AGREEMENT

BETWEEN

CITY AND COUNTY OF DENVER

AND

GREY WALL SOFTWARE, LLC D/B/A VEOCI.COM

AT
DENVER INTERNATIONAL AIRPORT

AGREEMENT

THIS AGREEMENT FOR EVENT LOGGING IMPLEMENTATION SOFTWARE SERVICES (Contract Number 201738777-00) ('Agreement"), made and entered into as of the date set forth on the signature page below (the "Effective Date") by and between the **CITY AND COUNTY OF DENVER**, a municipal corporation of the State of Colorado ("City"), Party of the First Part, and **GREY WALL SOFTWARE, LLC D/B/A VEOCI.COM**, a Limited Liability Corporation organized under the laws of Connecticut and authorized to do business in Colorado ("Contractor"), Party of the Second Part;

W I T N E S S E T H:

WHEREAS, the City owns and operates Denver International Airport ("DEN" or the "Airport"), and desires to purchase hardware, software, software upgrades, support, maintenance and related equipment for event logging implementation software services, and will require professional services for the same, and such other work as may be requested by the City, at Denver International Airport; and

WHEREAS, the City issued Request for Proposal No. 28416C (the "RFP") on or about February 6, 2017, and Contractor submitted a proposal dated March 7, 2017 ("Contractor's Proposal");

WHEREAS, the City accepted the Contractor's Proposal as the best apparent proposal and the Contractor's Proposal is incorporated herein by reference; and

WHEREAS, the Contractor is qualified and ready, willing and able to provide the requested hardware, software and professional services to the City, in accordance with the terms of this Agreement;

NOW, THEREFORE, for and in consideration of the premises and other good and valuable consideration, the parties hereto agree as follows:

1. LINE OF AUTHORITY:

The City's Chief Executive Officer for the Department of Aviation, her designee or successor in function (the "CEO of Aviation" or the "CEO") authorizes all work performed under this Agreement. The CEO hereby delegates her authority over the work described herein to the Airport's Senior Vice President - Technologies (the "SVP - Technologies") as the CEO's authorized representative for the purpose of administering, coordinating and approving work performed by the Contractor under this Agreement. The SVP - Technologies' authorized representative for day-to-day administration of the Contractor's services under this Agreement is the Project Manager. The Contractor shall submit its reports, memoranda, correspondence and submittals to the Project Manager. The CEO and the SVP - Technologies may rescind or amend any such designation of representatives or delegation of authority and the SVP - Technologies may

from time to time designate a different individual to act as Project Manager, upon notice to the Contractor.

2. SCOPE OF WORK:

A. The Contractor, under the general direction of, and in coordination with the CEO, or other designated supervisory personnel as set forth herein, shall diligently perform any and all authorized services provided under this Agreement. The Contractor shall provide the goods and services provided in the attached **Exhibit A, "SCOPE OF WORK"**.

B. Additional Services: The Contractor may also perform services, hereinafter referred to as "Additional Services," which relate to the subject matter of this Agreement, but which the SVP - Technologies determines to be not described in the Scope of Work or in excess of the requirements of the Scope of Work. Change orders and/or additional Statements of Work (SOWs) will be provided as needed to document work beyond that identified in **Exhibit A**. The Contractor shall be compensated for such Additional Services only if the services and the amount of fees and reimbursable expenses for the services have been authorized in writing in advance by the SVP - Technologies. The total amount of fees and reimbursable expense costs for Additional Services shall not cause this Agreement to exceed the Maximum Contract Liability set forth herein, and in no event shall the approval of Additional Services and the cost of performing them be deemed to constitute an agreement by the City to an increase in the Maximum Contract Liability.

C. The Contractor shall faithfully perform the work required under this Agreement in accordance with standards of care, skill, training, diligence and judgment provided by highly competent service providers who perform work of a similar nature to the work described in this Agreement.

3. TERM:

The Term of this Agreement shall commence on the Effective Date, and shall terminate THREE (3) YEARS thereafter, unless sooner terminated (the "Term"). The Term of this Agreement may be extended for an additional two (2) years beyond the initial three-year term, by written amendment to this Agreement. Notwithstanding any other extension of term under this paragraph 3 the term of this Agreement may be extended by the mutual agreement of the parties, confirmed by written notice from the City to the Contractor, to allow the completion of any work which has been commenced prior to the date upon which this Agreement otherwise would terminate. However, no extension of the Term shall increase the Maximum Contract Liability stated herein; such amount may be changed only by a duly executed written amendment to this Agreement.

4. COMPENSATION AND PAYMENT:

A. Fee: The City agrees to pay to the Contractor, and the Contractor agrees to accept as its sole compensation for services rendered and costs incurred under this Agreement, the rates set forth on **Exhibit B, "Cost Schedule"** and as may be further described herein.

B. Reimbursement Expenses: There are no reimbursable expenses allowed under this Agreement, unless approved in writing, in advance, by the SVP - Technologies.

C. Invoicing: Contractor shall provide the City with an invoice on a schedule and in a format and with a level of detail acceptable to the City. The City shall pay any undisputed amounts in accordance with its obligations under the City's Prompt Payment Ordinance.

D. Maximum Contract Liability:

(i) Any other provision of this Agreement notwithstanding, in no event shall the City be liable to pay for services rendered and expenses incurred by the Contractor under the terms of this Agreement for any amount in excess of Nine Hundred Eighty Four Thousand Twenty Dollars and 00 Cents ($984,020.00) (the "Maximum Contract Liability"). Funding under the provisions of this paragraph 4.D. may be payable from the City's Airport System Capital Replacement Fund and/or Airport Operations and Maintenance Fund. The Contractor acknowledges that the City is not obligated to execute an Order, agreement or an amendment to this Agreement for any services and that any services performed by Contractor beyond that specifically described in an Order are performed at Contractor's risk and without authorization under this Agreement.

(ii) The Parties agree that the City's payment obligation, whether direct or contingent, shall extend only to funds appropriated as stated herein and encumbered for the purpose of this Agreement. The Parties agree that (a) the City does not by this Agreement irrevocably pledge present cash reserves for payment or performance in future fiscal years and (b) this Agreement is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of the City.

5. TAXES AND COSTS:

A. The Contractor, at its own expense, shall promptly pay, when due, all taxes, bills, debts and obligations it incurs performing work under this Agreement and shall allow no lien, mortgage, judgment or execution to be filed against land, facilities or improvements owned by the City.

B. The City shall provide to Contractor, at no cost, all necessary clearances and permits necessary to install and/or deliver the products and/or services under Agreement. Where such clearances, permits, leases, or fees of a similar nature are required to be obtained and paid for directly by Contractor, the City shall reimburse Contractor the actual cost of such items.

C. The City affirms that it is a tax-exempt entity under the Laws of the State of Colorado and this purchase qualifies for the Denver and Colorado sales tax exemption for sales to the United States government, the State of Colorado, its departments and institutions, and its political subdivisions (county and local governmental, school districts and special districts); is a government purchase used only in an official governmental capacity; and will be paid directly by a government agency. Taking into account the City's status, Contractor confirms that all Charges

are inclusive of all taxes, levies, duties and assessments ("Taxes") of every nature in effect as of the Effective Date and due in connection with its performance of its obligations under this Agreement. Contractor is responsible for payment of such Taxes to the appropriate governmental authority.

6. STATUS OF CONTRACTOR:

It is agreed and understood by and between the parties hereto that the status of the Contractor shall be that of an independent contractor retained on a contractual basis to perform professional or technical services for limited periods of time as described in Section 9.1.1(E)(x) of the Charter of the City and County of Denver, and it is not intended, nor shall it be construed, that the Contractor or its personnel are employees or officers of the City under Chapter 18 of the Revised Municipal Code for any purpose whatsoever.

7. NO AUTHORITY TO BIND CITY TO CONTRACTS:

The Contractor has no authority to bind the City on any contractual matters. Final approval of all contractual matters which obligate the City must be by the City as required by Charter and Ordinance.

8. PERSONNEL ASSIGNMENTS:

A. The Contractor shall assign a Project Manager to this Project that has experience and knowledge satisfactory to the City. The Project Manager shall be the contact person in dealing with the City's Project Manager on matters concerning this Project and shall have the authority to act for the Contractor's organization. Contractor's designated Project Manager shall remain assigned on this contract during the entire contract term, while in the employ of the Contractor, or, until such time that his performance is deemed unsatisfactory by the City and a formal written request is submitted which requests the removal of the Contractor's Project Manager.

B. The Contractor may submit and the City will consider a request for reassignment of a Project Manager, should the Contractor deem it to be in the best interest of the City, the best interest of the Contractor's organization or in the best interest of the Contractor's Project Manager.

C. If the City allows the removal of a Project Manager, the replacement Project Manager must have, at least, similar or equal experience and qualifications to that of the original Project Manager. The replacement Project Manager's assignment is subject to the approval of the SVP - Technologies.

D. All key professional personnel identified by the Contractor will be assigned by the Contractor or subcontractors to perform work under the Work. The SVP - Technologies must approve additional personnel in writing. It is the intent of the parties hereto that all key professional personnel be engaged to perform their specialty for all such services required by the Work, and that the Contractor's and the sub-Contractor's key professional personnel be retained for the life

of this Agreement to the extent practicable and to the extent that such services maximize the quality of work performed hereunder.

E. If the Contractor decides to replace any of its key professional personnel, it shall notify the SVP - Technologies in writing of the changes it desires to make. No such replacement shall be made until the replacement is approved in writing by the SVP - Technologies, which approval shall not be unreasonably withheld. The SVP - Technologies shall respond to the Contractor's written notice regarding replacement of key professional personnel within fifteen days after the SVP - Technologies receives the list of key professional personnel, which the Contractor desires to replace. If the SVP - Technologies or his designated representative does not respond within that time, the listed personnel shall be deemed to be approved.

F. If, during the term of this Agreement, the SVP - Technologies determines that the performance of approved key personnel is not acceptable, he shall notify the Contractor, and he may give the Contractor notice of the period of time, which the SVP - Technologies considers reasonable to correct such performance. If the SVP - Technologies notifies the Contractor that certain of its key personnel should be reassigned, the Contractor will use its best efforts to obtain adequate substitute personnel within ten days from the date of the SVP - Technologies' notice.

9. SUBCONTRACTORS:

A. Although the Contractor may retain, hire and contract with outside subcontractors, no final agreement or contract with any such subcontractor shall be entered into without the prior written consent of the SVP - Technologies or his authorized representative. Requests for such approval must be made in writing and include a description of the nature and extent of the services to be provided, the name, address and professional experience of the proposed subcontractor, and any other information requested by the SVP - Technologies. Any final agreement or contract with an approved subcontractor must contain a valid and binding provision whereby the subcontractor waives any and all rights to make any claim of payment against the City or to file or claim any lien or encumbrance against any City property arising out of the performance or non-performance of the contract.

B. Because the Contractor's represented professional qualifications are a consideration to the City in entering into this Agreement, the SVP - Technologies shall have the right to reject any proposed outside subcontractor deemed by him, in his sole discretion, to be unqualified or unsuitable for any reason to perform the proposed services, and the SVP - Technologies shall have the right to limit the number of outside subcontractors, or to limit the percentage of Work to be performed by them, all in his sole and absolute discretion.

C. The Contractor shall not retain any subcontractor to perform work under this Agreement if the Contractor is aware, after a reasonable written inquiry has been made, that the subcontractor is connected with the sale or promotion of equipment or material which is or may be used on work related to or following on from this Agreement, or that any other conflict of interest exists.

10. NO EMPLOYMENT OF ILLEGAL ALIENS TO PERFORM WORK UNDER THE AGREEMENT:

A. The Agreement is subject to Article 17.5 of Title 8, Colorado Revised Statutes, and Den. Rev. Mun. Code 20-90 and the Contractor is liable for any violations as provided in said statute and ordinance.

B. The Contractor certifies that:

(1) At the time of its execution of this Agreement, it does not knowingly employ or contract with an illegal alien who will perform work under this Agreement.

(2) It will participate in the E-Verify Program, as defined in § 8 17.5-101(3.7), C.R.S., to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.

C. The Contractor also agrees and represents that:

(1) It shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.

(2) It shall not enter into a contract with a subcontractor or subconsultant that fails to certify to the Contractor that it shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.

(3) It has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement, through participation in the E-Verify Program.

(4) It is prohibited from using either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while performing its obligations under the Agreement, and it has complied with all federal requirements regarding the use of the E-Verify program, including, by way of example, requirements related to employee notification and preservation of employee rights.

(5) If it obtains actual knowledge that a subcontractor or subconsultant performing work under the Agreement knowingly employs or contracts with an illegal alien, it will notify such subcontractor and the City within three days. The Contractor will also then terminate such subcontractor or subconsultant if within three days after such notice the subcontractor or subconsultant does not stop employing or contracting with the illegal alien, unless during such three day period the subcontractor or subcontractor provides information to establish that the subcontractor or subconsultant has not knowingly employed or contracted with an illegal alien.

(6) It will comply with any reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S. or the City Auditor under authority of Den. Rev. Mun. Code 20-90.3.

11. NO DISCRIMINATION IN EMPLOYMENT:

In connection with the performance of work under this Agreement, the Contractor agrees not to fail or refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation, terms, conditions or privileges of employment against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, marital status, or physical or mental disability; and the Contractor further agrees to insert the foregoing provision in all subcontracts hereunder.

12. DSBO GOALS:

The Contractor may be subject to the City's ordinance, DRMC Chapter 28, Article III (MBE/WBE Ordinance) which prohibits discrimination in the awarding of contracts and subcontracts and directs the DSBO Director to establish goals for MBE and WBE participation in the preconstruction and construction of City-owned facilities. The goal for this Agreement is: ***N/A – Not Applicable.*** If it is determined that project goals apply, such project goals must be met with certified MBE and WBE participants or by demonstrating good faith efforts under the MBE/WBE Ordinance. The Contractor must comply with the terms and conditions of the MBE/WBE Ordinance in soliciting and contracting with its subcontractors in administering the performance of the work hereunder. It shall be an ongoing, affirmative obligation of the Contractor to maintain, at a minimum, compliance with the originally achieved level of MBE/WBE participation upon which this Agreement was awarded, for the duration of this Agreement, unless the City initiates a material alteration to the scope of work.

13. PREVAILING WAGES:

Employees of the Contractor or its subcontractors may be subject to the payment of prevailing wages pursuant to D.R.M.C. 20-76, depending upon the nature of the Work. By executing this Agreement, the Contractor covenants that it is familiar with this Code Section and is prepared to pay or cause to be paid prevailing wages, if any, applicable to the work conducted by the Contractor's or its subcontractor's employees. The schedule of prevailing wage is periodically updated and Contractor is responsible for payment of then current prevailing wage. The Contractor may obtain a current schedule of prevailing wage rates at any time from the City Auditor's Office.

14. PROMPT PAY:

The Contractor is subject to D.R.M.C. Section 20-112 wherein the Contractor is to pay its subcontractors in a timely fashion. A payment is timely if it is mailed to the subcontractor no later than seven days after receipt of any payment from City. Any late payments are subject to a late payment penalty as provided for in the prompt pay ordinance (Section 20-107 through 20-118).

15. CITY REVIEW OF PROCEDURES:

The Contractor agrees that, upon request of the SVP - Technologies, at any time during the term of the Agreement or three years thereafter, it will make full disclosure to the City of the means, methods, and procedures used in performance of services hereunder.

16. COORDINATION OF SERVICES:

The Contractor agrees to perform its work under this Agreement in accordance with the operational requirements of DEN, and all work and movement of personnel or equipment on areas included within the DEN site shall be subject to the regulations and restrictions established by the City or its authorized agents.

17. INSURANCE:

A. The Contractor shall obtain and keep in force during the entire term of this Agreement, including any warranty periods, all of the minimum insurance coverage forms and amounts set forth in **Exhibit C**, which is incorporated into this Agreement by this reference. The Contractor shall submit to the City fully completed and executed certificates of insurance (ACORD form or equivalent approved by the City) which specifies the issuing company or companies, policy numbers and policy periods for each required form of coverage. The certificates for each insurance policy are to be signed by a person authorized by the insurer to bind coverage on its behalf, and must be submitted to the City at the time the Contractor signs this Agreement.

B. All certificates and any required endorsements must be received and approved by the City before any work commences. Each insurance policy required by this Agreement must be in effect at or prior to commencement of work under this Agreement and remain in effect for the duration of the project, including any warranty periods. Failure to maintain the insurance policies as required by this Agreement or to provide evidence of renewal is a material breach of the Agreement. All subcontractors' work shall also be subject to the minimum requirements identified in **Exhibit C**. All subcontractors' certificates and endorsements must be received and approved by the Contractor before work commences. The City reserves the right to request copies of these certificates at any time.

C. All certificates required by this Agreement shall be sent directly to Denver International Airport, Risk Management, Airport Office Building, Room 8810, 8500 Pena Boulevard, Denver, Colorado 80249. The City Project/Agreement number and project description shall be noted on the certificate of insurance. The City reserves the right to require complete, certified copies of all insurance policies required by this Agreement at any time.

D. The City's acceptance of any submitted insurance certificate is subject to the approval of the City's Risk Management Administrator. All coverage requirements specified in

the certificate shall be enforced unless waived or otherwise modified in writing by the City's Risk Management Administrator.

E. The Contractor shall comply with all conditions and requirements set forth in the insurance certificate for each required form of coverage during all periods in which coverage is in effect.

F. The insurance coverage forms specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Contractor under the terms of this Agreement, including the Indemnification provisions herein. The Contractor shall maintain, at its own expense, any additional kinds and amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.

18. DEFENSE AND INDEMNIFICATION:

A. Consultant agrees to defend, indemnify, reimburse and hold harmless City, its appointed and elected officials, agents and employees for, from and against all liabilities, claims, judgments, suits or demands for damages to persons or property arising out of, resulting from, or relating to the work performed under this Agreement ("Claims"), unless such Claims have been specifically determined by the trier of fact to be the sole negligence or willful misconduct of the City. This indemnity shall be interpreted in the broadest possible manner to indemnify City for any acts or omissions of Consultant or its subcontractors either passive or active, irrespective of fault, including City's concurrent negligence whether active or passive, except for the sole negligence or willful misconduct of City.

B. Consultant's duty to defend and indemnify City shall arise at the time written notice of the Claim is first provided to City regardless of whether Claimant has filed suit on the Claim. Consultant's duty to defend and indemnify City shall arise even if City is the only party sued by claimant and/or claimant alleges that City's negligence or willful misconduct was the sole cause of claimant's damages.

C. Consultant will defend any and all Claims which may be brought or threatened against City and will pay on behalf of City any expenses incurred by reason of such Claims including, but not limited to, court costs and attorney fees incurred in defending and investigating such Claims or seeking to enforce this indemnity obligation. Such payments on behalf of City shall be in addition to any other legal remedies available to City and shall not be considered City's exclusive remedy.

D. Insurance coverage requirements specified in this Agreement shall in no way lessen or limit the liability of the Consultant under the terms of this indemnification obligation. The Consultant shall obtain, at its own expense, any additional insurance that it deems necessary for the City's protection.

E. This defense and indemnification obligation shall survive the expiration or termination of this Agreement.

19. COLORADO GOVERNMENTAL IMMUNITY ACT:

The parties hereto understand and agree that the City and County of Denver, its officers, officials and employees, are relying on, and do not waive or intend to waive by any provisions of this Agreement, the monetary limitations or any other rights, immunities and protections provided by the Colorado Governmental Immunity Act, §§ 24-10-101 to 120, C.R.S., or otherwise available to the City and County of Denver, its officers, officials and employees.

20. INTELLECTUAL PROPERTY INDEMNIFICATION AND LIMITATION OF LIABILITY:

Contractor shall (i) defend City against any third party claim that the Work, or materials provided by Contractor to City infringe a patent, copyright or other intellectual property right, and (ii) pay the resulting costs and damages finally awarded against City by a court of competent jurisdiction or the amounts stated in a written settlement signed by Contractor. The foregoing obligations are subject to the following: the City (a) notifies the Contractor promptly in writing of such claim, (b) grants the Contractor sole control over the defense and settlement thereof subject to the final approval of the City Attorney, and (c) reasonably cooperates in response to request for assistance. Should such a claim be made, or in the Contractor's opinion be likely to be made, the Contractor may, at its option and expense, (1) procure for the City the right to make continued use thereof, or (2) replace or modify such so that it becomes non-infringing. If the preceding two options are commercially unreasonable, then Contractor shall refund the portion of any fee for the affected Work. The Contractor shall have no indemnification obligation to the extent that the infringement arises out of or relates to: (a) the use or combination of the subject Work and/or materials with third party products or services, (b) use for a purpose or in a manner for which the subject Work and/or materials were not designed in accordance with Contractor's standard documentation; (c) any modification to the subject Work and/or materials made by anyone other than the Contractor or its authorized representatives, if the infringement claim could have been avoided by using the unaltered version of the Work and/or materials, (d) any modifications to the subject Work and/or materials made by the Contractor pursuant to the City's specific instructions, or (e) any technology owned or licensed by the indemnitee from third parties. THIS SECTION STATES THE INDEMNITEE'S SOLE AND EXCLUSIVE REMEDY AND THE INDEMNITOR'S ENTIRE LIABILITY FOR THIRD PARTY INFRINGEMENT CLAIMS.

21. INTELLECTUAL PROPERTY RIGHTS; OWNERSHIP OF HARDWARE AND SOFTWARE:

A. Ownership: Grey Wall and its licensors (if any) shall retain all right, title, copyright, patent, trademark, trade secret and all other proprietary interests to the Veoci Program, the Service and to all Grey Wall intellectual property and any enhancements, modifications or derivatives of any of the foregoing. Customer may not distribute, promote, or otherwise use any information or materials relating to the Veoci Program or the Service for any external use without Grey Wall's prior written consent or as otherwise specifically permitted in this Agreement. No copyright, patent, trademark, trade secret or other right of intellectual property not expressly

granted under this Agreement is exchanged between the parties. Subject to Customer's ownership of the Customer Data, Grey Wall retains all rights to any related work product delivered under this Agreement and Customer acknowledges and agrees that it obtains no rights to such work product. Customer shall not: (i) modify, copy or create derivative works based on the Veoci Program or the Service; (ii) frame or mirror any content forming part of the Veoci Program or the Service, other than on Customer's own intranets or otherwise for its own internal business purposes in accordance with this Agreement; (iii) reverse engineer the Veoci Program or the Service; or (iv) access or use the Veoci Program or the Service to build a competitive product or service, or copy any ideas, features, functions or graphics of the Veoci Program or the Service. Grey Wall shall own any and all rights to, and may use or incorporate into the Service, any suggestions, enhancement requests, recommendations or other feedback provided by Customer or its Users relating to the operation of the Service. **For "work made for hire" only:** The City and Contractor intend that all property rights to any and all materials, text, logos, documents, booklets, manuals, references, guides, brochures, advertisements, music, sketches, plans, drawings, prints, photographs, specifications, software, data, products, ideas, inventions, and any other work or recorded information created by the Contractor and paid for by the City pursuant to this Agreement, in preliminary or final forms and on any media (collectively, "Materials"), shall belong to the City. The Contractor shall disclose all such items to the City. To the extent permitted by the U.S. Copyright Act, 17 USC § 101, et seq., the Materials are a "work made for hire" and all ownership of copyright in the Materials shall vest in the City at the time the Materials are created. **To the extent that the Materials are not a "work made for hire," the foregoing provisions shall not apply.** Upon the City's written concurrence that the hardware and software are satisfactorily installed and payment to the Contractor by City under the terms of this Agreement, title to the hardware shall automatically pass to the City.

B. *Intentionally Deleted*

C. Reservation of Rights: Contractor reserves all rights not expressly granted to City in this Agreement. Except as expressly stated, nothing herein shall be construed to: (1) directly or indirectly grant to a receiving party any title to or ownership of a providing party's intellectual property rights in services or materials furnished by such providing party hereunder, or (2) preclude such providing party from developing, marketing, using, licensing, modifying or otherwise freely exploiting services or materials that are similar to or related to the Work or materials provided hereunder. Notwithstanding anything to the contrary herein, City acknowledges that Contractor has the right to use any City provided materials solely for the benefit of City in connection with the Work performed hereunder for City.

22. OWNERSHIP OF WORK PRODUCT:

Except as otherwise set forth at paragraph 21, above, all plans, drawings, reports, other submittals, and other documents submitted to the City or its authorized agents by the Contractor shall become and are the property of the City, and the City may, without restriction, make use of such documents and underlying concepts as it sees fit. The Contractor shall not be liable for any damage which may result from the City's use of such documents for purposes other than those described in this Agreement.

23. COMPLIANCE WITH PATENT, TRADEMARK, COPYRIGHT AND SOFTWARE LICENSING LAWS:

A. The Contractor agrees that all work performed under this Agreement shall comply with all applicable patent, trademark, copyright and software licensing laws, rules, regulations and codes of the United States. The Contractor will not utilize any protected patent, trademark or copyright in performance of its work unless it has obtained proper permission and all releases and other necessary documents. If the Contractor prepares any design documents which specify any material, equipment, process or procedure which is protected, the Contractor shall disclose such patents, trademarks and copyrights in the construction drawings or specifications.

B. The Contractor further agrees to release, indemnify and save harmless the City, its officers, agents and employees, pursuant to Paragraph 18, "Defense and Indemnification," and Paragraph 20, "Intellectual Property Indemnification and Limitation of Liability," from any and all claims, damages, suits, costs, expenses, liabilities, actions or proceedings of any kind or nature whatsoever, of or by anyone whomsoever, in any way resulting from, or arising out of, directly or indirectly, the performance of work under this Agreement which violates or infringes upon any patent, trademark, copyright or software license protected by law, except in cases where the Contractor's personnel are working under the direction of City personnel and do not have direct knowledge or control of information regarding patents, trademarks, copyrights and software licensing.

24. SOFTWARE SOURCE CODE ESCROW:

Not Applicable

25. ADVERTISING AND PUBLIC DISCLOSURES:

The Contractor shall not include any reference to this Agreement or to work performed hereunder in any of its advertising or public relations materials without first obtaining the written approval of the CEO. Any oral presentation or written materials related to DEN shall include only presentation materials, work product, and technical data which have been accepted by the City, and designs and renderings, if any, which have been accepted by the City. The CEO shall be notified in advance of the date and time of any such presentations. Nothing herein, however, shall preclude the Contractor's use of this contract and its component parts in GSA form 254 or 255 presentations, or the transmittal of any information to officials of the City, including without limitation, the Mayor, the CEO, any member or members of City Council, and the Auditor.

26. COLORADO OPEN RECORDS ACT:

The Contractor acknowledges that the City is subject to the provisions of the Colorado Open Records Act, Colorado Revised Statutes §24-72-201 et seq., and the Contractor agrees that it will fully cooperate with the City in the event of a request or lawsuit arising under such act for the disclosure of any materials or information which the Contractor asserts is confidential and

exempt from disclosure. Any other provision of this Agreement notwithstanding, including exhibits, attachments and other documents incorporated into this Agreement by reference, all materials, records and information provided by the Contractor to the City shall be considered confidential by the City only to the extent provided in the Open Records Act, and the Contractor agrees that any disclosure of information by the City consistent with the provisions of the Open Records Act shall result in no liability of the City.

27. DATA CONFIDENTIALITY:

A. For the purpose of this Agreement, confidential information means any information, knowledge and data marked "Confidential Information" or "Proprietary Information" or similar legend. All oral and/or visual disclosures of Confidential Information shall be designated as confidential at the time of disclosure, and be summarized, in writing, by the disclosing Party and given to the receiving Party within thirty (30) days of such oral and/or visual disclosures.

B. The disclosing Party agrees to make known to the receiving Party, and the receiving Party agrees to receive Confidential Information solely for the purposes of this Agreement. All Confidential Information delivered pursuant to this Agreement:

(i) shall not be distributed, disclosed, or disseminated in any way or form by the receiving Party to anyone except its own employees, corporate partners, affiliates and alliance partners who have a need to know said Confidential Information;

(ii) shall be treated by the receiving Party with the same degree of care to avoid disclosure to any third Party as is used with respect to the receiving Party's own information of like importance which is to be kept confidential.

C. These obligations shall not apply, however, to any information which:

(i) is already in the public domain or becomes available to the public through no breach of this Agreement by the receiving Party; or

(ii) was in the receiving Party's possession prior to receipt from the disclosing Party; or

(iii) is received by the receiving Party independently from a third Party free to disclose such information; or

(iv) is subsequently independently developed by the receiving Party as proven by its written records; or

(v) is disclosed when such disclosure is compelled pursuant to legal, judicial, or administrative proceeding, or otherwise required by law, subject to the receiving Party giving all reasonable prior notice to the disclosing Party to allow the disclosing Party to seek protective or other court orders.

D. Upon the request from the disclosing Party, the receiving Party shall return to the disclosing Party all Confidential Information, or if directed by the disclosing Party, shall destroy such Confidential Information.

28. EXAMINATION OF RECORDS:

A. The Contractor agrees that the City's duly authorized representatives, including but not limited to the City's Auditor, shall, until the expiration of three (3) years after the final payment under this Agreement, have access to and the right to examine any directly pertinent books, documents, papers and records of the Contractor involving this Agreement.

B. In connection with any services performed hereunder on items of work toward which federal funds may be received under the Airport and Airway Development Act of 1970, as amended, the City, the Federal Aviation Administration, the Comptroller General of the United States, and any of their duly authorized representatives, shall have access to any books, documents, papers and records of the Contractor which are directly pertinent to a specific grant program for the purpose of making audit, examination, excerpts and transcriptions. The Contractor further agrees that such records will contain information concerning the personnel, hours and specific tasks performed, along with the applicable federal project number.

29. INFORMATION FURNISHED BY CITY:

The City will furnish to the Contractor available information concerning DEN and any such other matters that may be necessary or useful in connection with the work to be performed by the Contractor under this Contract. The Contractor shall be responsible for the verification of the information provided to the Contractor.

30. TERMINATION:

A. The City has the right to terminate this Agreement without cause on thirty (30) days written notice to the Contractor, and with cause on ten (10) days written notice to the Contractor. However, nothing herein shall be construed as giving the Contractor the right to perform services under this Agreement beyond the time when such services become unsatisfactory to the CEO.

B. If the Contractor is discharged before all the services contemplated hereunder have been completed, or if the Contractor's services are for any reason terminated, stopped or discontinued because of the inability of the Contractor to provide service under this Agreement, the Contractor shall be paid only for those services satisfactorily performed prior to the time of termination.

C. If this Agreement is terminated, the City shall take possession of all materials, equipment, tools and facilities owned by the City which the Contractor is using by whatever method it deems expedient, and the Contractor shall deliver to the City all drafts or other documents it has completed or partially completed under this Agreement, together with all other

items, materials and documents which have been paid for by the City, and these documents and materials shall be the property of the City.

D. Upon termination of this Agreement by the City, the Contractor shall have no claim of any kind whatsoever against the City by reason of such termination or by reason of any act incidental thereto, except as follows: if the termination is for the convenience of the City the Contractor shall be entitled to reimbursement for the reasonable cost of the Work to the date of termination, including multiplier, and reasonable costs of orderly termination, provided request for such reimbursement is made no later than six (6) months from the effective date of termination. The Contractor shall not be entitled to loss of anticipated profits or any other consequential damages as a result of any such termination for convenience, and in no event shall the total sums paid exceed the Contract Amount.

31. RIGHTS AND REMEDIES NOT WAIVED:

In no event shall any payment by the City hereunder constitute or be construed to be a waiver by the City of any breach of covenant or default which may then exist on the part of the Contractor, and the making of any such payment when any such breach or default shall exist shall not impair or prejudice any right or remedy available to the City with respect to such breach or default; and no assent, expressed or implied, to any breach of any one or more covenants, provisions or conditions of this Agreement shall be deemed or taken to be a waiver of any other breach.

32. SURVIVAL OF CERTAIN CONTRACT PROVISIONS:

The parties understand and agree that all terms and conditions of this Agreement, including any warranty provision, which by reasonable implication contemplate continued performance or compliance beyond the termination of this Agreement (by expiration of the term or otherwise) shall survive such termination and shall continue to be enforceable as provided herein.

33. NOTICES:

Notwithstanding any other provision of this Agreement, notices concerning termination of this Agreement, notices of alleged or actual violations of the terms of this Agreement, and other notices of similar importance shall be made as follows:

by Contractor to:	Chief Executive Officer Department of Aviation Denver International Airport 8500 Peña Boulevard, 9th Floor Denver, Colorado 80249-6340
And by City to:	Grey Wall Software, LLC d/b/a veoci.com 129 Church Street New Haven, CT 06510

Said notices shall be delivered personally during normal business hours to the appropriate office above or by prepaid U.S. certified mail, return receipt requested. Mailed notices shall be deemed effective upon deposit with the U.S. Postal Service. Either party may from time to time designate substitute addresses or persons where and to whom such notices are to be mailed or delivered, but such substitutions shall not be effective until actual receipt of written notification thereof.

34. NO THIRD PARTY BENEFICIARIES:

It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement and all rights of action relating to such enforcement shall be strictly reserved to the City and the Contractor, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other or third person on such Agreement. It is the express intention of the City and the Contractor that any person other than the City or the Contractor receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

35. ASSIGNMENT:

The Contractor shall not assign, pledge or transfer its duties and rights under this Agreement, in whole or in part, without first obtaining the written consent of the CEO. Any attempt by the Contractor to assign or transfer its rights hereunder without such prior written consent shall, at the option of the CEO, automatically terminate this Agreement and all rights of the Contractor hereunder. Such consent may be granted or denied at the sole and absolute discretion of the CEO.

36. CONFLICT OF INTEREST:

The Contractor agrees that it and its subsidiaries, affiliates, subcontractors, principals, or employees will not engage in any transaction, activity or conduct which would result in a conflict of interest. The Contractor represents that it has disclosed any and all current or potential conflicts of interest. A conflict of interest shall include transactions, activities, or conduct that would affect the judgment, actions or work of the Contractor by placing the Contractor's own interests, or the interest of any party with whom the Contractor has a contractual arrangement, in conflict with those of the City. The City, in its sole discretion, shall determine the existence of a conflict of interest and may terminate this Agreement if such a conflict exists, after it has given the Contractor written notice which describes such conflict. The Contractor shall have thirty days after the notice is received in which to eliminate or cure the conflict of interest in a manner which is acceptable to the City.

37. GOVERNING LAW; BOND ORDINANCES; VENUE; DISPUTES:

A. This Agreement is made under and shall be governed by the laws of Colorado. Each and every term, provision or condition herein is subject to the provisions of Colorado law,

the Charter of the City and County of Denver, and the ordinances and regulations enacted pursuant thereto. Venue for any action arising hereunder shall be in the City and County of Denver, Colorado.

B. This Agreement is in all respects subject and subordinate to any and all City bond ordinances applicable to the Denver Municipal Airport System and to any other bond ordinances which amend, supplement, or replace such bond ordinances.

C. All disputes between the City and Contractor regarding this Agreement shall be resolved by administrative hearing pursuant to the procedure established by D.R.M.C. § 5-17.

38. COMPLIANCE WITH ALL LAWS AND REGULATIONS:

All of the work performed under this Agreement by the Contractor shall comply with all applicable laws, rules, regulations and codes of the United States and the State of Colorado, the charter, ordinances and rules and regulations of the City and County of Denver, and all Denver International Airport Rules and Regulations.

39. FEDERAL PROVISIONS:

This Agreement is subject and subordinate to the terms, reservations, restrictions and conditions of any existing or future agreements between the City and the United States, the execution of which has been or may be required as a condition precedent to the transfer of federal rights or property to the City for airport purposes and the expenditure of federal funds for the extension, expansion or development of the Denver Municipal Airport System, including DEN. The provisions of the attached Federal Aviation Administration Required Contract Provisions are incorporated herein by reference.

40. AIRPORT SECURITY:

A. It is a material requirement of this Contract that the Contractor shall comply with all rules, regulations, written policies and authorized directives from the City and/or the Transportation Security Administration with respect to Airport security. The Contractor shall conduct all of its activities at the Airport in compliance with the Airport security program, which is administered by the Security Section of the Airport Operations Division, Department of Aviation. Violation by the Contractor or any of its employees, subcontractors or vendors of any rule, regulation or authorized directive from the City or the Transportation Security Administration with respect to Airport Security shall be grounds for immediate termination by the City of this Contract for cause.

B. The Contractor shall promptly upon notice of award of this Contract, meet with the Airport's Assistant Security Manager to establish badging and vehicle permit requirements for the Contractor's operations under this Contract. The Contractor shall obtain the proper access authorizations for all of its employees, subcontractors and vendors who will enter the Airport to perform work or make deliveries, and shall be responsible for each such person's compliance with

all Airport rules and regulations, including without limitation those pertaining to security. Any person who violates such rules may be subject to revocation of his/her access authorization. The failure of the Contractor or any subcontractor to complete any required services hereunder shall not be excused on account of the revocation for good cause of access authorization of any person.

C. The security status of the Airport is subject to change without notice. If the security status of the Airport changes at any time during the term of this Contract, the Contractor shall take immediate steps to comply with security modifications which occur as a result of the changed status. The Contractor may at any time obtain current information from the Airport Security Office regarding the Airport's security status in relation to the Contractor's operations at the Airport.

D. The Contractor shall return to the City at the expiration or termination of this Contract, or upon demand by the City, all access keys or access badges issued to it or any subcontractor for any area of the Airport, whether or not restricted. If the Contractor fails to do so, the Contractor shall be liable to reimburse the City for all the City's costs for work required to prevent compromise of the Airport security system. The City may withhold funds in the amount of such costs from any amounts due and payable to the Contractor under this Contract.

41. USE, POSSESSION OR SALE OF ALCOHOL OR DRUGS:

The Contractor and Contractor's agents shall cooperate and comply with the provisions of the City and County of Denver Executive Order No. 94 and Attachment A thereto concerning the use, possession or sale of alcohol or drugs. Violation of these provisions or refusal to cooperate with implementation of the policy can result in the City's barring the Contractor and Contractor's agents from City facilities or participating in City operations.

42. CITY SMOKING POLICY:

Contractor acknowledges that smoking is not permitted in Airport buildings and facilities except for designated Airport Smoking Concessions, and so agrees that it will prohibit smoking by its employees and the public in indoor areas and within 15 feet of entryways of the Airport Premises, except as may otherwise be permitted by the Colorado Clean Indoor Air Act, C.R.S. §§ 25-14-201 to 209. Contractor and its officers, agents, and employees shall cooperate and comply with the provisions of the Denver Revised Municipal Code, §§ 24-301 to 317 et. seq., the Colorado Clean Indoor Air Act, C.R.S. §§ 25-14-201 to 209, City's Executive Order No. 99 dated December 1, 1993, and Executive Order No. 13 dated July 31, 2002.

43. PARAGRAPH HEADINGS:

The captions and headings set forth herein are for convenience of reference only, and shall not be construed so as to define or limit the terms and provisions hereof.

44. CONTRACT DOCUMENTS; ORDER OF PRECEDENCE:

This Agreement consists of Sections 1 through 51 which precede the signature page, and the following attachments and documents which are incorporated herein and made a part hereof by reference (the "Contract Documents"):

Attachment 1:	Federal Aviation Administration Required Contract Provisions
Exhibit A:	Scope of Work
Exhibit B:	Rates and Charges
Exhibit C:	Certificate of Insurance
Incorporated by Reference:	Contractor's Proposal to RFP No. 28416C dated March 7, 2017

In the event of an irreconcilable conflict between a provision of Sections 1 through 51 and any of the listed attachments or between provisions of any attachments, such that it is impossible to give effect to both, the order of precedence to determine which document shall control to resolve such conflict, is as follows, in descending order:

Attachment 1, Federal Aviation Administration Required Contract Provisions
Sections 1 through 51 hereof
Exhibit A
Exhibit B
Exhibit C
Contractor's Proposal to RFP No. 28416C dated March 7, 2017

45. AGREEMENT AS COMPLETE INTEGRATION; AMENDMENTS:

This Agreement is intended as the complete integration of all understandings between the parties. No prior or contemporaneous addition, deletion, or other amendment hereto shall have any force or effect whatsoever, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion, or other amendment hereto shall have any force or effect unless embodied in a written amendatory or other agreement properly executed by the parties. This Agreement and any amendments shall be binding upon the parties, their successors and assigns.

46. INUREMENT:

The rights and obligations of the parties herein set forth shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns permitted under this Agreement.

47. FORCE MAJEURE:

Neither party shall be liable for any failure to perform any of its obligations hereunder due to or caused by, in whole or in part, fire, strikes, lockouts, unusual delay by common carriers, unavoidable casualties, war, riots, acts of terrorism, acts of civil or military authority, acts of God, judicial action, or any other causes beyond the control of the parties. Both parties shall have the

duty to take reasonable actions to mitigate or prevent further delays or losses resulting from such causes.

48. SEVERABILITY; ENTIRE AGREEMENT:

If any part, portion or provision of this Agreement shall be found or declared null, void, or unenforceable for any reason whatsoever by any court of competent jurisdiction or any governmental agency having applicable authority, only such part, portion, or provision shall be affected thereby and all other parts, portions and provisions of this Agreement shall remain in full force and effect. The Contract Documents form the entire agreement between the parties and are fully binding on the parties. No oral representations or other agreements have been made except as specifically stated in the Contract Documents.

49. COUNTERPARTS OF THIS AGREEMENT:

This Agreement may be executed in counterparts, each of which shall be deemed to be an original of this Agreement.

50. ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS:

Contractor consents to the use of electronic signatures by the City. The Agreement, and any other documents requiring a signature hereunder, may be signed electronically the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

51. CITY EXECUTION OF AGREEMENT:

This Agreement is expressly subject to and shall not be or become effective or binding on the City until it has been approved by City Council, if so required by law, and fully executed by all signatories of the City and County of Denver.

[SIGNATURE PAGE FOLLOWS]

Contract Control Number:

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at Denver, Colorado as of

SEAL

CITY AND COUNTY OF DENVER

ATTEST:

By_____

_____

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

By_____

By_____

By_____

Contract Control Number: PLANE-201738777-00

Contractor Name: GREY WALL SOFTWARE, LLC d/b/a VEOCI.COM

By: _____

Name: Sukhminder S. Grewal
(please print)

Title: CEO
(please print)

ATTEST: [if required]

By: _____

Name: Jennifer McTiernan
(please print)

Title: General Counsel
(please print)

Federal Aviation Administration Required Contract Provisions

As used in these Contract Provisions, "Sponsor" means The City and County of Denver, Department of Aviation, and "Contractor" or "Consultant" means the Party of the Second Part as set forth in Contract Number PLANE-201738777-00

A. Title VI Clauses for Compliance with Nondiscrimination Requirements

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

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.

2. Non-discrimination: 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 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.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the 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 the contractor of the contractor's obligations under this contract and the Nondiscrimination Acts And Authorities on the grounds of race, color, or national origin.

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 sponsor 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 sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor 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.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six 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 sponsor 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 sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the

contractor may request the United States to enter into the litigation to protect the interests of the United States.

B. Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the 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 U.S.C. § 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 U.S.C. § 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 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
• The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
• Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
• The Civil Rights Restoration Act of 1987, (PL 100-209), (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, which 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 (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
• The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 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, which 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. at 74087 to 74100);
• Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. § 1681 et seq).

C. FAIR LABOR STANDARDS ACT

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

The [contractor | consultant] has full responsibility to monitor compliance to the referenced statute or regulation. The [contractor | consultant] must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

D. OCCUPATIONAL SAFETY AND HEALTH ACT

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Contractor must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Contractor retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Contractor must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

Denver Event Logging System

Exhibit A Scope of Work

Contract Number: PLANE-201738777-00

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This document contains the agreed scope of work for the Denver International Airport Contract No. PLANE-201738777-00 Event Logging system. In this document, the term "VEOCI" represents both the name of the software product, and the firm responsible for providing the software.

1 Introduction

Denver International Airport (DEN) is beginning a project to replace an existing legacy electronic logging solution, Infopilot. Infopilot has been in operation approximately 15 years. Infopilot is not map-based and has no mobile capabilities. Infopilot reporting is limited. DEN is seeking a proven electronic logging solution, and associated implementation services and hosting services to replace the functionality of Infopilot. The system must be highly configurable to meet a wide range of operational needs across the enterprise. Infopilot is a critical system and is used by numerous Divisions such as Airport Operations, Communications Center, Maintenance Control and Terminal Operations.

VEOCI will be responsible for implementing, hosting and maintaining a state-of-the-art electronic logging solution. The solution will be fully web based and have a mobile app that may be used off-line. The new system will also be interfaced with other systems as listed in the Appendix B. DEN's ESRI GIS system will provide approximately 25 static and dynamic map layers for integration into the VEOCI system.

DEN uses an internally developed map inspection tool (MIT) for Part 139 airfield inspections to supplement Infopilot. DEN Maps (ESRI) provides spatial capabilities. The MIT is accessible via desktop, laptop or tablet. It interfaces with MAXIMO to initiate work orders and to communicate the status of work orders to airfield inspectors. VEOCI will replace DEN's current combination of Infopilot and MIT, including integration with MAXIMO and DEN Maps, with VEOCI's customized part 139 solution.

DEN currently utilizes a third-party Safety Management software solution. VEOCI will replace this functionality with their SMS module. With the implementation of the Runway Incursion Warning System option, VEOCI will create an alert to the operator; but in addition, the alert will auto-initiate an SMS workflow process, or any relevant safety process associated with potential or actual incursions.

DEN currently utilizes extensive Excel Spreadsheet for preparing, documenting, and managing for Snow Events. VEOCI will replace this functionality with their Incident Management module.

DEN will be evolving its Situational Awareness and Event Management capabilities in a phased approach over the next 3-5 years. The proposed event logging solution will offer the opportunity to upgrade data and information collection, reporting, and analytical capabilities for end users. By virtue of its real-time information sharing capabilities, the proposed solution will provide DEN staff some level of enhanced Situational Awareness and Event Management. The event logging solution is also expected to provide improved incident recreation abilities. In Figure *1* below, the "Event Logging Solution" section (in red) shows the role this procurement serves in EVMS roadmap.

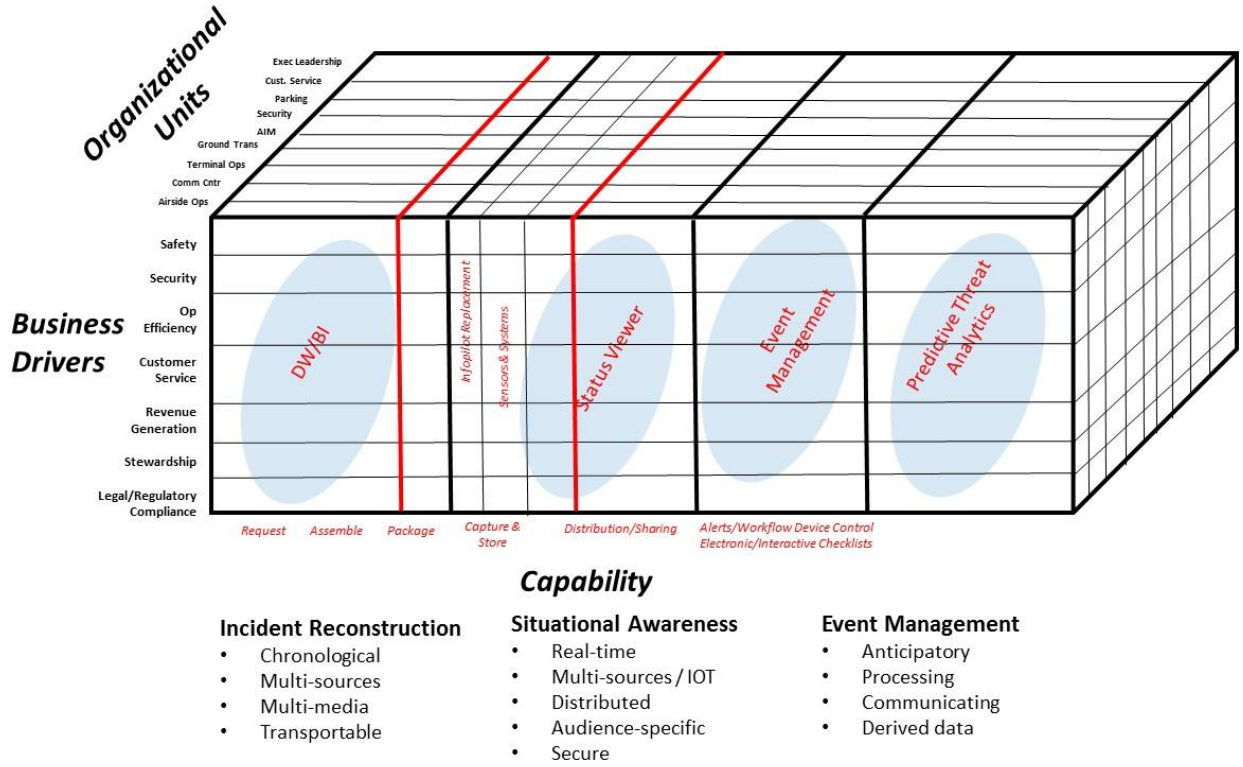


Figure 1 DEN Technologies

The Business Technologies Division, the IT section within DEN, has an ongoing initiative to move toward a service based organization. VEOCI will align with IT Service Management best practices (ITIL) and supports Business Technologies' mission to be "The Provider of Choice".

High-level timelines for Phases 1 and 2 are presented in Section 4.

2 Term of Agreement

The term of the agreement will be for three (3) years with two (2) annual options for renewal based on fund appropriation.

3 RFP Objectives and Expectations

This scope of work has four major objectives as described below.

- ➔ Objective 1: Integrations with other DEN, FAA, and other systems – The solution should have the capability to "pull" data from other systems/data sources and to "push" data to other systems.
- ➔ Objective 2: DEN self-sufficiency – DEN envisions a solution in which data collection forms, reports and dashboards can be relatively easily configured and maintained by DEN staff, following implementation, training and appropriate knowledge transfer.

- ➔ Objective 3: Enterprise-wide – The solution will be used across the Enterprise; this will entail a multitude of users and user types, forms, reports and dashboards and configuration of role-based access controls.
- ➔ Objective 4: Implementation approach and timeframe – Since Infopilot is not a modular system, DEN contemplates solution implementation in two phases;
    - ◆ Phase 1 will be a “big bang” that will enable all Infopilot functionality to be implemented in the new system; Phase 1 is expected to take approximately eight months and include deployment of part 139 solution, as well as Terminal Operations Inspection forms.
    - ◆ Phase 2 will encompass remaining functionality outside of Infopilot, including SMS part 1, and is expected to take approximately six months. Note that each year during mid-December through mid-January, DEN has a policy not to implement new systems or changes to critical systems.
    - ◆ Phase 3 will include SMS part 2 and Phase 3 integrations.

4 Proposed Implementation Schedule

This schedule anticipates a contract start date no later than Q2 2018.

Figure 2 Project Schedule

	2018				2019			
Proposed Phasing	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Phase 1								
Project Deliverables (including kick-off meeting)	A	B	C	D				
Infrastructure								
GIS								
IOT DB Connectivity								
Networking								
LDAP / Security / Outlook								
Phase 1 Integrations		A	B	B				
Part 139 Inspection								
Infopilot Forms (99) & Terminal Inspection								
EOC 1 - Snow (by OCT 2018)								
Phase 2								
Non-Infopilot Forms								
MCC Incidents								
NOV								
SMS - Part 1 – Audits								
Phase 2 Integrations								
EOC 2 – TBD								
Phase 3								
SMS - Part 2 - Hazard Reporting								
Phase 3 Integrations								

5 Project Scope

The project scope is defined in the following Statement of Work (SOW). The SOW is comprised of two sections:

- ➔ System capabilities to be implemented / Solution
- ➔ Implementation services / Project

5.1 Anticipated Level of Effort

The total number of users will be 270. All users will have full read/write access (as limited by DEN), and can be used concurrently. All initial users are in DEN's Azure Active Directory.

The new logging system will accept manual event log entries and enhance situational awareness. The system will provide approximately 100 data collection forms.

The new logging system will receive automated data and information from approximately 28 DEN and non-DEN systems to auto-generate log entries. A listing of Integrations is provided in Appendix B.

Infopilot supports the multiple business processes associated with log entries which must be implemented for Phase 1 VEOCI deployment.

Infopilot is used extensively across DEN. The system will be configured (forms, reports, dashboards, access privileges, etc.) to support the logging, information sharing needs, and business processes of these organizational units. These organizational units include: Airfield Operations, Operations Communications and Training , Terminal Operations, Organizational Effectiveness (Metrics), Communications Center, Emergency Operations Center, Maintenance Communications Center, Airport Security, Landside Services ,Ground Transportation, Parking, and Guest Services.

5.2 Solution Functional Modules

Org/Modules	SMS	Part 139	Terminal Facilities Inspctn	Snow	Routine Log Entries	Incident Event Logging	Shift Manage.	Training Cert.	Incident ReCreat.
Airfield Operations									
Ramp Tower									
Terminal Operations									
Comm Center									
Airport Security									
Safety									
Maintenance Control Center									
Parking and Ground Transportation									
EOC									

Figure 3 Organizational Modules

5.2.1 Automated Logbook Entries

The VEOCI system will eliminate the current need for employees to manually re-enter events that originate from various Airport technology systems. The system captures, collates and stores data from a number of DEN technology systems as described in the data integrations table below. DEN is responsible to apply logic to IOT systems in the IOT staging database for systems where only filtered information is desirable to be aggregated into the VEOCI system. The VEOCI system does not issue commands to any of the other IOT systems, communication is unidirectional.

5.2.2 Routine Event Logging - Manual Data Entry

When users create an event log, the system references all available information from other systems, such as NOTAMS, FIDS, etc.) based on time-stamp and auto-populates forms. The event form should auto-capture geolocation, time, and user and be customizable to the type of event being logged.

With geolocation, the event is viewable on a map, with layers provided through DEN's GIS system. Forms should accept multiple types of attached files, including images and voice-recordings. Once created, the forms should allow for editing and make the change history easily accessible. The number of forms the system provides is not limited in number and the users must be able to customized lists and drop-downs.

All parts of the organization will be supported with custom inspection forms for routine Event Logging.

5.2.3 Part 139 Inspections

The system provides both electronic form submittal as well as form print-out for paper-based submittal. Inspection schedules are created. Data in the system such as NOTAMS and Work Orders are associated with the inspection schedule. Associated images and data files are maintained, the inspection form will geo-locate a discrepancy. Any number of department checklists may be developed, for both airside and landside. The system will provide heat maps of discrepancies and other key parameters. Electronic signature and/or electronic approval process is provided.

5.2.4 Safety Management System

The Safety Management System module harnesses information gathered throughout the organization. SMS has specific needs such as reviewing normal reporting information in the VEOCI system from any department, specialized incident reporting forms that facilitate anonymous reporting, specialized workflow processes for risk assessment, specialized reporting of information in VEOCI, specialized workflow logic for automated event logging such as Runway Incursions, and specialized audit (inspection) forms.

5.2.5 Terminal Operations Inspection

Terminal Operations uses forms for inspection the terminal. GIS layers will be imported.

5.2.6 Shift Roster & Scheduling for Ramp Tower

The Shift management module provides the capability to define shifts, create positions, and develop a duty roster. Work requirements for each shift are developed and schedules are created according to predefined shift requirements logic. Running totals of hours worked in each position will be maintained, tracking personnel assignments to each function, complaint with Part 139 or other regulatory requirements.

5.2.7 Training Certification and logs for Ramp Tower

The system maintains training records as well as associations to the duty roster. The system assists in planning and scheduling training courses, and maintaining an individualized training plan. The system monitors progress on training plan, tracks attendees at training courses and documents certifications.

5.2.8 AOM Training Certification and Shift Roster

AOM is using a shareable calendar in the cloud. VEOCI will evaluate the potential value of including this functionality in the VEOCI deployment. This may be ordered as a project option.

5.2.9 Incident Event Logging

DEN currently uses an internal tool for sharing Situational Awareness during incidents and emergencies. The platform used is called SWAY, a Microsoft product. During an incident, SWAY provides DEN an Executive Overview, Objectives, Incident Command Structure, maps and images as well as a chronology of key activities. VEOCI will replace this functionality with a component called DEN LIVE which will provide situational awareness organizational-wide.

5.2.10 Snow Event Planning and Management

In the event of a snow incident, VEOCI will launch a specialized snow operations plan, assigning out tasks, and implementing specialized business processes as outlined by DEN's snow team.

Specialized dashboard will be developed to facilitate snow event planning and management. The dashboard for snow events includes staffing, equipment, weather, and other factors.

There will be four levels of Snow Response based on the severity of the weather event.

The capability to track snow equipment in real time (where it is, and the ability to have it displayed on a map) can be provided as an option.

5.2.11 Incident Re-creation (Reporting)

Review system data in chronological order associated with events, accessing all data associated with the event based on time-stamp. The system generates post-event reports on standardized forms for internal use and sharing with appropriate agencies. Associated data includes videos and information shall be viewable on a map. Include ICS forms.

5.2.12 Dashboards

The following organizations will have a custom dashboard developed.

- ➔ Airfield Operations
- ➔ Operations Communications and Training
- ➔ Terminal Operations
- ➔ Communications Center
- ➔ Emergency Operations Center
- ➔ Maintenance Communications Center
- ➔ Airport Security
- ➔ Ground Transportation
- ➔ Parking
- ➔ Guest Services
- ➔ Executive Real-time Snapshot
- ➔ Organizational Effectiveness (Metrics)

5.3 VEOCI Platform Capabilities

5.3.1 Promotes Information Sharing

VEOCI aggregates data throughout an organization, promoting information sharing and enhancing situational awareness.

5.3.2 Notifications and Reminders

Based on specified logic, the system shall be able to generate reminders and alerts. Logic includes threshold values (a value in a field is greater than a pre-identified threshold). Emails, reports, and alerts will be generated throughout the system based on a variety of DEN - specified logic. The system alerts to incomplete actions and assigned actions. The system provides a chat function.

5.3.3 Map Display Capability

The system provides viewing of DEN's GIS layers in ESRI shape format. Users will have map information available on their mobile devices, be able to locate themselves relative to the map, drop pins on the map. Maps are interactive and allow users to draw lines and shapes, and allow Point of Interest to be noted. Assets can be viewed in layers of the map. Map assets or map shapes are geo-coded and can be linked to other associated geo-coded information in the system.

The database is spatial by design and will store coordinate information with each data entry. It shall allow all data (e.g. Part 139, to Wildlife or Operations) to be linked, queried and associated with each other.

The system detects and uses location information from GPS devices connected to laptops/tablets in DEN vehicles, and GPS installed natively or connected via Bluetooth to mobile phones.

Map may be annotated through use of the mobile device. Photos are taken with mobile device and forms annotated.

5.3.4 Store any Type of Data

System supports database storage of audio, video, images, maps (any markers, objects associated with incident and with GPS coordinates).

5.3.5 Dashboards

The system allows for custom dashboards based on role, department or user, accessing any data available in the system.

5.3.6 Queries, Reporting, and Analytics

The system allows for custom reporting, creating ad-hoc reporting, and creating saved custom queries. Data is filtered by geometric boundaries drawn on a map. The system will support an industry-standard version of Structured Query Language (SQL).

5.3.7 Access from Anywhere and Mobile

Users may access the system from work, home or anywhere where they have and Internet connection. It will be built using responsive HTML5 design so that it displays and functions on PC browsers and mobile devices such as phones and tablets. The solution is compatible for use on touchscreen devices using industry standard touchscreen inputs and with the use of a stylus. If connectivity is lost, the solution continues to function, and data will be auto-captured when connectivity is restored.

5.3.8 Anytime, Anyway Data Export

The system has the ability to export or make accessible data in bulk on-demand, query, or by scheduled export jobs. Examples of exported data formats include, without limitation, .csv, API, and web services.

5.3.9 Configurable Solution in Deployment and Operation

The solution is highly customizable and configurable, including adding and removing categories and changing the order and arrangement of information boxes. Includes a published set of APIs, or similar approach, which is fully accessible by DEN for ongoing development, integration, analysis and enhancements.

5.3.10 Open and Compatible with Industry Standards

VEOCI employs an industry-standard relational database management system that supports Open Database Connectivity (ODBC) and XML data service. VEOCI is Compatible with current browsers

within two weeks of release; this includes Microsoft IE11 and Edge, Apple iOS Safari and Google Chrome browsers for workstations, iOS, and Android.

5.3.11 Errors and Upgrades

The system allows users to easily submit bug reports with attachments and monitor the timely resolution of the reported issue. User defined fields and customizations are not impacted by upgrades.

5.3.12 User Preferences and Self-Service

The solution provides the following individual customization and self-service capabilities:

- ➔ Ability to change their own passwords
- ➔ Ability to change profile and preferences
- ➔ Ability to customize their homepage view
- ➔ Store user preferences

5.4 DEN Platform Requirements

5.4.1 Hosting

Hosted solution must be supported by a minimum of two separate Vendor data centers and have redundant network connects to DEN's WAN.

Hosted solution must provide the ability to access an alternate route to leverage the DEN data network for access by end users.

Hosted solution must utilize on-site Network Time Protocols servers; and use MST

Hosted solution must have a defined and acceptable (to DEN) upgrade and patching process.

5.4.2 Hosted Solution Client Accessibility

Client access to the solution will be fully web-based with no client software required. Complimentary apps (for iPhone/iPad and Android) are included in addition to full web capability. The hosted system data shall reside in the U.S.A and meet agreed SLAs.

5.4.3 DEN Standards Integration and Interoperability Requirements

DEN’s preferred solution is to use Azure Active Directory; if not an option Active Directory Federation Services (ADFS) is required for hosted solutions and single sign-on with the DEN network.

All integrations to and from DEN systems will be transmitted through DEN’s Del Boomi, DEN’s middleware provider.

5.4.4 Security

The solution must follow security industry best practices and meet DEN guidelines, including but not limited to:

A) Two factor identification
B) Physical access, i.e. preventive and detective access controls and reporting mechanisms, ensuring a timely and reliable process for notifying DEN of any breach; ensure that access controls are strictly enforceable and auditable.
C) All log entries shall be time and date stamped.
D) Connectivity will be HTTPS encryption based.
E) Ensure data confidentiality, including protection from unauthorized access, while:
    a) In transit – ensure that all other data is encrypted beyond the reasonable threat of a successful brute force attack, or comparable risk-based mechanisms.
    b) At rest – ensure that DEN data in databases will not be compromised.
F) Compliant with NIST 800-171 NIST Guidelines (application and hosting data center) or other applicable standards appropriate for protected information that will be contained within the stored data, and can produce audit results to DEN.
G) Meet or exceed storage and conditions standards set by the City of Denver with regards to the use, storage and protection of public records.
H) Ensure application audit capabilities – implement date-time stamp, or other mechanism sufficient to provide an audit trail for identifying critical data and resource application activity, and the reporting of unauthorized intrusions and activity or attempted breaches.

5.4.5 System Access, Audit and Archiving

DEN does not intend the solution to store Personally Identifiable Information and (PII). The Solution will store Sensitive Security Information as defined by DEN applicable media classification, handling, and disposal standards or policies.

The system must meet all applicable regulations and policies for handling DHS/TSA data. To secure this data, the solution shall provide the following access capabilities:

A) Allow DEN administrators to create roles that control access to forms, reference data, reports, dashboards, alerts, etc.
B) Provide method(s) for the system administrator to view and maintain user profiles such as: add new users, modify and delete user profiles.
C) In addition to data access restrictions, other restrictions include: read-only, or edit.
D) Groups and roles within groups will reflect the organizational structure for the purposes of position hierarchy, position assignments, access, alerts and workflow.
E) Administrative ability to manage users, groups, and role associations.
F) Define user access controls by group and user.
G) Pre-defined set of roles that are used to control access to certain functions.

H) All log entries shall be:
   a) time and date stamped
   b) identify who made the entry
   c) identify who made edits
   d) provide full event and auditing logs
   e) track all system changes, log entries, coding, mods, etc.
   f) show changes to a template/form in an audit trail.
I) Notify users when a change is made to their profile.
J) Notify the user of the last time the user logged in.
K) Provide the ability to set rules for archiving / purging
L) The system informs users if they have lost connectivity.
M) The system maintains synchronized log views between application instances to ensure all associated entry data (including presence within a log view) is accurately reflected in near real-time.
N) If the Runway Incursion Warning System option is implemented, the system records continuous positions and annotations throughout the user's session, including while offline.

5.4.6 Implementation Services Overview

VEOCI will provide professional services for system implementation, sufficiently resourced to support the project timeline. VEOCI will provide the staff personnel as described in Appendix I. DEN must agree to changes in key staff.

Project and Implementation Services include leading system configuration and providing knowledge transfer to enable DEN staff to configure forms, develop reports and configure dashboards during implementation and post-implementation.

Technical professional services to be provided include integrating the system with Outlook, Azure Active Directory, ESRI, Everbridge and other systems that will either produce or consume data and information flowing into and out of the electronic logging system.

As part of implementation, VEOCI will provide on-site and remote training for DEN system administrators, internal support staff (for configuring forms and dashboards and creating reports and queries) and end users. Due to shift work, approximately 10-20% of training classes will need to be scheduled during off hours (i.e. 4pm – 7am).

5.4.7 DEN Project Team Support

The majority of the services described below will be provided VEOCI. Where indicated some activities will be shared responsibilities. As part of the implementation team, DEN will provide:

➔ Two business analysts
➔ ½ FTE solution architect
➔ One FTE integration engineer
➔ ¼ QA engineer

- ➔ One FTE project manager
- ➔ Subject Matter Experts (SMEs) from various DEN organizational units will be called upon to participate in project activities as needed.

5.4.8 VEOCI Team

- ➔ Vishu Rao, Director of Solutions - The Project Manager
  - ◆ Alex Nguyen, Solutions Architect - Solution Team Lead
  - ◆ Hemi Patel, Quality Assurance Engineer - Quality Lead
  - ◆ Vincent Jessel, Account Manager - Project Coordinator
- ➔ Kenneth Moon, VP User Experience - Subject Matter Expert
- ➔ Tamas Simon, VP Software and Security - Chief Software Engineer
- ➔ Victoria Garmy, Director Business Development - Account Manager

5.4.9 Project Management

Weekly project reporting in the form of written status reports and weekly coordination meetings with DEN project manager is required. VEOCI and the DEN PM shall work together on status reports and meeting content. Status reports may be contained within the VEOCI support and collaboration portal.

The project will be managed in adherence to the requirements presented in the following Appendices:

- ➔ Appendix A Specific Requirements
- ➔ Appendix B Systems Integrations
- ➔ Appendix C Project Deliverables
- ➔ Appendix D Project Training Plan
- ➔ Appendix E Project Testing Plan
- ➔ Appendix F VEOCI Project Methodologies

5.4.10 Collaborative Business Process Design, and System Configuration

The DEN Project Manager (and/or backup) assigned to the project and other stakeholders identified by DEN and the VEOCI team work together to determine the requirements for the project.

DEN will be responsible for communicating requirements to the VEOCI team, as well as gathering and organizing information from other stakeholders. They also will provide the VEOCI team with an understanding of the DEN processes, methods, and all software applications in use that may need integration with the new Event Logging System and other information necessary to ensure the planning phase is successful.

VEOCI will compile and adhere to all requirements needed to successfully implement the solution. This phase will also be key for identifying the detail about the material resources and staff (both from DEN and VEOCI) needed to successfully complete the project.

Both parties will also work together on the Planning phase, when the DEN team will provide the information needed to the VEOCI team for the creation of the overall plan for the configuration of the Event Logging System.

5.4.11 Project Requirements Validation and Verification Plan

Solution Functional Modules described in 5.2 will be validated when configuration is complete through User Acceptance Testing Process.

VEOCI Platform Capabilities described in 5.3 are considered verified through due diligence during the procurement process.

DEN Platform Requirements described in 5.4 will be verified through documentation, certification or other means as jointly developed by the project team as pertaining to DEN's specifically deployed system.

Specific Requirements contained in Appendix A will form a requirements matrix and adherence specifically tracked.

Integrations described in Appendix B will be verified through testing processes described herein.

5.4.12 Project Deliverables and Milestones

There are four categories of deliverables:

- ➔ **Deliverable Category 1**: These are formal implementation Payment Deliverables. Deliverables have been defined for this project and are presented as line items in the Figure 4 below. Integrations to support Phase 1 and Category 1 deliverables are shown in Figure 5.
- ➔ **Deliverable Category 2**: These deliverables are listed and /or described below. VEOCI must provide these deliverables, or proposed alternatives that accomplish a similar intent. An alternative deliverable can be proposed if the specified Deliverable does not fit the proposed Methodology and Approach of VEOCI, or if it just doesn't make sense. Category 2 deliverables and their association to milestone payments (i.e. Category 1 deliverables) are shown in Figure 6.
- ➔ **Deliverable Category 3**: These are informal Work Products that do not trigger a payment or formal review and acceptance. Work Products are normally subordinate deliverables that lead up to or are a part of a formal Payment Deliverable.
- ➔ **Deliverable Category 4**: These are Ongoing Operational Deliverables that are priced into the monthly or annual rate quoted in Cost Schedules for Ongoing Operations.

Phase 1 will be implemented in three milestones, integrations essential to Part 139, Part 139 solution, and then the completion of remaining forms and Phase 1 integrations.

	Phase 1			*Phase2*	*Phase3*
Phasing/Milestone	**M1**	**M2**	**M3**	**M4**	**M5**
Phase 1					
Project Deliverables (including kick-off meeting)	A	B	C	D	
Infrastructure					
GIS					
IOT DB Connectivity					
Networking					
LDAP / Security / Outlook					
Phase 1 Integrations		A	B		
Part 139 Inspection					
Infopilot Forms (99) & Terminal Inspection					
EOC 1 - Snow (by OCT 2018)					
Phase 2					
Non-Infopilot Forms					
MCC Incidents					
NOV					
SMS - Part 1 - Audits					
Phase 2 Integrations					
EOC 2 - TBD					
Phase 3					
SMS - Part 2 - Hazard Reporting					
Phase 3 Integrations					
EOC 3 - TBD					
Milestone Payment (% set-up fee)	20%	30%	30%	20%	TBD

Figure 4 Project Milestones

Phase 1A integrations are those necessary to support the Part 139 deployment, While Phase 1B integrations are required to complete the full scope of work.

Integration Name - Information Exchanged	**A**	**B**
Integration #1– GIS layers to Event Logging	**A**	
Integration #2– Contact info from Azure Active Directory		**B**
Integration #3a– NOAA to Event Logging	**A**	
Integration #3b– FAA Metar to Event Logging	**A**	
Integration #3c– Vaisala (surface temp) to Event Logging	**A**	
Integration #3d– Schneider Electric to Event Logging		**B**
Integration #3e– CDOT to Event Logging		**B**
Integration #3f– ASFT to Event Logging		**B**
Integration #3g– Weather Bug to Event Logging	**A**	
Integration #4 – Service Requests from Event Logging System to MAXIMO	**A**	
Integration #5 – WO status from MAXIMO	**A**	
Integration #6 – Acceptance of WO completion/remedy by inspector	**A**	
Integration #7 – Capture NOTAMS (new, updates, cancellations)	**A**	
Integration #8 – Everbridge notification		**B**
Integration #9 – FIDS/BIDS data		**B**
Integration #10 – Genetec/Omnicast		**B**
Integration #11 – Simplex Fire Alarms		**B**
Integration #12 – Netbotz /Schneider Electric		**B**
Integration #13 – Tritech (CAD) Textbased transcriptions of audio recordings		**B**
Integration #14 UCS/Skype	n/a	n/a
Integration #15 – CAISS alarm data		**B**
Integration #16 – Lift Stations		**B**
Integration #17 – Runway Lighting		**B**
Integration #18 – AGTS/Rail		**B**
Integration #19 – Conveyance		**B**
Integration #20 – Central Plant		**B**
Integration #22 – Crash Net		**B**

Figure 5 Integrations Summary

Project Deliverables phased in accordance with Project milestones:

Deliverables	**A**	**B**	**C**	**D**
Deliverable #1A – Project Management Plan	**A**			
Deliverable #1B – Detailed Project Schedule	**A**			
Deliverable #1C – Personnel Organization Chart	**A**			
Deliverable #1D – Change Management Plan	**A**			
Deliverable #2 – Configuration Management Plan		**B**		
Deliverable #3 – Business Design Document		**B**		
Deliverable #4 – Requirements Matrix		**B**		
Deliverable #5 – Capacity and Performance Plan		**B**		
Deliverable #6 – Security Plan			**C**	
Deliverable #7 – System Testing Plan			**C**	
Deliverable #8 – System Testing Results			**C**	
Deliverable #9 – Tables and Rules User Guide			**C**	
Deliverable #10 –Online User Guide			**C**	
Deliverable #11 – Integration Plan			**C**	
Deliverable #12 – User Acceptance Testing Plan			**C**	
Deliverable #12 – User Acceptance Testing Resolutions Document			**C**	
Deliverable #13 – Performance Test			**C**	
Deliverable #14 – Deployment / Roll-Out Plan			**C**	
Deliverable #15 – System Documentation			**C**	
Deliverable #16 – Help Desk			**C**	
Deliverable #17 – Training Plan			**C**	
Deliverable #18 –Training Materials			**C**	
Deliverable #19 – Continuity of Operations (COOP)				**D**
Deliverable #20 – Performance Reports*				**D**

Figure 6 Category 2 Deliverables

5.4.13 Deliverables Processes

For Type 2 Deliverables, VEOCI shall present a draft outline in the form of an annotated table of contents of each deliverable to DEN for approval before starting work on the deliverable. This annotated table of contents will define the acceptance criteria of the deliverable.

Deliverables will be submitted by VEOCI and approved or rejected by DEN in accordance with an agreed-upon Deliverable Acceptance Process.

All proposed deliverables shall be included in the Detailed Project Schedule, and delivered in accordance with the timeline established therein.

During Implementation and Ongoing Operations, DEN may, with proper notification to VEOCI, and assuming that it is within the established base level of support, add or subtract deliverables and / or adjust the contents of deliverables as necessary.

6 Knowledge Transfer Services

VEOCI will provide a combination of multiple knowledge transfer activities to ensure that DEN staff is self-sufficient to manage the logging system after Going Live in the Production environment.

VEOCI expects that DEN will participate actively during implementation. This will keep DEN familiar with what's being configured and, along with the training and documentation, will complete the Knowledge Transfer (KT) required.

7 Deployment (Roll-Out) Support Services

DEN requires the resources and expertise of VEOCI to put the proposed solution into production by the dates specified.

8 Post-Implementation Support Services

8.1 Reporting

DEN will be provided a dashboard to review system performance and other associated metrics at any time. In addition, VEOCI agrees to provide to DEN, within sixty days of its receipt of a written request from Customer, a quarterly electronic report to verify VEOCI's performance against the SLAs. VEOCI agrees to investigate and correct failures to meet the SLAs by:

- ➔ initiating investigations to determine the root cause of the failure;
- ➔ using commercially reasonable efforts to correct the issue;

- ➔ advising Customer as reasonably requested by Customer of the status of efforts being undertaken with respect to the issue; and,
- ➔ providing reasonable evidence to Customer that the cause of the issue is being corrected or will be corrected

VEOCI does not provide page load performance agreements due to influencing external factors not in our control, such as local Internet connectively. However, users may submit tickets when they feel page load is insufficient, and VEOCI can provide a summary of these tickets for DEN's review.

8.2 SLA Definitions and Measurements

"Minor Default" is deemed to occur when VEOCI's performance against an SLA falls in the range of performance in which a minimum SLA credit is granted to Customer.

"Major Default" is deemed to occur when VEOCI's performance against an SLA falls in range of performance in which a maximum SLA default credit is granted to Customer.

"Scheduled Downtime," means the planned downtime, of which VEOCI has notified Customer at least 72 hours in advance.

"Service Level Agreement" or "SLA" means the service levels as defined by production uptime as more fully described in Section 8.4, "Service Level Measurement", below.

"Service Level Default" means that VEOCI's performance fell below the established SLA during a measurement period.

"Service Level Credit" means the amount of additional Service the Customer will be credited for the applicable Service Level Default during the measurement period.

"Target Service Level" means the expected performance range, within which no Service Level Default is assessed, and no Service Level Credit is granted.

Measurement periods are monthly, in arrears, with Service Level Defaults and Service Level Credits being calculated monthly. Any Service Level Credits shall be credited to the Customer annually in arrears, as applicable.

The SLA's set forth in this Exhibit shall be Customer's sole and exclusive remedy related to the SLA default and such Service Level Credits are in lieu of other available remedies such as damages for breach of contract.

8.3 Exceptions

The following items will not be considered as a part of the calculation of Service Level Credits and VEOCI will be relieved of responsibility for SLAs and associated Service Level Credits to the extent VEOCI's failure to meet the SLA(s) is determined by the parties, to be due to:

(i) Force Majeure Events as defined in the Agreement

(ii) Outages resulting from mutually agreed upon Scheduled Downtime

(iii) Outages arising from Customer's network being inaccessible

(iv) Domain Name Server (DNS) issues outside of the direct or contractual control of VEOCI

(v) Customer's acts or omissions (including acts or omissions of a third party not acting on behalf of VEOCI), including, without limitation, custom configuration, scripting, coding, negligence, failure to timely perform or provide relevant assistance, information or infrastructure required of Customer or willful misconduct

(vi) Internet outages, or other third-party infrastructure outages which hinder access to VEOCI's environment

(vii) Outages requested by Customer

(viii) Changes by Customer, or its agents, to Customer's environment which are not communicated to VEOCI and which adversely impact VEOCI's ability to perform the Service.

(ix) Inability of Customer to log-in due to Customer's failure to provide authentication stores to control authentication.

8.4 Service Level Measurement

Service Area**:** Production Uptime

Measurement: For Production availability, the Production downtime shall be measured as the aggregate number of minutes during the monthly measurement period in which the Service was unavailable, divided by the total number of minutes in the monthly measurement period. The period of unavailability shall be measured from the point-in-time that such unavailability is or reasonably should have been detected by VEOCI.

(Uptime % = [1- - (downtime / Production) * 100%]).

For example, if hosting is unavailable for a total of 200 minutes in a 30-day month, then Production Uptime is [1-(200/43,200)*100%] = 99.5%

Target Service Level: Production Uptime is greater than or equal to 99.95%

Minor Default: Production Uptime is less than 99.95% but greater than or equal to 99.5%

Major Default: Production Uptime is less than 99.5%

Measurement Period: Measured on a monthly basis. VEOCI will measure the Production Uptime for each downtime event and in the aggregate each month during the Term, and, upon written request of Customer, report the results to Customer within ten (10) business days of the of the request.

8.5 Service Level Credits

Minor Default = credit of eight (8) additional days of the Service as an extension of the term of the Agreement.

Major Default = credit of thirty days (30) additional days of the Service as an extension of the term of the Agreement.

Response time to Security Level 1 concern is greater than 2 hours = credit of 3 days (3) additional days of the Service as an extension of the term of the Agreement.

Scheduled down time is greater than 2 hours per month = credit of five days (5) additional days of the Service as an extension of the term of the Agreement; scheduled down time would not be considered a Minor Default for purposes of Service Level Credit.

8.6 Included Support

8.6.1 Support Center

The VEOCI team will provide support from a support center via e-mail, an Internet based Client support tool (English version only), and telephone. All support services shall be provided in English language, unless otherwise specified in this Agreement.

- ➔ Phone: <to be provided>
- ➔ Internet based Client support tool: <to be provided>
- ➔ Email: <to be provided>

8.6.2 Hours of Support Center Operation

Support center is available twenty-four (24) hours per day, seven (7) days per week.

8.6.3 Requesting Support

- ➔ Customer will identify the severity level (defined below) of the incident when requesting support from the support center
- ➔ If all support center representatives are busy with other calls, a message will be left on the voicemail response system, which will page appropriate support personnel

8.6.4 Non-Critical Support

System performance or bug affecting some users that does not prevent a customer from using the software to respond to a crisis.

- ➔ Response Time: 2 business days
- ➔ Channel: Email, web, or general support phone number.

8.6.5 Software Critical Issue

System performance or bug affecting all users that prevents a customer from using the software to respond to a crisis.

- ➔ Response time: 2 business hours
- ➔ Channel: Email, web, or general support phone number

8.6.6 EOC Activated Situation

System outage or severe bug preventing customer from using the software during their response to a crisis.

- ➔ Response Time: 30 minutes (24x7)
- ➔ Channel: Emergency phone number

8.6.7 EOC Activated Situation - when VEOCI is fully operational

General questions, support, or assistance in the instance where: the VEOCI system is fully operational, it is outside of VEOCI's normal business hours, but the customer is responding to a crisis and needs support.

- ➔ Response Time: 30 minutes (24x7).
- ➔ Subject to $200 hourly rate.
- ➔ Channel: Emergency phone number
- ➔ Business Hours: M-F 1:30AM -7PM Eastern Time

APPENDIX A Specific Requirements

9 Checklists

Up to ten safety/compliance checklists

10 Notification/Alerts

Resume normal operations from MCC and Comm Center after major incidents

Disseminate security violation notice to Security, individual who received violation, with notification to company

11 Track and Recording

Track and record de-icing times (exit and entry)

Integration with GPS receivers is an option

12 Additional Reference Data

The system will be capable of storing and managing the following type of information:

- Directions to get to a certain location (building, elevator, runway, etc.)
- Map of aircraft parking gates, store information on whether an aircraft will fit in a gate
- Directory of contact information for agencies, individuals, and companies
- General contact information with custom fields
- Maintain and allow access to historic temperature data in Celsius and Fahrenheit
- Asset list through Maximo integration
- Flight information from DEN's Airport Information Hub (AIH)
- Shuttle information and basic information about Hotel, with custom fields
- Hyperlinks to other resources
- Links to source documents such as SOPs
- Resource list; MDSS
- RSS feed/news/info

13 Data Entry Forms

Organization	Category	Event Type	Data Source	Manual / System
COMM	Routine	Aircraft Accident Report	Aircraft Accident Report Form	Manual
	Routine	Duty Roster	Shift Manager subsystem	Manual
	Routine	General Comm		Manual
	Routine	Medical/Injury	Medical Injury Form	Manual
	Routine	NOTAMS	FAA Database/Integration#7	System / DDN
	Routine	Property Damage	Property Damage Form	Manual
	Routine	Snow Event Comments		Manual
	Routine	Traffic Summary	Integration#3e CDOT,	System
	Routine	Weather Conditions	Integration#3a-3g weather systems	System
	Incidents	Alert	Integration#8 Everbridge	System
	Incidents	Bomb Threat		Manual
	Incidents	Chemical Spill		Manual
	Incidents	Security Breach	Integration #15 CAISS	Manual & System
	Incidents	Severe Weather	Integration#3a-3g weather systems	System
	Incidents	SMGCS		Manual
	Incidents	Train Incident	Integration AGTS	System & Manual
AOM	Routine	Aircraft Accident Report	Aircraft Accident Report Form	Manual
	Routine	Duty Roster	Shift Manager subsystem	
	Routine	General (AOM)		Manual
	Routine	Medical/Injury		Manual
	Routine	NOTAMs	FAA Database/Integration#7	System / DDN
	Routine	Property Damage		Manual
	Routine	Weather Conditions	Integration#3a-3g weather systems	System
	Routine	Wildlife		Manual
	Incidents	Aircraft		Manual
	Incidents	Airfield		Manual
	Incidents	Alert	Integration #22 CrashNet	System
	Incidents	Bomb Threat		Manual
	Incidents	Bus		Manual
	Incidents	Chemical Spill		Manual
	Incidents	Denver Fire	Integration #13 Tri-Tech	System and Manual
	Incidents	Denver Police	Integration #13 Tri-Tech	System and Manual
	Incidents	Incursion		Manual /RIWS Option
	Incidents	Jetbridge Incident		Manual

Organization	Category	Event Type	Data Source	Manual / System
	Incidents	Landside		Manual
	Incidents	Security Breach		Manual
	Incidents	Severe Weather	Integration#3a-3g weather systems	System
	Incidents	SMGCS		Manual
	Incidents	Snow Alert		Manual
	Incidents	Terminal & Concourses		Manual
	Incidents	Train Incident		Manual
RT Log Entries	Routine	Aircraft Divert		Manual
	Routine	Crash Phone Activation	Integration #22 CrashNet	System
	Routine	Equipment Status/Outage		Manual
	Routine	Gate/Remote Parking Issue		Manual
	Routine	General (RT)		Manual
	Routine	Position Assignment (RT)		Manual
	Routine	Temporary Closure (RT)		Manual
	Routine	Visitor		Manual
	Incidents	Aircraft/Vehicle Incident		Manual
	Incidents	Deice (RT)		Manual
	Incidents	Snow Operations		Manual
	Incidents	Vehicle/Pedestrian Incurs		Manual
CAISS Log Entries	Routine	210 Form		Manual
	Routine	General (CAISS)		Manual
	Routine	Security Violation		Manual
	Incidents	Incursion	Integration #15 CAISS	Manual & System
	Incidents	Security Breach	Integration #15 CAISS	Manual & System
MCC Log entries [GS1]	Routine	210 Form		Manual
	Routine	General (MCC)		Manual
	Routine	Start Tour (MCC)		Manual
	Routine	Alert (MCC)		Manual
	Routine	Bus Complaint / Incident (MCC)		Manual
	Routine	Central Plant Incident (MCC)	Integration #20 - Central Plant	Manual & System
	Routine	Confined Space (MCC)		
	Routine	Construction (MCC)		
	Routine	Conveyance (MCC)	Integration #19 - Conveyances	Manual & System
	Routine	Customs Access (MCC)		Manual

Organization	Category	Event Type	Data Source	Manual / System
	Incident	Damage to City Property (MCC)		Manual
	Incident	FIDS/BIDS/SAPS (MCC)	Manual & System	System
	Incident	Fire Alarm (MCC)	Integration #11 - Simplex	Manual & System
	Incident	Fire Watch (MCC)		Manual
	Incident	Gas/Odor Incident (MCC)		Manual
	Incident	Hazmat Incident (MCC)		Manual
	Incident	Injury/Accident (MCC)		Manual
	Incident	Jetbridge Incident (MCC)		Manual
	Incident	Nursing Room (MCC)		Manual
	Incident	Off AOA (MCC)		Manual
	Incident	Other Incident (MCC)		Manual
	Incident	Pest Control (MCC)		Manual
	Incident	Power Outage (MCC)		Manual
	Incident	Roof Access (MCC)		Manual
	Incident	Runway Lighting (MCC)		Manual & System
	Incident	Security Breach (MCC)		Manual
	Incident	Snow Incident (MCC)		Manual
	Incident	Train Incident (MCC)		System and Manual
	Incident	Water Incident (MCC)		Manual
	Incident	Weather (MCC)	Integration#3a-3g weather systems	System
MCC system Shutdowns		System Shutdown (MCC)	Integration #16 - Lift stations	System and Manual
PSS Log		Guest Services		Manual
GT Logs	Routine	Daily Log		Manual
	Routine	GT Charter Bus Dispatch Log		Manual
	Routine	Carrier Contacts		Manual
	Routine	Equipment Problems		Manual
	Routine	Manual Billing Entries		Manual
Parking Log	Routine	General (Parking)		Manual
Vehicle Log	Routine			Manual

14 General Functionality

- When users create an event log, the system references all available information from other systems, such as NOTAMS, FIDS, etc.) based on time-stamp and auto-populates forms.
- The event form should auto-capture geolocation, time, and user and be customizable to the type of event being logged.
- With geolocation, the event is viewable on a map, with layers provided through DEN's GIS system.
- Forms should accept multiple types of attached files, including images and voice-recordings.
- Once created, the forms should allow for editing and make the change history easily accessible.

15 Dashboards, Queries, and Reports

Org Unit	Report/View
Operations	AOM Snapshot
	Dashboard
	Ops Snapshot
	COMM Log Report
	CAISS Log Report
	AOM Log Report
	RT Log Report
	CIC Reports
	OJTI Reports
	Active NOTAM Report
	Active Ramp NOTAM Report
	Current Weather
Operations/ Reference Data	Aircraft Specs
	Hazmat Guides
	FAA Regulations
	Ops Checklist
MCC	MCC Snapshot
Visitor Information/PSS Log	Priority Briefing
Page Tracking	Page List
	Page Report
	Pages per Day
	Pages per Hour
	Daily Productivity
	Monthly Productivity
	Pages by Status Per Day
GT Reference	Carriers

Org Unit	Report/View
	Destination
Parking	Vehicle Tows
Flight Information	FIDS - Flight Statuses
	FIDS - Flight Info
	FIDS - Airport Info.
	FIDS - Airline Info.
	FIDS - ITS Load Log
	FIDS - Scheduled Activity
Directories	Employees
	Call Center Directory
	Ops Contacts
	Hotel Information
Info-Pilot Administration	RT Staffing
	Users
	Security Profiles
	Security Grid
	Current Users
	Info-Pilot Control

APPENDIX B System Integrations

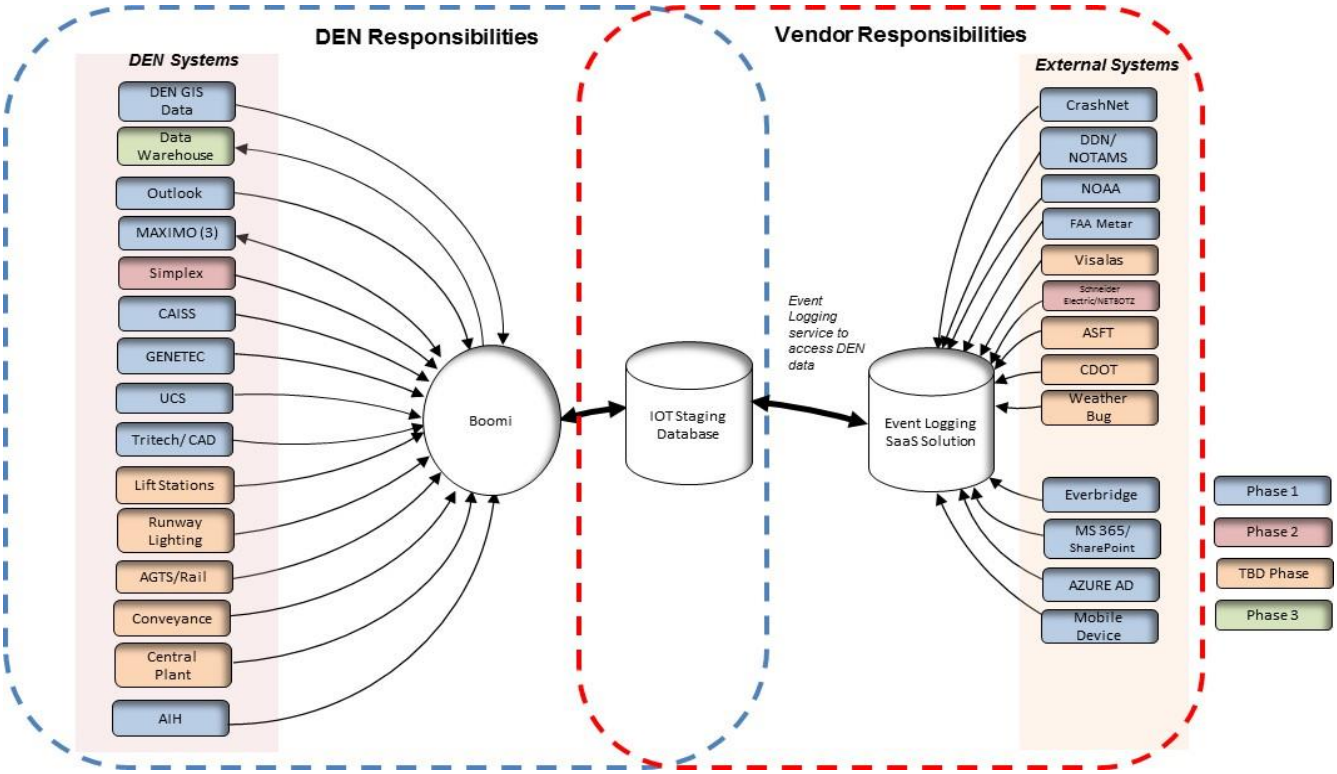
16 Reference Data and Integrations

The VEOCI system will eliminate the current need for employees to manually re-enter events that originate from various Airport technology systems. The system captures, collates and stores data from a number of DEN technology systems as described in Appendix A.

DEN is responsible to apply internal logic to the "DEN Integration Database," also called the "IOT staging database" for systems where only filtered information is desirable to be aggregated into the VEOCI system.

The VEOCI system does not issue commands to any of the other IOT systems, communication is unidirectional from the staging database to VEOCI. VEOCI may send alerts to specific users regarding information pulled from the staging database.

The following figure describes the architecture of the proposed Integrations:



The following table describes the Integrations necessary to replace Infopilot:

Integration Name - Information Exchanged	Design	Development	Testing	Deployment
Integration #1– GIS layers to Event Logging	VEOCI is able to import shapefiles. Those layers can be accessed in VEOCI from the browser as well as Android and iOS mobile devices, utilizing Google Maps. GIS layers can be referenced into other forms (logs).	Create map layers in VEOCI through the use of VEOCI's Forms. Build fields in the form to accommodate the GIS information available in each shapefile.	Completed during initial import of GIS Layers to verify field data.	For periodic updates, DEN Maps will need to connect to VEOCI's Amazon S3 Bucket to push their shape file updates. VEOCI will automatically associate the shape file to the appropriate map layer and update its fields.
Integration #2– Contact info from Outlook	VEOCI can import contacts in from an Excel or csv file. Contact list can be used to send notifications via email, SMS, and phone. Periodic updates will require a new feature to be built to open REST Services to VEOCI's Contact List	REST Services to VEOCI's Contact List	Test scheduled REST action.	Scheduled REST API.
Integration #3a– NOAA to Event Logging	VEOCI is integrated with NOAA. Data can be referenced into other forms(logs) such as 139 Inspections, Wildlife Mitigation/Depredation Logs, Incident/Accident Reports, Public Field Condition Reports, etc.	Add KDEN to the NOAA integration.	Confirmation of data received is correct	Scheduled REST API.
Integration #3b– FAA Metar to Event Logging	VEOCI is integrated with NOAA. Data can be referenced into other forms(logs) such as 139 Inspections, Wildlife Mitigation/Depredation Logs, Incident/Accident Reports, Public Field Condition Reports, etc.	Add KDEN to the NOAA integration.	Confirmation of data received is correct	Scheduled REST API.
Integration #3c– Vaisala (surface temp) to Event Logging	VEOCI is integrated with Vaisala. Requires airport's basic authentication link provided by Vaisala. Data can be referenced into other forms (logs) for live weather data information.	Add KDEN basic authentication to Vaisala integration.	Confirmation of data received is correct	Scheduled REST API.

Integration Name - Information Exchanged	Design	Development	Testing	Deployment
	Weather data pucks can also be displayed on the map in the form of an icon or map areas for runway sections, taxiway sections, ramps, etc. Icons and map areas can be colored and dynamic based on any condition such as temperature or surface condition.			
Integration #3d– Schneider Electric to Event Logging	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs). With location provided in latitude and longitude, entries can be displayed on the map with dynamic colors based on a condition or frequency in a location.	Setup forms to accommodate Schneider Electric data for map configuration.	Confirmation of data received is correct	Scheduled REST API.
Integration #3e– CDOT to Event Logging	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs). Similar to the Vaisala integration, map areas can overlay roadways and be dynamic in color based on a particular condition. VEOCI's custom action tool allows the ability to send email to different groups based on meeting pre-defined conditions.	Setup forms to accommodate CDOT data. Setup overlay on map.	Confirmation of data received is correct and email custom action functions as expected.	Scheduled REST API and VEOCI's custom action
Integration #3f– ASFT to Event Logging	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs). Similar to the Vaisala integration, map areas can overlay runways and be dynamic in color based on a particular condition. VEOCI's custom action tool allows the ability to send email to different groups based on meeting pre-defined conditions.	Setup forms to accommodate ASFT data. Configure email custom actions to deploy based on specific criteria.	Confirmation of data received is correct and email custom action functions as expected.	Scheduled REST API and VEOCI's custom action

Integration Name - Information Exchanged	Design	Development	Testing	Deployment
Integration #3g– Weather Bug to Event Logging	VEOCI already has a weather radar tile that provide precipitation in a 30 minute loop on a satellite map as well as temperature, storm reports, storm tracks, severe warnings, and weather bulletins. However, integrating with Weather Bug's radar could be as simple as embedding a link into a VEOCI Dashboard as we allow embedded links.	Add Weather Bug to dashboard using embedded link feature on custom tile.	Confirmation of data received is correct	Embedded link on VEOCI Dashboard
Integration #4 – Service Requests from Event Logging System to MAXIMO	Given an endpoint, VEOCI can use REST Service to POST and GET information. VEOCI allows for attachments such as documents, images, videos, and recordings.	Replicate MAXIMO WO in VEOCI. Setup REST Services.	Confirm POST data is correct in MAXIMO.	REST API
Integration #5 – WO status from MAXIMO	Given an endpoint, VEOCI can use REST Service to POST and GET information to initiate WO in MAXIMO and close WO in VEOCI.	Configure custom actions to update status WOs in VEOCI via MAXIMO API.	Confirm POST data in VEOCI is correct and custom action closes WO.	REST API and VEOCI's custom action
Integration #6 – Acceptance of WO completion/remedy by inspector	Given an endpoint, VEOCI can use REST Service to POST and GET information to MAXIMO.	Replicate MAXIMO WO in VEOCI. Setup REST Services.	Confirm POST data is correct in MAXIMO.	REST API
Integration #7 – Capture NOTAMS (new, updates, cancellations)	VEOCI is integrated with the FAA NOTAM system for pulling information. NOTAMs can be referenced.	Add KDEN to the NOTAM integration.	Confirmation of data received is correct	Scheduled REST API.
Integration #8 – Everbridge notification	VEOCI can initiate call downs based on incident types or other criteria. While VEOCI is capable of mass notifications via email, SMS, and phone, VEOCI can also initiate response request such as response availability via the same methods as notification.	Import notification list and configure notification templates.	Confirm notification initiates	VEOCI's Notification and Check-in
Integration #9 – AIH data	Given an endpoint, VEOCI can use REST Service to GET flight information. VEOCI is already integrated with FlightAware puling arrivals, departures, enroutes, etc. The same methods would	Configure form to replicate flight information pulled by KDEN.	Confirmation of data received is correct	REST API note: DEN applies logic for FIDS/BID data fusion prior to integration with VEOCI. This will come from within DEN Firewall, not

Integration Name - Information Exchanged	Design	Development	Testing	Deployment
	be utilized to setup DEN flights in a searchable table.			the IOT staging database.
Integration #10 – Genetec/Omnicast	VEOCI can upload videos to be attached to forms, WO, and tasks.	Configure form to include media.		VEOCI Forms
Integration #11 Simplex Fire Alarms	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs). Similar to the Vaisala integration, logs can display lat/long information on a map or floorplan.	Setup forms to accommodate Simplex data.	Confirmation of data received is correct	REST API
Integration #12 Netbotz	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs). Similar to the Vaisala integration, map areas can overlay runways and be dynamic in color based on a particular condition. VEOCI's custom action tool allows the ability to send email to different groups based on meeting pre-defined conditions.	Setup forms to accommodate ASFT data. Configure email custom actions to deploy based on specific criteria.	Confirmation of data received is correct	REST API
Integration #13 Tritech (CAD) Textbased transcriptions of audio recordings	Given an endpoint, VEOCI can use REST Service to pull text transcripts to populate into a form (log). VEOCI can also upload audio files however, the file will need to be pushed to VEOCI's Amazon S3 bucket.	Setup a database (form) to accommodate Tritech transcripts. Enable reference ability of transcripts to other forms.	Confirmation of data received is correct	REST API
Integration #14 UCS/Skype	No	No	No	No
Integration #15 CAISS alarm data	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs).	Configure form to accommodate CAISS information. Enable reference ability of CAISS alarms to other forms.	Confirmation of data received is correct	REST API
Integration #16 Lift Stations	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs).	Setup form to accommodate Lift Station data.	Confirmation of data received is correct	REST API

Integration Name - Information Exchanged	Design	Development	Testing	Deployment
Integration #17 Runway Lighting	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs).	Setup form to accommodate RWY light data.	Confirmation of data received is correct	REST API
Integration #18 AGTS/Rail	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs).	AGTS/Rail system to push train data to VEOCI via REST Service. Configure form to accommodate data.	Confirmation of data received is correct	REST API
Integration #19 Conveyance	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs).	Setup form to accommodate conveyance data.	Confirmation of data received is correct	REST API
Integration #20 Central Plant	Given an endpoint, VEOCI can use REST Service to pull information to populate into a form (logs).	Central Plant system to push data to VEOCI via REST Service. Configure form to accommodate data.	Confirmation of data received is correct	REST API
Integration #21 - Fuel Storage Levels	integration deleted from scope per DEN			
Integration #22 Crash Net	We could be able to integrate with this System as long as it has a REST API available.	DEN will develop the voice to text translation file which is inserted into Veoci in near real-time	Confirmation of data received is correct and text file is editable in Veoci	REST API

APPENDIX C Type 2 Project Deliverables

17 Deliverable #1A – Project Management Plan

VEOCI Project Manager will, work with the assistance of the DEN Project Manager, prepare project Management Plan. This Project Management Plan will include, but not be limited to:

18 Deliverable #1B – Detailed Project Schedule

Contractor resources by name or by title must be assigned at the task level and include a unit cost per hour for each resource. The project schedule must be delivered to DEN in MS Project. The project schedule should be resource loaded and leveled at the time of delivery. The Detailed Project Schedule will be updated in accordance with VEOCI's Project Management Methodology. Project Organization, detailing Contractor roles, DEN roles, and an overall organization chart. Status Reporting Procedures – DEN will require weekly project status reports during the course of the project. The Project Management Plan, and especially the Detailed Project Schedule, must be completed as soon as possible after contract signing.

19 Deliverable #1C – Personnel Organization Chart

VEOCI must provide DEN with an Organizational Chart outlining their final staff for their component(s) of the project. The Personnel Organization Chart shall be delivered within 10 calendar days of the Project Execution Date.

20 Deliverable #1D – Change Management Plan

The Change Management Plan describes the plan for assuring that the project has adequate control over changes to all items necessary for creating or supporting the end deliverables. VEOCI must provide a written and diagrammatic representation of the processes and procedures to be undertaken in order to initiate, evaluate, review, and resolve any change requests that occur both before and after the Exchange system is implemented. A Change Request (CR) is the vehicle for proposing a change for the Project. VEOCI must provide the Change Management Plan within 30 calendar days of the Project Execution Date.

21 Deliverable #2 – Configuration Management Plan

The technology Contractor must provide a Configuration Management Plan, which describes the processes, configuration management tools, and procedures VEOCI will use for the duration of the Project, and for all project phases and activities. VEOCI must provide the Configuration Management Plan within 60 calendar days of the Project Execution Date.

22 Deliverable #3 – Business Design Document

VEOCI must provide DEN with a Business Design Document, which will contain, but not be limited to, the following minimum requirements:

A listing of the current business processes to be implemented in the solution which identifies the affected org unit, key process steps, forms, workflows, reports and integrations to support execution of each business process.

23 Deliverable #4 – Requirements Matrix

The Requirements Matrix is for validating and tracking requirements. It identifies how and where the requirements are met in the solution design. The Requirements Matrix will document how VEOCI's system meets the RFP requirements. At a minimum, the Requirements Matrix must include a listing of testable functional requirements and how each requirement will be met.

24 Deliverable #5 – Capacity and Performance Plan

VEOCI must provide DEN with a Capacity and Performance Plan that outlines the strategy for 1) assessing overall solution and component performance, and 2) using this information to develop and plan for component acquisition, configuration, and upgrade. The performance plan describes the solutions performance requirements, what elements of the solution must be developed to measure performance, and how solution performance must be measured to ensure that requirements are continuously met.

25 Deliverable #6 – Security Plan

The Security Plan shall document VEOCI's plan to prevent unauthorized disclosure of customer / member data and information. DEN must initially approve the security plan, and will, from time to time, conduct audits / evaluations of the security plan established by VEOCI(s).

26 Deliverable #7 – System Testing Plan

VEOCI must provide a System Test Plan to DEN. This plan will describe the procedures necessary to perform and complete the System Test.

27 Deliverable #8 – System Testing Results

VEOCI must prepare a System Testing Results Document that permits DEN' QA staff to validate that the tests have been successfully executed in accordance with the approved plan. VEOCI must prepare a detailed listing of all issues identified during the testing process that could not be resolved or were deferred until a future date. Any software tools used by VEOCI during the System Test must receive prior approval from DEN and must be made available for DEN use, if necessary.

28 Deliverable #9 – Tables and Rules User Guide

The Tables and Rules User Guide contains the values, business rules and other key configurations used in the solution. This user guide is a supplemental reference to other user guides and provides a reference for all of the subsystems within the overall system. Minimum requirements are:

29 Deliverable #10 –Online User Guide

A complete and up-to-date Online User Guide must be provided by VEOCI. Minimum requirements are:

1. A comprehensive index
2. A comprehensive table of contents
3. A comprehensive glossary
4. Definitions of all screens/forms and their related processes
5. Basic system documentation
6. Key Command instructions
7. Appropriate DEN staff must approve all additions, changes and deletions
8. The Online User Guide must contain an illustration of each screen by subsystem with screen access instructions
9. All data elements for each screen must receive definitions by name, description, values, and related edits /error messages
10. The online user guide must be used as part of the basis for the user training, unless otherwise specified by DEN

30 Deliverable #11 – Integration Plan

The Integration Plan is discussed in Appendix B.

31 Deliverable #12A – User Acceptance Testing Plan

The User Acceptance Testing Plan describes the test scenarios, test conditions, and test cycles that must be performed to ensure that User Acceptance Testing follows a precise schedule and that the System is thoroughly tested before moving into Operations.

The design task defines the scope of User Acceptance Testing to verify that the System meets the business needs of DEN. The User Acceptance Testing Plan must be definitive to ensure the accuracy and thoroughness of User Acceptance Testing.

The User Acceptance Testing Plan must include the following:

1. Organizational plan showing Contractor and DEN roles
2. Testing methodology and management of the testing process, including notification to affected staff of testing status, deficiencies, and adherence to the testing schedule
3. Strategy for addressing delays in testing
4. Procedures and instructions for testing, including separate sections for testing of reports and security
5. Description of test scripts and scenarios
6. Process for executing User Acceptance Testing
7. Process for fixing and retesting deficiencies
8. Plan for updating documentation based on User Acceptance Testing results

32 Deliverable #12B – User Acceptance Testing Resolutions Document

Minimum requirements for the User Acceptance Testing Resolutions Document are:

1. A summary of the testing process as defined by DEN, including but not limited to number of problems identified by type, level of severity, and priority
2. Description of problems identified and corrective steps taken
3. Estimated completion timeframes for design, programming, and testing Exchange System program corrections
4. Description of problems and risks outstanding at the end of acceptance testing, the plan for resolution, and the impact on operations

33 Deliverable #13 – Performance Test

Performance Testing is intended to simulate the maximum number of simultaneous users interacting with the system in parallel with some internal processes to ensure the system can perform given the maximum expected load as well as a factor of safety. VEOCI shall provide DEN with a test plan and test results and identify any required mitigation measures.

34 Deliverable #14 – Deployment / Roll-Out Plan

The Deployment / Roll-Out Plan as envisioned provides:

1. Comprehensive pre-testing of key deployment procedures
2. Pre-staging of all components to the extent possible

3. A detailed deployment schedule, with the cutover components planned at the hour or minute level, orchestrating all tasks, both manual and automated, that need to occur during the deployment period. This shall include every aspect necessary to ensure a smooth and successful cutover.
4. Detailed checklists for individuals engaged in executing deployment and cut-over tasks
5. Comprehensive data integrity checkpoints to confirm that all data has been successfully converted.
6. Multiple back-ups (customizations and configurations) at various recovery points so that a minor error discovered during deployment does not mean a complete start over from step one.
7. A special reporting structure or protocol for problems and bugs to ensure that troubleshooting and defect correction can proceed without major interruption.
8. An onsite “all hands on deck” support structure.
9. System performance monitoring during cutover.
10. Key GO / NO GO decision points.
11. Retirement planning and schedule for relevant existing processes and systems or components of systems (input provided by DEN)

35 Deliverable #15 – System Documentation

VEOCI is responsible for providing to DEN complete, accurate, and timely documentation of the System. Following implementation, VEOCI must prepare updates to the System Documentation incorporating into the documentation all changes, corrections, or enhancements to the Exchange System. Updates to the Systems Documentation must be delivered to DEN within 10 calendar days after DEN approval of implementation of the change, unless otherwise agreed to by DEN.

The Systems Documentation must meet or exceed the following standards:

1. Be available and updated on electronic media.
2. Be organized in a format which facilitates updating; revisions must be clearly identified and dated.
3. Include system and subsystem narratives that are understandable by business personnel.
4. Contain an overview of the system, including:
5. Business Process Models.
6. Data flow diagrams showing data stores and flows.
7. Entity Relationship Diagram (ERD).
8. A description and flow charts showing the flow of major processes in the system; and
9. A description of the operating environment.
10. The nomenclature used in the overview must correspond to nomenclature used in subsystem documentation. All subsystems must be referenced, and documentation

must be consistent from the overview to the specific subsystems and between subsystems. All data stores and flows must be referenced and documented.

11. Integrations within subsystems identifying input and output, controls, data flows, operating procedures, and error and recovery procedures.
12. Identification and listing of all Contractor internal control reports.
13. Workflow related documentation.

36 Deliverable #16 – Help Desk

VEOCI must provide a Help Desk Plan that complies with all requirements and performance standards specified in this RFP. The Plan must be approved by DEN before transition to operations.

37 Deliverable #17 – Training Plan

The Training Plan details all activities for training DEN in the operations of the System. It provides a description of the training strategy including methods, materials, audience, and timing. VEOCI must submit the Training Plan to DEN one month prior to the first training session. This allows time to prepare the training environment and plan the necessary logistics for training. The timeframe for approval may be adjusted based on prevailing conditions if the deviation from the time frame is approved by DEN.

38 Deliverable #18 –Training Materials

VEOCI must provide the materials used in training to DEN for approval. Timeframes for submitting materials will be in accordance with the project during the implementation phases, and will be provided by DEN.

39 Deliverable #19 – Continuity of Operations (COOP)

VEOCI must prepare a COOP, which addresses:

1. Retention and storage of back-up files and software.
2. Hardware back-up for critical system components.
3. Facility back-up.
4. Back-up for telecommunications links and networks.
5. Staffing Plan.
6. Back-up procedures and support to accommodate the loss of online communications.
7. A detailed file back-up plan and procedures, including the off-site storage of crucial transaction and master files; the plan and procedures must include a detailed frequency schedule for backing up critical files and (if appropriate to the backup media) their rotation to an off-site storage facility. The off-site storage facility must provide security of the data stored there, including protections against unauthorized

access or disclosure of the information, fire, sabotage, and environmental considerations.

8. The maintenance of current system documentation and source program libraries at an off-site location.

The COOP and results of periodic disaster readiness simulations must be available for review by DEN on request. The COOP must be tested every 12 months, and a written report of the outcome, corrective action plan, and revisions, if any, must be available within 30 calendar days of the completion of the test. This report and test results must be filed with the DEN Service Manager.

40 Deliverable #20 – Performance Reports*

VEOCI is expected to report quarterly to the DEN Service Manager those performance measures subsequently agreed upon, but which will include as a minimum, all system performance measures that are required by DEN. This report(s) will be presented in-person to the DEN Service Manager within 30 calendar days of the end of each calendar month.

APPENDIX D Training Program

41 Training Services

41.1 Training Plan

The VEOCI team designs training based on the needs and background of our customers. We will work with DEN to develop the appropriate training structure and delivery for DEN staff. For new employees, our initial end user training sessions will be recorded and be made available to them as videos for self-service training. VEOCI provides a complete set of on-line documentation available for all its users. Help includes detailed description of all the System features.

41.2 End User Training

VEOCI is simple, intuitive, and easy to use, so only an introductory formal training (90-minutes) is needed for end users. End user training will be held at DEN across departmental shifts to accommodate the entire staff.

41.3 Administrator Training

We recommend that DEN assign one person from each department as a VEOCI Administrator. A backup person is also highly recommended. The primary VEOCI Admin will be the main contact point with our VEOCI Solution Architects and Support staff. The Admin should be assigned early-on, preferably during the first week before the implementation phase. The Administrator training program is designed to empower admins to be able to manage users, create and edit forms, processes, dashboards, maps, reports, and establish integrations between these features. Administrator training will be a full 2 days.

41.4 Ongoing Training

New Administrators who wish to learn about the VEOCI platform in detail can also attend the monthly administrator classes that we conduct at our office in New Haven, CT.

42 Training Requirements

In addition to the above, VEOCI shall provide the following:

1. The training facility/room will be located at DEN.
2. VEOCI will provide the training plan to DEN according to Deliverable #17, DEN will approve and make recommendations regarding training material, timelines, and adequacy to train full user base.
3. DEN end users are required to bring mobile devices, DEN administrators are required to bring laptops or desktops.

APPENDIX E Project Test Plan

1.1. VEOCI will be responsible for carrying out unit and integration testing for all functionality throughout implementation.

1.2. VEOCI is responsible for successfully completing system testing deployment.

1.3. VEOCI is responsible for certifying that each functional, technical, and performance requirement has been met.

1.4. VEOCI is responsible for the management of the testing effort and other related events and communicating this ongoing information with the DEN testing team.

1.5. VEOCI must provide DEN, in a timely manner, with all test results, to include the tracking and correction of defects.

1.6. VEOCI shall:

- Maintain the application for system testing and UAT.
- A structured system for identifying, prioritizing, tracking, fixing, and re-testing defects.
- Adequate testing of all integrations between the solution and other DEN and non-DEN systems.
- Testing of recovery processes or component outages/failures.
- User Acceptance Testing.
- Performance (load/stress) testing.
- Batch processing functions (if applicable).
- Adhere to all the DEN quality guidelines and processes.
- Provide application performance baseline metrics to DEN. Application performance metrics can be average transactions per second, throughput, http responses per second etc. Exact metrics can be determined between DEN and vendor during the planning phase of the project/program.
- Provide proof for different types of testing (i.e. unit testing, integration testing, system testing etc.); documentation shall be provided in a format agreed to between DEN and VEOCI.
- Deploy all the fixes to critical severity defects within the stipulated time agreed upon by DEN and Contractor; the time period for critical defect fix will be determined during the planning phase of the project. Criticality of defects are defined in Section 8.4.
- DEN will designate a testing team for the project. The DEN testing team will work with VEOCI to ensure testing activities are properly executed.
- DEN will be responsible for building detailed testing scripts, determining expected results, establishing testing procedures and protocols, etc. The DEN testing team will include a pre-agreed upon number of testers during pre-agreed upon testing cycles.
- VEOCI will be responsible for carrying out unit and integration testing for all functionality throughout implementation, successfully complete system testing deployment, and certifying that all requirements have been met.

        - Every component of the Event Logging System for DEN will be built in our QA environment and carefully tested there before they are taken to the Production Environment.
        - Once every feature is fully implemented in the Production Environment, it'll be tested again by both the VEOCI team and DEN's team members assigned to this task until user acceptance.
- VEOCI shall be responsible for providing testing artifacts that include test plans, a testing methodology, templates for test scripts and sets of test conditions.
- Performance Testing will provide, at a minimum, testing against anticipated one-year and three-year post go-live amounts of data.
- VEOCI is responsible for performing unit testing. Unit testing may include a single web page with related fields (verification of valid values, completeness, accuracy, presence when required, etc.), or a single action (system sign-on, print screen functionality, integration data in/out, etc.).
- Additional testing cycles shall include will include operational readiness test to ensure that the software application, the support operation and the integrations are ready for deployment to production.
- Prior to deployment, DEN will hire a contractor to conduct an independent penetration test and security assessment. VEOCI shall provide the vendor access to the system and any technical documentation or briefing(s) as requested in order for VEOCI to perform testing activities.

APPENDIX F VEOCI Project Methodologies

43 Enhancements and Modifications

VEOCI is designed with the expectation that our partners want to configure the product to meet their unique requirements. The DEN logging system can quickly and easily be configured and modified as needed and continuously evolve with needs as they arise.

As for those enhancements and changes that require work from our development team, VEOCI follows an iterative development process that employs Agile practices and which is highly responsive to customer needs. Feature requests and functional requirements typically enter the development process through customer feedback. Throughout the development cycle, requirements and solutions evolve through collaboration between our technical team and our customer relationship team.

44 Quality Assurance (QA) Services

VEOCI follows an Agile methodology for a new version of software every two weeks. Toward the end of the two-week cycle, new features are deployed to a staging environment for further testing and validation. Once validated, new features are deployed to production using a zero-downtime code deployment process. As a result of our fast-paced development cycles, VEOCI is able to rapidly respond to evolving customer needs. It also ensures that unmet or partially met requirements can be addressed with a minimal amount of delay.

VEOCI undergoes full automated testing, regular functional reviews and regression testing with each release.

Every time a code change is made, it is assigned, completed and submitted along with accompanying test scripts. The change request ticket in Assembla, our tracking and logging system, is approved to testing status.

The new code is then thoroughly tested in the development area (DEV). Then it is tested in the staging area (STAGE) via automated unit tests, stress tests, performance tests by developers and QA. Regression testing is also performed.

When changes are tested and approved, the code is moved into production (PROD), where post-production quality and regression testing is performed.

45 Technical Architecture and Infrastructure Design

VEOCI is architected as a multi-tenant cloud-hosted system and is presented to the user as a single integrated application. It does not require any hardware purchase by our clients. Moreover, it is 100% browser based and no client-side software is needed except if documents requiring a specific application are uploaded. No plugins are required either and no additional purchases are ever needed. Our clients have full access to the data from anywhere with Internet

availability. They can also download their data at any time from anywhere with Internet access.

VEOCI provides secure password authentication, in addition to options for OpenID, SSO, or other partner-defined password authentication methods. We support multiple standards, such as HTTP basic auth, SAML, OAuth2 and CAS. VEOCI has integrated with multiple single-sign-on systems for authentication and can be integrated with DEN's authentication system. Users will not have to remember another login ID and password.

VEOCI's framework is designed to interact with external systems through Application Platform Interfaces (APIs) such as Web Services (REST, SOAP, etc). This allows information to move between external systems and VEOCI. Other secure methods of integration are also possible (e.g. SFTP, secure database connections). VEOCI's public REST API documentation can be found here: https://VEOCI.com/api

46 Managing Multiple Environments

VEOCI utilizes three main physically and logically separated environments for development, quality assurance and in the production system for our customers. All the following environments are managed by VEOCI, which will provide all support and maintenance:

Development: the VEOCI development environment is where the VEOCI development team works on the source code when managing upgrades, change requests and enhancements. Software updates are first thoroughly tested in this environment before its deployment to the QA and Testing environment.

Staging - Quality Assurance and Testing: this is the environment where the VEOCI QA team tests the upgraded features against data and software (multiple browsers, mobile apps, …) that closely simulate the Production environment via automated unit tests, stress tests, performance tests, developer + QA. This is the environment where the regression testing is performed.

Production: this is where VEOCI is available for business use by our customers. Besides these three main environments, VEOCI will provide secondary environments:

Integration Development: logically separated from the Development environment, it will be used to develop and test integrations with the required external systems and applications.

Integration and System Testing: logically separated from the QA and Testing environment, will be used to deeply test all integrations.

Training: the training environment will be part of the Production environment, but data will be separated from the DEN's data and any customer data. This environment will be available to DEN's users and will provide access to VEOCI training rooms with documentation and features to ensure that all users are adequately trained in the solution.

VEOCI will ensure:

Identical software configuration and databases in these environments, but for the minimal temporal differences due to the changes and updates included in each iteration process.

Comparable hardware configuration to the production system.

VEOCI is the release manager and controls deployment of versions to next stage. However, any deployment to the production environment that may affect DEN's solution will be first communicated to DEN and launched after an approval process.

Although DEN cannot have deployments during Holidays, Snow, or peak travel times, this should not affect VEOCI's iteration process. VEOCI's deployments to the Production environment are usually scheduled every other Thursday and we will postpone the deployment to minimize risks to our customers. With an Agile methodology, changes are minimal and usually do not impact our customers.

47 Security Services

VEOCI provides secure password authentication, in addition to options for OpenID, SSO, or other partner-defined password authentication methods if a single sign-on system is implemented, VEOCI can leverage it for authentication. We integrate with various authentication platforms, and we are able to further pull in demographic information.

The authentication process is comprised of the following steps:

Step 1. When accessing the VEOCI login page (www.VEOCI.com), the system first identifies the organization of the person who is attempting to login. In some situations, this can be done based on the person's IP address.

Step 2. If VEOCI can't recognize the organization based on IP address, the system will check for the existence of a VEOCI cookie. If none is found, the user is prompted to enter their email address and VEOCI uses the domain of the email address to identify the user's organization.

Step 3. Once the organization has been recognized, if an organization has implemented a SSO System, the user has two options for authenticating:

Continue using their email address and a VEOCI password to authenticate,

Start the process for authenticating with the click of a button in a single-sign-on system.

The inactivity period is configurable per customer. It requires authentication/password protection invoke

APPENDIX G Cost Schedule

Schedule A. Technology Costs							
Schedule A. Technology Costs	3-Year Base Period				2-Year Option Period (IF EXERCISED)		
	2018 Q3/Q4	2019	2020	2021 Q1/Q2	2021 Q3/Q4	2022	2023 Q1/Q2
*Software License	$73,772	$147,544	$147,544	$73,772	$73,772	$147,544	$73,772
Maintenance & Support**	$-	$-	$-		$-	$-	$-
Hosting**	$-	$-	$-		$-	$-	$-
FY Total	$73,772	$147,544	$147,544	$73,772	$73,772	$147,544	$73,772
	*Total annual cost for 270 full licenses, incremental cost per user per year is $546.00 **Included in Software License. Assume 99.9% availability						

	Schedule B.1. Implementation Services Costs	***Price***	***Est. hours***
Phase 1	Project Kick-off meeting on-site	$5,000	-
	Phase 1 Integrations	$16,200	90
	Part 139 Solution	$13,500	75
	InfoPilot Forms	$9,000	50
	Snow Solution	$4,500	25
	Reports	$36,000	200
	Dashboards	$22,500	125
	3-day On-site Training (all-in)	$12,000	-
	Phase 1 Totals	**$118,700**	**565**
Phase 2	Phase 2 Integrations	$3,600	20
	Safety Management Part 1	$18,000	100
	Non InfoPilot Forms	$3,600	20
	MCC Solution	$3,600	20
	Incident Solutions	$3,600	20
	Phase 2 Totals	**$32,400**	**180**
Phase 3	Safety Management Part 2	$9,000	50
	Phase 3 Integrations	$16,200	90
	EOC - TBD		
	Phase 3 Totals	**$25,200**	

APPENDIX H DATA CENTER ROLES AND RESPONSIBILITIES

SYSTEM	RESPONSIBILITY	CONTRACTOR	DEN
Hardware and Software Ownership	Purchase dedicated server hardware and maintenance contracts		
	Purchase shared network hardware and maintenance contracts	X	
	Purchase shared storage hardware and maintenance contracts	X	
	Purchase database and application licenses and maintenance contracts	X	
Systems Management			
OS Administration	Operating System Installation	X	
	Configure Remote Access for Microsoft Terminal Services, PC Anywhere & Secure Shell	X	
	Run book creation	X	
	Configure Disk Array	X	
	Security Hardening	X	
	Coordination of Network Setup	X	
	Run stabilization / Process customization (3 to 6 months of year 1)	X	
	Install Standard, Proven OS Configuration	X	
	Minor Customization of Configuration if required Page File/Swap Space Adjustments Minor Configuration Changes Support and Administrative User Management General User Management	X	
	Installation of Baseline OS Patches	X	
	Review and produce standard activity report	X	
	Reboot when needed	X	
	Hard disk partition check - ensure data integrity	X	
	System Performance Management and Tuning	X	
	Monitor any required reboots	X	
	Event Log check - also done via Monitoring Software	X	
	Disk Space check - also done via Monitoring Software	X	
	Running Services Check - also done via Monitoring Software	X	

SYSTEM	RESPONSIBILITY	CONTRACTOR	DEN
	Check networking functionality	X	
	Maintain the Maintenance Log file	X	
	Maintain Remote Access	X	
	Run Book - Maintenance	X	
	Incident Response and Problem Management (Root Cause Analysis where appropriate)	X	
	Appropriate Participation in Change Management Process	X	
	Maintain startup/shutdown procedures	X	
	Restart Server after failure	X	
	Coordinate recovery of system and the customer proprietary software	X	
	Verify all Server resources are available after System startup	X	
Patch Management	Monitor & Identify Patches	X	
	Participate in Change / Release Process	X	
	Approve Changes / Releases according to policy		X
	Create & Maintain Patch Compliance Reports	X	
	Approve Emergency Patches		X
	Analyze & Assign Patch Priority / Send Security Alert for Patch Cluster for OS Systems	X	
	Analyze & Assign Patch Priority / Send Security Alert for Emergency OS Patch	X	
	Deploy Patch in test/stage environment for OS Systems	X	
	Deploy Patch in production environment for OS Systems	X	
Systems Security Maintenance	Define systems security policies		X
	Develop Information Security standards, guidelines, and ID approval procedures from defined policies	X	
	Maintain security policies and procedures		X
	Administer security databases.	X	
	Integration with External Domains: Configuration, Setup and Troubleshooting of Basic Configuration/Assistance with External Parties	X	
	Provide OS access for approved administrators and applications	X	
	Establish/withdraw system user profiles/accounts	X	
	Maintain system user profiles	X	
	Update passwords for root and support accounts	X	
	Reset passwords according to approved procedures	X	
	Identify and report on security breaches	X	
	Provide monthly report of all login usage	X	

SYSTEM	RESPONSIBILITY	CONTRACTOR	DEN
	Provide monthly report of invalid login attempts	X	
Server Network Configuration	Configure hosting devices for appropriate network connectivity	X	
	Server network configuration adjustments and minor reconfigurations	X	
OS Administration Extended Support	Configure HA environment	X	
Systems Security Maintenance Non Standard Support	Adhere to Customer's security policies and procedures when accessing Customer's environment	X	
	Reporting for systems security beyond standard reporting.	X	
	Participation in regular security vulnerability assessments	X	
Capacity Modeling & Planning	Monitor system use and capacity	X	
	Forecast resource requirements plan	X	
	Analyze and report resource trends meeting with Customer on monthly basis to discuss results	X	
	Develop data center strategy and configuration for CPU, disk, and tape	X	
	Evaluate alternative configurations and recommend solutions	X	
	Plan and forecast the size of databases due to business growth and project implementation	X	
	Determine initial DASD, CPU, tape, and server requirements for new workloads, special projects, and development	X	
	Procure required network, server, and storage capacity to meet the defined capacity requirements.	X	
Storage Management			
Engineering Support	Incident investigation & diagnosis	X	
	Incident resolution & recovery	X	
	Problem investigation & diagnosis	X	
	Error identification & recording	X	
	Problem escalation & coordination	X	
	Coordinate the remediation of problem tickets with other delivery organizations, DEN, or third party operators for remediation and resolution	X	
	Coordinate the remediation of problem tickets with vendors and third party OEMs (e.g., Microsoft) for remediation and resolution	X	
	Error assessment	X	
	Update the Knowledge Database	X	
	Issue communication to appropriate teams, groups and individuals through announcement or mail	X	

SYSTEM	RESPONSIBILITY	CONTRACTOR	DEN
	Maintain relationships with vendors and third party OEMs (e.g. understand their support model)	X	
	Maintain expertise with relevant hardware or software components	X	
Storage Administration on SAN	Monitor and control storage performance and usage	X	
	Maintain space requirements according to Customer requirements and forecasts	X	
	Provide storage requirement forecasts	X	
	Maintain direct access storage resource efficiency	X	
	Perform storage fine tuning and reorganization as required to maintain System performance to meet service level objectives	X	
	Provide continuous reporting of storage pool utilization to maintain adequate storage space	X	
	Provide automated placement of datasets	X	
	Identify and implement routine tasks to automate for improvement of storage reliability and availability	X	
	Maintain storage system passwords	X	
	Provide education and guidance to users on storage related issues	X	
Storage Administration for Archiving	Monitor archive process	X	
	Index information being archived	X	
	Notify that the archive process has been completed successfully/failed	X	
	Maintain the archive library	X	
	Perform housekeeping on archive library	X	
Backup & Restore Management	Establish Schedule: Implement backup and restore processes to maintain continued availability of mission critical data	X	
	Initial backup and restore test	X	
	X Prepare system and the customer proprietary software for backup (agent install)	X	
	Provide recommendations regarding backup and recovery procedures or processes that can improve levels of protection, efficiencies, and cost reductions	X	
	Perform complete weekly online backups on all systems per schedule and DEN requirements	X	
	Perform daily incremental online backups on all systems per schedule and DEN requirements.	X	
	Restore volume/dataset per request of Customer	X	

SYSTEM	RESPONSIBILITY	CONTRACTOR	DEN
	Monitor backup/restore process	X	
	Verify that the backup/restore has been completed successfully/failed	X	
	Provide audit trail of backup/restore processes	X	
Managed Hosting & Storage Services			
Physical Site Management	Maintain physical environmental systems (i.e.: HVAC, monitoring systems, UPS, fire alarm systems, water, diesel, etc.)	X	
	Periodic testing of environmental systems (i.e.: HVAC, monitoring systems, UPS, fire alarm systems, water, diesel, etc.)	X	
	Monitor environmental systems (i.e.: HVAC, monitoring systems, UPS, fire alarm systems, water, diesel, etc.)	X	
	Maintain physical electrical systems	X	
	Periodic testing of electrical systems	X	
	Monitor electrical systems	X	
	Maintain physical access credentials (i.e. employee badge and security video)	X	
	Perform all physical security functions at the Service Location (e.g., identification of badge controls, alarm responses)	X	
	Assure security devices are kept in working order, procedures are developed with adequate controls & audit trails, and respond to security violations and breaches	X	
	Grant access to approved personnel when appropriate	X	
Physical Site Planning	Plan installation of environmental equipment in data center	X	
	Plan installation of computer equipment in data center	X	
	Keep security devices in working order and develop procedures with adequate controls and audit trails	X	
	Respond to security violations and breaches	X	
	Initiate and track requests for space, power, and other technical center modifications in support of equipment installations	X	
	Allocate and maintain space, equipment and cabinets, e.g., inventories, layouts, etc	X	
	Provide input into the design of contingency plans from a physical aspect	X	
	Power calculation	X	
	Power installation	X	
Media Management	Respond to all media mount requests	X	

SYSTEM	RESPONSIBILITY	CONTRACTOR	DEN
	Interpret and respond to media-related error messages on console	X	
	Order new media	X	
	Label all media	X	
	Initialize new media	X	
	Manage and maintain media management system	X	
	Maintain integrity of media library system	X	
	Monitor media hardware for malfunction	X	
	Monitor, log, and track all media usage	X	
	Perform daily tape hardware maintenance	X	
	Allocate media	X	
	Return media to pool	X	
	Establish and monitor media pool thresholds	X	
	Execute offsite storage procedures	X	
	Provide capability to review media distribution and receipt	X	
	Maintain backup library	X	
	Perform housekeeping on backup library	X	
Onsite & Offsite Storage	Define onsite storage policy	X	
	Implement onsite storage procedures	X	
	Store all magnetic media in a physically protected and environmentally controlled area	X	
	Define offsite storage policies	X	
	Implement offsite storage procedures	X	
	Customize archive criteria where applicable	X	
	Coordinate offsite storage functions	X	
	Maintain appropriate physical specifications, retention periods, and security	X	
	Provide logging/tracking of host physical tapes in and out of Vendor's site	X	
	Perform required rotation of media for offsite vaulting in accordance with Customer's defined procedures	X	
	Review compliance with physical specifications, retention periods and security	X	
	Assure compliance with customer or government requirements	X	
	Provide access to onsite backups for use in recovery of lost or corrupt data	X	
Remote Hands	Provide on-site persons to provide for physical needs of environment at the direction of remote management staff (i.e. hard reboot, check lights, change media, check cable, etc.)	X	

SYSTEM	RESPONSIBILITY	CONTRACTOR	DEN
Field Support - Data Center			
Software Maintenance & Support	Provide operations and support for all in-scope infrastructure software including backup software, monitoring agents, etc.	X	
	Provide operations and support for new infrastructure software that is deployed throughout the Term (subject to Change Management procedures).	X	
	Provide remote support for infrastructure software maintenance & support requests that cannot be resolved by the Level 1 Service Desk.	X	

48 Network Services

	Responsibility	**Contractor**	**DEN**
Hardware and Software Ownership			
	Purchase dedicated server hardware and maintenance contracts	X	
	Purchase shared network hardware and maintenance contracts	X	
	Purchase shared storage hardware and maintenance contracts	X	
	Purchase database and application licenses and maintenance contracts	X	
Systems Management			
OS Administration			
	Operating System Installation	X	
	Configure Remote Access for Microsoft Terminal Services, PC Anywhere & Secure Shell	X	
	Run book creation	X	
	Configure Disk Array	X	
	Security Hardening	X	
	Coordination of Network Setup	X	
	Run stabilization / Process customization (3 to 6 months of year 1)	X	
	Install Standard, Proven OS Configuration	X	
	Minor Customization of Configuration if required	X	
	Page File/Swap Space Adjustments		
	Minor Configuration Changes		
	Support and Administrative User Management		
	General User Management		
	Installation of Baseline OS Patches	X	

	Responsibility	Contractor	DEN
	Review and produce standard activity report	X	
	Reboot when needed	X	
	Hard disk partition check - ensure data integrity	X	
	System Performance Management and Tuning	X	
	Monitor any required reboots	X	
	Event Log check - also done via Monitoring Software	X	
	Disk Space check - also done via Monitoring Software	X	
	Running Services Check - also done via Monitoring Software	X	
	Check networking functionality	X	
	Maintain the Maintenance Log file	X	
	Maintain Remote Access	X	
	Run Book - Maintenance	X	
	Incident Response and Problem Management (Root Cause Analysis where appropriate)	X	
	Appropriate Participation in Change Management Process	X	
	Maintain startup/shutdown procedures	X	
	Restart Server after failure	X	
	Coordinate recovery of system and the customer proprietary software	X	
	Verify all Server resources are available after System startup	X	
Patch Management			
	Monitor & Identify Patches	X	
	Participate in Change / Release Process	X	
	Approve Changes / Releases according to policy		X
	Create & Maintain Patch Compliance Reports	X	
	Approve Emergency Patches		X
	Analyze & Assign Patch Priority / Send Security Alert for Patch Cluster for OS Systems	X	
	Analyze & Assign Patch Priority / Send Security Alert for Emergency OS Patch	X	
	Deploy Patch in test/stage environment for OS Systems	X	
	Deploy Patch in production environment for OS Systems	X	
Systems Security Maintenance			
	Define systems security policies		X
	Develop Information Security standards, guidelines, and ID approval procedures from defined policies	X	
	Maintain security policies and procedures		X
	Administer security databases.	X	

	Responsibility	Contractor	DEN
	Integration with External Domains: Configuration, Setup and Troubleshooting of Basic Configuration/Assistance with External Parties	X	
	Provide OS access for approved administrators and applications	X	
	Establish/withdraw system user profiles/accounts	X	
	Maintain system user profiles	X	
	Update passwords for root and support accounts	X	
	Reset passwords according to approved procedures	X	
	Identify and report on security breaches	X	
	Provide monthly report of all login usage	X	
	Provide monthly report of invalid login attempts	X	
Server Network Configuration			
	Configure hosting devices for appropriate network connectivity	X	
	Server network configuration adjustments and minor reconfigurations	X	
Engineering Support			
	Qualify as a valid Engineering Support Incident / Problem (e.g. global systemic or chronic issues for support hardware and software, or widespread and time-sensitive issues such as virus outbreaks, etc.)	X	
	Incident investigation & diagnosis	X	
	Incident resolution & recovery	X	
	Problem investigation & diagnosis	X	
	Error identification & recording	X	
	Problem escalation & coordination	X	
	Coordinate the remediation of problem tickets with other delivery organizations, DEN, or third party operators for remediation and resolution	X	
	Coordinate the remediation of problem tickets with vendors and third party OEMs (e.g., Microsoft) for remediation and resolution	X	
	Error assessment	X	
	Update the knowledge database	X	
	Issue communication to appropriate teams, groups and individuals through Technologist Alert, Announcement or Mail	X	
	Maintain relationships with vendors and third party OEMs (e.g. understand their support model)	X	
	Maintain expertise with relevant hardware or software components	X	
OS Administration Extended Support			
	Configure HA environment	X	
Systems Security Maintenance Non Standard Support			

	Responsibility	Contractor	DEN
	Adhere to Customer's security policies and procedures when accessing Customer's environment	X	
	Reporting for systems security beyond standard reporting.	X	
	Participation in regular security vulnerability assessments		X
Capacity Modeling & Planning			
	Monitor system use and capacity	X	
	Forecast resource requirements plan	X	
	Analyze and report resource trends meeting with Customer on monthly basis to discuss results	X	
	Develop data center strategy and configuration for CPU, disk, and tape	X	
	Evaluate alternative configurations and recommend solutions	X	
	Plan and forecast the size of databases due to business growth and project implementation	X	
	Determine initial DASD, CPU, tape, and server requirements for new workloads, special projects, and development	X	
	Procure required network, server, and storage capacity to meet the defined capacity requirements.	X	
Storage Management			
Engineering Support			
	Incident investigation & diagnosis	X	
	Incident resolution & recovery	X	
	Problem investigation & diagnosis	X	
	Error identification & recording	X	
	Problem escalation & coordination	X	
	Coordinate the remediation of problem tickets with other delivery organizations, DEN, or third party operators for remediation and resolution	X	
	Coordinate the remediation of problem tickets with vendors and third party OEMs (e.g., Microsoft) for remediation and resolution	X	
	Error assessment	X	
	Update the Knowledge Database	X	
	Issue communication to appropriate teams, groups and individuals through announcement or mail	X	
	Maintain relationships with vendors and third party OEMs (e.g. understand their support model)	X	
	Maintain expertise with relevant hardware or software components	X	
Storage Administration on SAN			
	Monitor and control storage performance and usage	X	
	Maintain space requirements according to Customer requirements and forecasts	X	

	Responsibility	Contractor	DEN
	Provide storage requirement forecasts	X	
	Maintain direct access storage resource efficiency	X	
	Perform storage fine tuning and reorganization as required to maintain System performance to meet service level objectives	X	
	Provide continuous reporting of storage pool utilization to maintain adequate storage space	X	
	Provide automated placement of datasets	X	
	Identify and implement routine tasks to automate for improvement of storage reliability and availability	X	
	Maintain storage system passwords	X	
	Monitor storage volume fragmentation index and automatically submit defrag jobs when needed	X	
	Provide education and guidance to users on storage related issues	X	
Storage Administration for Archiving			
	Monitor archive process	X	
	Index information being archived	X	
	Notify that the archive process has been completed successfully/failed	X	
	Maintain the archive library	X	
	Perform housekeeping on archive library	X	
Backup & Restore Management			
	Establish Schedule: Implement backup and restore processes to maintain continued availability of mission critical data	X	
	Initial backup and restore test	X	
	Prepare system and the customer proprietary software for backup (agent install)	X	
	Provide recommendations regarding backup and recovery procedures or processes that can improve levels of protection, efficiencies, and cost reductions	X	
	Perform complete weekly online backups on all systems per schedule and DEN requirements	X	
	Perform daily incremental online backups on all systems per schedule and DEN requirements.	X	
	Restore volume/dataset per request of Customer	X	
	Monitor backup/restore process	X	
	Verify that the backup/restore has been completed successfully/failed	X	
	Provide audit trail of backup/restore processes	X	
Managed Hosting & Storage Services			
Physical Site Management			

	Responsibility	Contractor	DEN
	Maintain physical environmental systems (i.e.: HVAC, monitoring systems, UPS, fire alarm systems, water, diesel, etc.)	X	
	Periodic testing of environmental systems (i.e.: HVAC, monitoring systems, UPS, fire alarm systems, water, diesel, etc.)	X	
	Monitor environmental systems (i.e.: HVAC, monitoring systems, UPS, fire alarm systems, water, diesel, etc.)	X	
	Maintain physical electrical systems	X	
	Periodic testing of electrical systems	X	
	Monitor electrical systems	X	
	Maintain physical access credentials (i.e. employee badge and security video)	X	
	Perform all physical security functions at the Service Location (e.g., identification of badge controls, alarm responses)	X	
	Assure security devices are kept in working order, procedures are developed with adequate controls & audit trails, and respond to security violations and breaches	X	
	Grant access to approved personnel when appropriate	X	
Physical Site Planning			
	Plan installation of environmental equipment in data center	X	
	Plan installation of computer equipment in data center	X	
	Keep security devices in working order and develop procedures with adequate controls and audit trails	X	
	Respond to security violations and breaches	X	
	Initiate and track requests for space, power, and other technical center modifications in support of equipment installations	X	
	Allocate and maintain space, equipment and cabinets, e.g., inventories, layouts, etc.	X	
	Provide input into the design of contingency plans from a physical aspect	X	
	Power calculation	X	
	Power installation	X	
Media Management			
	Respond to all media mount requests	X	
	Interpret and respond to media-related error messages on console	X	
	Order new media	X	
	Label all media	X	
	Initialize new media	X	
	Manage and maintain media management system	X	
	Maintain integrity of media library system	X	
	Monitor media hardware for malfunction	X	
	Monitor, log, and track all media usage	X	

	Responsibility	Contractor	DEN
	Perform daily tape hardware maintenance	X	
	Allocate media	X	
	Return media to pool	X	
	Establish and monitor media pool thresholds	X	
	Execute offsite storage procedures	X	
	Provide capability to review media distribution and receipt	X	
	Maintain backup library	X	
	Perform housekeeping on backup library	X	
Onsite & Offsite Storage			
	Define onsite storage policy	X	
	Implement onsite storage procedures	X	
	Store all magnetic media in a physically protected and environmentally controlled area	X	
	Define offsite storage policies	X	
	Implement offsite storage procedures	X	
	Customize archive criteria where applicable	X	
	Coordinate offsite storage functions	X	
	Maintain appropriate physical specifications, retention periods, and security	X	
	Provide logging/tracking of host physical tapes in and out of Vendor's site	X	
	Perform required rotation of media for offsite vaulting in accordance with Customer's defined procedures	X	
	Review compliance with physical specifications, retention periods and security	X	
	Assure compliance with customer or government requirements	X	
	Provide access to onsite backups for use in recovery of lost or corrupt data	X	
Remote Hands			
	Provide on-site persons to provide for physical needs of environment at the direction of remote management staff (i.e. hard reboot, check lights, change media, check cable, etc.)	X	
Field Support - Data Center			
Software Maintenance & Support			
	Provide operations and support for all in-scope infrastructure software including backup software, monitoring agents, etc.	X	
	Provide operations and support for new infrastructure software that is deployed throughout the Term (subject to Change Management procedures).	X	
	Provide remote support for infrastructure software maintenance & support requests that cannot be resolved by the Level 1 Service Desk.	X	

Appendix I VEOCI Staff

VEOCI Software plans to assign the following personnel resources to ensure successful project completion as per requirements.

The Project Leader will be Vishu Rao, VEOCI Solutions Director for the Aviation Industry (Solutions Team). Vishu Rao is the team leader accountable for all VEOCI customer support, implementations, training and consulting for our Airport accounts. As the Project Leader, Vishu will:

- ➔ Provide project management to the GWS team assigned to the project.
- ➔ Ensure that all requirements outlined in Scope of Work document provided for this RFP are implemented in accordance with the DEN approved timeline.
- ➔ Collaborate with the DEN Project Manager or their designee an the DEN team members.
- ➔ Meet with the necessary project staff (representative system users and support staff) to coordinate project activities and keep DEN's Project Manager informed of the progress.
- ➔ Identify and provide written notice to the DEN's Project Manager describing any problems or issues that arise within the established SLAs.
- ➔ Participate in weekly status meetings with the DEN Project Manager and technical team or as agreed upon or requested by DEN, via telephone conference or specific software meeting tools, such as GoToMeeting (https://www.gotomeeting.com/).

Alex Nguyen, Solutions Architect (Solutions Team) for the Aviation Industry will work closely with Vishu on this project to implement the Event Logging System and provide the required training and support to the DEN's team. Alex also will be Vishu's backup if needed.

Hemi Patel, Quality Assurance Engineer (Quality Assurance Team) will ensure the quality of the solution provided, verify correct operation of all system components, integration interfaces, and end-to-end system activities.

Kenneth Moon, Leader for user interface & experience, social media expertise, and media leverage (Software Development Team). Kenneth will provide advice to the Solutions Team members assigned to this project on the interaction models, user task flows, and UI specifications to optimize the end-to-end user experience for all stakeholders.

Tamas Simon, VP Software and Security Manager (Software Development Team) from the software development team will be responsible of managing all resources needed to provide the required technical support for this project, such as software enhancements and security assurance.

Vishu will also bring in any additional personnel from the VEOCI team that may be needed to complete the project according to the scope and schedule required.

All the team members are VEOCI permanent staff employees located in the VEOCI headquarters in New Haven, CT.

The following RACI chart shows at a glance the level of accountability that each of the VEOCI's main team members has on the different project steps. The main team will be working closely with any of our additional personnel that may be needed to ensure an adequate response to the project needs at any moment.

DEN - VEOCI Event Logging Implementation Software - RACI Chart					
Steps	Project Leader Vishu Rao	Solutions Architect Alex Nguyen	Quality Assurance Engineer Hemi Patel	VP User Experience Kenneth Moon	VP Software and Security Manager Tamas Simon
Project Direction and Planning	A, R				
Monitoring and Controlling	A, R	R			
Creating and Configuring the Solution	A, C	R			
Documentation	C, I	A, R			
Usability, Testing and User Feedback	C, I	R	R	A	
Technical Support	C, I				A, R

Responsible for completing the step in the process
Accountable for ensuring that the step is completed
Consulted prior to the completion of that step
Informed of the results once that step is completed

The VEOCI platform will be used to plan and coordinate this project, and will follow standard project management and development practices, such as the PMI's framework. All communications, action items, tasks, meeting minutes and other project information will be logged and shared in VEOCI rooms accessible by DEN.

EXHIBIT B - Cost Schedule

Technology Costs							
Schedule A. Technology Costs	3-Year Base Period				2-Year Option Period (IF EXERCISED)		
	2018 Q3/Q4	2019	2020	2021 Q1/Q2	2021 Q3/Q4	2022	2023 Q1/Q2
*Software License	$73,772	$147,544	$147,544	$73,772	$73,772	$147,544	$73,772
Maintenance & Support**	$-	$-	$-		$-	$-	$-
Hosting**	$-	$-	$-		$-	$-	$-
FY Total	$73,772	$147,544	$147,544	$73,772	$73,772	$147,544	$73,772
	*Total annual cost for 270 full licenses, incremental cost per user per year is $546.00 **Included in Software License. Assume 99.9% availability						

	Implementation Services Costs	***Price***	***Est. hours***
Phase 1	Project Kick-off meeting on-site	$5,000	-
	Phase 1 Integrations	$16,200	90
	Part 139 Solution	$13,500	75
	InfoPilot Forms	$9,000	50
	Snow Solution	$4,500	25
	Reports	$36,000	200
	Dashboards	$22,500	125
	3-day On-site Training (all-in)	$12,000	-
	Phase 1 Totals	**$118,700**	**565**
Phase 2	Phase 2 Integrations	$3,600	20
	Safety Management Part 1	$18,000	100
	Non InfoPilot Forms	$3,600	20
	MCC Solution	$3,600	20
	Incident Solutions	$3,600	20
	Phase 2 Totals	**$32,400**	**180**
Phase 3	Safety Management Part 2	$9,000	50
	Phase 3 Integrations	$16,200	90
	EOC - TBD		
	Phase 3 Totals	**$25,200**	

EXHIBIT C

CITY AND COUNTY OF DENVER
INSURANCE REQUIREMENTS FOR THE DEPARTMENT OF AVIATION

Certificate Holder Information:

CITY AND COUNTY OF DENVER
Attn: Risk Management, Suite 8810
Manager of Aviation
Denver International Airport
8500 Peña Boulevard
Denver CO 80249

If you are awarded the contract, your ACORD forms must be submitted electronically to:
contractadmininvoices@flydenver.com.
HARD COPIES will not be accepted.
All ACORD forms must have the project number in the Description of Operations section.

CONTRACT NAME & NUMBER TO WHICH THIS INSURANCE APPLIES: 201738777 Event Logging Implementation Software Services

I. PRIMARY COVERAGE

Colorado Workers' Compensation and Employer Liability

Minimum Limits of Liability (In Thousands) $100, $500, $100

1. Contractor expressly represents to the City, as a material representation upon which the City is relying in entering into this Agreement, that none of the Contractor's officers or employees who may be eligible under any statute or law to reject Workers' Compensation Insurance shall effect such rejection during any part of the term of this Agreement. Any such rejections previously effected, must have been revoked as of the date Contractor executes this Agreement.

2. If the contractor/consultant is a sole proprietor, Workers' Compensation is waived per State of Colorado law.

Commercial General Liability

Minimum Limits of Liability (In Thousands):

Each Occurrence:	$1,000
General Aggregate Limit:	$2,000
Products-Completed Operations Aggregate Limit:	$2,000
Personal & Advertising Injury:	$1,000

The policy must provide the following:
1. That this Agreement is an Insured Contract under the policy.
2. Defense costs are outside the limits of liability.
3. A severability of interests or separation of insureds provision (no insured vs. insured exclusion).
4. A provision that coverage is primary and non-contributory with other coverage or self-insurance maintained by the City.
5. The full limits of coverage must be dedicated to apply to each project/location.

Business Automobile Liability

Minimum Limits of Liability (In Thousands):

Combined Single Limit $1,000

The policy must provide the following:
1. Coverage applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement.
2. If transporting wastes, hazardous material, or regulated substances, Contractor shall carry a pollution coverage endorsement and an MCS 90 endorsement on their policy.

II. ADDITIONAL COVERAGE

Technology Errors & Omissions

Minimum Limits of Liability (In Thousands)

Per Occurrence	$1,000
Aggregate	$1,000

The policy must provide the following:

1. Liability arising from theft, dissemination and / or use of confidential information (a defined term including but not limited to bank account, credit card account, personal information such as name, address, social security numbers, etc. information) stored or transmitted in electronic form.
2. Liability arising from the introduction of a computer virus into, or otherwise causing damage to, a customer's or third person's computer, computer system, network or similar computer related property and the data, software, and programs thereon.
3. Policies written on a claims made basis must remain in full force and effect in accordance with CRS 13-80-104. The Insured warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning at the time work under the Contract is completed.
4. Coverage for advertising injury, personal injury (including invasion of privacy) and intellectual property offenses related to internet.

Cyber Liability

Minimum Limits of Liability (In Thousands)

Per Occurrence	$1,000
Aggregate	$1,000

This policy must provide the following:

1. Coverage for claims involving privacy violations, information theft, damage to or destruction of electronic information, intentional and/or unintentional release of private information, alteration of electronic information, extortion and network security.

Professional Liability (Errors and Omissions)

Minimum Limits of Liability (In Thousands)

Per Claim	$1,000
Aggregate	$1,000

The policy must provide the following:

1. Policies written on a claims-made basis must remain in force for three years extended reporting period in accordance with CRS 13-80-104.
2. If the coverage is written on a claims-made basis the Insured warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract.

III. ADDITIONAL CONDITIONS

It is understood and agreed, for the benefit of the City, that the following additional conditions shall apply to all coverage specified herein:

1. For Commercial General Liability, Auto Liability and Excess Liability/Umbrella (if required), Contractor and subcontractor's insurer(s) shall include the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured.
2. All coverage provided herein shall be primary and any insurance maintained by the City shall be considered excess.

3. For all coverages required under this Agreement, Contractor's insurer shall waive subrogation rights against the City.
4. The City shall have the right to verify or confirm, at any time, all coverage, information or representations contained herein, and the insured and its undersigned agent shall promptly and fully cooperate in any such audit the City may elect to undertake.
5. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as "A-"VIII or better.
6. For claims-made coverage, the retroactive date must be on or before the contract date or the first date when any goods or services were provided to the City, whichever is earlier
7. No changes, modifications or interlineations on this document shall be allowed without the review and approval of the Risk Administrator prior to contract execution.

NOTICE OF CANCELLATION

It is understood and agreed that should any Policy issued hereunder be cancelled or non-renewed before the expiration date thereof, or sustain a material change in coverage adverse to the City, the issuing company or its authorized Agent shall give notice to the Department of Aviation in accordance with policy provisions.