MEMORANDUM

TO: Airport Board  
FROM: Patrick Dame, C.M., Executive Director  
DATE: October 12, 2021  
RE: MUFIDS – Multi-User Flight Information Display System  
RFP Recommendation & Agreement

The MUFIDS RFP was released on August 14, 2021. Eight proposals were received and reviewed. Four firms were then selected for interview and demonstrations.

Proposals were evaluated on company experience, past performance & resource capability; system reliability, reporting ability and cost. References were also checked and after thorough consideration, staff recommends awarding the contract to Terminal Systems International (TSI), Inc.

TSI has been providing MUFIDS in the airport industry since 1997 and operates in over 60 airports in North America. They are highly respected in the industry and have a proven track record.

It is staff’s recommendation to award the MUFIDS contract to TSI for the provision of a MUFIDS system for the airport. A subsequent service level agreement (SLA) for maintaining the system after installation will also be provided and addendumed to the main contract for a five-year period beginning January 1, 2022, through December 31, 2026. The attached contract has been reviewed and approved by the City Attorney’s office.

STAFF RECOMMENDATION: Staff recommends Board approval of MUFIDS Replacement (Multi-User Flight Information Display System) recommendation and agreement with Terminal Systems International, Inc. in the amount of $33,477.00.
Agreement Between Rapid City Regional Airport Board and Terminal Systems International, Inc. for Multi-User Flight Information Display System

AGREEMENT made this 12th day of October, 2021, between the City of Rapid City, by and through the Rapid City Regional Airport Board, (Board), 4550 Terminal Road, #102, Rapid City, SD 57703, and Terminal Systems International, Inc., (Supplier), 2210 Hanselman Avenue, Saskatoon, Saskatchewan, S7L 6A4. Board intends to obtain services for a Multi-User Flight Information Display System (MUFIDS).

WHEREAS, Board is in need of a firm to provide and install a MUFIDS system for the terminal; and

WHEREAS, Supplier has the necessary skills, resources, and technical expertise to perform such services on behalf of the Board; and

WHEREAS, Board issued a Request for Proposals (RFP), for MUFIDS, attached hereto and incorporated herein as Exhibit A; and

WHEREAS, Supplier submitted a Proposal, attached hereto and incorporated herein as Exhibit B, to the Board in response; and

WHEREAS, Board wishes to retain the Supplier to perform the services so desired; and

WHEREAS, the purpose of this Agreement is to establish the terms and conditions of the Supplier’s scope of services and the compensation it is to be paid for those services.

NOW THEREFORE, for the consideration hereinafter set forth, the Parties hereto do mutually agree as follows:

ARTICLE 1. SCOPE OF WORK

The Supplier shall furnish all the materials, labor and perform all of the work as described in the RFP, attached as Exhibit A, and the MUFIDS Proposal, attached as Exhibit B, which exhibits are hereby made a part of this Agreement. Suppliers agrees that its MUFIDS Proposal complies with the requirements of the RFP, and Supplier agrees to perform all of the work described in the RFP.

ARTICLE 2. TIME OF COMPLETION

The furnishing or ordering of materials, supplies, and equipment under this Agreement shall be commenced as soon as possible within the time stated in Exhibit B, the Proposal. Request for time extensions shall be made in writing to the Board at least fourteen (14) days before the Contract completion date. The Board, through the Airport Executive Director, will issue all time extensions.
ARTICLE 3. THE CONTRACT SUM

The Board shall pay the Supplier for the performance of Agreement, subject to additions and deductions provided therein, in current funds as follows:

1. Project Management, Installation, Testing, Commissioning, New Page Design, Training $ 10,043.00
2. Display Device Controllers with PoE (setup & configured With warranty for term of service agreement); 40 each @ $289.00 $ 11,560.00
3. Industrial NEMA rated 12” ultra bright baggage input touch Screen device; 2 each @ $5,937.00 $ 11,874.00

Total $ 33,477.00

Payment terms are net 45 days. The compensation listed above is the same as listed in the Proposal, Exhibit B, with the removal of onsite training and the substitution of remote webinar training for a credit of $5,500.00, and the removal of on-site installation and the substitution of remote installation support and activation for a credit of $16,378.00. The project shall be invoiced in two stages with 80% at substantial completion and the remaining 20% at final acceptance.

Annual Site Licensing, Hosting, Data, Software licensing, Support/Updates and Warranty, shall be no more than $23,280.00 per year for a five year period beginning January 1, 2022, through December 31, 2026. A separate Service Level Agreement will be entered into and incorporated into this Agreement through Addendum.

ARTICLE 4. INDEMNIFICATION AND INSURANCE

General Indemnity. Supplier shall indemnify, save, hold harmless, and defend the Board, its officials, agents and employees, its successors and assigns, individually or collectively, from and against any and all claims, suits, actions, judgments, demands, losses, costs, expenses, damages, and liability caused in any way by, resulting in any way from, or arising in any way out of the negligent acts, errors, or omissions of Supplier, its officers, employees, agents or representatives in performance of Scope of Work under this Agreement unless such injury or damage is occasioned by the negligence or willful misconduct of the Board, its officers, employees, or agents.

Insurance. During the term of this Agreement, Supplier shall at a minimum maintain the following insurance coverage in a policy format and with an insurer or insurers reasonably acceptable to the Airport:

1) Worker’s compensation liability insurance in the amount of and form required under South Dakota law;
2) General Liability Insurance with limits of at least $1,000,000 per occurrence for Bodily Injury and Property Damage. At a minimum, coverage for Premises, Operations, Products and Completed Operations shall be included. This coverage shall protect the public or any person from injury or property damages sustained by reason of the Supplier or its employees carrying out the work involved in this Agreement.

Except for worker's compensation liability insurance, all policies shall include the “City of Rapid City and the Rapid City Regional Airport Board, individually and collectively, and its representatives, officers, officials, employees, agents and volunteers” as additional insured. The amounts of said insurance shall not be deemed a limitation on Supplier’s agreement to save and hold the Airport harmless to the extent required under this Agreement.

ARTICLE 5. SUCCESSORS AND ASSIGNS

It is mutually understood and agreed that this Agreement may not be assigned without the Supplier first obtaining the prior written approval of the Board. All of the terms, covenants and agreements herein contained shall be binding upon and shall inure to the benefit of successors and assigns of the respective parties.

ARTICLE 6. NONWAIVER

No failure or waiver or successive failures or waivers on the part of either party hereto, their successors or permitted assigns, in the enforcement of any condition, covenant, or article of this Agreement shall operate as a discharge of any such condition, covenant or article nor render the same invalid, nor impair the right of either party hereto, their successors or permitted assigns, to enforce the same in the event of any subsequent breaches by the other party hereto, its successors or permitted assigns.

ARTICLE 7. APPLICABLE AND COMPLIANCE WITH LAW

Supplier shall comply with all existing and subsequently enacted Federal, State of South Dakota, and local laws, ordinances, codes and regulations that are, or become applicable to this Agreement. This Agreement shall be subject to, interpreted and enforced according to the laws of the State of South Dakota, without regard to any conflicts of law provisions. Parties agree to submit to the exclusive venue and jurisdiction of the State of South Dakota, 7th Judicial Circuit, Pennington County.

ARTICLE 8. EXTENT OF AGREEMENT

This Agreement, the RFP (Exhibit A), and Supplier's Proposal (Exhibit B) represent the entire and integrated agreement between the Board and Supplier. This Agreement supersedes and replaces all terms and conditions of any prior agreements, arrangements, negotiations, or representations, written or oral, with respect to this
Project. To the extent that contractual terms in Exhibits A or B conflict with the terms in this Agreement, the Agreement controls.

**ARTICLE 9. EQUAL OPPORTUNITY CLAUSES**

Civil Rights Act of 1964, Title VI-49 CFR part 21 during the performance of this Agreement, Supplier for itself, its assignees and successors in interest agree as follows:

A. **Compliance with Regulations.** Supplier shall comply with regulations relative to non-discrimination in Federally-assisted programs of the Department of Transportation (DOT) Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (Regulations) which are herein incorporated by reference and made a part of this Agreement.

B. **Non-discrimination.** Supplier, with regard to the work performed by it during the Agreement, shall not discriminate on the grounds of race, religion, color, gender, age, national origin, or sexual orientation in the selection and retention of subcontractors, including procurements of materials and leases of equipment. Supplier shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the Agreement covers the program set forth in Appendix B of the Regulations.

C. **Solicitations for Subcontractors, Including Procurements of Materials and Equipment.** Install solicitations either by competitive bidding or negotiation made by Supplier for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or suppliers shall be notified by Supplier of its obligations under this Agreement and the Regulations relative to non-discrimination on the grounds of race, gender, color or national origin.

D. **Information and Reports.** Supplier shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its book, records, accounts, other sources of information, and its facilities as may be determined by the Commission or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, and orders, and instruction. Where any information required of Supplier is in the exclusive possession of another who fails or refuses to furnish this information, Supplier shall so certify to the Commission of the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.

E. **Sanctions for Non-Compliance.** In the event of Supplier’s non-compliance with the non-provisions of the Agreement, the Board shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

- withholding of payments to Supplier under the Agreement until Supplier complies; and/or
• cancellation, termination or suspension of the Agreement in whole or in part.

F. Incorporation of Provisions. Supplier shall include the provisions of paragraphs A through E in every subcontract, including procurements of materials and leases of equipment, unless exempted by the Regulations or directives issued pursuant thereto. Supplier shall take such action with respect to any subcontract or procurement as the Airport or the FAA may direct as a means of enforcing such provisions including sanctions for non-discrimination provided, however, that in the event Supplier becomes involved in or is threatened with litigation with a subcontractor or a supplier as a result of such direction, Supplier may request the Board to enter into such litigation to protect interest of the Board and, in addition, Supplier may request the United States to enter into such litigation to protect the interest of the United States.

Disadvantage Business Enterprise Policy. It is the policy of the United States DOT that Disadvantaged Business Enterprises (DBE) as defined in 49 CFR Part 26 and 49 CFR Part 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds and that a level playing field on which DBE’s can compete is fairly created. Consequently, the DBE requirements of 49 CFR Part 26 and 49 CFR Part 23 may apply to this Agreement.

Airport and Airway Improvement Act of 1982, Section 520, General Civil Rights Provisions. Supplier assures that it will comply with pertinent statutes, Executive Orders, and such rules as are promulgated to assure that no persons shall, on the grounds of race, creed, color, national origin, gender, age, or physical disability, be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision obligates Supplier, its subcontractors, successors, or assignees for the period during which Federal assistance is extended to the Board program except where Federal assistance is to provide, or is in the form of personal property or real property or an interest therein or structures for improvements thereon. In these cases, the provision obligates the Supplier, its subcontractors, successors and assigns for the longer of the following period:

• the period during which the property is being used by the Board sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits, or
• the period during which the Board sponsor or any transferee retains ownership or possession of the property.

In the case of Consultants, this provision binds the Consultants from the bid solicitation period to the completion of the Agreement.
ARTICLE 10. GOVERNMENTAL CERTIFICATION REQUIREMENTS

Trade Restriction Clause – 49 CFR Part 30. The Supplier and/or its subcontractors, by submission of an offer and/or execution of an Agreement, certifies that it:

A. Is not owned or controlled by one (1) or more citizens of a foreign country included in the list of countries that discriminate against U.S. Consultants published by the Office of the United States Trade Representatives (USTR);

B. Has not knowingly entered into any contract or subcontract for this Project with a person that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list; and

C. Has not procured any product or subcontracted for the supply of any product for use on the Project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.1, no contract shall be awarded to a Supplier or subcontractor who is unable to certify to the above. If the Supplier knowingly procures or subcontracts for the supply of any product or service of a foreign country on said list for use on the Project, the FAA may direct through the Board cancellation of the Agreement at no cost to the Government.

Further, the Supplier agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The Supplier may rely on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The Supplier shall provide immediate written notice to the Board if the Supplier learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide written notice to the Supplier if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the Supplier or subcontractor knowingly rendered an erroneous certification, the FAA may direct through the Board cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a Supplier is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

Certification regarding debarment, suspension, ineligibility, and involuntary exclusions 49 CFR Part 29. Supplier certifies, by submission of this proposal or acceptance of this Agreement, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where Supplier or any lower tier participants is unable to certify to this statement, it shall attach an explanation to its solicitation/proposal.

ARTICLE 11. DOCUMENTS INCORPORATED BY REFERENCE

The following attachments are incorporated in this Agreement in full text and become an integral part of the Agreement. In the event that changes to any exhibits are made by mutual written agreement which do not alter the provisions of this Agreement then said revised exhibits may be substituted herein without necessity for amendment.

• EXHIBIT A – REQUEST FOR PROPOSALS
• EXHIBIT B – PROPOSAL

ARTICLE 12. GENERAL PROVISIONS

A. Headings. The headings contained herein are for convenience in reference and are not intended to define or limit the scope of any provision of this Agreement.

B. Effect of Invalid Provision. If any term or provision of this Agreement or the application thereof to any person or circumstance shall to any extent be invalid or unenforceable, the remainder of this Agreement, or the application of such term or provisions to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

C. No Individual Liability. No member, commissioner, officer, agent, director, affiliate, parent company or employee of the Board or Supplier shall be charged personally or held contractually liable by or to the other party under the terms or provisions of this Agreement or because of any breach thereof or because of its or their execution or attempted execution.
D. Independent Contractor. Supplier is an independent business and is contracting to do work according to its own methods, without being subject to the control of the Board, except as to the product or the result of the work. The relationship between Board and Supplier shall be that as between an independent contractor and the Board and not as an employer-employee relationship. The payment to Suppliers is inclusive of any use, excise, income or any other tax arising out of this agreement.

E. Severability. Any unenforceable provision herein shall be amended at the extent necessary to make it enforceable; if not possible, it shall be deleted and all other provisions shall remain in full force and effect.

F. Funds Appropriation. If funds are not budgeted or appropriated for any fiscal year for services provided by the terms of this Agreement, this Agreement shall impose no obligation on the Board for payment. Except as to annual payments herein agreed upon for which funds have been budgeted or appropriated, this agreement is null and void, and no right of action or damage shall accrue to the benefit of the Supplier, its successors or assignees, for any further payments.

IN WITNESS WHEREOF: The City of Rapid City, South Dakota, by and through the Rapid City Regional Airport Board, Party of the First Part, having duly approved this Agreement, has caused this Agreement to be executed in its behalf by its Board President, thereunto duly authorized, attested thereto by its Board Secretary ___________ day of ________________________, 2021.

RAPID CITY REGIONAL AIRPORT BOARD

BY _________________________________

Rod Pettigrew, President
Party of the First Part

ATTEST _________________________________

Shawn Gab, Board Secretary

TERMINAL SYSTEMS INTERNATIONAL, INC.

BY _________________________________

Curtis Reid, Chief Executive Officer
RAPID CITY REGIONAL AIRPORT
ADVERTISEMENT FOR REQUEST FOR PROPOSALS (RFP)
FOR
Multi-User Flight Information Display System
(MUFIDS)

Sealed proposals will be accepted until September 20, 2021, 2:00 PM MT, by the Rapid City Regional Airport (Airport), 4550 Terminal Road, Suite 102, Rapid City, SD 57703, to provide the Airport with a Flight Information Display System and digital content software in accordance with the conditions stated in the Request for Proposals (RFP) package.

RFP documents may be obtained by accessing the Airport website at https://www.rapairport.com/about-the-airport/doing-business.

Proposals may be submitted to the above address and are to be marked: “MUFIDS Proposal.”

The Rapid City Regional Airport is an Equal Employment Opportunity (EEO) organization which does not discriminate against any prospective Proposer on the basis of race, religion, color, sex, age, national origin, sexual orientation, or presence of any sensory, mental, or physical disability in the consideration of contract award. Successful Proposer will be required to comply with all EEO, federal, state, and local laws and regulations.

Since the Rapid City Regional Airport is a nonhub primary airport, it is required to have a Disadvantaged Business Enterprise (DBE) program in accordance with regulations of the US Department of Transportation 49 CFR Part 26. All DBE firms and small businesses qualifying under this solicitation are encouraged to submit proposals. Additional information on the DBE program is available upon request.

Publication Dates: August 14, 2021
August 21, 2021
I.  INTRODUCTION

The Rapid City Regional Airport (Airport) is seeking Proposals to upgrade its MUFIDS (Multi-User Flight Information Display System) and digital content software. The Airport desires to select a qualified Proposer to implement and manage the flight information and digital display system at the Airport. The Airport intends to establish a contract with a qualified Proposer to provide a MUFIDS and digital content software system for five (5) years commencing on January 1, 2022.

This document outlines the prerequisites, selection process and documentation necessary to submit a Proposal for the requested services. Please carefully read the entire package before submitting your Proposals. If awarded, the implementation of the MUFIDS will be conducted in accordance with the terms and conditions of an Agreement mutually agreed upon by the parties.

Sealed proposals shall be submitted by September 20, 2021, 2:00 PM MT, and delivered to:

    Attn:  Toni Broom
    Rapid City Regional Airport
    4550 Terminal Road, Suite 102
    Rapid City, SD  57703

All Proposals will be time-stamped upon receipt and any Proposals received after the time specified above will be returned unopened. In bold lettering, mark the sealed envelope with the following words: “MUFIDS Proposal.” Faxed or emailed copies will not be accepted. All responsive Proposals become the property of the Airport and must be provided without cost to the Airport. Except as otherwise provided for herein, Proposals which are incomplete or which are not in conformance with the law, may be rejected as non-responsive. Proposals shall not be returned unless a written request to withdraw is received prior to September 20, 2021, 2:00 PM MT.

Information that is considered by a Proposer to be proprietary is still subject to release as a component of an open records request subject to review by the City Attorney. Proprietary information should be clearly marked as “confidential” or “proprietary” on each page on which the information appears. Proposers should not expect the Airport to seek confidentiality protection for any claimed privileged or proprietary information in the written Proposal just because the material is marked “confidential” or “proprietary.” For any essential information that the Proposer reasonably believes can be defended as being exempt from disclosure under the Open Records Act, the information must be capable of being separated or redacted from the Proposal, and should be clearly and specifically marked.

This RFP does not obligate the Airport to enter into an Agreement or pay any costs incurred in the preparation of a Proposal pursuant to this RFP or incurred in subsequent negotiations. It is the intention of the Airport to negotiate an Agreement with the Proposer it deems most beneficial to the Airport. During the Proposal evaluation process, the Airport may request additional information or clarification from Proposers.
The Airport reserves the right to accept or reject any or all Proposals, award multiple contracts to more than one Proposer, to waive any informalities and irregularities in the Proposal submission process, to extend the date for submittal of responses, to request additional information from any or all Proposers, to supplement, amend or otherwise modify the RFP prior to the closing date and time, to cancel this request with or without the substitution of another RFP, to negotiate with any Proposers, to re-solicit or cancel the procurement process, or to accept a Proposal which is considered to be in the best interest of the Airport.

Any Proposal submitted will be deemed to be valid for a period of up to 90 days following the closing date of the RFP. Submission of a Proposal indicates acceptance by the Proposer of the conditions contained in this RFP, and the intent to enter an Agreement with the Airport.

By submittal of a Proposal pursuant to this RFP, the Proposer certifies that no fee or commission, or any other thing of value, has been paid or agreed to be paid to any employee, agent, representative, official or current Proposer of the Airport in order to procure the contract described in this RFP. The Proposer also certifies that the financial information in its proposal has been arrived at independently and without consultation, communication or agreement with the Airport, or other Proposers, to restrict competition as to any matter relating to this RFP.

Proposers shall assume full responsibility to review and evaluate the entirety of this RFP, the appendices hereto and any Addendum which may be issued, and to become fully informed of the detailed instructions and requirements of this RFP and the future Agreement expectations. Proposers shall thoroughly examine and become familiar with this RFP and all related documents comprising this RFP and any written Addendum thereto. Each Proposer shall judge for itself all conditions and circumstances within this solicitation having relationship to its respective Proposal.

Submission of a Proposal shall constitute an acknowledgment that the Proposer has thoroughly examined and is familiar with this RFP and Addendum which may be issued. The failure or neglect of a Proposer to receive or examine any RFP documents or Addendum shall in no way relieve Proposer from any obligation with respect to the Proposal or the obligations that result from submitting a successful Proposal. No claim based upon lack of knowledge or understanding of this RFP or its contents shall be allowed. The provisions and terms of the Agreement may be revised or adjusted by the Airport prior to final execution.

**Equal Employment Opportunity**
Rapid City Regional Airport is an Equal Employment Opportunity (EEO) organization, which does not discriminate on the basis of race, religion, color, sex, age, marital status, national origin, sexual orientation, or the presence of any sensory, mental or physical disability in consideration of a contract award. The successful Proposer will be required to comply with all federal, state, and local laws and regulations.

**Disadvantaged Business Enterprise (DBE) Eligibility**
DBE firms are encouraged to submit a Proposal. Firms who propose to participate as a DBE must meet the experience and economic guidelines as set forth in 49 CFR Part 23 and 26 and should submit their DBE Plan and the DBE firms that will participate in this service.
Prohibition Against Lobbying
The Proposer shall not lobby, either on an individual or collective basis, the Airport (its associated City employees, or outside advisors) or any federal, state, or local elected or public officials or staff regarding this RFP or its written Proposal. Proposers, the Proposer’s acquaintances, friends, family, outside advisors, agents, or other representatives shall not contact the Airport (its associated City employees, or outside advisors) or any federal, state, or local elected or public officials or Airport staff to arrange meetings, visits, or presentations to influence the outcome of the selection process. Violation of this provision, by or on behalf of a Proposer, intentionally or unintentionally, will result in disqualification of the Proposer and/or rejection of a written Proposal.

Questions, Inquiries and Contact with Airport Staff
The Airport is committed to providing all interested parties with accurate and consistent information in order to ensure that no Proposer obtains an undue competitive advantage. The Airport’s web site (www.rapairport.com) contains additional information which is available to assist Proposers in responding to this RFP. To this end, from the date of this RFP through award of contract, the Airport contact is:

Toni Broom, Deputy Airport Director for Finance & Administration
4550 Terminal Road, Suite 102
Rapid City, SD  57703

All questions from Proposers must be submitted in writing, electronically, to toni.broom@rcgov.org by September 10, 2021. It will be the sole responsibility of the Proposer to ensure questions are submitted in a timely manner. Answers to questions, other clarifications and/or Addendums will be posted on the Airport’s web site.

It shall be the Proposer’s responsibility to monitor the Addendums that may be issued under and as a part of this RFP. Copies of this RFP, and any Addendum issued, are available for viewing at the following link: https://www.rapairport.com/about-the-airport/doing-business. Any Addendums so issued are to be considered a part of this RFP document. Therefore, receipt of all Addendums issued during this RFP must be acknowledged on the Signature Page included with your Proposal.

Insurance
The Proposer shall, during the whole of the term of the Agreement, and during such other time as the Proposer occupies the premises, take out and maintain insurance, in such form and with such companies as the Airport may reasonably approve. Insurance coverage and endorsements will be addressed in the Agreement with evidence of insurance provided to the Airport upon execution of the Agreement.

Disclaimer
It is the responsibility of each Proposer to investigate and be satisfied as to the facts and conditions prior to submitting a Proposal. The Airport makes no representation or warranties and accepts no responsibility for the accuracy or completeness of any information supplied. Proposers are
responsible for obtaining their own independent financial, legal, accounting, and technical advice on all proposal matters. Any failure to become fully knowledgeable shall be at the Proposer’s sole risk. The Airport assumes no responsibility for any interpretations made by Proposers on the basis of information provided in this RFP or through any other source.

II. AIRPORT BACKGROUND

The Rapid City Regional Airport is owned by the City of Rapid City and governed by a semi-autonomous Board which operates the Airport on behalf of the City. The Board is comprised of five mayoral appointees who are confirmed by the Rapid City Common Council. The voluntary appointments serve five year terms with a maximum of two consecutive terms. The Board is responsible for the general oversight of the Airport with the ability to sign contracts and authorize expenditures needed to operate the Airport.

III. PASSENGER STATISTICS AND AIRLINE INFORMATION

The Airport experienced substantial growth with record breaking years in 2017, 2018 and 2019. The COVID-19 Pandemic greatly impacted passenger traffic numbers in 2020, however, the Airport is quickly recovering and expected to end the year well.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Enplaned Passengers</th>
<th>Deplaned Passengers</th>
<th>Total Passengers</th>
</tr>
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<tbody>
<tr>
<td>2016</td>
<td>279,558</td>
<td>281,544</td>
<td>561,102</td>
</tr>
<tr>
<td>2017</td>
<td>295,215</td>
<td>300,721</td>
<td>595,936</td>
</tr>
<tr>
<td>2018</td>
<td>310,810</td>
<td>315,108</td>
<td>625,918</td>
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<tr>
<td>2019</td>
<td>351,096</td>
<td>354,333</td>
<td>705,429</td>
</tr>
<tr>
<td>2020</td>
<td>185,592</td>
<td>188,478</td>
<td>374,079</td>
</tr>
<tr>
<td>2021 thru June</td>
<td>129,896</td>
<td>133,730</td>
<td>263,626</td>
</tr>
</tbody>
</table>

Rapid City Regional Airport is the gateway to Western South Dakota, the Black Hills and Mt. Rushmore. The Airport is currently served by the following airlines and their partners. Six destinations are flown year round with each carrier adding additional cities for the summer tourism season up to 24 plus total destinations on a less than daily service schedule.

<table>
<thead>
<tr>
<th>Airline</th>
<th>Destination</th>
<th>Seasonal</th>
<th>Frequency</th>
<th>Operates</th>
</tr>
</thead>
<tbody>
<tr>
<td>American</td>
<td>Dallas, TX</td>
<td>Year Round</td>
<td>1-2 Daily Flights</td>
<td>Year Round</td>
</tr>
<tr>
<td>Allegiant</td>
<td>Las Vegas, NM</td>
<td>Year Round</td>
<td>Multiple Weekly</td>
<td>Year Round</td>
</tr>
<tr>
<td></td>
<td>Mesa, AZ</td>
<td>Year Round</td>
<td>Multiple Weekly</td>
<td>Year Round</td>
</tr>
<tr>
<td>Delta</td>
<td>Minneapolis, MN</td>
<td>Year Round</td>
<td>Multiple Daily</td>
<td>Year Round</td>
</tr>
<tr>
<td></td>
<td>Salt Lake City, UT</td>
<td>Year Round</td>
<td>Multiple Daily</td>
<td>Year Round</td>
</tr>
<tr>
<td>United</td>
<td>Denver, CO</td>
<td>Year Round</td>
<td>Multiple Daily</td>
<td>Year Round</td>
</tr>
</tbody>
</table>

IV. SPECIAL TERMS AND CONDITIONS
The initial term of the Agreement is anticipated to be for five years beginning in January, 2022. The Airport and successful Proposer may consider an extension option within that Agreement.

Following Airport approval, a Notice to Proceed, prepared by the Airport and signed by the Airport Executive Director, shall become the document that authorizes the Agreement to begin, assuming the insurance requirements (if applicable) have been met. Each section contained herein, any Addenda and the response from the Proposer shall also be incorporated by reference into the resulting Agreement. Similar products and/or services may be added and pricing negotiated during the term of the Agreement.

No price escalation will be allowed during the initial term of the Agreement. If it is mutually decided to renew beyond the initial period and the Proposer requests a price increase, the Proposer shall provide sufficient written certification and documentation to substantiate the request. Documentation shall include, but not be limited to: actual materials invoices, copies of commercial price lists, provision of appropriate indices, etc. which reflect said increases. The Airport reserves the right to accept or reject price increases, to negotiate more favorable terms or to terminate without cost, the future performance of the Agreement.

Proposer, its officers, employees, agents, subProposers, or those under its control, will at all times comply with applicable federal, state, and local laws and regulations, Airport rules, regulations, policies, procedures, and operating directives as are now or may hereinafter be prescribed by Airport, all applicable health rules and regulations and other mandates whether existing or as promulgated from time to time by the federal, state, or local government, or Airport including, but not limited to, permitted and restricted activities, security matters, parking, ingress and egress, environmental and storm water regulations and any other operational matters related to the operation of the Airport. Proposer, its officers, employees, agents, subProposers, and those under its control, will comply with safety, operational, or security measures required of Proposer or Airport by the Federal Aviation Administration, or TSA. If Proposer, its officers, employees, agents, subProposers, or those under its control will fail or refuse to comply with said measures and such non-compliance results in a monetary penalty being assessed against Airport, then, in addition to any other remedies available to Airport, Proposer will be responsible and will reimburse Airport in the full amount of any such monetary penalty or other damages. This amount must be paid by Proposer within ten days of written notice.

Proposer shall be responsible for and agrees to protect, defend, indemnify, and hold harmless the Airport and its officers and employees from any and all claims and damages of every kind and nature made, rendered or incurred by or in behalf of every person or corporation whatsoever, including the parties hereto and their employees that may arise, occur, or grow out of any acts, actions, work, or other activity done by the Proposer, its employees, subProposers or any independent Proposers working under the direction of either the Proposer or subProposer in the performance of this Agreement.
V. RFP PROPOSED TIMELINE

The proposed time schedule as related to this procurement is as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 13, 2021</td>
<td>RFP Posted on Airport’s website</td>
</tr>
<tr>
<td>August 14 &amp; 21, 2021</td>
<td>RFP Advertised</td>
</tr>
<tr>
<td>September 10, 2021</td>
<td>Final Date for Written Questions</td>
</tr>
<tr>
<td>September 20, 2021</td>
<td>Proposals Due</td>
</tr>
<tr>
<td>September 27-30, 2021</td>
<td>Finalist Interviews (if needed)</td>
</tr>
<tr>
<td>October 12, 2021</td>
<td>Anticipated Selection Committee Recommendation</td>
</tr>
<tr>
<td>October 12, 2021</td>
<td>Anticipated Contract Execution</td>
</tr>
<tr>
<td>January 1, 2022</td>
<td>MUFIDS Commencement Date</td>
</tr>
</tbody>
</table>

The Airport reserves the right to modify the deadline set forth in the above timeline in its sole discretion. Any such modifications will be stated in an addendum.

Site Inspection – Proposers may request an onsite inspection by appointment only. Site inspections should be scheduled as soon as possible after release of the RFP and is recommended to be done prior to the final date for written questions. Last minute requests for site inspections will not be granted. Discussions between the Proposer and Airport staff during the onsite inspection do not modify or override any written specification or correspondence provided in this solicitation. Contact: Toni Broom, 605-394-4195, extension 6794, to schedule an inspection.

VI. SCOPE OF WORK

The selected Proposer will act as a Service Provider for MUFIDS and digital content service offerings, including services needed to fully install, implement, operate, maintain, and monitor the system(s) described herein for the Airport. The Airport desires to select a qualified Proposer to implement and manage the flight information and digital content at the Airport, with the Airport having the ability to change content.

This service shall provide all infrastructure to accurately display flight information on the Airport website and displays around the Airport facility. Digital content may include but is not limited to Airport generated content, website URL’s, streamed or USB content, queue management system content, baggage carousel content, gate and ticket counter content. Digital content may be provided by MUFIDS managed services vendors, 3rd party vendors, or the Airport. Systems that will require integration may include, but are not limited to, website, weather feed, airline flight information, baggage carousel, airline provided content, and advertising content. Content may be on-prem, in the cloud, or updated from either location. The Airport requires the proposed solution be capable of providing full operation and support to Airport staff, tenants, and the traveling public throughout specified areas of the Airport. Devices may need to support multiple types of content on an individual display including still displays and videos.
Current content shall be recreated for new system. Sample screen shots are attached and incorporated herein as Exhibit A. Selected Proposer shall have the capacity to create the content and provide content creation services throughout the project and duration of the managed services contract. For the project, screens shall be designed to look the same as they are currently. However, Proposer may provide other options for design in their proposal.

Systems referenced in the RFP:

- MUFIDS – Multi-User Flight Information Display Systems
- BIDS – Baggage Information Display Systems
- GIDS – Gate Information Display Systems

Work – MUFIDS and digital content system upgrade - The MUFIDS and digital displays shall provide digital content throughout all public and operational areas of the terminal facility where there is Airport supported digital content. The Proposer shall be responsible for the following:

A. Integrations

1. Baggage carousel computer – this technology will need to be replaced.
   - Location: Bag belt where airline employee loads inbound bags.
   - Button is pressed for First Bag; Button is pressed for Last Bag
   - Carousel screens – populated with information from baggage carousel computer system.


3. Flight Information goes to Airport displays.
   a. Includes 4 screen video wall with Quadro M620 device

B. Types of content to support

1. Airport generated content. (Including still images and videos.)

2. Baggage carousels.
   - Includes advertising, flight number and departure airport, carousel numbers, and local weather. All are displayed at the same time on the screen.
   - Advertising displays full screen when no flight is being displayed.

3. Real-time Flight Map/Weather – The weather screens provided through a 3rd party URL. This is a URL that has a weather map overlayed with flights. The content is delivered using the URL.

4. Flight information – Flight feeds and information shall be provided by the Proposer.
C. Features

1. Airlines and Airport shall have a web interface to change flight information, in the event it does not update automatically from the Airline feeds. Preferred option is automated updates from airline feeds.

2. Remote monitoring and maintenance of servers and endpoint devices by Proposer.

3. Timed sequencing for rolling displays.

4. Ability to schedule content for displays.

5. Full system and management reporting.

6. Displaying content on screen sizes of 40” and larger.

7. Provide solution to implement visual paging for public address and emergency alarms.

Existing infrastructure and detailed equipment.

A. The current system operates through a cloud based system with individual devices on each Airport supplied monitor.

B. The Airport currently has 34 screens/monitors, 1 video wall, and multiple portable monitors:

- 1 Video Wall with 4 screens operating on Quadro M620 Device
- 7 Hold Rooms/Gate areas with flight information, content displays and destination weather
- 15 screens for content display
- 6 screens for airline flight departure information
- 4 screens for airline flight/arrival information
- 2 screens for baggage claim carousels with arrival information, display content and local weather
- Multiple portable screens with display content

VII. REQUIREMENTS

Design Approach

A. The Proposer may propose alternative solutions to any of the requirements. These alternatives shall be clearly delineated and shall be proposed as options, in addition to the base design, and shall clearly explain advantages over the design requested herein.

- The system shall, to the greatest extent possible, use off-the-shelf systems (software and hardware components) and shall embrace systems and technologies that have been
developed and successfully implemented. The system shall be the latest general availability release of hardware/software from the manufacturer and shall have the most up-to-date security updates, drivers, and firmware installed.

- The systems architecture should be guided by the following: security best practices, system availability, ease of use and content changes, and reduction of on-site support.

**General Requirements**

**1. Proposer Submittals**

- Pre-Award Submittals (submitted with proposal documentation)
  - Design of systems and interconnectivity. System/network components and how they communicate with each other. Description of hosting environment, and server/data center redundancy.
    - Description of any cloud services or processes that Proposer is using. Include data center security, redundancy, failover, and failback process. The Airport should be able to understand how on-premises systems will be impacted during a failover or disruption of service at the cloud data center.
  - Upgrade plan: taking current system and migrating to the cloud.
    - Indicate anticipated downtimes during migration.
  - Specify types of content supported and any that are unsupported.
  - Project Schedule
    - Describe how long it will take to procure, configure, and deliver any hardware devices.
    - Describe how long it will take to setup and configure the servers and software to the point it is ready for deployment.
  - The delivery dates of submittals will not be negotiated unless specified herein. The Proposer shall supply any submittal within fifteen (15) working days if requested by the Airport.
  - The Proposer shall provide and have approved by Airport IT staff, the following submittals during project, as specified:
    - **System Drawings**: The Proposer shall submit drawings that clearly illustrate the proposed system architecture and show the normal flow of data throughout the system. These drawings shall be submitted at the 50% and 100% design levels. This shall include ports and IP addresses that the proposer plans to use. Drawings shall be delivered to the Airport within 30 days of Notice to Proceed.
• **Disaster Recovery Plan**: Due to the critical nature of airport operations, the Proposer shall prepare a primary disaster recovery plan for the MUFIDS and digital content system. The Proposer shall include a description of how the Proposer will be able to respond with the necessary labor, hardware, software, technical support, materials, equipment, and other requirements to ensure that the MUFIDS and digital displays are up and running properly throughout a disaster scenario. Provide a timetable detailing actions in a “cause and event” scenario. A summary description of the Proposer’s plan shall be provided with the proposal response, a detailed “disaster recovery plan” shall be delivered to the Airport within 60 days of Notice to Proceed.

2. **Required Project Documentation and Training**

• **As-built drawings**: The Proposer shall supply system as-built drawings prior to final system acceptance. These drawings shall be provided in a format that can be edited by the Airport and in Adobe (.pdf) format. The drawings shall detail system component and data interconnectivity, component locations, data exchanges between systems. Hardware and software support documentation and any applicable manufacturer documentation shall be supplied. To the extent possible, flight data shall be detailed to who and how the data is updated throughout the data flow from origination to final display. Known IP address and ports shall be included in the drawings.

• **System Administration Documentation**: The Proposer shall provide system administration documentation for tasks the Airport will need to perform. This documentation should include, but is not limited to adds, moves, and changes of devices.

• **Documentation Reference**: The Proposer shall supply a complete list and cross-reference of all supplied documents (i.e., name, brief description, and document number).

• **Maintenance Manuals**: Manuals including maintenance instructions and other descriptive material as received from the manufacturers shall be provided that will enable authority personnel to maintain equipment and test equipment. This documentation shall include descriptions, specifications, theory of operation (where applicable), layout drawings (showing component types, positions and locations), and back-panel and assembly wiring diagrams. In addition, electronic copies of all documentation shall be provided. Documentation shall include instructions for preventive maintenance procedures that include examinations, tests, adjustments, and periodic cleaning.

• Devices should be named with a convention that enables onsite personnel to identify the location of the device by the name of the device. Final naming of devices shall be approved by the Airport.

• Describe training to be provided for Airport IT and other onsite staff that need training, on management interfaces.
3. Service Requirements

- **Alerting** – email alerts shall be configured to email the Proposer’s support and Airport’s support. Alerts shall be responded to by the Proposer’s team based on the contracted support hours and response times. At minimum, the network connection and software required to display content should be monitored to alert when a display is not working properly or displaying the intended content.

- **Redundancy** – Redundancy shall be built into the software or endpoint devices to display content for a period of time, during a network or software outage. Indicate in the Proposal, the length of time the last correct content will remain visible, when an endpoint issue occurs, or the network/internet connection is lost.

- **Support options** – In Proposal, provide details of the support options available for service display issues and high impact, multiple display or system side issues. Include escalation procedures in proposal.

- **Hardware replacement** – Preferred options: Next Business Day (NBD) advanced replacement or 5 pre-configured shelf spares. Describe how quickly devices can be replaced.

- Describe how quickly change requests will be completed.

- Provide options in your proposal for remote control software on devices and viewing current content on all screens.

- Management interfaces shall be easy for Airport staff or Airline staff to use. Airlines need to be able to quickly update flight status.

- Screen creation shall be included in service for length of contract. Specify how quickly screens can be created and deployed. (Examples include but not limited to: FIDS, GIDS, BIDS). All screens and content changes must be approved by Airport before change is made.

- The Proposer shall coordinate and provision all system modifications and upgrades throughout the life of the contract for MUFIDS and digital content environment, endpoint devices. Modifications and downtime shall be approved by Airport prior to implementation. Proposer shall coordinate with the various third parties for integration, implementation, and support for system modifications and upgrades. System upgrades shall be provided throughout the contract to ensure the systems are supporting the most current technologies. Proposer shall not perform scheduled maintenance or cause downtimes, unless previously approved by the Airport. For unscheduled or emergency maintenance, the Airport must be notified immediately after Proposer discovers issue. Planned downtimes or future changes must be coordinated and approved by Airport to not impact tenants or passengers.
• The Proposer shall specify the amount of bandwidth each device would consume, and the total bandwidth required for all devices.

• Proposer shall assign a project manager for content creation, device procurement, device setup, shipping, and installation. Provide project manager experience summary and resume highlighting recent and similar installations.

• Proposer shall provide the Airport with monthly reports, on the first of each month, detailing MUFIDS and digital content uptime and maintenance performed (both scheduled and non-scheduled) on the MUFIDS and digital content service via the system’s reporting capabilities. The information contained in the monthly reports shall be coordinated with the Airport’s designated representative.

• Proposer shall protect devices with antivirus and provide weekly antivirus reports on items discovered and remediation steps.

• Must be currently supported technology. Windows technology is preferred; however, we will consider other options. All technology must be able to be upgraded and supported throughout the term of the contract.

• Performance
  
  o Device reboot and information display should take less than 1 minute and have similar performance to current web technologies and other MUFIDS systems.
  
  o There should be no noticeable delay in screen transitions.
  
  o Graphics transitions should be smooth. They should not be noticeable, abrupt, or choppy.
  
  o Graphics and animation shall be clean, clear, undistorted, and fit to screen.

• Airport support and Proposer support shall receive alerts and error checking for 3rd party integrations to verify screen content is updated.

• Project progress meetings shall be held weekly once Notice to Proceed is given.

• Individual components shall be able to be serviced without impacting other components or the entire system. This would include the hosting and networking environments.

• Project shall plan to minimize downtime as software or hardware is transitioned.

4. Hardware Requirements

• The MUFIDS and digital displays service offering, shall include all configured hardware necessary for a fully functional system. The Proposer shall supply all cabling, connectors, adapters, and termination equipment necessary to interconnect all system hardware. All
hardware and materials shall be new and of a quality that the connectors remain connected and stable to minimize onsite troubleshooting.

- **Hardware requirements** shall be provided by Proposer to meet or exceed performance requirements listed in this RFP. The hardware requirements shall be provided to ensure the hardware supports the Proposer's software and network requirements for data feeds and coordination with software for displaying of MUFIDS and digital content. The hardware selected shall meet the operational, functional, and performance requirements specified herein.

- **Equipment and cabling**: The Proposer will make final equipment connections to displays and network. Proposer shall provide the necessary patch cables, equipment cables, and power supplies and cables. It is the Proposer’s responsibility to fully review the infrastructure components not provided by this project and identify in writing where the infrastructure does not meet requirements. Proposer shall label devices with the naming convention approved by the airport.

- **Additional hardware**: The Proposer is responsible for providing all hardware and associated appurtenances required for final installation. The Airport would prefer mounting hardware for devices that allow the devices to be physically replaced without removing displays from the wall. The mounting hardware, devices, and cables shall be hidden from view with typical viewing angles. Mounting hardware details shall be provided in the Proposal. The Proposer shall be responsible for performing the appropriate coordination with the Airport to ensure all MUFIDS and digital display equipment will be accommodated.

- **Baggage claim controllers** shall be new and mounted to the current location at the baggage belt drop area. The screens should be a minimum of 10” and connect to the network cabling. A rugged case shall be provided that does not limit the functionality of the device. The device shall operate at the temperature of the baggage belt drop area. An internet connection will be provided through the network cabling.

- **Visual paging** shall meet all ADA guidelines for visual paging in public facilities. The visual portion broadcast from these displays shall be in sync with the audio portion of these announcements.

- **All hardware, software, cables, and connectors** shall be covered under the managed services contract.

5. **Functional Requirements**

- **MUFIDS software** shall perform data validation on the appropriate fields during data entry and update to ensure the integrity of data content.

- **MUFIDS** shall utilize assignable levels of security and access level for each system user which shall define which functions are available to a user with a given security level. Carrier
employees are not able to view/edit any flights other than their own.

- Remote access and software updates shall be restricted to Proposer’s block of IP addresses to their cloud service. Only Airport approved remote access shall be allowed.

- System shall accommodate scheduled times for displays, displays based on flight schedules, displaying for custom amount of time before and after content is displayed.

- To enable a smooth transition of devices, the screen designs shall be the same as the current design. Proposer may submit options for different designs.

- Flight updates should get feeds from airlines (preferred) or provide a web-based method for airlines to make changes. Changes should be updated on the screens as quickly as possible. Changes should populate displays at a minimum of less than 60 seconds.

6. Technical Requirements

- Systems management are preferred to be cloud based with low latency.

- Systems monitoring shall be 24x7.

- MUFIDS and management applications, shall have the ability to enforce password requirements.
  
  o Change frequency: minimum every 90 days.
  o Password reuse: cannot reuse same password.
  o Complexity: Passwords must include characters from three of the following groups: lower-case letters, upper-case letters, numbers, and special characters.
  o Minimum length: 10 characters
  o Limit scope of device connectivity to between vendor’s subnet/range of IP addresses and Airport’s subnet of IP addresses.
  o Multi-factor authentication to websites for management interfaces.

- Content shall be able to load and display correctly upon a power cycle of the device.

- Built-in redundancy on the device, to allow screens to continue playing the current content, in the event of network connectivity loss. The Proposer shall specify the duration the screens will continue to play content.

- The Proposer shall be responsible for anti-virus protection on servers, MUFIDS and digital display devices. The Proposer shall be responsible for diagnosis and recovery from any viruses on the servers and MUFIDS and digital display devices.

- Devices shall be configured with time synchronization, using a standard Network Time Protocol (NTP) on standard servers. Time across all devices and any displaying on screens
shall be synchronized to less than 20 seconds difference.

- In the event of a connection failure, all flight records shall be held in a transmission queue. The system shall have the ability to purge information from the transmission queue and refresh them with a new snapshot of all records based on a time-rule criteria. The system shall remain updated, and update displays immediately following any disruption.

- Systems upgrades, security patches, and fixes shall not be conducted without coordination with other integrated systems. Any interface modification should not require the MUFIDS system to go through a complete shutdown in order to reload or restart.

- Screen content shall be able to be refreshed by individual screens.

- Devices will need to work reliably, with HDMI extender technology, as needed. Not all devices will use HDMI extenders.

- The Airport shall be entitled to any and all upgraded versions of the software that becomes available from the Proposer, for the duration of the contract, at no charge as long as there is a current contract in place for managed services.

- System shall be built to support future digital display growth at the Airport during the timeframe of the managed services contract.

- All data integrations need to be transferred to 3rd party application in a format compatible with their system.

- The push, pull, or API integration design for data transfer shall be guided by security best practices and reliability.

7. Optional Items

Specify in Proposal, if the options below can be added and what additional costs would be to supply those features.

- Wi-Fi enabled on devices

- Power over Ethernet support on devices.

- Support for WebOS or built-in players, to the displays.

- Storage of FIDS data throughout the length of the contract. Enable use of FIDS data by Airport.

- Unplanned annual system-wide downtime of less than 99.99% (52 m 35.7s)
• Enhanced security to protect the hosted environment or the endpoints. (ie: any advanced security options that could be deployed)

• Seamless and automated failover between any components that could cause downtime to multiple screens.

• Potential integration with a future Airport app.

• Integration of a Queuing Management System.

• Integration of a Paging System.

VIII. IMPLEMENTATION

1. Project Phases

General

• The implementation of the MUFIDS and digital displays shall be phased as necessary in order to minimize any disruption of normal Airport operations. Proposer shall provide a detailed implementation and phasing plan for acceptance by the Airport prior to performing any work.

• The Proposer shall satisfactorily examine the condition of the existing system and formulate a written plan for implementation of the system upgrade/migration with no full system downtime and minimizing downtime to each component. The upgrade plan shall be included in Proposal.

• Within 30 days after Notice to Proceed, the Proposer shall submit a detailed project schedule in accordance with the submittal requirements identified in this document.

• During implementation, Proposer shall have the appropriate staff available for phone support, during times onsite work is being performed, to support migration. This could include but is not limited to equipment changes and troubleshooting.

Phase One - Design

• The Proposer shall develop a MUFIDS and digital displays architecture and design for implementation, including all infrastructure components, system hardware and software, and other miscellaneous components required to meet the requirements defined in this RFP. The drawings shall clearly illustrate the proposed system architecture and show the normal flow of data throughout the system. This shall include ports and IP addresses that the Proposer plans to use. The proposed architecture and design shall be submitted to the Airport for
approval at a 50% and 100% design level and must be approved in writing prior to installation.

- Display designs shall be approved by Airport prior to proceeding.

- The Proposer shall submit and receive written acceptance of the proposed architecture, design and schedule from the Airport before continuing on to Phase Two of the project.

- Maximum duration of design phase is 60 days.

**Phase Two – Testing**

- Testing shall be completed onsite at the Airport.

- The Proposer shall conduct MUFIDS and digital displays meetings with stakeholders to test the following.
  
  - Display designs – display designs and functionality shall be tested on production devices. Approval from Airport is needed in writing, prior to moving to installation phase.
  - Screen transitions.
  - Hardware performance.
  - Data flow for integration with 3rd party systems.
  - Approved performance metrics will become the standard baseline used as a minimum standard throughout the length of the contract, unless a stricter minimum standard is agreed to.
  - Endpoint devices shall use no more than 80% of the processor and memory for longer than 2-minute period. Normal running performance must be less than 80%.
  - If testing does not meet design, performance, and integration requirements after 90 days of troubleshooting from the time testing begins, contract(s) may be terminated.
  - The Proposer shall develop and submit an installation schedule for the Airport’s approval.
  - Maximum duration of testing phase is 30 days.

**Phase Three - Installation**

- The installation will be phased over 1 month which will be dependent upon the onsite resources available. Phases will be finalized and agreed upon by the Airport and Proposer, prior to installation.

- After an installation schedule is agreed upon between the Airport and Proposer, the Airport will communicate with Airport tenants and stakeholders.

- After each phase of the implementation, any issues must be resolved prior to proceeding to the next phase. If issues are not resolved to the satisfaction of the Airport, the installation
schedule shall be adjusted.

- Documentation shall be provided in a format that can be edited by the Airport and in Adobe (.pdf) format. These shall indicate hardware deployed as a part of the installation phase.

Phase Four – System verification

- This phase will consist of verification that all systems are working as expected, data accuracy, time synchronization across systems, and 3rd party integrations are working as expected.

- All issues and system verification needs to be completed within 30 days of device being installed.

- Final as-built documentation must be provided within 60 days of system verification and prior to project close out.

- The project can be closed out after written approval from Airport that systems have been verified to be in working condition.

IX. PROPOSALS REQUIREMENTS

Proposal Submission – Limit your proposal content to 12 total pages, dual sided printed. The Proposal, shall include four (4) Originals and one (1) electronic PDF file on a compact disk (CD) or Universal Serial Bus portable flash memory card (USB flash drive), must be submitted in an envelope that is completely sealed, bears the name and complete mailing address of the Proposer, and be clearly marked “MUFIDS Proposal” due on September 20, 2021, at 2:00 PM MT to:

Attention: Toni Broom
Rapid City Regional Airport
4550 Terminal Road, #102
Rapid City, SD  57703

Proposal Content: Include Signature Page

Executive Summary – One (1) page maximum
Summarize the Proposer’s strong points and how experience, particularly with similar responsibilities, will benefit the stakeholders.

Business Organization – One (1) page maximum
State the full name and address of the organization and, if applicable, the branch office, consultants, or other subordinate elements that will provide or assist in providing the service. Include phone number(s), email address(s) and Proposer’s website address.

Recommendation – Twelve (12) pages maximum
State in succinct terms the Proposer’s understanding of the major issues of this request. Describe specifically the Proposer’s intended process and responsibilities. Identify important steps that will be taken to meet the Airport’s expectations and identify deliverables.

**Project Staffing – Four (4) pages maximum**

Provide a chart with the staff you are committing to the solicitation. Show lines of authority and communication, and provide a brief role description with responsibilities for each person as they relate to the solicitation as well as each staff member’s key credentials.

**References – One (1) page maximum**

Provide a minimum of three (3) relevant references, preferably for projects of similar scope and complexity. Include the names of the projects, location, completion date, project cost, and specific challenges; identify project team members and references for each project including telephone numbers and email addresses.

**Fee Proposal – Two (2) pages maximum**

Provide a fee proposal based on providing a fully functional system, including:

- Pricing for 1, 2, and 3 years. Include estimated pricing for each additional year after that. Pricing should include all features, upgrades, hardware, and software for the duration of the managed services contract. Separate one-time fees from ongoing fees.
- All devices should be covered under the contract. Preferred support is next business day advanced replacement or a method, proven in test phase, for configuring shelf spares for next business day replacement.
- Any additional fees not included in the service contract shall be detailed in the proposal.
- Include payment schedule and terms. Preferred scheduled to coincide with project phases.
- Include fees for adding a new device. The fees shall indicate the purchase and implementation costs and fees for support, through the duration of the contract or support fees based on year it was purchased.

The Airport reserves the right to use both primary and secondary suppliers or to otherwise use multiple sources to protect the Airport’s overall interests.
X. SIGNATURE PAGE

The undersigned Proposer, having examined these documents and having full knowledge of the condition under which the work described herein must be performed, hereby proposes that she/he will fulfill the obligations contained herein in accordance with all instructions, terms, conditions, and specifications set forth; and that she/he will furnish all required products/services and pay all incidental costs in strict conformity with these documents, for the stated prices as payment in full.

Submitting Firm:  _____________________________________________________________

Address:    __________________________________________________________________

City:    __________________________     State:    ______________     Zip:       ___________

Authorized Representative (print):  _______________________________________________

Authorized Signature:  _________________________________________________________

Date:  _______________________     Email:  _______________________________________

Phone #:  ______________________________

EXCEPTIONS/DEVIATIONS to this Request for Proposal shall be taken below. If adequate space is not provided for exceptions/deviations, please use a separate sheet of paper. If your company has no exceptions/deviations, please write “No Exceptions” in the space below.

____________________________________________________________________________

____________________________________________________________________________

FIRM PRICING - Offered prices shall remain firm for a minimum of 90 days after the due date of this solicitation unless indicated otherwise. Accepted prices shall remain firm for the duration of the Agreement.

ADDENDA – https://www.rapairport.com/about-the-airport/doing-business. It is Proposer’s responsibility to check for issuance of any addenda at the above website. The authorized representative hereby acknowledges receipt of the following addenda:

Addenda No:_____ Date:    ________________     Addenda No:___ Date:    _______________

Addenda No:_____ Date:    ________________     Addenda No:___ Date:    _______________

Addenda No:_____ Date:    ________________     Addenda No:___ Date:    _______________
Exhibit 1 – Sample of Current Screen Images

Airline Departure Screen

![Airline Departure Screen](image)

Arrival/Departure Screen

![Arrival/Departure Screen](image)
Baggage Claim Screen

Gate Screen
Four Screen Video Wall
ADDENDUM 1 – Issued September 13, 2021
REQUEST FOR PROPOSAL FOR MUFIDS,
RELEASED:  August 14, 2021
PROPOSAL DUE DATE:  September 20, 2021, 2:00 PM – MT

The following addendum shall be acknowledged as having been received and marked as such on the Signature Page submitted with the Proposal package.

The following additions and/or corrections, and questions and answers shall be made to and become part of the Contract Documents.

**Clarification:** There are a total of **35** screens/monitors, 1 Video Wall with 4 screens and 1 controller, and 4 portable screens/monitors.

**Add Alternate: Video Wall.** The current video wall utilizes four screens with a Quadcore controller located on the back of the display. The system is currently functioning well but is aging out. Proposers may submit an optional solution and fee with their Proposal to replace the Video Wall screen(s) and controller.

<table>
<thead>
<tr>
<th>Questions/Comments</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can the airport provide the manufacturers name of the existing MUFIDS?</td>
<td>The current provider is Readitech IT Solutions using Azulle Access3 Fanless Mini PC Sticks for each monitor.</td>
</tr>
<tr>
<td>Does the airport currently utilize an Airport Operations Database (AODB)?</td>
<td>No.</td>
</tr>
<tr>
<td>If the airport does not already utilize an AODB, would the airport be interested in phasing in an AODB into the operation at a later date in this contract?</td>
<td>Not at this time.</td>
</tr>
<tr>
<td>Please clarify that January 1, 2022 refer to the start of installation of the MUFIDS system? Or is it RAP's expectation that the new system will &quot;go live&quot; on that date?</td>
<td>We are hopeful to go live on January 1, 2022. Please list your installation schedule in your proposal.</td>
</tr>
<tr>
<td>As you may already know, January 1, 2022 is a Saturday. Is the next business date, January 3rd, 2022, a more appropriate date for Commencement?</td>
<td>We prefer January 1 for commencement but will consider alternatives.</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Could you please clarify what it means by pricing for 1, 2, and 3 years?</td>
<td>This can be disregarded since we are looking at a potential five year agreement. It would be anticipated no price changes within the five year agreement unless mutually agreed upon by the parties.</td>
</tr>
<tr>
<td>Do the Exceptions/Deviations listed on separate sheets of paper count against the 12 page (double sided) limit?</td>
<td>Exceptions/Deviations should be listed on the signature page and on the backside if needed. They are to be included in the 12 page double sided limit.</td>
</tr>
<tr>
<td>If we include a cover page and table of contents, does it count towards the overall page count?</td>
<td>Yes.</td>
</tr>
<tr>
<td>What is the intended use of the &quot;portable screens with display content?&quot; How many of these devices are there? Are these all located on the airport-provided LAN or Wi-Fi? Please explain the current configuration further.</td>
<td>The airport has four portable devices to display either FIDS or other content. These are hard wired and are located near data points in the terminal using airport provided LAN.</td>
</tr>
<tr>
<td>Are the workstations that feed the airport-provided displays to be reused or replaced? If reused, can specifications please be provided?</td>
<td>There are no existing workstations to feed the airport provided displays. The current system is an IP web based system that can be accessed from any computer. If your system uses workstations, include them in your proposal.</td>
</tr>
<tr>
<td>Can you please provide specifications of the existing video displays? (Model, resolution, etc.)</td>
<td>Current devices are Azulle Access 3 Mini PC Sticks.</td>
</tr>
<tr>
<td>What existing computer models are used as display devices with the monitors apart from the video screen? Do they use Windows OS?</td>
<td>Each monitor is equipped with its own Azulle Access 3 Mini PC Stick. They operate on Windows OS. We provide multi use monitors. The only difference is for the large Video Wall which operates four (4) screens with one (1) HP Z2 Mini G3 Workstation – 1 x intel Core i5 (7th Gen) i5-7500 Quadcore (4 Core) 3.40 GHz – 8 GB DDR4 SDRAM – 1 TB HDD – NVIDIA Quadro M620 2 GB Graphics – Windows 10 Pro 64 bit – Mini PC – Space Gray, Black Chrome Accent – 1 Processor Support – 32 GB R</td>
</tr>
<tr>
<td>Do all screens support HDMI input? If not, what input options do they have?</td>
<td>Yes, all support HDMI input.</td>
</tr>
<tr>
<td>What are the screen resolutions of the monitors in use?</td>
<td>Standard 1080</td>
</tr>
</tbody>
</table>
Concerning the baggage claim controllers: Button is pressed for First Bag; Button is pressed for Last Bag” – What are the desired display or control outputs when the buttons are pressed? Will a touchscreen system that allows the staff to select a baggage belt for each arriving flight be acceptable in this regard?

| Concerning the baggage claim controllers: Button is pressed for First Bag; Button is pressed for Last Bag” – What are the desired display or control outputs when the buttons are pressed? Will a touchscreen system that allows the staff to select a baggage belt for each arriving flight be acceptable in this regard? | Yes, a touchscreen system to select a baggage belt for each arriving flight would be acceptable. |

Please confirm the number of baggage input devices that are required.

| Please confirm the number of baggage input devices that are required. | We currently have two. We have potential plans for the next 3-5 years to add one more. |

Can you expand on the extent of content creation services? Is this limited to template design/management?

| Can you expand on the extent of content creation services? Is this limited to template design/management? | Yes, this is limited to template design. |

Will the airport provide the weather information and weather map, or is this a subscription provided by the proposer?

| Will the airport provide the weather information and weather map, or is this a subscription provided by the proposer? | This should be provided by the Proposer. |

What is the make and model of the displays in the video wall?

| What is the make and model of the displays in the video wall? | The Video Wall operates four (4) LCD screens with one (1) HP Z2 Mini G3 Workstation – 1 x intel Core i5 (7th Gen) i5-7500 Quadcore (4 Core) 3.40 GHz – 8 GB DDR4 SDRAM – 1 TB HDD – NVIDIA Quadro M620 2 GB Graphics – Windows 10 Pro 64 bit – Mini PC – Space Gray, Black Chrome Accent – 1 Processor Support – 32 GB R |

Please extend the deadline to accommodate questions being answered and those results needing to be incorporated into responses before mailing.

| Please extend the deadline to accommodate questions being answered and those results needing to be incorporated into responses before mailing. | The deadline will not be extended. |

Are we correct in assuming the existing screens will be utilized and maintenance of the screens will remain the airports responsibility?

<p>| Are we correct in assuming the existing screens will be utilized and maintenance of the screens will remain the airports responsibility? | Yes |</p>
<table>
<thead>
<tr>
<th>Work / A Integrations / 1 Baggage carousel computer -</th>
<th>Picture attached. The belt activation is a separate operation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you provide pictures of the current system?</td>
<td></td>
</tr>
<tr>
<td>Is the system integrated into the baggage system in such a way that the tug operators have to interact with the system to activate the belt? Or is the belt activation a separate operation?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work / B Types of content to support / 3 Real-time Flight Map/Weather</th>
<th>Proposer is responsible for the licensing of this content. It is currently provided by our vendor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will the airport be responsible for the licensing of this content, or is the vendor responsible? If vendor, please provide 3rd party vendor name and product being used so pricing can be determined.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work / C Features / 7 Provide solutions to implement visual paging for public address and emergency alarms.</th>
<th>It does not currently connect to the audio paging system. We do not expect it to connect to the audio paging system. However, if you are able to provide this as a service, please include it in your proposal. Our current paging system is a BIAMP Vocia paging system.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does this currently connect to the audio paging system?</td>
<td></td>
</tr>
<tr>
<td>Does the airport expect the new system to connect to the audio paging system in any way?</td>
<td></td>
</tr>
<tr>
<td>If so, please provide a sample use case of desired integration. Please provide the type and version of the current PA system so we can price integration costs.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Existing infrastructure and detailed equipment / B The Airport currently has 34 screens/monitors, 1 video wall, and multiple portable monitors</th>
<th>Price for 39 devices – 35 mounted screens, 4 portables. Price for 1 Video Wall controller or use existing controller. See clarification above. See optional alternate above for complete new Video Wall display system.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should we price a quantity of 35 for media players? If not, please provide a quantity so that all bidders can quote the same quantity.</td>
<td></td>
</tr>
<tr>
<td>Does the airport wish to replace the existing hardware including displays, mounts, and signage players?</td>
<td>No, only the signage players.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Please verify the total number of endpoints throughout the airport.</td>
<td>There is one per monitor (35 total)</td>
</tr>
</tbody>
</table>
| On page 10 of 24, under “Pre-Award Submittals,” the Airport requests numerous items be submitted with proposals. Please clarify exactly which pieces are required with the RFP response and which pieces are required after award of contract. | • Design of systems & interconnectivity.  
• Upgrade plan  
• Types of content supported & not supported.  
• Project Schedule  
• Signature page from the RFP |
<p>| On page 19 of 24, under “Proposals Requirements,” the Airport limits responses to a 12 page maximum. However, the page maximums cited for each component add up to more than 12 pages. (The Recommendation has a 12 page maximum alone). Please clarify the proposal requirements and their corresponding page limits. | Proposals may consist of 12 pages, double-sided, for a total of 24 pages of content. Maximums listed total 21 pages. If you include the signature page, that leaves 2 additional pages to be used as desired by the Proposer. |
| Page 16, RFP calls for the use of HDMI extenders as needed. How is this to be determined? | This would be dependent on the type of display devices provided by the vendor. Currently, there is one per unit (35). There are also extenders used with the Video Wall. |
| Why has this RFP been issued? | Current contract is expiring. |
| What challenges has the Airport faced with the current MUFIDS platform? | Nothing substantial or noteworthy. |
| What is the expected spend for this project? | No specific budget has been established. We are looking for the best option available for our needs. |
| We plan on FedEx’ing our proposal to the provided address. FedEx usually requires a phone number. Can you please provide a phone number for the purpose of delivery? | 605-394-4195. |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section VI Scope of Work requests “all infrastructure to accurately display flight information on the airport website and displays around the airport facility.” We interpret this to mean all system hardware, software and networking components, not the actual screens/monitors and displays. Is this correct?</td>
<td>Correct. We will continue using our existing screens/monitors.</td>
</tr>
<tr>
<td>If the airport would like new screens/monitors included in the proposal, we will need an accurate breakdown of quantity and sizes.</td>
<td>Not needed, except for the optional alternate for the Video Wall.</td>
</tr>
<tr>
<td>Concerning installation, the RFP states that the schedule will be dependent on onsite resources available. We interpret this to mean that airport staff will handle all physical installations. Is this correct? Will the airport require any on-site assistance for installation?</td>
<td>It is our expectation that the Proposer completes the physical installation. See paragraph 1 under VI Scope of Work.</td>
</tr>
<tr>
<td>How many video extenders are in use?</td>
<td>35</td>
</tr>
<tr>
<td>H/W Requirement pg 13 highlights Visual paging as a requirement and Optional Items pg. 16 lists Integration of a Paging System as optional. Can you please elaborate?</td>
<td>Our paging system does not currently integrate with our MUFIDS. However, Proposer may submit an optional solution to combine the systems if available.</td>
</tr>
<tr>
<td>Can you please provide specifications of your current emergency notifications source data?</td>
<td>We currently do not have visual paging or automatic emergency notifications. These would be done manually through the paging system and the display system.</td>
</tr>
<tr>
<td>Other than the noted Baggage Claim Input Controller, is there any other hardware to be provided/replaced, or is the remaining work software services only?</td>
<td>Remaining work is software services.</td>
</tr>
<tr>
<td>How many display locations use video over CAT5/6 extenders? What is the Make/Model of the Existing Video Extenders? What video resolution do they support?</td>
<td>None.</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>What is the Make/Model of the Existing Network Hardware? Are these switches PoE? Is the network a shared/VLAN’d System managed and maintained by the airport? How many existing communication closets? Fiber or Copper backbone?</td>
<td>The network is a shared/VLAN’d System managed and maintained by the airport. The switches are PoE. There are a number of communication closets throughout the terminal. Fiber backbone.</td>
</tr>
<tr>
<td>What is the Make/Model of the Existing Public Address System?</td>
<td>Our paging system is a BIAMP Vocias system.</td>
</tr>
<tr>
<td>Is there an existing Queue Management System (QMS) or TSA Wait Times, or is this a potential future integration? If existing, what is the Make/Model?</td>
<td>None existing today. Potential for future integration</td>
</tr>
<tr>
<td>Does the existing Bag Claim Video Wall remain or get replaced? Does the Bag Claim Video Wall controller remain or get replaced? Where is the existing Bag Claim Video Wall controller? (i.e. behind the displays or in a communications closet?)</td>
<td>The Video Wall is not located in the baggage claim area and is not included for replacement in the RFP. However, an option to replace all the hardware for this Video Wall may be submitted with the Proposal. The current controller is behind the display.</td>
</tr>
<tr>
<td>Shall our Proposal include state and local sales taxes, or is the Rapid City Regional Airport tax exempt and able to supply us with a Sales Tax Exemption Certificate?</td>
<td>We are tax exempt.</td>
</tr>
<tr>
<td>Shall our Proposal include the cost of a Performance &amp; Payment Bond?</td>
<td>Not Needed</td>
</tr>
<tr>
<td>Is a Bid Bond required?</td>
<td>Not needed</td>
</tr>
<tr>
<td>Can you provide a list of certified DBEs?</td>
<td>This is located on the State’s website: <a href="https://dot.sd.gov/doing-business/contractors/dbe#listItemLink_1529">https://dot.sd.gov/doing-business/contractors/dbe#listItemLink_1529</a></td>
</tr>
</tbody>
</table>
Absolutely NO Bags in This Area
RFP – Multi-User Flight Information Display System (MUFIDS)
Rapid City Regional Airport

September 14th, 2021

Prepared for
Rapid City Regional Airport

Prepared by:
Curtis Reid, CEO
Terminal Systems International, Inc.
Email: cr@terminalsystems.com
Phone: 306-934-6911
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1. SIGNATURE PAGE

The undersigned Proposer, having examined these documents and having full knowledge of the condition under which the work described herein must be performed, hereby proposes that she/he will fulfill the obligations contained herein in accordance with all instructions, terms, conditions, and specifications set forth; and that she/he will furnish all required products/services and pay all incidental costs in strict conformity with these documents, for the stated prices as payment in full.

Address: 2210 Hanselman Avenue
City: Saskatoon
State: Saskatchewan
Postal Code: S7L 6A4

Authorized Representative (print): Curtis Reid, Chief Executive Officer
Authorized Signature: [Signature]
Date: September 15th, 2021   Email: cr@terminalsystems.com
Phone #: 306-934-6911

EXCEPTIONS/DEVIATIONS to this Request for Proposal shall be taken below. If adequate space is not provided for exceptions/deviations, please use a separate sheet of paper. If your company has no exceptions/deviations, please write “No Exceptions” in the space below.

TSI shall supply any submittal within twenty (20) working days if requested by the Airport. +

There are no other exceptions to the RFP.

FIRM PRICING - Offered prices shall remain firm for a minimum of 90 days after the due date of this solicitation unless indicated otherwise. Accepted prices shall remain firm for the duration of the Agreement.

ADDENDA – https://www.rapairport.com/about-the-airport/doing-business. It is Proposer’s responsibility to check for issuance of any addenda at the above website. The authorized representative hereby acknowledges receipt of the following addenda:

Addenda No: 1 Date: Sept 13th 2021
2. EXECUTIVE SUMMARY

TSI will provide a smooth turn-key solution integrating a state-of-the-art Flight Information Display System. The system shall consist of PoE enabled display controllers and American made military grade baggage input devices.

The proposed system includes a hosted FIDS system with integrated AODB. The proposed FIDS include a software site license which will support unlimited expansion of the system without additional costs.

TSI’s flight information display system is a forward-looking solution that addresses airports’ ongoing and expanding needs in a cost-effective, efficient, and scalable manner. The system is designed to be a flexible, growth-oriented solution based on functionality, reduced cost of ownership, reliable performance, and focused on improving the customer experience.

Wherever possible the proposed system shall be automated and a direct connection to all airline operators at Rapid City Airport supported by 3rd party data aggregators and the FAA. The system is web enabled, with browser based WebPortals allowing access to tenants, airlines, authorized personnel and airport staff.

TSI excels at seamlessly cutting-over legacy EVIDS efficiently with minimal impact to airport operations. TSI understands that the EVIDS are a critical system to airport operations and must continue to operate during the transition of systems. It is also necessary to maintain contingency planning to return to the original configuration should any unexpected error be encountered.

TSI is proposing a team of experienced personnel well versed in the areas of integrated MUFIDS, AODB’s, and Gate Management. The technical and engineering staffs assigned to the project are fully proficient to design, engineer, configure and maintain the proposed solution.

TSI is renowned for providing a complete solution that meets the intent of the scope without the requirement of change orders. Apart from TSI’s innovative and field proven technology, one of the most attractive aspects of working with TSI is our level of customer service and customer satisfaction. We are a seasoned team, agile and focused on building strong and long-lasting client relationships.

TSI provides an enterprise level solution ensuring seamless, expandable, and reliable mission critical systems. TSI has over two decades of experience in transitioning MUFIDS Systems and is able to confidently manage and guide the Airport through the cut-over process. There are no key concerns regarding the project. Our team is diligent to meet project deadlines and has never failed to complete a project on schedule.
3. BUSINESS ORGANIZATION

Terminal Systems International, Inc.
Address: 2210 Hanselman Avenue, Saskatoon, SK Canada S7L 6A4
www.terminalsystems.com

Key Contact: Curtis Reid
Phone: 1-306-934-6911
Email: cr@terminalsystems.com

Terminal Systems International (TSI) is a privately owned company with a core business in developing, integrating and supporting Multi-User Flight Information Display Systems (MUFIDS) solutions. TSI has been providing MUFIDS in the airport industry since our incorporation in 1997 within installations in over 60 Airports in North America. All of TSI’s products and services are focused on an integrated suite of products including Multi-User Flight Information Display System (MUFIDS), Airport Operational Database (AODB) and Resource Management System (RMS).

TSI’s solutions have successfully been installed in over 60 airport projects in six countries, using multiple languages for information displays and user interfaces. TSI has a proven track record of delivering robust solutions that meet the full intent of the project while providing premium long-lasting client care.

TSI has been recognized with numerous awards for Innovation, Best New Venture, and Best New Product. TSI has undergone consistent and managed growth throughout its history to continue to provide personalized customer service, quality products, prompt and effective responses to meet client needs.

We believe it is imperative that the MUFID System be reliable, accurate, friendly and easy to use, providing a world class travel experience. TSI has evolved to provide enterprise level solutions ensuring seamless, expandable, and reliable mission critical systems. TSI works with every major North American Airline and provides all operational MUFID solutions and data exchange services for Air Canada.

TSI has consideration for all aspects of the airport operation and stakeholders within the facility. From the selection of data sources for each airline, the reliability of the components, to the integration of additional airport IT systems. TSI takes a proactive role in increasing customer satisfaction, capitalizing on revenue generation opportunities, reducing cost of ownership, and guiding our clients in a long-term IT strategy, without any surprise costs.

TSI maintains long-term relationships with our clients, personalized customer service, quality products, prompt, and effective responses to meet client needs. Since TSI’s incorporation, we have made a commitment to make our customers’ satisfaction our number one priority. We listen to our clients’ needs and relate their requirements to the direction of our products. With an expanding satisfied customer base, we continue developing our information systems to meet the needs of each airport we serve. With numerous comparable airport deployments across North America, TSI is familiar with the complexities, nuances and resources required to deploy and maintain MUFIDS in an airport environment.
4. RECOMMENDATION

4.1 OVERVIEW

The TSI proposed FIDS system includes an integrated AODB. The AODB portion of the system provides an information nerve center for airport IT systems and provides a long-term solution for expansion and integration into other systems. The system is capable of hosting thousands of displays, including remote displays with support for expansion and integrations whether it be Facility Management, Advertising, Billing, Gate Docking Systems, Baggage Reconciliation, or Building Management.

TSI shall review, modify and expand upon the design requirements in coordination with the airport. TSI shall coordinate with the Airport to review and confirm all requirements included within the scope of the project. TSI shall coordinate with the Airport and interested third parties to review the overall technical solution and exchange technical data relating to equipment and external interfaces.

TSI’s FIDS solution is an enterprise level feature rich product capable of providing future flexibility. The proposed solution is an integrated product that includes several key components listed below.

**AODB:** The head end of the system is an Airport Operational Database (AODB) with a communications layer designed for secure WAN/LAN/Internet communications. The AODB portion of the system serves as an information nerve center for airport IT systems. The AODB system marries the airports IT systems into a manageable database which consolidates, sanitizes and redistributes relevant data to pertinent sub systems. The AODB ensures flexibility when integrating with future airport IT systems (Public Address, Facility Management, Advertising, Billing, Gate Docking Systems, Baggage Reconciliation, Building Management, Custom Reporting, Apps, Web exports and more) and a centralized data set for the creation of reports and statistical analysis.
**FIDS:** The FIDS system is a powerful digital display engine, incorporating flight information, languages, digital signage, emergency alerts meeting and exceeding all the RFP requirements.

**Digital Signage:** The display platform also includes an integrated Content Management system (CMS) for the management of digital media, RSS feeds, video streams, advertising, web content and more.

**Automated Data:** TSI’s solution comes with a live flight datafeed integrated directly with carriers, FAA and 3rd party aggregators as a failsafe.

**Weather Feed:** TSI’s solution includes data for local and destination weather.

The FID System is a robust solution which takes a hands-off approach. The user interface allows access to the system through customizable browser-based input stations. The interface component of the application was designed with the intent to provide maximum access to the system from any location within the terminal and remote access to users at the administrator’s discretion. Each user’s interface is powerful, intuitive, and customizable.

TSI’s Flight Information Display System is a fully automated forward-looking solution that addresses ongoing and expanding needs in a cost effective, efficient and scalable manner. The FID System is a modular platform that enables the airport to start with what is needed today and while maintaining the ability to easily expand at later dates with the assurance of full seamless systems integration.

**MUFID Architecture Diagram - Sample System Topology**
4.2 INFRASTRUCTURE

Server: It is the intent of this proposal to provide a hosted solution. The servers shall exist in TSI’s secured data center.

Display Devices: It is the intent of this proposal to recycle existing network and LCD’s. The controllers shall be replaced with Raspberry Pi 4’s with PoE. TSI shall apply an overlay to protect the hard drive from unnecessary read/writes and protect longevity. The system also monitors CPU temperatures and other critical elements of unattended devices to allow appropriate changes to be made to prevent early device failure be it replace failed fans or downclock CPU’s.

Baggage Controllers: The Touch Screen Baggage Controllers shall be military grade Intel Based NEMA 4 rated 12” touchscreen devices manufactured in the USA by Vartech Systems.

Equipment replacement: The proposed display technology is compatible with commonly available off the shelf equipment. It is possible to utilize alternate CPU architectures (Intel/AMD/ARM) and devices.

4.3 FUNCTIONALITY HIGHLIGHTS

The proposed Flight Information Display System allows for the management flight, gate, baggage, weather displays and advertising displays through a powerful web interface. The system adheres to a design philosophy of being able to display anything anywhere, anytime with a focus on ease of use and reliability. The system provides an intuitive interface for managing and changing the display role of any device.

4.3.1 EASILY EXPANDABLE - DEPLOYMENT MATURITY

TSI’s FID System is an easily expandable modular platform. A freshly installed display controller or failed unit requiring replacement requires a simple hardware swap. The system is designed to be as simple to maintain as possible. The new system will automatically register with the server and await instruction. When an administrator assigns a display template to the device it will automatically begin displaying live content appropriate for its flight information/advertising role as appropriate. The plug and play device management allows for the airport to maintain spares and easily deploy new devices. However, the primary impediment to deploying new devices is often a bureaucratic one. The proposed system is a universal site license for the entire airport campus allowing the Airport Authority to deploy and configure new devices without issuing a purchase order.

Both the system and TSI’s business model are designed to enable the airport to start with what is needed today and maintain the ability to easily expand at later dates with the assurance of full seamless systems integration and without the threat of looming cost increases.

4.3.2 SIMPLE AND EASY TO USE

The FID System is extremely intuitive and easy to use. Information is laid out clearly and quickly editable. User training usually takes minutes and is often accomplished using short instructional videos and without the need for formal instruction. Upon account creation the system dynamically modifies the user to accommodate the limits of user permissions. This reduces any clutter or confusion and allows a
user to rapidly focus on their intended role. Thus, an airline with limited account permissions logging into the system will immediately see a restricted list of their flights and have the option to adjust flights.

4.3.3 ACCESS CONTROL AND LOGGING

The proposed FID System has user-configurable security levels for categories of users as well as individual users. Each user is assigned one or several sets of credentials and security levels, as appropriate. The credentials dictate the functions and content within the system each user has access to. All connections to the system are HTTPS. Any changes made within the FIDS by individual users or automated data sources are logged and categorized within a searchable dataset for review.

4.3.4 AUTOMATED FLIGHT/SCHEDULE UPDATES

It is the expectation of this proposal that the FID System shall be delivered as a fully automated system with automated schedule creation and real time flight updates. TSI shall provide a software solution which intelligently manages the myriad of input sources available for each flight and appropriately assigning the best data available. The system supports all industry standard data providers and utilizes a variety of sources as appropriate incorporating direct updates from airline carriers combined with 3rd party aggregators to provide to most accurate information possible.

TSI shall provide interface support to all airlines currently operating at the airport. Any airlines which do not currently offer direct data sources shall be integrated when they do become available at no additional cost to the airport.

4.3.5 MANAGEMENT AND CONFIGURATION: WEB BROWSER

The FIDS WebPortal interface provides users with an easy method of manually updating data in the event a need to override the automated data. Ease of use, reliability, speed and function are the core objectives of this aspect of the application. The FID System allows for real-time access to flight information or statistical analysis. The FIDS web interface provides airlines, administrators, tenants, and any authorized personnel rapid access to the information and tools they need for managing data and decision making. The interface changes dynamically based on the login credentials restricting a user to the functions and data set in their user permissions.

4.3.6 BROWSER BASED INTERFACE

The TSI FIDS interface includes a desktop GUI as well as a browser-based interface. The browser-based interface allows the administrator to provide privileges to users through browser access. The user interface can be made available on the LAN, Internet, Common Use LAN, WiFi based on operational needs and security requirements.

The interface can function with Active Directory or Single Sign On method to authenticate users automatically based on Windows User. This functionality allows administrators to provide secure access to airlines, duty managers, taxi drivers or anyone who may want require access to Flight Information, reports or statistical analysis using a standard browser. This component of the system is critical to meeting one of the key design elements of anything, anywhere, anytime.

4.3.7 BAGGAGE ASSIGNMENTS

The FID System allows the easy assignment/override of baggage carousels assignments via the browser-based user interface or through rugged touch panels deployed in baggage makeup areas for personnel to quickly make carousel assignments and announcements such as first or last bag. An easy-to-use
intuitive touch interface allows users to touch a flight to assign it to a carousel, clear carousels or assign first bag/last bag. TSI shall provide a rugged environmental enclosure for the baggage input device.

4.3.8 MEDIA & ADVERTISING

The proposed FIDS solution fully supports integrated media management and content scheduling. Users can manage dedicated advertising displays or hybrid FIDS/advertising displays quickly via a secure WebPortal. The advertising/media WebPortal makes the media management tool accessible from any online Windows computer. User access parameters are controlled and are limited to the functions as set by the FID System Administrator.

The Media Management Utility allows communications managers to have rapid access to media (graphics, videos) playlists and schedules, custom messages, RSS feeds, display management, display groups, dedicated Media user management, live video streams, key performance indicator dashboards, websites and system monitoring displays.

4.3.9 MEDIA MANAGEMENT

All displays can be configured to support media content as unique displays or as display groups. It is possible to have displays be members of multiple groups and share master content while still having a unique local playlist. Media can be integrated into Flight, Gate, Baggage, Ticketing Information Displays or full-time advertising/media display. The display can alternate between flight information and media or have a dedicated area to display media content full time.

Media schedules can be made by easily dragging and dropping content into the playlist or selecting files to upload. Sorting content is easily done by using the ordering tools, previewing content can be done by clicking on the thumbnails. Each schedule entry can be uniquely configured for playtimes within specific hours of the day, days of the week, date range, frequency and how long to display. Default playback parameters are configurable for all new approved content without needing to modify the schedule.

RSS feeds are easily added, activated or deactivated and assigned to the appropriate display or display group. TSI has successfully integrated media with flight information.

The proposed system includes support for JPG, JPEG, PNG, GIF, PPT, MPG, MP4, AVI, MPEG and web pages.

4.3.10 CLEAN, MODERN DISPLAY DESIGN

The proposed FIDS solution supports full HD quality pictures, videos and modern template designs. The proposed solution includes professionally designed screen templates for each display type as applicable as a component of this proposal.

TSI has taken a thoughtful approach to the design of screens, organizing data in order of the most commonly and accurate information known to a passenger. This has created a noticeable decrease in the reading time of FIDS screens and an increase in the retention of data.
Template design is accomplished with professional graphic art/design combined with client consultation. The method has proven to produce optimal display layouts with a professional aesthetic. TSI will consult with the Airport regarding page content and layouts.

TSI will provide the professional graphic design for the templates in the proposed solution. If preferred, TSI can easily work with the Airport’s internal graphic designer. There are no additional charges for the design and development of display templates after the integration is complete.

It is possible to deploy new screen designs by selecting the new template from a dropdown list in the web interface. The typical turnaround on a new template is less than 1 business day.

<table>
<thead>
<tr>
<th>4.3.11 TICKET COUNTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proposed MUFIDS is fully compatible with ticketing common use systems. Ticket counter management includes the ability for users based on security permissions to change content and messages on overhead ticketing displays. It is possible to easily manage media content, create new displays, manage public messages, or have content changed automatically based on user login.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.3.12 LED DISPLAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSI has a great deal of experience integrating LED boards, from large scale message centers used for Cell Phone Parking lots, Baggage LED’s, Ticketing LED’s or LED directional signage.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.3.13 TOUCHSCREEN SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system supports a myriad of other display devices such as informative touch screens from as simple as touch a flight for wayfinding to the appropriate gate to a complex airport information station. It is possible to configure any display as a touch screen and configure conditional responses triggering additional content as appropriate.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.3.14 VIDEO WALL SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proposed solution supports video walls and allows for each video export on a device to be easily defined for its position in a video wall matrix. Depending on the video wall setup and cabling, it is possible to individually manage each display or break the display into individual components.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.3.15 LCD MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some displays support remote management. It is possible to manage power, audio, brightness and other settings through the windows GUI or Browser based interface. It is possible to manage and schedule volume levels, panel power management and scheduling On/Off times. It is possible to configure LCD’s individually or by group.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.3.16 MAINTENANCE MONITORING</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proposed FIDS are able to continue operation through non-catastrophic infrastructure failures. The focus of the system design is a high availability. The intent of the design is to maximize system flexibility and reliability and reduce and where possible eliminate the need for technical maintenance.</td>
</tr>
</tbody>
</table>
System connection monitoring: The FIDS system includes monitoring capabilities, with integrated remote connection support and SMS/Email notification.

Alerts Email/SMS: When any connected device such as a display computer, input station, interface or datafeed enters an alert state the system automatically sends an email/SMS message to relevant parties as detailed in Maintenance Error Notification Profile. Continued outages allow the system to escalate the notifications to a broader distribution list.

REMOTE LIVE VIEW: The system provides a means for authorized users to remotely view any display quickly through the web interface. It is also possible to remotely connect via a VNC connection or SSH connection.

Device Monitoring: The system provides monitoring of each device through the browser portal. Monitored items include, Last active time, CPU usage, RAM Usage, Current Temperature and other relevant details.

PoE (power over ethernet): Each Display Controller is equipped with a PoE (power over ethernet module). PoE allows devices to be remotely restarted by cycling power on the network switch and to avoid power fluctuations and interruptions by equipping the relevant PoE enabled switch with a UPS.

Redundancy: Redundancy is built into the software and each endpoint device. In the event of a loss of connectivity, each device stores a local copy of the next 48 hours of flight information. The device will continue to display data without updates and roll information on and off the screens as appropriate independently until connectivity is restored.

Bandwidth Requirement: Each display device consumes approximately 12Kb/s for FIDS. For forty devices the average bandwidth consumption shall be 4Mb/s.

4.3.17 SYSTEM REPORTING

The proposed solution includes an integrated AODB (Airport Operational Database). The AODB has a comprehensive reporting solution. All information is tracked and logged for billing, reporting and/or statistical analyses.

- **Canned Reports**: The system includes Canned Reports (samples below).

- **New report generation**: TSI adds new canned reports to the system based on client request. There is no charge for new reports as long as permission to include the report to all clients canned reports is permitted. The Authority shall also benefit and receive at no cost new canned reports developed for other airport clients.

- **Report subscriptions**: This allows email addresses to be subscribed to reports and receive them automatically at prescribed intervals via email. For example, it is possible to automatically distributed weekly airline schedules with gate carousel assignments to each airline, estimated passenger volume to airport tenants/stakeholders, monthly delay/cancellation report to administration.

- **Key Performance Indicators (KPI)**: Real time web-based graphs/reports for use in KPI dashboards. Pie charts, graphs are interactive and support customization through drag and drop and click response.
- **Data Export Wizard:** Allows administrators to select database content, export methods, format and frequency including real time updates or defined export intervals. This allows data to be quickly selected and share with 3rd party reporting systems (or any system requiring data from the AODB).

The proposed FIDS system provides full access to reporting functionality via the browser based WebPortal. Access to specific reports and content of reports is controlled by configurable user permissions.

### 4.3.18 WEBSITE EXPORTS AND APPS

The proposed FID System shall generate and distribute current and accurate flight information to the Airport’s existing Web site and apps. The proposed system shall export schedule to the Internet for easy reference by the traveling public and local businesses. The web export is easily customizable to match the airport’s existing website. The Webexport options can be configured to generate and export data in any standard format or protocols. TSI shall work with the Airport to optimize the web design with their web design team.

### 4.4 IMPLEMENTATION OF SCOPE OF SERVICES

TSI shall commit to completing the project within two months of contract award. January 1st Start up of services is achievable with a notice of award no later than November 15th, 2021. TSI shall provide a detailed Project Schedule upon award. TSI shall work with Airport Authority and Stakeholders to coordinate and deploy the system on schedule.

All work shall be performed in maintaining high level personnel available to respond to concerns in a timely if not immediate fashion. Installation shall be completed in timely and efficient manner with respect of and without intervention of airport operations. TSI will collaborate with the Airport to define the optimum phasing for system installation and cutover as well as appropriate work hours for each location so as to minimize any impact. TSI has no issues meeting the proposed implementation requirements.

**Availability of Hardware:**

- **Display Controllers:** TSI currently has all necessary display device controllers in stock.
- **Server Configuration:** The server shall be hosted within TSI’s data center, with backups and failover systems already in place. The activation requires less 1 week to setup and configure.
- **Template Design:** Duplicating the existing template design, as per the samples provisioned in the RFP shall take less than 1 day presuming media content (images/videos) are available.
- **Baggage Touch Screen Controller:** 6-8 Weeks delivery.
  - The recommended touch screen controller is manufactured in the US by Vartech systems and is a military grade quality. It is possible to utilize a mounted tablet or mobile device temporarily, it is worth the wait to have such a reliable and rugged device in the baggage area.
4.5 DURABILITY AND LIFE CYCLE COSTS

A primary development concern of a new generation FIDS system is cost of ownership and flexibility with an airport’s changing needs. There are several factors that impact the long-term cost of ownership such as infrastructure, reliability, maintenance, and client/vendor relationship. The foundation of the system design is ease of use and reliability. Wherever a user is required to interact with the system, it is possible to do so from within the Windows or browser environment.

Unattended computers (display devices) operate using a Linux OS (Ubuntu 20.04). It should not be uncommon to view device performance and see device uptime exceeding five hundred (500) days without a reboot and recover without technical intervention from power outages. To extend uptime TSI has proposed a device which supports PoE (power over ethernet), so all devices can be battery backed up in the event of a power outage by placing a UPS on the responsible PoE managed switch.

It is the intent of this proposal that all TSI provisioned hardware controllers shall be warrantied for the term of the service agreement. TSI has proposed 5 (five) optional preconfigured spares and maintains hundreds of spare devices in inventory within our office ready for same day shipping.

The proposed system is compatible with standard off the shelf equipment. It is the intent of this proposal to provide Raspberry Pi devices. Each Raspberry Pi device weighs less than a pound. When connected to the network it will automatically connect to the server. Once a device has been connected, it is possible to configure and manage the display through the Device Management within the web portal. An accessible device can be replaced and configured with a spare in minutes.

If it is necessary to setup a device from scratch, it takes approximately 10 minutes to image a new device. If an alternate device is used it is possible to boot almost any standard off the shelf device from USB and follow the instructions to image and setup the device, depending on the device used it can take a little longer.

4.6 WARRANTY & SUPPORT

TSI has an established maintenance service and related technical assistance help desk to provide 24/7/365 technical support. The maintenance staffs are qualified technical personnel able and available to perform FIDS maintenance. Terminal Systems International shall provide 24-hour technical phone support seven days a week every day of the year with guaranteed two-hour response time. A FIDS technician is always on duty. There is no automated paging system or computer system to answer a phone. TSI believes that there should always be a human being to answer the phone and address client’s needs. Services include but are not limited to FIDS/CMS/BIDS use and troubleshooting, screen template management, providing replacement parts, integrating our software into the airport’s website, and maintaining data feeds. Support staff are also empowered to escalate issues as required within the organization, with available development and administrative services scheduled on call should additional resources be required.
4.6.1 SOFTWARE UPDATES

During the support period Terminal Systems International, Inc. will provide regular software updates incorporating new features recommended by our clients and developed by our design teams. Updates shall be provided at no additional cost ensuring a state-of-the-art system for years to come which shall remain compatible with emerging technologies. Terminal Systems International, Inc. works with suppliers to test new technologies with our applications, prior to introducing them to our clients. TSI also monitors and tests service pack updates, and software revisions of third-party products working in tandem with TSI’s systems.

4.6.2 HARDWARE WARRANTY

During the support period Terminal Systems International, Inc shall provide hardware warranty for all TSI provisioned display controllers. It is recommended that onsite spares be available and next day shipping of replacements before malfunctioning units are returned is provisioned as a component of this contract.

5 ALTERNATE SOLUTIONS

5.1 WAYFINDING

Wayfinding allows for indoor mapping to enhance the visitor experience, configure routes between different facilities within the airport. Walk times can be used on FIDS displays to show walk times to gates, carrousels or other facilities. Wayfinding can also be used within a mobile application to enhance the passenger experience.

Wayfinding can also be used operationally creating device or subsystem layers to highlight device locations in the event of an error, allowing technical staff to quickly locate equipment requiring maintenance.

Recent enhancements to wayfinding in response to the pandemic also allow touchless wayfinding points, contact tracing technologies. A detailed wayfinding proposal and pricing is available upon specific request.
5.2 RESOURCE/GATE MANAGEMENT

The Resource Management System (RMS) is based upon a Microsoft SQL server database operating on a Microsoft Server Operating System. The primary function of the RMS is the automated allocation of resources based on user preferences and hard and soft rule sets. The system simulates the human decision making process and allows users to manageably administer complex or emergency scenarios in real time with the most accurate information available within the Airports IT network.

5.3 MOBILE APPLICATION

Mobile applications integrate with various airport facilities, providing a mechanism for APP users to access real time flight information, wayfinding services, contact information, facility specific content or emergency notification alerts. A mobile application proposal is available upon request.
5.4 REMOTE INSTALLATION

It is the intent of this proposal that the authority shall maintain personnel actively and meaningfully engaged throughout the deployment of the project. The base bid includes on site services throughout the deployment of the project. As all equipment except the display devices are already installed it is possible to achieve training, cutover, and integration with minimal onsite personnel.

As circumstances may change during the pandemic, it is worthy to note that it is possible to affect a changeover without any on-site personnel. If the airport is willing to provide remote access and coordinate the installation of devices during cutover simulations and the actual cutover. System deployment maturity has evolved to the point where it is possible to connect plug and play display controllers without requiring onsite TSI personnel. TSI has provisioned an option within the pricing schedule for remote installation support and webinar training (with recordings) in lieu of on-site installation and training services.

5.5 AODB PUBLIC ADDRESS MODULE

The current proposal includes a manual Visual Paging component, independent of the existing Public Address system. Accommodations and pricing have been provided to integrate the Public Address system with data. It is our understanding that the BIAMP Vocia Public Address system does not have an integrated database for dynamic audio message construction and triggering based off flight events.

On request TSI shall provide pricing to integrate the AODB Public Address module into the BIAMP VOCIA application interface (API). This integration automatically triggers audio and visual boarding messages, gate changes and other audio announcements when flight information is modified.
6. PROJECT TEAM

TSI trusts in the ethic of teamwork and will apply this approach when working in collaboration with the Airport to maximize operational stability by coordinating help desk, problem management, and change management procedures.

TSI will commit senior staff to administer the Flight Information Display System project. The senior executives identified have full authority to conduct business on behalf of TSI. With the top-level personnel, TSI will provide efficient decision making while providing the top-level experience to ensure a smooth installation. TSI is able to commit resources for the duration of the project and has no concerns with ability to complete work in a timely, efficient manner.

<table>
<thead>
<tr>
<th>NAME</th>
<th>TITLE</th>
<th>ROLE</th>
<th>FIDS Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curtis Reid</td>
<td>Chief Executive Office</td>
<td>Project Manager: Maintain a ‘bird’s eye’ view upon the project to ensure key milestones are achieved and the project accomplishes the client’s goals. Project planning, implementation design and control, software commissioning, final acceptance.</td>
<td>23 years</td>
</tr>
<tr>
<td>James West</td>
<td>VP Software Development</td>
<td>Lead Software Developer: Responsible for integration of external systems and senior system support.</td>
<td>23 years</td>
</tr>
<tr>
<td>Terri-Lynn Spock</td>
<td>Director of Operations</td>
<td>Project Administrator: change orders, change directives, amendments, payment and legal documentation.</td>
<td>20 Years</td>
</tr>
<tr>
<td>Luqman Ahmed</td>
<td>Systems Analyst</td>
<td>Software Installation: Configure and install FID System software and system testing.</td>
<td>11 Years</td>
</tr>
<tr>
<td>John Daal</td>
<td>Systems Analyst</td>
<td>Software Installation: Configure and install FID System software and system testing.</td>
<td>7 Years</td>
</tr>
<tr>
<td>Robert Anderson</td>
<td>Software Designer</td>
<td>Web Interface Design: Configuration of customizations to web user interface and integration of airport website FID System.</td>
<td>11 Years</td>
</tr>
</tbody>
</table>
6.1 WORKING RELATIONSHIP

The Airport Project Manager will be required to interact with TSI’s Project Manager. Curtis Reid will be the TSI Project Manager. The TSI Project Manager serves as the main contact for the regarding the FIDS project. He is responsible for the complete commissioning of the software turn-over and compliance. Standard interactions include project-scheduling, deliveries, commissioning software system to meet client’s needs, walk-through(s) to verify system compliance, resolves deficiencies etc. The Project Manager shall also work on-site at the Airport coordinating the installation with the airport to support a smooth system integration that does not impact the day-to-day operations of the airport. Duties are performed from the TSI office in Saskatoon, SK and on-site during the commissioning of the new system.

The Project Administrator is responsible for the contract, which includes the initial signing, amendments and change orders/directives as well as the legalities such as insurance, bonding, payment, etc. Terri-Lynn Spock will be serving as the Project Administrator. The Project Administrator will interact with the prime contractor when changes to the contract are required. Duties are performed for the TSI office in Saskatoon, SK.

The Lead Software Developer is responsible for the programming, development and customization of the FIDS software and integration of external systems such as the Public Address System. The Lead Software Developer will be Mr. James West. James will provide senior technical support during the integration.

The Software Analysts participate in the installation and configuration of the computers and in the software cut over to the new TSI technology on-site. The Systems Analyst lead shall be Mr. Luqman Ahmed. The Systems Analysts are essential in providing a quick single phase software cutover integration without impacting operations. The System Analysts play a pivotal role in the integration of the FIDS.

The Web Interface Design lead is the Robert Anderson. He manages the export of flight information to the airports website provider and is responsible for the web interface development, including generating custom changes and reports.

6.2 AVAILABILITY OF RESOURCES

TSI is proposing a team of experienced personnel and ensure that the originally assigned technical and engineering staff remains available to the project for the entire duration. Any exceptions shall be coordinated with and approved by the Airport.

TSI shall assign senior staff to be available for consultations, meetings, technical sessions/workshops and other activities. TSI shall ensure continuity of communication with the Airport’s team, system/application vendors and other relevant parties through TSI coordination sessions and weekly implementation progress meetings.

All progress shall be reviewed against TSI’s published schedule, as coordinated with the Airport’s representatives. TSI will adhere to the change control process and procedures established with the Airport. TSI will not affect any actions that may result in change to scope, schedule, quality and formally agreed upon design, unless formally instructed by the Airport Authority.

TSI is proposing the same team members who worked on the integrations listed in the reference section.
6.3 CLIENT/VENDOR RELATIONSHIP

It is TSI’s philosophy that Vendors and Airports should have a proactive and flexible relationship. Members of either organization should be able to work together and assist each other using available resources without triggering surprise costs. A partnership in the true sense of the word, where resources and expertise are expended to meet changing needs without necessitating change orders. The true cost of vendors providing quotes for necessary adaptations to the system, is delays.

The underlying philosophy being that the success of one entity, causes the other to succeed. Agreements should allow for adaptability and capability for the Team to rely on each other to adjust the system, without adapting the defined operational budget.

It does not trigger costs during normal system operation to:

- Integrate a new airline
- Create new data exports
- Add a new display device

The initial system deployment cannot remain static but must adapt to meet constantly changing requirements as part of the ongoing service and maintenance agreement. This mutual understanding serves as the foundation of a Service agreement between Airport/Vendor teams so they can work together to meet new requirements, share expert advice, test new technology, provide updates or configuration expertise.

6.4 PROJECT MANAGER

Curtis Reid, CEO

Mr. Reid was promoted to Chief Executive Officer in 2017. With over twenty-five years of experience, Mr. Reid has a great deal of experience with installation of networks, public information systems, and development of large-scale maintenance and support strategies. His expertise lies in project management and information systems design and technology. He is familiar with all aspects of the system and has overseen the install and integration of hardware and software both remote and onsite. Mr. Reid has been responsible for system design and performing software implementation in coordination with ongoing facility operation and construction in over 80 airport projects. Some of the recent projects overseen by Mr. Reid include:

- John Wayne Airport, USA
- Air Canada FID System, North America
- Indianapolis International Airport, USA
- Fort Wayne International Airport, USA
- Victoria International Airport, Canada
- Long Beach Airport, USA
### 7. REFERENCES

<table>
<thead>
<tr>
<th>Airport</th>
<th>Airport Flights Information System Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FORT WAYNE AIRPORT (FWA)</strong></td>
<td>Fort Wayne Airport is a comparable airport with 35 displays. The system uses a flight map, web exports, video paging, tugman baggage inputs, and integration to the AtlasLED paging system.</td>
</tr>
<tr>
<td><strong>JOHN WAYNE AIRPORT (SNA)</strong></td>
<td>The TSI MUFID System in John Wayne has a hosted FIDS system (with synchronized failover server). The installation recycled existing equipment and network infrastructure, and the cutover of almost 500 displays of Windows based devices to Linux was accomplished working remotely with local staff in a single night during off peak hours. The airport authority has since replaced aging equipment with low-cost reliable Raspberry Pi controllers.</td>
</tr>
<tr>
<td><strong>LONG BEACH AIRPORT (LBT)</strong></td>
<td>With 4 million passengers a year Long Beach Airport required an AODB-FIDS solution that could guarantee compatibility with the future public address upgrades, had advertising capabilities and an option of expanding into or integrating with a future Resource Management System. The largest technical installation challenge was the airport needed to recycle old Windows based computer devices during the software only cut over and gradually upgrade the equipment. TSI developed a cut-over plan that would quickly eliminate Windows from the displays and convert the devices into a significantly more reliable and secure display appliances. The cut-over was implemented remotely, with fallback procedures that would quickly returning to the original platform should the need arise. Avoiding operational impact was key as the Airport required the cut-over be conducted two days before Christmas!</td>
</tr>
<tr>
<td><strong>VICTORIA INTERNATIONAL AIRPORT (YYJ)</strong></td>
<td>Victoria International Airport converted over 60 existing computers and installed 12 Raspberry Pi controllers. The installation was done locally by airport staff in coordination with TSI remote support. The Victoria Airport uses an on-premises server and is fully integrated with the Simple Way Public Address system.</td>
</tr>
</tbody>
</table>
## 8. FEE PROPOSAL

### Rapid City Airport RAP MUFIDS Integration Pricing

#### Integration and Maintenance Services

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management, Installation, Testing, Commissioning, New Page Design, Training</td>
<td>Lump Sum</td>
<td>$31,921.00</td>
<td>$31,921.00</td>
</tr>
<tr>
<td><strong>Year 1</strong> – Site License, Hosting, Data, Software licensing, Support/Updates and Warranty</td>
<td>Year 1</td>
<td>$23,280.00</td>
<td>$23,280.00</td>
</tr>
<tr>
<td><strong>Year 2</strong> – Site License, Hosting, Data, Software licensing, Support/Updates and Warranty</td>
<td>Year 2</td>
<td>$23,280.00</td>
<td>$23,280.00</td>
</tr>
<tr>
<td><strong>Year 3</strong> – Site License, Hosting, Data, Software licensing, Support/Updates and Warranty</td>
<td>Year 3</td>
<td>$23,280.00</td>
<td>$23,280.00</td>
</tr>
<tr>
<td><strong>Year 4</strong> – Site License, Hosting, Data, Software licensing, Support/Updates and Warranty</td>
<td>Year 4</td>
<td>$23,280.00</td>
<td>$23,280.00</td>
</tr>
<tr>
<td><strong>Year 5</strong> – Site License, Hosting, Data, Software licensing, Support/Updates and Warranty</td>
<td>Year 5</td>
<td>$23,280.00</td>
<td>$23,280.00</td>
</tr>
</tbody>
</table>

**Total Integration and Five Years Maintenance Services** $148,321.00 USD

#### Hardware

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Device Controllers with PoE (setup &amp; configured with warranty for term of service agreement)</td>
<td>40</td>
<td>$289.00</td>
<td>$11,560.00</td>
</tr>
<tr>
<td>Industrial NEMA rated 12” ultra bright baggage input touchscreen device</td>
<td>2</td>
<td>$5,937.00</td>
<td>$11,874.00</td>
</tr>
</tbody>
</table>

**Total Hardware** $23,434.00 USD

**Total Base Bid with Data & Services** $171,755.00 USD
### Other Optional Pricing Options and Considerations

<table>
<thead>
<tr>
<th>Item</th>
<th>Qty</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service fees to add a device to the system</td>
<td>1</td>
<td>Included</td>
</tr>
<tr>
<td>Spare Display Device Driver</td>
<td>5</td>
<td>$1,445.00</td>
</tr>
<tr>
<td>Next business day Display Device Replacement</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>Wi-Fi enabled on devices</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>Power over Ethernet support on devices</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>NEC System on Chip Integrated PI Support</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>Storage of FIDS data throughout the length of the contract. Enable</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>use of FIDS data by Airport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unplanned annual system-wide downtime of less than 99.99% (52 m</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>35.7s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhanced security to protect the hosted environment or the endpoints.</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>(ie: any advanced security options that could be deployed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seamless and automated failover between any components that</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>could cause downtime to multiple screens.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential data export/API for a future Airport 3rd developed Party</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>app.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integration of a Queuing Management System.</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>Integration of a Paging System- DATA EXPORT to Public Address</td>
<td>LOT</td>
<td>Included</td>
</tr>
<tr>
<td>Integration of a Paging System- DATA IMPORT from Public Address</td>
<td>LOT</td>
<td>$7,500.00</td>
</tr>
<tr>
<td>Remove on-site training and substitute remote webinar training</td>
<td>LOT</td>
<td>-$5,500.00</td>
</tr>
<tr>
<td>Remove on-site installation and substitute remote installation support</td>
<td>LOT</td>
<td>-$16,378.00</td>
</tr>
<tr>
<td>and activation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Management System</td>
<td>LOT</td>
<td>Upon Request</td>
</tr>
<tr>
<td>Wayfinding System</td>
<td>LOT</td>
<td>Upon Request</td>
</tr>
<tr>
<td>Mobile Application Development</td>
<td>LOT</td>
<td>Upon Request</td>
</tr>
<tr>
<td>AODB Public Address Module</td>
<td>LOT</td>
<td>Upon Request</td>
</tr>
</tbody>
</table>

There are no additional fees related to this project.

### PAYMENT TERMS

Payment terms are net 30. The project shall be invoiced in two stages with 80% at substantial completion and the remaining 20% at final acceptance.

All annual renewal services are billed thirty days prior to service start date. Initial service start date shall be the 1st of the month following final acceptance.

Upon completion of the existing contract, services are automatically renewed annually based on the last contracted price for services. Beyond the contract, the airport reserves the right to decline renewal of services.