full resolution for incidents that are deemed Contractor's responsibility.

Contractor shall provide the Airport with access to the monitoring system data to view and to integrate systems to pull incidents, logs of alerts and other system events and reports.

7 AS-NEEDED SERVICES

As-needed Services may include but are not limited to the following, which will be priced and implemented via task order as detailed in Section 5.1 (Services Contractor Agrees to Perform) of the Agreement:

- PPS system application enhancements.
- PPS application implementation in other locations at the Airport.
- Development of other related business services. A technical resource from Contractor may develop and implement new business and technical services related to Shared Use, AODB, and RMS. As an example, developing and / or enhancing direct data and service integration from the AODB to the Airport's enterprise data hub and data domain structure.
- IDS application implementation in other locations at the Airport.
- SITA Transit Solution: SITA Transit is a Passenger Information Display System (PIDS) allowing the display of trip information on displays across the customers footprint. The system can operate with a wide variety of display technologies. Data can be ingested from a variety of sources, such as schedule and real time feeds. System users can view, add, modify, or delete data.
- Display format creation (in addition to the ones already included in the Agreement), content management, and display scheduling.
- Additional display implementation and/or integration with the IDS in new location, e.g., HMT1.
- Further IDS application integration with AIIS in which Contractor shall provide professional services for direct data and service integration within the Airport's enterprise domain data structure.
- Training of SFO and airline personnel in the operation, administration and maintenance of all products, equipment and systems provided by Contractor. Training shall be accomplished in a classroom setting augmented by individual instruction as necessary. Contractor shall provide all training aids, e.g., notebooks, manuals. Contractor shall keep a log of all personnel receiving and completing training for each system and note the type of training received. Contractor shall conduct the required training at times and locations as determined by SFO. The class schedules must accommodate shift schedules of SFO and airline personnel and must be approved in advance. Contractor shall determine the appropriate length of the class.
- User Training: System users shall be instructed in all aspects of system operations for every PPS application. User training shall be conducted in the Training Environment. Users must learn how to create and edit business rules for these applications and how to operate/create both seasonal and day-to-day schedules. SFO staff will be trained by Contractor personnel experienced in the use and operation of these systems.
- Technician Training: Training for maintenance technicians shall be provided on site, and shall include, but not be limited to, installation, operation, renovation, alteration, inspection, preventive maintenance, and maintenance service on each system and its hardware components. Training shall be such that maintenance technicians are able to troubleshoot problems and repair the modules, assemblies and boards. This class will include an in-depth trouble diagnostic tutorial with a troubleshooting flow chart.
- System Monitoring Training:
 - This training shall cover all PPS and IDS monitoring functions; provide an overview of the complete system structure including hardware, software and networks; and describe all functions and applications needed to monitor the PPS and IDS as follows:
 - monitor system operations.
 - access system logs containing warnings and error notifications.
 - run audit and system health statistics, and print reports.
 - configure reports and dashboards.
 - System Monitoring Training shall include classroom work.
 - Classroom Training: Classroom training provided by Contractor shall describe all

systems, software and applications and support programs and include a functional overview of the complete software system. The course material must include Rule Base editing for AODB and RMS adding resources/displays to RMS and any other data base maintenance activities not performed in day-to-day operations.

- Vulnerability Assessment requirements as specified in Section 14.7 Airport Commission Cyber Security Requirements.
- Material changes to the scope of services resulting from any future changes to ADA requirements under Section 13.2 Compliance with Laws Requiring Access for People with Disabilities.

Appendix B Calculation of Charges

1. **Project Cost.** In accordance with Article 3 of this Agreement, Contractor's total compensation under this Agreement is detailed below, inclusive of all costs required to complete all work specified in Appendix A. In no event shall the total costs under this Agreement exceed the amount provided in Article 3, Section 3.4, of this Agreement.

Support & Maintenance (base 12-month contract) – Year 2025

Service Description	Number of Months	Monthly Price	Annual Total Price
SITA Flex Shared Use Solution (SITA Flex for all positions at SFO) - Allocation for SITA CSM - LDCS - PPS Monitoring System (includes PCI per client, PCI annual audit, ADM toolset for remote software support and monitoring, patching) - Antivirus and patching - SITA Central Operations and Support - CUTE usage data and statistics (Common Use analyzer, upgrading to SITA Insights) - COTS licenses - Off-Site Hosting and network fees - On-Site Hosting	12	\$82,528	\$990,336
*Note: not each line item is a per-unit charge			
SITA Smart Path Check In Kiosk	12	\$15,325	\$183,900
SITA Smart Path Hub	12	\$23,211	\$278,532
SITA Smart Path Swift Drop – REMOVED Support is covered under SITA-HP contract until June 30, 2027	12	\$0	\$0
SITA AirportVision	12	\$13,985	\$167,820
SITA RMS	12	\$8,933	\$107,196
SITA AODB	12	\$7,759	\$93,108
SITA Insights	12	included	included
Total Support & Maintenance		\$151,741	\$1,820,892
As-Needed Services Amount			\$179,108
Total Not-to-Exceed Amount			\$2,000,000

Support & Maintenance (1st Optional 12 month Extension) – Year 2026

Service Description	Number of Months	Monthly Price	Annual Total Price
SITA Flex - Shared Use Solution (SITA Flex for all positions at SFO) - Allocation for SITA CSM - LDCS - PPS Monitoring System (includes PCI per client, PCI annual audit, ADM toolset for remote software support and monitoring, patching) - Antivirus and patching - SITA Central Operations and Support - CUTE usage data and statistics (Common Use analyzer, upgrading to SITA Insights) - COTS licenses - Off-Site Hosting and network fees - On-Site Hosting	12	\$82,528	\$990,336
*Note: not each line item is a per-unit charge			
SITA Smart Path Check In Kiosk	12	\$15,325	\$183,900
SITA Smart Path Hub	12	\$23,211	\$278,532
SITA Smart Path Swift Drop – REMOVED Support is covered under SITA-HP contract until June 30, 2027	12	\$0	\$0
SITA AirportVision	12	\$13,985	\$167,820
SITA RMS	12	\$8,933	\$107,196
SITA AODB	12	\$7,759	\$93,108
SITA Insights	12	included	included
Total Support & Maintenance		\$151,741	\$1,820,892
As-Needed Services Amount			\$179,108
Total Not-to-Exceed Amount			\$2,000,000

Support & Maintenance (2nd Optional 12 month Extension) – Year 2027

Service Description	Number of Months	Monthly Price	Annual Total Price
SITA Flex - Shared Use Solution (SITA Flex for all positions at SFO) - Allocation for SITA CSM - LDCS - PPS Monitoring System (includes PCI per client, PCI annual audit, ADM toolset for remote software support and monitoring, patching) - Antivirus and patching - SITA Central Operations and Support - CUTE usage data and statistics (Common Use analyzer, upgrading to SITA Insights) - COTS licenses - Off-Site Hosting and network fees - On-Site Hosting <i>*Note: not each line item is a per-unit charge</i>	12	\$85,004	\$1,020,048
SITA Smart Path Check In Kiosk	12	\$15,785	\$189,417
SITA Smart Path Hub	12	\$23,907	\$286,888
SITA Smart Path Swift Drop to be added as of July 1, 2027. Separate SITA-HP support contract expires June 30, 2027	6	\$22,150	\$132,900
SITA AirportVision	12	\$14,405	\$172,860
SITA RMS	12	\$9,201	\$110,412
SITA AODB	12	\$7,992	\$95,904
SITA Insights	12	included	included
Total Support & Maintenance		For first 6 months: \$156,294 For last 6 months: \$178,444	\$2,008,429
As-Needed Services Amount			\$36,504
Total Not-to-Exceed Amount			\$2,044,932