

**EXPRESSION OF INTEREST FOR
SUPPLY, INSTALLATION, TESTING, COMMISSIONING (SITC) & INTEGRATION OF HYBRID
SELF BAG DROPS (SBD's)
AT CHHATRAPATI SHIVAJI MAHARAJ INTERNATIONAL AIRPORT, MUMBAI**

**Issued by
Mumbai International Airport Limited**

Date of issue: 29th June 2024

DISCLAIMER

1. The information contained in or as part of the Expression of Interest document (“**EOI**”) or otherwise provided to Applicants, was obtained from various sources and is offered in good faith for the guidance of the Applicants only.
2. Each Applicant is obliged to become acquainted with all of the provisions of the Applicable Laws affecting the Application, the execution of the Agreement and fulfilment of its terms. Applicants are deemed to have knowledge of and be in full compliance with all the Applicable Laws. Applicants acknowledge and agree that MIAL shall be entitled to disqualify any Applicant and exercise any other remedies it may have (including, without limitation, seek damages for loss of profit / loss of revenues), if any proceedings are brought against any Applicant and / or MIAL and / or any party, for breach of any Applicable Laws in relation to such Applicant’s Application.
3. Any communication to the Applicants from MIAL shall be valid only if received in writing from any person authorized by MIAL.
4. The EOI is not intended to form the basis of a decision to enter into any transaction with respect to the Agreement or any other investment decision and do not constitute an offer, invitation or recommendation to enter into or make any such transaction or decision.
5. Neither MIAL nor its employees, agents, directors, consultants, advisors, contractors or sub-contractors, make any representation or warranty, express or implied, or accept any responsibility or liability as to the accuracy or completeness of the information contained in the EOI or information made available or to be made available in connection with MIAL, its business activities or the Airport and nothing contained herein or provided or to be provided to the Applicants is or shall be relied upon as a promise or representation, whether as to the past or as to the future.

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SECTION I : INTRODUCTION TO APPLICANTS

1.1 INTRODUCTION

A. ABOUT MIAL

Mumbai International Airport Limited (“**MIAL**”) is operating, managing and developing the Chhatrapati Shivaji Maharaj International Airport, Mumbai (“**CSMIA**”) pursuant to the Operation, Management and Development Agreement dated April 4, 2006 entered into between Airports Authority of India and MIAL (“**OMDA**”).

Under the OMDA, MIAL has the exclusive right and authority, *inter alia*, to operate, manage and develop and to provide aeronautical and non-aeronautical services at CSMIA for a term of 30 years starting from May 3, 2006, with an option (subject to the provisions of the OMDA) to extend the term for an additional period of 30 years.

B. SCOPE OF WORK FOR SITC OF SBD’S

MIAL intends to appoint vendor for the Supply, Installation, Testing, Commissioning (SITC) & Integration of **Hybrid SBDs** with all the relevant MIAL and external stakeholders IT Systems. The SBD solution shall be Biometric compatible/ enabled [Digi Yatra] and provide a one-step bag dop solution. The integration shall be compatible with the current requirement, timely software upgrades and with any new / upgraded systems and applications as per future requirement (“**Work**”). The place of implementation will be CSMIA.

C. INVITATION

MIAL hereby invites all interested companies, whether private or public (“**Applicant(s)**”) and having experience in Supply, Installation, Testing, Commissioning (SITC) & Integration of hybrid SBD’s with all the relevant MIAL and external stakeholders IT Systems, to submit their expression of interest by way of an application (“**Application**”). MIAL intends to shortlist Applicants based on the Application submitted by them for further bidding process. It is clarified that mere invitation by MIAL for participating in further bidding process does not constitute any contract between MIAL and any Applicant(s).

1.2 SCHEDULE FOR EOI PROCESS

The schedule for EOI process is specified in Clause 2.3 below. MIAL reserves the right to change the schedule at its sole discretion. Any such changes shall be intimated to the respective Applicant at the email address specified in its Application.

1.3 CONTACT DETAILS

The following is the address and contact details for submission of Applications (by courier or registered post or hand delivery) in accordance with this EOI:

**Head - Procurement,
Mumbai International Airport Limited,
Chhatrapati Shivaji Maharaj International Airport,
Near Terminal 1B Arrivals, Santacruz (East), Mumbai - 400 099, India**

Applicants may seek clarifications in relation to this EOI by sending an email to: procurement.csmia@adani.com

For all email communications related to this EOI, please mention subject as “**EOI FOR HYBRID SBD’S AT CSMIA**” in the subject line of the email.

1.4 DEFINITIONS & INTERPRETATIONS

- A. Throughout this EOI, unless indicated otherwise by the context, the singular also means plural.
- B. Any reference in this EOI to any statute or statutory provision shall be construed as including a reference to that statute or statutory provision, and to all statutory instruments, orders and regulations for the time being made pursuant to it or deriving validity from it, as may be from time to time amended, modified, extended or re-enacted, whether before or after the date of this EOI.
- C. The words “hereof,” “herein”, “hereunder” and words of similar import when used in this EOI shall refer to this EOI as a whole and not to any particular provision of this EOI. The words “include” and “including” shall be deemed to be followed by “without limitation” or “but not limited to” whether or not they are followed by such phrases or words of like import.
- D. The headings and sub-clauses of this EOI are intended for convenience only and shall not in any way affect the meaning or construction of any provision therein.
- E. Words and abbreviations, which have well known technical or trade or commercial meanings are used in this EOI in accordance with such meanings.
- F. References to recitals, clauses are, unless the context otherwise requires, references to recitals and clauses of this EOI.
- G. References to days, months and years are references to calendar days, calendar months and calendar years respectively.
- H. References to person shall mean any natural or legal person.
- I. References in this EOI to any consent or approval or permission or satisfaction or confirmation or certificate or agreement by an Entity shall, in each case, mean in written form and signed by an authorized signatory of such Entity.
- J. “Applicable Laws” means all laws, statutes, rules, regulations, codes, treaties, of any national, state or local government or any statutory or regulatory authority; all orders, decrees, rules, directions, guidelines, notifications or interpretations of any executive, administrative, judicial or quasi-judicial body; including all Applicable Permits; all as in force and effect from time to time; that are applicable to or binding upon (i) the person the property, or matter in question; or (ii) the Work or any portions thereof.
- K. “Applicable Permits” means all consents, approvals, registrations, licenses, no-objections and permits required under or pursuant to the Applicable Laws.

SECTION II : EOI PROCESS

2.1 AWARD PROCESS

- A. The purpose of this EOI process is to enable MIAL to shortlist companies for the **Work** at CSMIA. MIAL invites applications from interested parties for participating in this EOI process. The shortlisted parties would be subsequently invited to submit bids in respect of the **Work**.
- B. MIAL is using two stage award process to grant contract for Work. The stages are:
- a. Phase 1: EOI Stage
 - b. Phase 2: Tender Stage
- C. In the first phase, MIAL will shortlist Applicants based on the criteria set out in this EOI Document. The shortlisted Applicants will then be handed out the detailed tender documents and invited to submit a bid. The Applicant meeting the following eligibility criteria and complying with other terms and conditions of this EOI shall be shortlisted as Qualified Applicant. MIAL at its sole discretion may revise the eligibility criteria at the time of tender stage.

2.2 ELIGIBILITY CRITERIA

The Applicant must fulfil the following eligibility criteria:

- (i) Applicant shall be an Original Equipment Manufacturer (OEM) of Self Bag Drops (SBDs).
- (ii) SBD's product / solution proposed by Applicant should meet technical specifications mentioned in the Scope of Work of this EOI.
- (iii) Applicant should have past experience of supply and installation of SBD's at least three [03] airports handling more than 25 million passengers per annum.
- (iv) Applicant should have past experience of supply and installation of at least 100 SBD's of the type at a single airport which is proposed in the EOI.
- (v) Products / solutions which are modular and which have the ability to be attached to existing check-in counters with minimal disruptions to ongoing operations shall be preferred.
- (vi) SBD solution proposed by the vendor shall be of hybrid type, which means that it should have the ability to be used as a standalone SBD or as a traditional check in counter based on airline / airport operator requirements.
- (vii) The applicant shall demonstrate with past case studies from actual implementations, as to how it was able to integrate the product with various IT systems of the airport operator and external stakeholders (including but not limited to baggage handling system, airlines, Digi Yatra / Biometric travel enabled solutions)
- (viii) Applicant should have an existing support center in India catering to service / O&M support to airports or shall establish a dedicated support center for providing the mentioned services.

2.3 TIME SCHEDULE

Date	Event
29 th June 2024	Date of newspaper advertisement
6 th July 2024	Last Date for Submission of Applications

MIAL reserves the right to change the above schedule at its sole discretion. Any such changes shall be intimated to the respective Applicant at the email address specified in its Application.

2.4 APPLICATION FORM

A. Contents

- i. The Application shall be submitted in a sealed envelope comprising of the following:
 - ❖ Application Form along with necessary documents as per **Annexure 1**
 - ❖ Applicant credentials, company profile, shareholding, relevant experience, list of clients, etc.
 - ❖ Status of organization security clearance from BCAS [if available]. In case this item is not responded, then it will be assumed that the organization does not possess security clearance from BCAS.
 - ❖ Technical specifications of Applicant’s SBD’s product and solution.
 - ❖ Applicant Company’s financial details for the last 2 years
 - Profit & Loss statement
 - Balance Sheet
 - ❖ Other documents indicating competency of Applicant for the Work.

- ii. **Sealing and marking of Applications:** Applicants shall submit original version of the Application sealed in a single envelope with the following marking:
“EOI FOR SBD’S AT CSMIA
APPLICANT’S NAME: _____
APPLICANT’S ADDRESS: _____
E-MAIL ADDRESS: _____”

This envelope shall be addressed to the addressee set forth in Clause 1.3 and shall be submitted by the due date specified in Clause 2.3 above.

The application shall also be submitted electronically to procurement.csmia@adani.com with the subject line_“EOI FOR SBD’S AT CSMIA”

- iii. All documents comprising the Application shall become the property of MIAL and shall not under any circumstances be returned to the Applicants. MIAL shall be free to utilize any information / data provided to it as a part of the Application in any manner that it deems fit
- iv. MIAL shall not be responsible for the loss or non-receipt or delay in the receipt of any EOI application sent by post or courier
- v. MIAL has the exclusive and final right of acceptance/rejection of applications from any of the parties/Applicants.

2.5 DISQUALIFICATION

MIAL shall have the right to disqualify any Applicant if, in MIAL’s opinion:

- i. the Applicant, or any employee, officer, agent, director, advisor, consultant, contractor, sub-contractor, servant or staff member of, or any person associated with such Applicant has or may

- reasonably be thought to have, at any time, involved in any dishonest, fraudulent, illegal or unlawful business practices whether in connection with the Application or otherwise; or
- ii. the Applicant engages in anti-competitive behavior including, collusion between Applicants or solicitation of MIAL’s employees, agents, directors, consultants, advisors, contractors, or sub-contractors. Applicants may only have contact with the authorised official of MIAL solely for the limited purpose of submission of Applications and queries concerning the EOI and other matters as provided for in the EOI; or
 - iii. the Applicant breaches any of the terms and conditions or does not meet the Eligibility Criteria contained in the EOI; or
 - iv. the Applicant or any of the affiliates or any of their employees, directors:
 - a. has been disqualified from a tendering process by MIAL or its Application was rejected by MIAL or a contract awarded to it is under dispute for material breach; or
 - b. has withdrawn from the tendering process conducted by MIAL subsequent to award of contract; or
 - c. is has been either directly or indirectly involved in any frivolous or vexatious litigation against MIAL; or
 - d. has been convicted in any criminal case; or
 - v. any other fact or circumstance exists, which justifies such disqualification.

The decision of MIAL in this regard shall be final and binding on all the Applicants.

2.6 MISCELLANEOUS

- A. MIAL shall issue subsequent bidding documents to the shortlisted Applicants.
- B. The EOI process shall be subject to provisions of OMDA.

Annexure 1 : Application Form

[Place, Date]

To: Head – Procurement,
Mumbai International Airport Limited,
Terminal 1, Chhatrapati Shivaji Maharaj International Airport,
Santacruz (E), Mumbai 400 099.

Dear Sir:

Sub: Application in response to the EOI for SITC & Integration of SBD's at CSMIA

Ref: EOI for SITC and Integration of SBD's at CSMIA dated _____, 2024 ("EOI") issued by MIAL.

1. We confirm that we are submitting our Application for Supply, Installation, Testing, Commissioning (SITC) & Integration of SBD's with all the relevant MIAL and external stakeholders IT Systems, as per the current requirement and with any new / upgraded systems and applications as per any future requirement at Chhatrapati Shivaji Maharaj International Airport ("CSMIA").
2. We hereby confirm that we meet the eligibility criteria specified in this EOI and in this regard, we have enclosed all required documents (together with the supporting documents) in accordance with Section 2.2 of the EOI.
3. We further confirm that we are not disqualified from participation in the competitive bidding process, pursuant to the provisions of the EOI.
4. We represent, warrant and covenant to MIAL that all information furnished or to be furnished by us to MIAL at any time (including without limitation, as part of our Application in response to the EOI) is true, complete, accurate, unconditional and fairly presented. We undertake to forthwith inform MIAL in the event of occurrence of any circumstances that would render any information, representations or warranties in our Application, untrue, incorrect or invalid.
5. Having read, carefully examined and understood the terms of the documents comprising the EOI (including without limitation, the form of the Agreement issued), we, the undersigned, hereby offer to perform the Supply, Installation, Testing, Commissioning (SITC) & Integration of SBD's with all the relevant MIAL and external stakeholders IT Systems, as per the current requirement and with any new / upgraded systems and applications as per any future requirement (as defined in the EOI) in accordance with:
 - (a) all terms and conditions as specified in the EOI, including without limitation the form of Agreement, the annexures, exhibits, attachments and amendments to the EOI; and
 - (b) our Application;provided however that in the event of any inconsistency between (a) and (b) above, (a) shall prevail.
6. We hereby agree and confirm that our Application has been prepared strictly in accordance with the instructions in the EOI (including the forms set forth therein) and that we shall at all times act in good faith and abide by the terms and conditions of the EOI.
7. We represent and warrant to MIAL that as of the date of submission of the Application:
 - (a) the information furnished by us is true, complete, accurate, unconditional and fairly presented;

- (b) we have all the necessary corporate approvals and authorizations to participate in the EOI; and
- (c) neither we nor our affiliates are in anyway, directly or indirectly, interested in, or associated with any other Applicant or its Application.

In the event of occurrence of any events or circumstances that would render any of the foregoing representations and warranties untrue or invalid, we covenant to promptly notify MIAL of the same and agree that MIAL shall be entitled to reject our Application in such event and if awarded the contract, withdraw the same, without MIAL incurring any cost or liability.

- 8. We represent and warrant that we [are / are not] [*strike out which is not applicable*] Group Entity(ies), of MIAL or its shareholders (other than AAI). We further represent and warrant that we [are / are not] [*strike out which is not applicable*] Related Party of MIAL or its shareholders or directors.
- 9. **Confidentiality undertaking:**

We hereby undertake and agree to keep the Information (as defined below) confidential. We acknowledge that the Information is confidential information of MIAL and is provided solely for the purpose of enabling the Applicant to submit its Application and participate in the process for selection by MIAL of the Successful Applicant for performing the Services (“**Specified Purpose**”). We, the Applicant, hereby undertake and agree that in consideration of receipt of such Information, we shall abide and be bound by the following terms:

- (a) “**Information**” means the EOI and any and all documents and information, whether specifically mentioned as ‘confidential’ or not, provided by or on behalf of MIAL to the Applicant or otherwise obtained by the Applicant pursuant to the EOI, or negotiations and discussions with MIAL, including without limitation, any clarifications, amendments or documents subsequently issued, drafts of definitive agreements, information obtained through interactions with MIAL and site visits (if any), all technical, commercial, financial, operational, legal or statistical information, all agreements, plans, layouts and documents in relation to the Airport, in each case whether in writing, electronic form or other tangible form or disclosed by oral or visual presentation or other intangible method.
- (b) The Applicant shall use the Information solely for the Specified Purpose. The Applicant shall maintain the confidentiality of the Information and shall not disclose the Information to any person, other than:
 - i. its employees, professional advisors and consultants, who have a need to know in connection with the Specified Purpose; and
 - ii. a party with the prior written consent of MIAL;provided in each case that (i) Applicant shall ensure that such party agrees to appropriate confidential treatment of such Information as per the terms hereof; and (ii) Applicant shall be solely responsible for any act by such parties which results in the Information not being treated in accordance with the confidentiality provisions hereof.
- (c) Confidentiality obligations hereunder shall not apply to any Information that (i) is or becomes available in the public domain, other than by breach of confidentiality obligations by the Applicant or any other party, (ii) is in possession of the Applicant prior to its disclosure by MIAL and rightfully received without any breach of confidentiality by any party. If Applicant is required to disclose any Information pursuant to any Applicable Laws or an order of any judicial or statutory

authority, Applicant shall give MIAL reasonable prior notice of the circumstances of such requirement prior to disclosing such Information and shall co-operate with MIAL to minimize the extent of disclosure, including any effort by MIAL to contest or obtain a protective order against such requirement.

- (d) The Applicant shall, promptly upon the request of MIAL, return or destroy all Information including without limitation all originals, copies, extracts and summaries thereof (including information on electronic media), and certify to MIAL that it has returned or destroyed such Information within two days of such request by MIAL.
- (e) The Applicant agrees that the use or disclosure of the Information in breach of these confidentiality provisions will cause irreparable harm or injury to MIAL, which is incapable of recompense by way of damages. Accordingly, the Applicant agrees that MIAL is entitled to seek injunctive or other appropriate relief to restrain any breach or threatened breach of these confidentiality provisions.

10. We hereby agree that the EOI and this Application shall be construed, interpreted, enforced and governed, in all respects, by the laws of India. The courts at Mumbai will have exclusive jurisdiction in respect of all matters arising out of the EOI and this Application.

We, the Applicant, undertake that the representations, warranties, covenants, agreements and undertakings in the Application are true and correct and we shall be liable for any breach thereof. We hereby accept all the terms and conditions of the EOI. Capitalised terms used but not defined herein have the meanings set forth in the EOI.

Yours sincerely,

For and on behalf of *[name of Applicant]*

*Signature of Authorised Signatory(ies)

Name:

Title:

Phone number:

E-mail:

Annexure 2 : Scope of Work

Vendor in this document shall mean Applicant as defined in EOI

Scope of Work

With a vision to become one of the world's best airports, Mumbai International Airport Limited (MIAL) has been continuously and consistently upgrading CSMIA to an airport that delights its guests by offering best-in-class comfort and convenience. As part of this vision, MIAL is planning to upgrade the infrastructure for fully automated, paper less self-service bag drop facility for departing passengers.

MIAL is planning to deploy 212 SBDs, at CSMIA over the next 3 years. The exact quantity may vary depending on business requirements which shall be notified at the time of tender.

In line with the Objective and the Scope of Work as defined in the RFP, the detailed Scope of Work shall include the following:

- a. Supply, Installation, Testing, Commissioning (SITC) & Integration of (212) one-step Self Bag Drop (SBD) machines at the locations identified by MIAL at Terminal 2.
- b. The SBDs shall be able to carry out the following for all the passengers—
 - i. Check-In process including biometric validation
 - ii. Boarding Pass Printing (BPP)
 - iii. Bag Tag Printing (BTP)
 - iv. Payment through payment gateway (in case of excess baggage)
 - v. Payment receipt printing, etc.
- c. Delivery of the SBDs and all associated equipment's and accessories direct to CSMIA as may be advised by MIAL and safe keeping of the same.
- d. It is envisaged that the Vendor's scope of work is a turnkey solution with responsibility for fully provisioning the SBDs including supply, installation, configuration, testing, commissioning, integration and all the provisions of Warranty and Defect Liability.
- e. Installation of all the SBDs at the location identified by MIAL including control panels, power cables, control cables necessary accessories, control cables equipment, software and furnishings including supports, mounting accessories and finishing in all respects shall be the responsibility of the vendor for their scope of work.

- f. All necessary cabling/accessories/fittings etc., required for successful installation, testing, commissioning and integration of SBDs is under Vendor's scope and supports, anchors, two stage (Weighing and Dispatch Conveyors) check-in conveyors, passenger weighing scale displays etc.
- g. The Vendor shall provide necessary protection of self-bag drop that is under construction or installation. The Vendor shall be responsible to submit weighing scale calibration certificates valid for 3 years from the date of handover.
- h. All electrical and control devices must be concealed in SBD housing. A separate power provisions/distribution is to be provided for electronic/IT components (with UPS supply) and for mechanical components (with DG power) of SBDs. The Vendor is responsible to coordinate with MIAL to obtain UPS power supply for SBD electronic/IT components and DG power for check in conveyors from Building or BHS PDB power source made available at particular check-In Island
- i. OEM application will have an integration with all domestic and international airlines DCS systems. Integrate airlines DCS systems with the SBDs, as and when directed by MIAL, at no additional cost to MIAL.
- j. Integrate the SBDs with all the relevant MIAL, Airlines and other stakeholders IT systems / applications so as to enable the following at the SBDs for all the passengers–
 - i. Check-In process
 - ii. Boarding Pass Printing (BPP)
 - iii. Bag Tag Printing (BTP)
 - iv. Payment through payment gateway (in case of excess baggage)
 - v. Payment receipt printing, etc.
- k. Integrate the SBDs to Facial Recognition System (FRS) of OEM selected by MIAL to enable Digiyatra. The SBDs must be compatible with FRS system of any OEM selected by MIAL. This integration shall be at no additional cost to MIAL.
- l. Vendor shall carry out all the operational trials and take all the necessary corrective / rectification / modification steps to achieve the desired level of integration and output from the SBDs.
- m. The Vendor shall integrate with payment gateway of MIAL's choice, as and when directed by MIAL.
- n. Timely update of software (s) to the latest version, provided by vendor (including its sub-vendors, partners, solution provider, etc.) to MIAL as part of this tender, without additional cost implication to MIAL shall be part of the vendor scope.
- o. Setup and provide a data dashboard with all the key KPIs for all the SBDs e.g. number of passengers handled, number of bags processed, airlines-wise bags processed, processing time of each step, excess baggage billing, etc.. as advised by MIAL from time to time at no additional cost
- p. The Vendor shall prepare a detailed Standard Operating Procedures [SOPs] for the use of the SBDs and processing of passenger baggage. The SOPs shall be presented and signed off by MIAL.

- q. All detailed engineering, manufacturing, equipment, labor, Airport Entry Passes (AEP) and permits that are required for satisfactory completion of the SBDs installation under the contract shall be under Vendor's scope.
- r. Provide all SBD electrical wiring and conduits, MCBs, drum motors, motor starters, isolators, low level controls including PLCs, interface modules, automatic tag readers, sensors and 3D cameras for baggage dimension check, intrusion detection, roller shutters, fault reset, and emergency stop push buttons, cable trays and conduits, VFDs etc.
- s. The SBD units will talk to OEM application hosted on cloud or On-premises for any interface / integration to be established. The OEM should provide the
 - a. Configuration and connectivity requirements of cloud.
 - b. configuration of the On-Premise servers including redundancy with sufficient lead time.
- t. For future upgrades, the SBD shall have the capability to scan & read passenger documents (visa, passport, etc.) by integration with other external systems (airlines, embassies, Immigration, etc.). Based on the system integration, the SBDs must be capable of processing International passengers.
- u. Vendor responsibility to ensure that the supplied and installed SBD system is fully capable to safely process standard size checked in baggage in self-service mode without needing any assistance from check-in agent in compliance with all national and international Airport quality and service standards.
- v. The Vendor shall provide SBD with latest Hot Standby servers integrated with deployed SBD and with virtualization/ Cloud ready (Optional), firewall, recommended antivirus system as approved by MIAL, control & Monitoring SBD application with workstation in facility as approved by MIAL, mobile devices having SBD application for mobile monitoring of SBDs, and any other applicable components/devices as required for implementing the Works defined by these specifications.
- w. All equipment/system provided by Vendor shall comply to all statutory and regulatory requirements as stated in various applicable documents.
- x. All system supplied shall be calibrated before commission and handover of the system. The calibration schedule shall be mutually agreed upon between MIAL and Vendor however the duration shall not exceed more than 1 year.
- y. All allied and implied items as required to complete the Works as per global industry best practices.
- z. The Vendor shall integrate the Products and Services in such a way so as to ensure that there is no harm caused to MIAL / Airlines / other stakeholders hardware, software, equipment's, IT applications / systems, in any way. Any loss / harm caused during the execution of Works and before the final Handover, whether intentionally or unintentionally, shall be sole responsibility of the Vendor and the Vendor shall be liable to compensate MIAL / Airlines / other stakeholders for any and all such losses, irrespective of any limitation of liability. Vendor to prepare and submit relevant HSE, Risk register and Quality plans for review and approval prior to commencement of any works. Vendor shall be accountable for the HSE related to the works and

Vendor shall ensure strict adherence to MIAL HSE requirements. The Vendor shall be responsible for enabling all functional, technical, infrastructure (networking, compute, integration, and operational requirements), Cyber Security, Data Privacy, BI and Data Analytics tool.

- i. The Vendor will be responsible for supplying the application, licenses, database and related software, integration tools and installing the same.
- ii. The application software developed by the Vendor has to be user friendly so that users can access it without having extensive training. Training shall be provided as per the terms provided in the RFP.
- iii. Vendor shall supply:
 - a) Software & licenses
 - b) Tools, accessories, documentation and prepare a list of items supplied. Tools and accessories shall be part of the solution.
 - c) Supply latest supported version of all software to support the solution and any other software, tools and bolt-on/add-on application.
 - d) System Documentation: System Documentation both in hard copy and soft copy.
- aa. Vendor shall design the integration strategy for integrating with 3rd party application for: flight validation, emergency evacuation, validating the passenger boarding pass data with the airline DCS/Web services or any other application for extended touch point for future purpose.
- bb. MIAL will facilitate interactions with Airlines and other stakeholders however on the technical front, it will be the full and final responsibility of the on boarded Vendor to do the necessary project planning and execution of this project.
- cc. In case of any ambiguity, contradiction, or interpretation differences arise, within the terms of the documents, then MIAL's decision shall be final and binding.
- dd. Each SBD's shall be subject to all MIAL's IT security and compliance and all the required Vulnerability Assessment and Penetration Testing (VAPT).
- ee. Vendor Products and Services shall be compatible with all the required security softwares, cyber security softwares as recommended by MIAL, without any degradation to the performance of SBD's.
- ff. Develop and implement the communication plan and create a feedback loop to ensure the effectiveness of change management program. The change management program shall be initiated before the start of the implementation and will conclude with the HOTO.
- gg. Vendor shall support MIAL, Airlines, ground handlers and all other stakeholders in successful change management towards successful adoption of the new Products & Services. This includes:
 - i. The vendor shall design a change management program, including a transition plan, to support a successful transition from the current system
 - ii. The program designed by the vendor shall at minimum have:

- a. Document the current state and readiness for transformation
- b. Define the priorities for change
- c. Document the change management agenda and align it with the training program

Coordination

The SBD Vendor shall be responsible to coordinate with all domestic and international airlines with prior direction and approval from MIAL for required interfaces.

All testing activities required to achieve the desired DCS interface with SBD white label application whether on site or off site, the same shall be done by the SBD Vendor.

- a. The Vendor is responsible for the coordination with the BHS O&M Vendor through MIAL representative, AOCC, Airlines and Projects and engineering team regarding the site installation, testing and commissioning works.
- b. The SBD Phased wise Implementation together with BHS Interface including but not limited to location of cable trays, cable routings, power distribution, virtual window configuration, PLC integration, location of control box etc. required for functioning of SBDs as they relate to this Project shall be in the scope of BHS Vendor. In order to successfully accomplish the intended operation described herein, the details of all required interface(s) between the SBD's and BHS machines shall be fully coordinated with the BHS O&M service provider and MIAL representative.
- c. The SBD Vendor shall be responsible for the interconnection of all BHS related PLC and data highway connections between BHS and the SBD devices that are required to accommodate the interfaces between the two systems (hard-wired I/O, data interface cabling and software driven). Vendor shall review and submit the technical requirements regarding interfaces with BHS equipment.
- d. The Vendor shall in all cases, be responsible for any wiring between the SBD and BHS systems that are required to establish these interfaces.
- e. Cooperate and coordinate with MIAL for the location of all BHS, Mechanical, Electrical, IT, CCTV Poles, FIDS, Right-of-Ways required for installation of Fully automated SBD.
- f. Cable (Power, communication, and control) routing shall be coordinated with BHS and MIAL IT, and electrical service provider.
- g. The SBD Vendor shall ensure that no impact to ongoing check in, BHS, IT and airlines operation shall take place while executing the project on site.
- h. Necessary work permits like HIRA, PERCOW to be obtained from Safety, Quality, Terminal Operations and Projects and Engineering team of MIAL before start of work.

- i. The SBD Vendor shall be responsible to obtain all work permits, airport entry pass prior to the start of project work and BCAS company clearance prior to the start of warranty services. BCAS company clearance shall be obtained at least 30 days prior to the start of warranty period.
- j. The SBD Vendor shall coordinate with Airport security and Terminal operations for the airport entry, movement and storage of material on the installation site.
- k. The SBD Vendor shall be responsible for the barricading of installation site. The quality, design and material used for barricading shall be approved by MIAL.
- l. Coordinate with MIAL to avail any temporary power that may be required for and during the course of the installation and testing of the SBD. The Vendor shall bear all associated costs for temporary power.
- m. The SBD Vendor shall follow the security procedures laid down by BCAS, Airport Security at the terminal manager for the entry of goods, material, tools, tackles and shall coordinate for the same.
- n. The SBD Vendor shall participate in all technical discussions, meetings with airlines and MIAL representative to achieve required DCS - SBD interface or 3rd party integration.
- o. The SBD Vendor shall be responsible to obtain and pay for all permits, calibration, testing, inspection fees, and certificates relative to SBD project works.

2.1 IT INTERFACE AND INTEGRATION REQUIREMENTS IN LINE WITH IT SECURITY COMPLIANCE

The interface requirement and data validation requirements mentioned in the scope section further to achieve below:

The proposed solution should be technically adaptable and flexible to integrate with the Middleware architecture of MIAL, in order to meet the following objectives:

API Architecture and Application Integration/Interface

The Vendor needs to set up, operationalize and maintain system for APIs, as per the IATA guideline by “Simplifying the Business” :

- i. Data exchange between the SBD System and other Internal/External Systems should be carried out through APIs.
- ii. The Vendor, in consultation with the MIAL, will be required to set up a process for issuance of standards for the application system APIs
- iii. The Vendor is required to study the solution architecture and design APIs that will enable seamless and real time communication with the platform
- iv. The exchange of information with other systems such as (but not limited to) Airline DCS / web services, AODB , CUPPS , CUSS, 3rd party system , Fire alarm system etc. may be a batch exchange of data or live API integration on a transactional basis. The utility may reside both in the internal/external systems environment based on requirement for data exchange and feasibility to change in department side application.
- v. There may be external/other systems that may transmit data in other format; the Vendor would build a converter/adaptor to convert into the desired format or vice versa. The convertor/adaptor will reside in the local system environment and will parse the data as and when received. A utility will also need to be built to push or pull information to or from the other systems based on event triggers.
- vi. All applications must take into account appropriate security, performance, efficiency and maintainability issues based on the functional, technical and non-functional requirements and the defined SLAs (Annexure B - SLA for SBD)
- vii. The ownership of the product licenses, wherever applicable, would be with MIAL

Major touch point of Integration (not limited to) :

- a. Integration with Airline System (DCSs)
- b. Integration with Airport application systems (e.g AODB, BHS, SBD's / PFM System etc.)
- c. Integration with 3rd Party Payment Gateway
- d. Integration with Chip Based Payment device (EDC's)
- e. Integration with IT Middleware System / Reporting Server / Adani One App.
- f. Integrate with Check-In process, Boarding Pass Printing (BPP) ,Bag Tag Printing (BTP)

Specific to Digi Yatra

- a. Integration with Digi Yatra System/Solution (with 3rd Party)
- b. Provision of Facepod recognition system (FRS) Camera Fitment with SBD devices
- c. Passport/Visa document Scanning embedded with SBD's system

Data Security

1. Vendor shall provide:

- a. Strategy to maintain data security at the application level, database level, messaging and middle ware level and approved by MIAL
- b. Security strategies when the applications are accessed from outside the network or accessing resources outside the network
- c. Strategies of encryption and security for external transaction with partner network and systems
2. Data will be owned, shared, controlled and protected as a corporate asset of MIAL.
3. Data should only be accessed through application / interfaces for create, update and delete. There should not be any direct access to the data layer for users until and unless authorized by MIAL under special circumstances.
4. The Vendor shall provide the details of data synchronization strategy both in batch mode and in real time. MIAL, in consultation with Service provider, shall decide on the methodology of data synchronization based on service requirements.
5. Self Service devices used by Passengers i.e SBD's should support at least 3 languages-Hindi, English and Marathi.

2.2 Information security and Compliance requirements:

Technology Evaluation Criteria will be based on the following:

MIAL will conduct a comprehensive review of the application architecture and IT security

- i. Flexible architecture
 - a. Application architecture
 - b. Hosting architecture – Vendor to propose the best-in-class scalable solution (cloud/ on-prim / hybrid) in order to meet the objectives performance, Integration and data analytics.
- ii. Data Security and Privacy
- iii. Integration with Applications, Airport Systems, Building Systems and IoT
 - a. API Management
 - b. Standard authentication mechanisms
 - c. Supports Restful methods- Get/Put/Post/Patch/delete/Option
 - d. Light weight data exchange format like JSON
- iv. Data models
- v. Adherence to data standards

- vi. Device abstraction
- vii. Data normalization
- viii. Tools to build and orchestrate customer journeys and workflows
- ix. Tools to build and orchestrate User Interface and dashboards

Training

Detailed technical training is to be provided to MIAL engineering & maintenance team / other relevant team members for the operations of new SBD's, understanding and utilizing new features and analytical capabilities of the SBD's, etc. Vendor is to provide On-site support for a period of 6 months post handover date.

Safety

Vendor to ensure all safety & precautionary measures are taken during project execution & later.

Life Expectancy

The product shall have a minimum life expectancy of 10 years.

Warranty/DLP

All products (SBD's) supplied and installed should have Warranty /DLP cover of minimum 5 years.

Warranty services must include repair/replacement: Any manufacturing defects, improper installation, poor standard of materials used, color fade / brightness and brittleness, any other quality of service or material issues identified by the MIAL. During Warranty / DLP period, vendor to provide complete service support in accordance to Service Level Agreement (SLA) specified by MIAL.

Upkeep support

The vendor shall ensure complete hardware, software, spares and service support for the new SBD's, for atleast a period of 10 years, post expiry of the warranty period.
