Version 5.2

"DIGI YATRA"
REIMAGINING AIR TRAVEL IN INDIA

09th Aug 2018

DIGI YATRA-BIOMETRIC BOARDING SYSTEM

Ministry of Civil Aviation
Rajiv Gandhi Bhavan
New Delhi- 110003

(DY-BBS)

TABLE OF CONTENTS

"DIGI YATRA" 1

Preface 6

Digi Yatra Vision 7

OBJECTIVES 8

GOALS 9

TARGET AIRPORTS AND USERS 9

TARGET USERS 9

THE "DIGI YATRA" CONCEPT & SUMMARY PROCESS 10

THE DIGI YATRA Journey CONCEPT 10

Digi Yatra Ecosystem 11

Digi Yatra Platform 11

Step 0 (A): Digi Yatra ID: ONE TIME creation FROM Airsewa, AIRLINE/ OTA TICKET BOOKING SITE/ APP/ Airport App 13

Step 0 (B): Digi Yatra ID Creation on Unmanned- Registration Kiosks at Airport 14

Step 0 (C) ticket Booking 15

Digi Yatra Data sharing with Airport DY- Biometric Boarding SystemS 15

Passengers without Digi Yatra ID 16

Registration Kiosks 16

Airport Entry Gate: E-Gates 16

Retrieval of Digi Yatra ID 16

Multiple DY IDs creation by the same Passenger 17

Govt. Identity Documents accepted for DY ID Registration (Other than AADHAAR) 17

Digi yatra for PAssengers with Special needs & Senior Citizens 17

General Policy compliance 17

Domestic Departures: Standard Operating Process 20

STEP-1: TICKET BOOKING 20

STEP-2 HOME CHECK-IN/ WEB CHECK-IN 21

STEP-3A AIRPORT Registration Kiosk (Passenger with Digi Yatra ID with AADHAAR UID Token) 21

SINGLE Passenger WITH QR CODED TICKET OR BOARDING PASS (BCBP) 21

AIRPORT Registration Kiosk- CISF ROLE 23

AIRPORT "LIVE Passenger DATASET" 23
OPERATING PROCESS AT AIRPORT: First time Registration 24
Passenger with Digi Yatra ID with AADHAAR UID TOKEN (CONCEPTUAL) 24
STEP-3B AIRPORT Registration Kiosk (Passenger with Digi Yatra ID with Other Govt. Approved Photo ID) 25
SINGLE Passenger WITH QR CODED TICKET OR BOARDING PASS (BCBP) 25
AIRPORT Registration Kiosk- CISF ROLE 26
AIRPORT "LIVE Passenger DATASET" 26
OPERATING PROCESS AT AIRPORT ENTRY GATE- First time Entry 27
Passenger with Digi Yatra ID & Govt. Approved ID (CONCEPTUAL) 27
STEP-3C AIRPORT Registration Kiosk (Passenger without Digi Yatra ID) 28
SINGLE Passenger WITH QR CODED TICKET OR BOARDING PASS (BCBP) 28
AIRPORT Registration Kiosk - CISF ROLE 29
AIRPORT "LIVE Passenger DATASET" 29
OPERATING PROCESS AT AIRPORT ENTRY GATE- First time & Repeat 30
Passenger without Digi Yatra ID (CONCEPTUAL) 30
STEP-4 AIRPORT ENTRY GATE: E-Gates 31
OPERATING PROCESS AT AIRPORT ENTRY GATE post Digi Yatra ID Registration complete 31
Passenger with "Activated" Digi Yatra ID For all (CONCEPTUAL) 31
STEP-5 FLIGHT RESCHEDULING/ REBOOKING OF TICKET 32
STEP-6A AIRPORT CHECK-IN (2 Step Process with Self Bag Drop/ Hybrid Bag Drop) 32
Step-1 of the 2-Step Process 32
STEP-6B BAGGAGE DROP (2 Step Process with Self Bag Drop/ Hybrid Bag Drop) 33
Step-2 of the 2-Step Process 33
STEP-7 TRANSFER Passenger PROCESS 33
STEP-8 PESC ENTRY 34
STEP-9 PESC FRISKING 34
OPTIONAL ADDITIONS TO THE PESC PROCESS 35
STEP-10 BOARDING GATE 35
STEP-11 AIRCRAFT 35
Domestic Arrivals: Standard Operating Process 35
STEP-1: Arriving into the Airport 35
International Departures- Phase2: Standard Operating Process 36
STEP-1: TICKET BOOKING 36
STEP-2 HOME CHECK-IN/ WEB CHECK-IN 36

STEP-3 AIRPORT ENTRY GATE: e-Gate 36
AIRPORT ENTRY GATE- CISF ROLE 37
AIRPORT ENTRY GATE "LIVE Passenger DATASET" 38
OPERATING PROCESS - CONCEPT ONLY 39
GROUP PassengerS WITH 2D/ QR CODED TICKET / BOARDING PASS (BCBP) Each Passenger has an individual ticket / Boarding PASS (BCBP) 39
STEP-3A FLIGHT RESCHEDULING/ REBOOKING OF TICKET 40
STEP-4A AIRPORT CHECK-IN (2 Step Process with Self Bag Drop/ Hybrid Bag Drop) 41
Step-1 of the 2-Step Process 41
STEP-4B BAGGAGE DROP (2 Step Process with Self Bag Drop/ Hybrid Bag Drop) 41
Step-2 of the 2-Step Process 41
STEP-5 TRANSFER Passenger PROCESS 42
STEP-6 DEPARTURE IMMIGRATIONS (INDIAN & FOREIGN PAssport holders) 42
STEP-7 PESC Hand Baggage Screening Area & Frisking 43
STEP-8 BOARDING GATE 44
STEP-9 AIRCRAFT 44
International Arrivals: Standard Operating Process 45
STEP-1: Arrival into the Airport 45
STEP-2: Arrival Immigrations (Indian & Foreign PAssport Holders) 45
STEP-3: Customs process 46
STEP-4: Exit from the Airport 46
HIGH LEVEL Data Privacy Guidelines 47
DATA PRIVACY 47
Data Privacy by Design Techniques 48
Personal Data guidelines 48
AADHAAR related Privacy Guidelines for all Stakeholders 50
AUTHENTICATION OF Passenger TO THE AADHAAR DATABASE 50
Guidelines for Airlines, OTAs and other stakeholders 50
BBS Cyber Security Reference Architecture & best practices 52
LOGS, METRICS AND DASHBOARDS 57
TECHNICAL LOGS: TIME-STAMPED TECHNICAL DATA, EVENTS & ALARMS 57
TYPICAL REPORTS 57
METRICS AND DASHBOARDS 58
AMENDMENTS to Digi Yatra process 58

Annexures & References 59
AUTHENTICATION OF Passenger **TO THE AADHAAR DATABASE** 59
CUSS, CUPPS & Web Services 59
BIOMETRIC ACQUISITION PRODUCTS: FINGERPRINTS READERS 59
BIOMETRIC ACQUISITION PRODUCTS: FACE READERS 59
BIOMETRIC ACQUISITION PRODUCTS: IRIS READERS 59
FRONT END DEVICES (E-GATE AND KIOSKS) 59
Booking and Check-in Standards 59
API Ecosystem 59
Privacy by Design Fundamental principles 59
Passenger Process Flow Charts 60
Passenger Process Flow Charts 60
Annexure-1: ETKT with 2D Barcode 62
Annexure-2: Boarding PAss 64
Annexure-2A: E-Mobile Boarding PAss with QR Code 65
Annexure-3: API Ecosystem 66
Annexure-4: Domestic Passenger Process flow chart: Airport Entry to the Boarding Gate 68
Annexure-5: Reference Checklist 73
Annexure-6: International Passenger Process Flow Chart: Airport Entry to Boarding Gate 74
Annexure-6 A: International Passenger Process Flow Chart: Arrival Immigrations 79
Annexure- 7: UIDAI References As per UIDAI Website 80

PREFACE

The Ministry of Civil Aviation (MoCA) of Government of India is responsible for formulation of national policies and programmes for the development and regulation of the Civil Aviation sector in the country. It is responsible for the administration of the Aircraft Act, 1934, Aircraft Rules, 1937 and various other legislations pertaining to the aviation sector in the country.The Indian civil aviation industry has emerged as one of the fastest growing industries in the country during the last three years. India is currently considered the third largest domestic civil aviation market in the world and is expected to become the world's largest domestic civil aviation market in the next 10 to 15 years.

The Civil Aviation industry has therefore ushered in a new era of expansion, driven by factors such as low-cost carriers (LCCs), modern airports, Foreign Direct Investment (FDI) in domestic airlines, advanced information technology (IT) interventions and growing emphasis on regional connectivity.

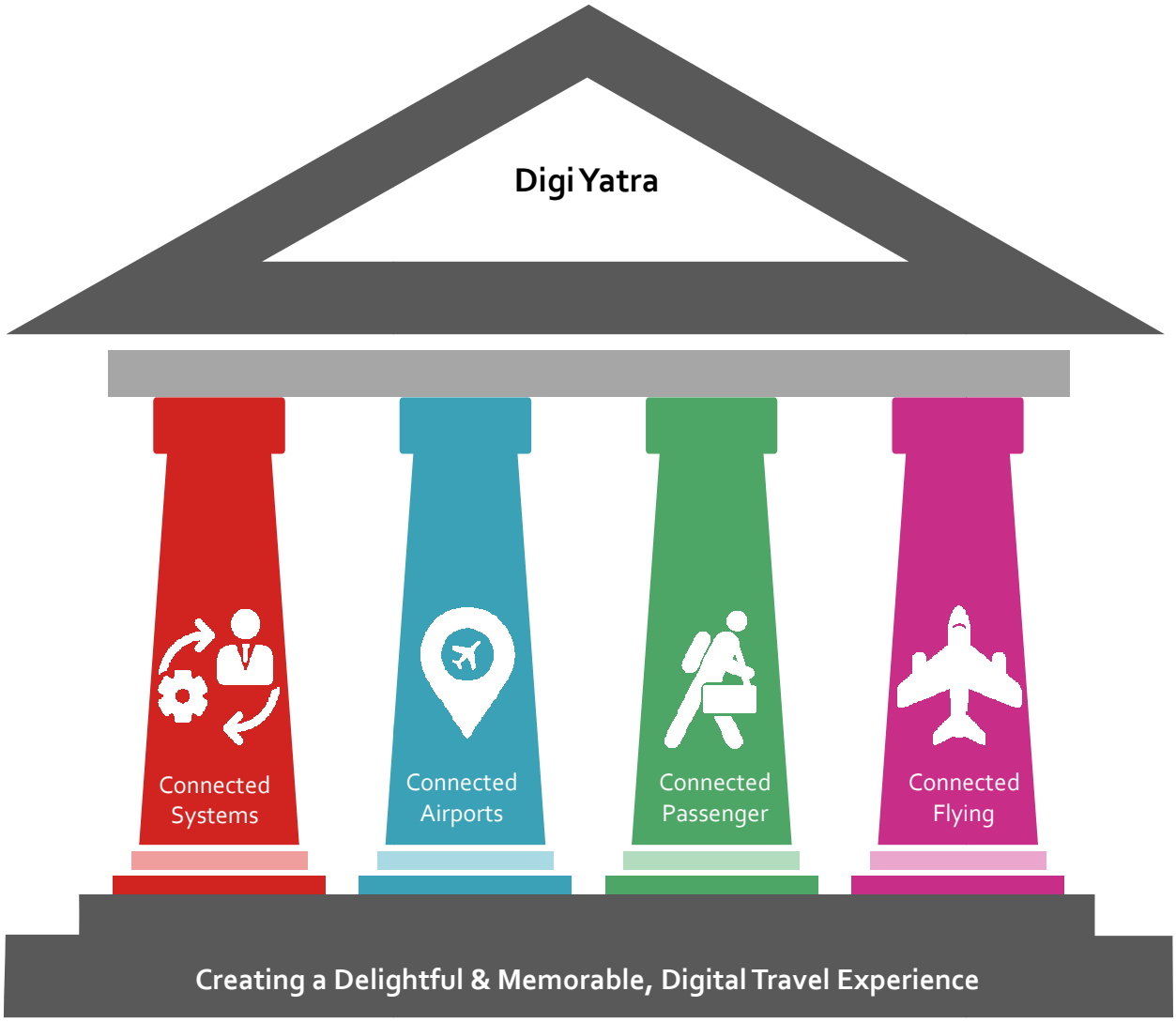
Considering the growth projections, its direct impact on the Passenger journey, the cost of Infrastructure and the impact on the speed and efficiency of Passenger processes, The Ministry of Civil Aviation has taken up a key initiative to reimagine air travel in India looking beyond the conventional "build a bigger Airport to manage more Passengers" to look for Innovation and technology for better and cost effective solutions. One of the key initiatives in this direction is "The Digi Yatra" which intends to give a seamless, hassle-free and paperless journey experience to every air traveller in India. Using cutting edge Identity Management and "Face recognition" technologies, it aims to simplify the Passenger processes at various check points in the Airport right from the terminal entry gate, check-in/ bag drop, security check and boarding gates.

The MoCA, has constituted a Technical Working Committee (TWC) consisting of Subject Matter Experts (SME) from a few of the major airports in India and AAI. The TWC under the Digital Cell of Digi Yatra has been working for the past year on the Digi Yatra Project and have done trials at some of the leading airports in India to find out the best possible solution that can be implemented by all the airports in India. After several workshops and deliberations with aviation stakeholders and regulators, the Digi Yatra Process was documented by the TWC and submitted to MoCA for circulating as a National Policy.

With Digi Yatra, Passengers will no longer need to show their tickets/ boarding passes and their physical Identity cards at many of the check points at the Airport,since the ticket/

boarding Pass is integrated with the Identity document.This will lead to reduced queue waiting times, faster processing times and simpler processes.

DIGI YATRA VISION



OBJECTIVES

Every passenger, (Indian citizens and foreigners) become a "Digi Yatri" and enjoys the privileges and benefits of the "Digi Yatra" Program. The main objectives are as below:

a. Enhance passenger experience and provide a simple and easy experience to all air travelers.
    i. Deliver a seamless, paperless and hassle-free experience to all passengers across all processors/ Check-points at all Indian airports. (Including Tier-1, 2 and 3 airports)
    ii. Improve passenger experience, so that they can plan their trips efficiently.
    iii. Receive relevant information pertaining to various facilities, protocols, airline timings, queue waiting times at the airport.
b. Achieve better throughput through existing infrastructure using "Digital Framework".
    i. Walk-through security scannersswiftly owing to advanced biometric security solutions.
    ii. Stay connected through the airport, possibly through airport Wi-Fi, engage in customized digital offerings at experience zones.
c. Result in lower cost operations.
    i. Remove redundancies at Checkpoints.
    ii. Enhance resource utilization.
d. Digitize current manual processes and to bring better efficiencies
    i. Get real time notifications about congestion & delays to have greater visibility on the next step of journey.
    ii. Navigate seamlessly through the airport using digital guidance systems, interactive kiosks and augmented reality apps.
    iii. Stay connected during flights and indulge in immersive experiences. Also book in-flight services and destination based offerings digitally.
e. Enhance security standards and improve current system performance.
    i. Enhance security at Indian airports using "Digi Yatra ID"based Identification with real-time Biometrics.
    ii. Validate Boarding pass or e-ticket with the airline system in real-time.
    iii. Use face biometrics for processing Passengers at Checkpoints in the airport and also extend to Passengers without AADHAAR or Digi Yatra ID using biometric validation
    i. Phased rollout by all airports.
f. Rollout of "Digi Yatra" system with a digital "ID" backed by a strong verifiable government issued identity like AADHAAR, passport & others, enabling a seamless travel experience for Passengers at all airports across India.

GOALS

a. Set the standards & standard operating procedures (SOPs) for Digital Transformation of the Indian Aviation Industry
b. Create a common "Digi Yatra" Identity management system with "Digital Identities" like AADHAAR, Passport & Others, enabling Biometric Boarding Process for All Airports (Tier1, 2 & 3) across India
    i. The common Digi Yatra Platform will be built by a joint venture company (JVC) or special purpose vehicle (SPV) under the Section 25 of the Companies Act 1956 that will be established by the AAI and the five major airport operators in India. {Examples of such SPVs include GSTn/ NPCI/ Indian Highways Management Company Limited (IHMCL)}
c. Monitor and manage a time bound system rollout by all airlines, online travel agents, global distribution systems & airports
d. Conduct mass communication, marketing & awareness campaign for the new standards through social media, TV and newspapers.

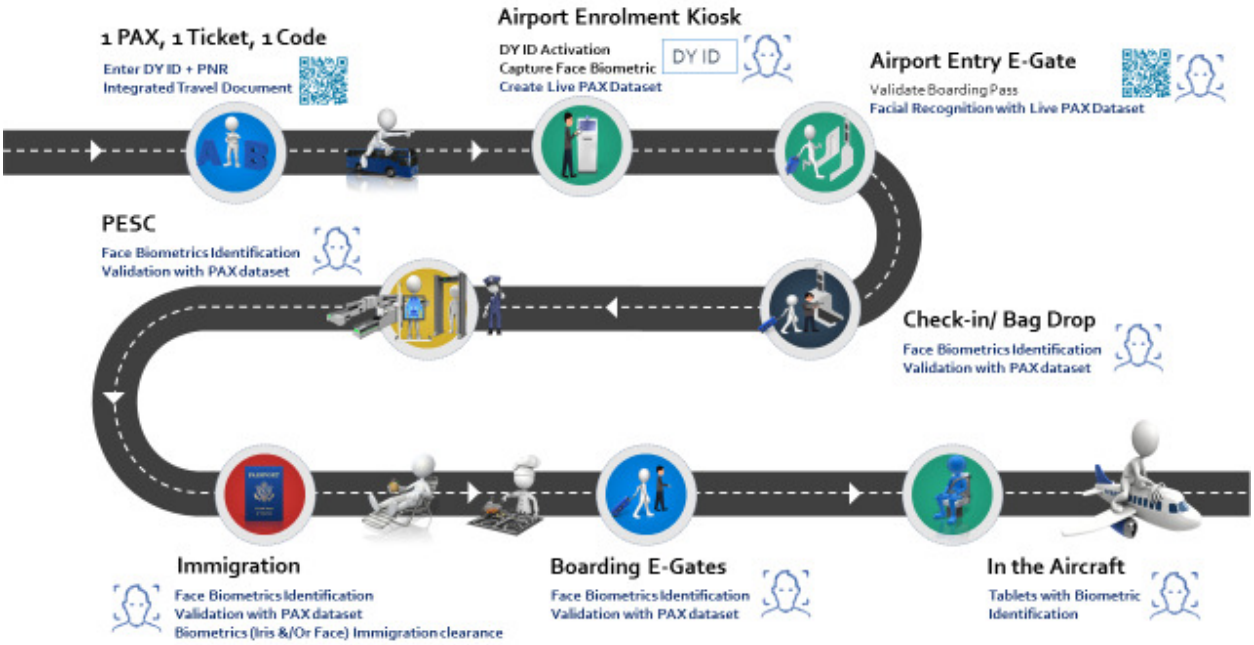
TARGET AIRPORTS AND USERS

TARGET USERS

a. The new process shall cater to all Passengers at any airport in India, be it Indian citizens (With or without Digi Yatra ID) or foreign nationals
b. The process shall simplify & ease the Passenger process equally for different Passenger types
    i. First time and frequent flyers in India
    ii. Group travelers and families
    iii. Foreign citizens or tourists

THE "DIGI YATRA" CONCEPT & SUMMARY PROCESS

THE DIGI YATRA JOURNEY CONCEPT



DIGI YATRA ECOSYSTEM

DIGI YATRA PLATFORM

a. This Common Digi Yatra Platform will be built by a joint venture company (JVC) or special purpose vehicle (SPV) under Section 25 of the Companies Act 1956 that will be established by the AAI (with minority stake) and all private airport operators.
    i. Examples of such SPVs include GSTn/ NPCI/ Indian Highways Management Company Limited (IHMCL)
b. The JVC/ SPV shall obtain the AUA license from UIDAI
    i. All airports shall become part of the same AADHAAR ecosystem as the Digi Yatra Platform (Local AUA)
c. The Common Digi Yatra ID platform offers core passenger services viz. enrolment, authentication, consented profile sharing etc., and shall be built as a shared national infrastructure (henceforth referred as "Digi Yatra Platform") with APIs for airports and apps to integrate. The salient features of the process are as below.
    i. In the initial phase, this service will be used at the 5 main domestic passenger checkpoints across any terminal – airport terminal entry, check-in / bag-drop as and when an airport operator is ready for integration with their check-in system, security check and boarding gates with appropriate reconciliation system at aircraft door.
        i. The subsequent phase will include departure and arrival immigration (i.e. border controls).
    ii. This service shall be provided as an API integration on the Digi Yatra Platform.
    iii. As the primary and mandatory passenger check is at the Airport Entry Gate and Boarding, the Digi Yatra Platform will provide 1:1 authentication services based on facial recognition to all airports for these two checkpoints.
        i. This service shall be upgraded to 1:N in a phased manner based on the overall system performance of the Digi Yatra Biometric Boarding system as mutually agreed between Airports, Airlines and the Technical Working Committee, Digital Cell, MoCA.
    iv. The Digi Yatra platform shall be an ID only platform. It will provide an authentication service (either 1:1 or 1:N), that airports may implement as per their own solution architecture.
    v. For an enrolled passenger, at the time of entry, a copy of recently captured face will be shared with local airport for temporary usage. This facial data cannot be stored by airports for longer than the duration of transit of passenger and facial

data will be purged out of the system 1 hour after take-off/ departure of the flight.

vi. At the time of consent collection, Digi Yatra Platform will strictly take consent from the user for sharing of face data for the airport checkpoint clearance only and optionally another consent to opt for any value added services that the passenger may wish to avail from the Digi Yatra ecosystem partners.

vii. Airports may not create profile of users, or use this authentication for marketing without explicit user consent for marketing purpose.
    i. This consent shall be taken independently as a separate consent during registration of Digi Yatra customers.
    ii. In case the airport does take marketing consent from user, this consent must be logged with the Digi Yatra Platform.
    iii. A one click opt-out link must be made available to users directly, as well as through the Digi Yatra platform.

viii. The Digi Yatra Platform will also have the feature to provide authentication services for all check points using "Edge Cache" technology.

ix. Creation and use of the Digi Yatra ID by a passenger will be completely voluntary, and a one-time registration process using a Govt. ID is needed to enroll into the Digi Yatra Platform.
    i. Users will also have an option, at any time, to opt-out and delete their profile.

x. In order to simplify the user experience and encourage more passengers to use the Digi Yatra Platform, a two-step enrolment process is envisaged.
    i. The first step, involving pre-registration would happen online, and
    ii. The second step involving the activation and verification of the registration would happen at a kiosk, separate from the entry gate using a one-time Govt. ID validation at the Airport.

xi. The choice of Govt. ID used for enrolment is the choice of the passenger. Passengers can use any of the valid Government ID etc.

xii. Digi Yatra ID enrolment kiosk will be a separate kiosk at each airport. This is to prevent long queues and allow for ease of registration/ enrolment.
    i. In the future, enrolment and update kiosks can be extended beyond airports where greater numbers of passengers can register conveniently.

xiii. Passengers who have enrolled once do not have to go to the Registration kiosks for their subsequent travels

d. From an UIDAI perspective, the agency hosting the "Digi Yatra Platform" will become a "Local Authentication User Agency (AUA)". This allows for AADHAAR authentication

and eKYC without having access to AADHAAR number (purely using the AADHAAR UID token).

i. It is important to note that no core biometric like iris/ finger prints (or any other biometrics other than face) will be collected or stored anywhere in the system.
ii. No AADHAAR details would be stored other than the UID/AADHAAR token. For subsequent use, only facial biometrics (non-core biometrics) would be used.

STEP 0 (A): DIGI YATRA ID: ONE TIME CREATION FROM AIRSEWA, AIRLINE/ OTA TICKET BOOKING SITE/ APP/ AIRPORT APP

a. Passenger is directed to the Digi Yatra Secure Website and registers his/her profile in the Digi Yatra program by providing the following information:
   i. Name
   ii. Phone number
   iii. Email address
b. If passengerhas opted for AADHAAR, he/ she enters the AADHAAR information in DY ID website as per UIDAI Guidelines.
c. AADHAAR sends an OTP to the registered mobile number of the AADHAAR holder
d. Passenger enters the OTP received on the AADHAAR Linked Mobile.
e. UIDAI sends a UID Token (72 Character)**(Not visible to the** Passenger**)** to Digi Yatra Platform, which will be stored in Passenger profile as the Pseudo identifier of AADHAAR ID. This UID token will not be visible to the Passenger.

OR

f. Passenger enters his Govt. Approved ID number Viz. PAN Card, Driving License, Voter ID, Passport, Student ID etc.
   i. Enters the OTP received on the Mobile entered on the Digi Yatra Platform.
g. The Digi Yatra ID is automatically created &Passenger is allowed to edit the ID if he chooses.
h. DY ID is sent to Passenger on SMS, Email for the Passenger records/ Reference
i. Once pre-registration is completed, Passenger can enter DY ID number for booking his/ her Ticket
j. The pre-registered Digi Yatra ID needs to be activated with a once in lifetime registration at the Registration Kiosk at the Airport, In case AADHAAR had been used to create the Digi Yatra ID then, the activation happens with the use of the AADHAAR UID (72 character) Token and Iris captured at the registration kiosk.

OR

i. In case the Digi Yatra ID was created with a manual ID card, the validation process is completed by a manual ID check by the CISF security staff at the registration kiosk

k. A "Check Box" Consent from the Passenger is optionally provided to subscribe/ avail any offers or value added services at the Airport or during the Journey to/ From the Airport
   i. In Case the Passenger "Opts in" for such a service, the Digi Yatra Platform shall share the Mobile number with the Airport BBS / other ecosystem partners like Registered Taxi/ Cab Operators, Hotels, Lounges etc.
   ii. Passenger can decide at any point of time to "Opt Out" of this subscription.

STEP 0 (B): DIGI YATRA ID CREATION ON UNMANNED- REGISTRATION KIOSKS AT AIRPORT

a. At the Registration Kiosk, the Passenger is on the Secure Digi Yatra Platform.
b. Passenger Enters
   i. Name
   ii. Email
   iii. Mobile #
   iv. If the Passengerchooses to use his/ her AADHAAR ID then he/ she completes the AADHAAR information as per UIDAI Guidelines.
      a) The Kiosk Camera Captures the Passenger Face and Iris in one Single Capture
      b) AADHAAR validation with the Iris Biometric takes place on the AADHAAR System.
      c) Once this is successful, UIDAI sends a UID Token (72 Character) **(Not visible to the** Passenger**)**to Digi Yatra Platform, which will be stored in Passenger profile
      d) The Digi Yatra ID is created and Passenger can edit and change the ID if he/ She chooses to
      e) The Digi Yatra ID is sent to the Passenger on SMS &/ Or Email confirming the Digi Yatra ID number
      f) The Face Biometric of the Passenger is updated to the Passenger Profile on the Digi Yatra Platform
      g) This Digi Yatra ID is fully "Activated" for use by the Passenger in all future travel booking and travel through any airport in India.

OR

v. Passenger enters his Govt. Approved ID number Viz. PAN Card, Driving License, Voter ID etc.

a) The Kiosk Camera Captures the Passenger Face
b) Enters the OTP received on the Mobile entered on the Digi Yatra Platform
c) The Digi Yatra ID is created and Passenger can edit and change the ID if he/ She chooses to
d) The Face Biometric against the DY ID is updated to the Digi Yatra Platform
e) Passenger receives an SMS & Email confirming the Digi Yatra ID number
f) This Digi Yatra ID is still not activated and will be activated once Passengershows his Govt. approved ID in person, for a Manual ID validation by the CISF at the Airport Kiosk.

c. A "Check Box" Consent from the Passenger is optionally provided to subscribe/ avail any offers or value added services at the Airport or during the Journey to/ From the Airport
   i. In Case the Passenger "Opts in" for such a service, the Digi Yatra Platform shall share the Mobile number with the Airport BBS / other ecosystem partners like Registered Taxi/ Cab Operators, Hotels, Lounges etc.
   ii. Passenger can decide at any point of time to "Opt Out" of this subscription.

STEP 0 (C) TICKET BOOKING

a. Once the Passenger gets the Digi Yatra ID, he/ she can enter the same in the SSR FOID while booking his ticket.

DIGI YATRA DATA SHARING WITH AIRPORT DY- BIOMETRIC BOARDING SYSTEMS

a. The Digi Yatra Platform provides only the Identity Verification of the Passenger at the Airport entry gate
b. The Local Airport DYBBS uses the Face Biometrics to identify the passenger for all the processes inside the Airport Check-in, Bag Drop, Security Check (PESC) and Boarding Gate

c. The Face biometrics data is purged out from the system once the Passenger's flight takes off
d. This ensures**"Privacy by Design" and "Privacy In-built by default"**

PASSENGERS WITHOUT DIGI YATRA ID

REGISTRATION KIOSKS

a. In case of Passengers without Digi Yatra ID, the passenger has to stillgo to the Registration Kiosk and authenticationof the Passengershall be done manually,by physical verification of the Passenger's Identity Document by the CISF officer.
b. Passenger scans his/ her Boarding Pass which is validated with the Airline DCS
c. A message will pop up on the Kiosk, informing the PAX to join the Digi Yatra by providing their mobile number.
d. Once this validation is successful, the Passenger's face biometrics are captured with a consent from him/ her to create the Single Biometric Face Token.
e. Since Identity Check needs to be done, a message pops up to the CISF Security Staff to check the passenger's Identity document.
f. CISF checks the Passenger's ID manually and if satisfied, accepts the Passenger
g. Passenger gets a Digi Yatra ID for one year on successful verification by CISF.
h. The Passenger Dataset is created for identification at the other steps inside the Airport.
i. Passenger now moves to the Airport Entry Gates

AIRPORT ENTRY GATE: E-GATES

a. Passenger arrives at the E-Gate
b. Scans his/ her Boarding Pass/ ETKT
c. The E-Gate validates the passenger with the Passenger Dataset, Single biometric face token and Opens
d. Passenger can walk through into the Airport
e. Passenger shall be authenticated using this Single Biometric Face Token for the rest of the Journey at the Airport.

RETRIEVAL OF DIGI YATRA ID

a. In Case Passengers forget their Digi Yatra ID,

i. They can call a specific number to retrieve their forgotten Digi Yatra IDs which will be sent by SMS
ii. They can visit the Digi Yatra Website to retrieve their forgotten Digi Yatra IDs on their registered email or registered Mobile by SMS

MULTIPLE DY IDS CREATION BY THE SAME PASSENGER

a. Passengers may try and create multiple Digi Yatra IDs (against the approved Govt. IDs) for themselves
b. In such Cases if a Passenger has created Multiple Digi Yatra IDs, then the Digi Yatra System will continually check against existing Records for De duplication, using the Face Biometric Data.
c. For any duplicate Digi Yatra IDs created by Passenger, He/ She will be notified on Email/ SMS and asked to delete one of the DY IDs
d. Such records of Passenger shall be kept under observation and suitable alerts to the CISF staff at the Airport shall be sent through the Airport DY BBS system.

GOVT. IDENTITY DOCUMENTS ACCEPTED FOR DY ID REGISTRATION (OTHER THAN AADHAAR)

a. For the Purpose of registering for the DY- ID, the Passenger can use Govt. of India issued Photo Identity Cards as follows
    i. PAN Card
    ii. Driving License Card
    iii. Passport
    iv. Voter ID card
    v. Student ID

DIGI YATRA FOR PASSENGERS WITH SPECIAL NEEDS& SENIOR CITIZENS

GENERAL POLICY COMPLIANCE

a. For the Purpose of catering to the needs of PRM passengers and Passengers with special needs, there will be an exception handling gate, where Passengers will be processed at all the processes at the airport from Airport Entry to the Boarding gate

b. In addition to Government of India guidelines compliance; the DY-BBS mustincorporate digital accessibility features as well as comply to all parameters of international accessible standard WCAG2.0 Level AA compliance
c. DY-BBS shall ensurethat digital inclusion is incorporated in using digital guidance systems, interactive kiosks and augmented reality apps enabling citizen with disability and senior citizens to navigate through the airport with ease through the assistance of assistive technology on their devices.
d. DY-BBS ecosystem partnersshall ensure that digital accessibility is incorporated in the web portal, mobile apps, kiosks etc. enabling person with disability and senior citizens to access services with ease through assistive technology.
e. Kiosks should be designed such that it has the capability to integrate text to speech output enabling blind passenger to seamlessly access it with ease. (Similar to a talking ATM enabling a visually impaired customer to access the ATM independently with ease.)
f. Kiosks should enable passenger with disability and senior citizens to register themselves with ease.
g. Regional Language Kiosks should be designed in Unicode enabling passenger with disability to access these content in regional language through their assistive technology with ease.
h. System should send an alert to airlines/ wheelchair assisting agency at the kiosks once passenger with disability checked in and places a request for assistance required for escort/ wheel chair assistance. (Note: System should be capable of taking this request at the time of booking, registration, etc.)
i. Dedicated lane for person with disability and senior citizen for E-Boarding gate should be assigned. System should allow more time to cross the E-Gate in addition to 4 seconds in case of passenger with disability.
j. Process such as ticket booking, web check in, Seat selections, self-check-in through kiosks, registration at kerb side Kiosks, Digi Yatra loyalty program enrolment process, Ticket cancelation, ticket rescheduling, airport exiting process, transfer process, access to transfer kiosk should be digitally accessible enabling passengers with disability and senior citizen to access these with ease.
k. Voice guidance for capturing biometric in the system shall be provided by Kiosks (i.e. Audio beep confirming authenticated Audio voice guidance prompting user for, face in the center, face on the left, etc.)
l. Kiosks shall be placed in a manner enabling wheel chair passengers to access these with ease.
m. All information and baggage tag, passenger boarding details shall be available in digitally accessible mobile app.

n. Internal Airport map navigation should be available within mobile app and passenger with disability can be guided to boarding gate through voice guidance (i.e. google maps)
o. Digitally accessible training video should be provided online for passengers with disability highlighting guidance, registration process, check in process, request for special assistance, etc.
p. Passengers with disability who cannot be successfully verified through BBS should be alerted for exception verification by CISF by Kiosk.
q. Self-Bag Drop/Hybrid Bag Drop system should be digitally accessible enabling passenger with disability to access these with ease. In case passengers with disability are not able to access these with ease then they would comply with manual process through the assistance of AAI/ airline personnel assistance.
r. Reference on public resources: Reference Checklist as per Annexure-5

DOMESTIC DEPARTURES: STANDARD OPERATING PROCESS

STEP-1: TICKET BOOKING

a. Ticket Booking: On the Airline Reservation System, Portal or AirSewa App & On other Agencies Viz. Online Travel Agents (OTA)/ Global Distribution Systems (GDS)
   i. While booking ticket, Passenger enters their Digi Yatra ID
   ii. Detail process flow for creation of DY-ID is shown in the abovesection on Digi Yatra Ecosystem, Step 0 (A) and Step 0 (B)
   iii. For International Travel, While Booking a Ticket, Foreign/ Indian Citizens can enter their Passport number

b. Airlines and Online Ticketing Agencies shall issue a Ticket with a 2D/ QR code as per IATA Resolution 792 which has the following minimum Data:
   i. PNR number
   ii. Passenger Name (Last name & First name)
   iii. Flight number
   iv. From and To Destinations
   v. Date of Flight
   vi. Time of Departure
   vii. Digi Yatra IDnumber in the SSR: FOID Field (Not to be displayed or coded on the Ticket / Boarding Pass QR Code)

   OR

   viii. For International Travel Foreign/ Indian Citizens can enter their Passport number in the SSR: DOCS
   ix. Ticket Format as per IATA 792 **Annexure-1**
   x. Boarding Pass Format as per IATA 792 **Annexure-2**

c. One Passenger, One ticket, One Code
   i. Each Passenger shall have an individual Ticket/ Ticket page with 2D Barcode.
   ii. This is applicable to single traveler as well as group travelers.
   iii. Ticket / Boarding Pass shall be as per IATA Resolution 792 as per **Annexure-3**

STEP-2 HOME CHECK-IN/ WEB CHECK-IN

a. On the Airline App/ Website, the Passenger completes the seat Selection & checks-in to the Flight
b. Passenger gets his/ her Boarding Pass printed at home or gets an E-Mobile Boarding Pass
    i. Passengers shall have the option of Check-in using Web Check-in/ Mobile Check-in, before reaching the Airport to facilitate the process of identification of Passenger and easy validation of the bona-fides of the Passenger's Ticket.
    ii. Bar Coded Boarding pass shall be as per IATA Resolution 792
c. Passengers may also come to the Airport with just their ETKT with 2D/ QR code (ETKT with 2D/ QR code as per IATA Resolution 792)
d. The Digi Yatra IDentered by the Passenger at the time of booking will not be coded on to the Ticket / Boarding Pass Barcode to prevent any leakage of Digi Yatra ID data of the Passenger.
e. The Digi Yatra ID entered by the Passenger at the time of Booking shall be securely transmitted by the Airline DCS to the BBS at the Airport.
f. The PNR number on the Boarding Pass / Ticket shall be used as the key to extract the Passenger's Digi Yatra IDnumber from the Airport's BBS local database at the time of validation at the Airport Entry.
g. E-Ticket / Boarding Pass shall be as per IATA Resolution 792 as per Annexure-1, 2 & 2A

STEP-3A AIRPORT REGISTRATION KIOSK (Passenger WITH DIGI YATRA ID WITH AADHAAR UID TOKEN)

SINGLE PASSENGER WITH QR CODED TICKET OR BOARDING PASS (BCBP)

a. Passenger comes to the Airport with E-Ticket with 2D/ QR code he reaches the Registration Kiosk at the Airport

OR

b. Passenger comes to the Airport checked-in with his Paper Boarding Pass and/or E-Mobile Boarding Pass with 2D/ QR code
c. Passenger Scans E-Ticket / Boarding Pass with 2D/QR code
d. DY-BBS Kiosk captures in one single Capture the Passenger Biometrics (Iris (For AADHAAR Validation) & Face (For All Internal Processes))
e. Passenger consent is taken to use his face biometric for further check points for a seamless and Hassle-free journey.

i. **Sample Consent Note-1: (IF using AADHAAR UID Token based validation)**

I, (*Name of the Passenger)*, hereby willfully consent to (*Name of Airport)*, to use my Digi Yatra ID for Identity Validation and also one time validation on the AADHAAR System using UID/ AADHAAR Token with my Biometrics

ii. **Sample Consent Note-2: (For both AADHAAR UID Token based validation and Other Govt. Approved ID with or without Digi Yatra ID)**

I, (*Name of the Passenger)*, hereby willfully consent to (*Name of Airport)*, to use my Ticket/ Boarding Pass Data & Face Biometric Digital template data, exclusively for the purpose of authentication at all the Airport check points till the Boarding. My Face Biometric template data shall be deleted from the local BBS by (*Name of Airport)*, after 1 hour of takeoff of my flight, However the Digi Yatra Platform shall store my Face Biometric Data till the time I choose, to opt out of the Digi Yatra program.

f. Digi Yatra Biometric Boarding System (BBS) does four important verifications
   i. E-Ticket/ Boarding Pass validation with the Airline DCS
   ii. Establish Identity of Passenger with real-time Biometric Validation with the Digi Yatra Platform
      i. Digi Yatra Platform does a One-time Validation of the Passenger with AADHAAR, UID Token & Iris Biometrics validation
      ii. Once Validated with AADHAAR, all subsequent ID validation happens with Digi Yatra Platform (Face Biometrics & DY ID)
   iii. Passenger Name matching on E- Ticket/ Boarding Pass with Name received as KYC data from Authenticated AADHAAR Database (Airline only allows Passenger to enter Digi Yatra ID while Booking the ticket).
      i. First Name Last Name flip matching is permitted
      ii. One full name matching (First or Last) and Initials matching is acceptable
      iii. One Full name matching and other partial matching is also acceptable
   iv. Validates Time limits to permit Passenger entry into the Airport
g. Once the AADHAAR Validation (using Passenger Iris & AADHAAR UID Token only) and Ticket / Boarding Pass validation is successful, the Passenger's Biometrics (Face) is activated in the Airport DY-BBS for creation of the "Passenger Dataset" for identification at other checkpoints in the Airport.

i. The Face Biometrics stored are in the form of a Digital template and not the Actual Face Biometric captured by the Biometric reader. This is done to ensure that there is no potential misuse of the stored Biometric data.

h. The Face Biometric Digital Template is updated to the Digi Yatra Database as well, for future validation of the Passenger

i. For all Subsequent travel, the Passenger Data of Digi Yatra ID and Face Biometric shall be used and there will be no call made to the AADHAAR Ecosystem for a period of 5 years (or as necessary) after which a Biometric revalidation may be sought with AADHAAR token.

j. "Passenger Dataset" with the (Face Biometric + PNR) is created with a unique identifier as the single token

i. In case of unsuccessful validation, Passenger's ID is manually checked by the Security Staff and only after CISF Security Accepting the Passenger in the system, the "Passenger Dataset" is created.

AIRPORT REGISTRATION KIOSK- CISF ROLE

a. The CISF staff will be enrolled into the System with their Face Biometrics and every login will be using the Face Biometric.

b. The "Passenger Dataset" (Face Biometric + PNR) is used to authenticate the Passenger

c. Display for Security will show Passenger details in a Green Envelope

d. CISF Security Staff does only Exception handling & Passenger Profiling.

e. CISF Security Staff Intervenes only on the Red & Amber alerts

f. CISF Security Staff at the Airport Registration Kiosk gets a display of Passenger's identity & travel document (Ticket/Boarding pass) verification status whether successful or not.

i. In case of validation being unsuccessful, the Passenger is subject to a manual ID check before being permitted/ accepted by the CISF Security Staff

g. The "Passenger Dataset" (Face Biometric + PNR) is created once CISF Security Staff accepts the Passenger

AIRPORT "LIVE PASSENGER DATASET"

a. DYBBS shall store the Passengers following Data and store it as a "Live Passenger Dataset"

i. Passenger Name Record (PNR) with the following mandatory fields

i. Passenger Name

ii. Flight number

iii. Date & Time of Flight

iv. From & to Destination

v. Sequence Number

vi. Seat Number

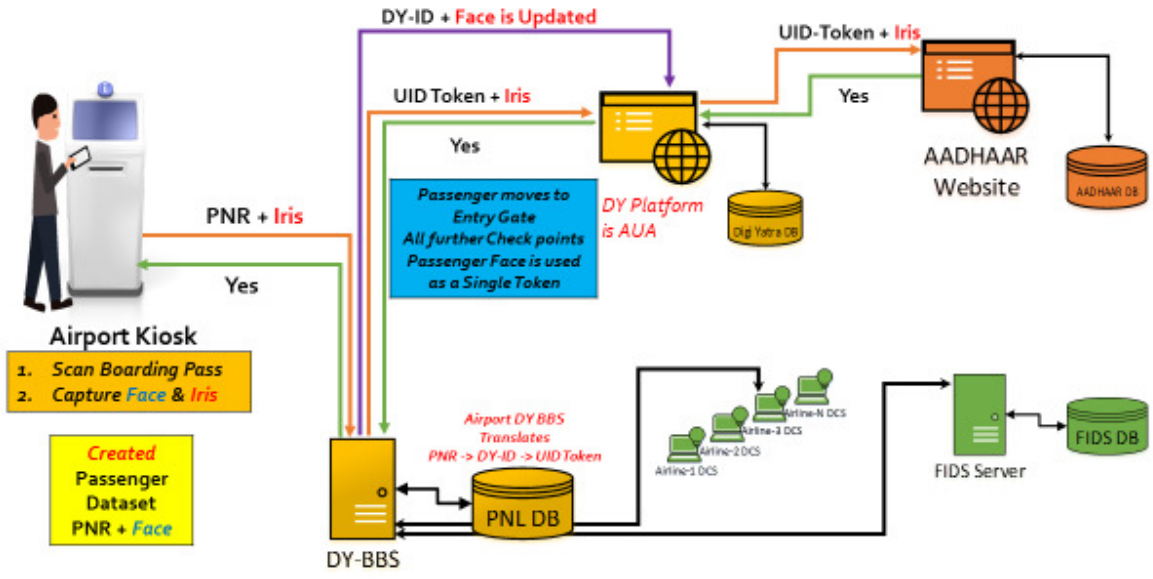
ii. Passenger's Face Biometrics in the form of a Digital Template

iii. A unique identifier for each Passenger

b. The "Passenger Dataset" shall be used for all further Identification of the Passenger using "Biometrics or 2D/QR Code on BCBP as a Single Token" at all other Checkpoints until Boarding

OPERATING PROCESS AT AIRPORT: FIRST TIME REGISTRATION

PASSENGERWITH DIGI YATRA ID WITH AADHAAR UID TOKEN(CONCEPTUAL)



STEP-3B AIRPORT REGISTRATION KIOSK (Passenger WITH DIGI YATRA ID WITH OTHER GOVT. APPROVED PHOTO ID)

SINGLE PASSENGER WITH QR CODED TICKET OR BOARDING PASS (BCBP)

a. Passenger comes to the Airport with E-Ticket with 2D/ QR code he reaches the Airport Registration Kiosk

OR

b. Passenger comes to the Airport checked-in with his Paper Boarding Pass and/or E-Mobile Boarding Pass with 2D/ QR code
c. Passenger Scans E-Ticket / Boarding Pass with 2D/QR code
d. Once the Ticket/ Boarding Pass validation is successful, the BBS system sends a message to the CISF Officer to physically check the Passenger's Identity Document.
e. CISF Staff checks Passenger physical ID document and upon satisfaction, Accepts Passenger for the Journey and also activates his/ her Digi Yatra ID
    i. A scan of the ID shown is updated to the Digi Yatra Portal (Optional)
f. The E-Gate also captures the Face Biometric of the Passengerwith his/ her Consent(For All Internal Processes)
g. Passenger consent is taken to use his Face biometric for further check points for a seamless and Hassle-free journey.

    i. Sample Consent Note-2: (For both AADHAAR Token based validation and Other Govt. Approved ID with or without Digi Yatra ID)

    I, (*Name of the Passenger)*, hereby willfully consent to (*Name of Airport)*, to use my Ticket/ Boarding Pass Data & Face Biometric Digital template data, exclusively for the purpose of authentication at all the Airport check points till the Boarding. My Face Biometric template data shall be deleted from the local BBS by (*Name of Airport)*, after Takeoff of my flight.

h. Biometric Boarding Processing System (BBS) does three important verifications
    i. E-Ticket/ Boarding Pass validation with the Airline DCS
    ii. Establish Identity of Passengerthrough manual intervention/ verificationby the CISF officer
    iii. Validates Time limits to permit Passenger entry into the Airport
i. Once the Ticket / Boarding Pass validation is successful and the CISF presses the Accept button, the Passenger's Biometrics (Face) is activated for creation of the "Passenger Dataset" for identification at other checkpoints in the Airport.

i. The Biometrics stored are in the form of a Digital template and not the Actual Biometric captured by the Biometric reader. This is done to ensure that there is no potential misuse of the stored Biometric data.

j. The Face Biometric Digital Template is updated to the Digi Yatra Database As well for future validation of the Passenger

k. For all Subsequent travel, the Passenger Data of Digi Yatra ID and Face Biometric shall be used and there will be no revalidation of ID card by the CISF for one Year.
   i. After the duration of one year, the ID will be checked again manually by CISF
   ii. However during "Red Alert" periods at the Airport, the manual ID check by CISF will be mandatory.

l. "Passenger Dataset" with the (Face Biometric + PNR) is created with a unique identifier as the single token

m. In case of unsuccessful validation, Passenger's ID is manually checked by the Security Staff and only after CISF Security Accepting the Passenger in the system, the "Passenger Dataset" is created, In this case there is no Digi Yatra ID created, however the Passenger can travel with his Face Single Biometric Token.

AIRPORT REGISTRATION KIOSK- CISF ROLE

a. The CISF staff will be enrolled into the System with their Face Biometrics and every login will be using the Face Biometric.

b. CISF Security Staff Intervention needed for the Red & Amber alerts

c. CISF Security Staff at the Airport Entry Gate gets a display of Passenger's travel document (Ticket/Boarding pass) verification status whether successful or not.
   i. The Passenger is subject to a manual ID check before being permitted/ accepted by the CISF Security Staff
   ii. Passenger's ID Card Scanned copy may be collected at the Entry E-Gate for updating the Digi Yatra Records (Optional)

d. The "Passenger Dataset" (Face Biometric + PNR) is created once CISF Security Staff accepts the Passenger

AIRPORT "LIVE PASSENGER DATASET"

a. DYBBS shall store the Passengers following Data and store it as a "Live Passenger Dataset"
   i. Passenger Name Record (PNR) with the following mandatory fields
      i. Passenger Name

ii. Flight number

iii. Date & Time of Flight

iv. From & to Destination

v. Sequence Number

vi. Seat Number

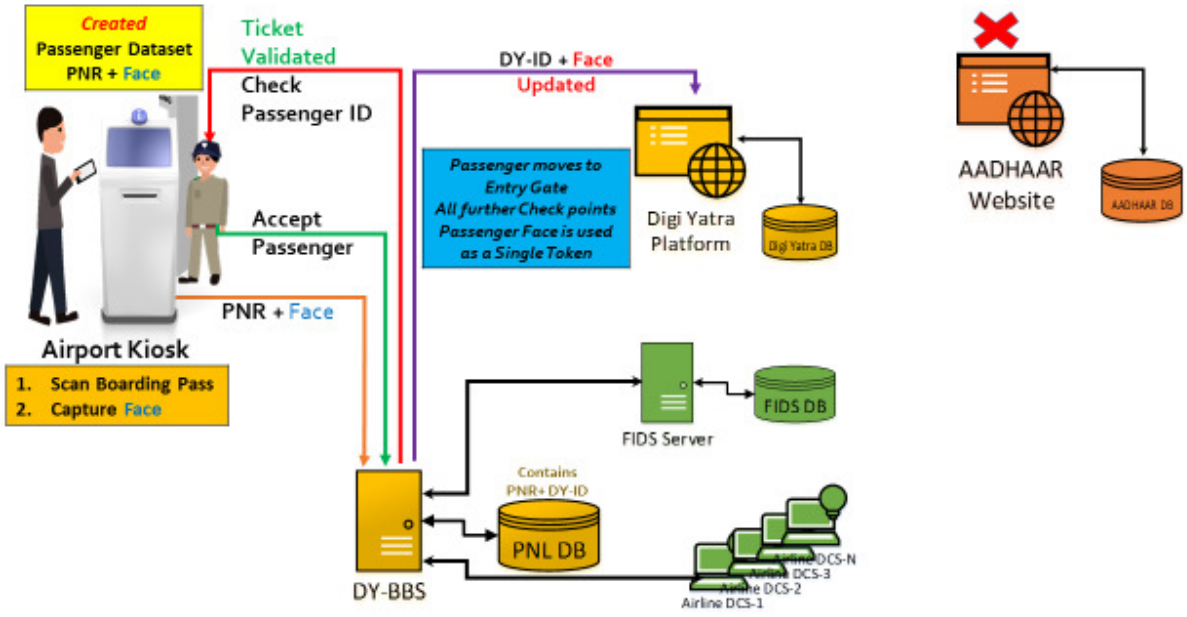
ii. Passenger's Face Biometrics in the form of a Digital Template

iii. A unique identifier for each Passenger

b. The "Passenger Dataset" shall be used for all further Identification of the Passenger using "Biometrics or 2D/QR Code on BCBP as a Single Token" at all other Checkpoints until Boarding.

OPERATING PROCESS AT AIRPORT ENTRY GATE-FIRST TIME ENTRY

PASSENGER WITH DIGI YATRA ID & GOVT. APPROVED ID(CONCEPTUAL)



STEP-3C AIRPORT REGISTRATION KIOSK (Passenger WITHOUT DIGI YATRA ID)

SINGLE PASSENGER WITH QR CODED TICKET OR BOARDING PASS (BCBP)

a. Passenger comes to the Airport with E-Ticket with 2D/ QR code he reaches the Registration Kiosk

OR

b. Passenger comes to the Airport checked-in with his Paper Boarding Pass and/or E-Mobile Boarding Pass with 2D/ QR code
c. Passenger Scans E-Ticket / Boarding Pass with 2D/QR code
d. Once the Ticket/ Boarding Pass validation is successful, system gives an option to the passenger to enroll into the Digi Yatra Program, if accepted, the passenger needs to input his/ her mobile number.
e. Passenger gets an OTP from Digi Yatra. On successful entry of OTP, the DYBBS system sends a message to the CISF Officer to physically check the Passenger's Identity Document.If Passenger fails to input the OTP in reasonable time, he/ she will be prompted to go to Security personnel for manual verification.
f. CISF Staff checks Passenger physical ID document and upon satisfaction, accepts passenger for the Journey and also enables the Digi Yatra ID verification in the process.
g. The Kiosk captures the Face Biometric of the Passenger with his/ her Consent (For All Internal Processes)
h. Passenger consent is taken to use his/ her Face biometric for further check points for a seamless and Hassle-free journey.

   i. **Sample Consent Note-2: (For both AADHAAR Token based validation and Other Govt. Approved ID with or without Digi Yatra ID)**

   I, (*Name of the Passenger)*, hereby willfully consent to (*Name of Airport)*, to use my Ticket/ Boarding Pass Data & Face Biometric Digital template data, exclusively for the purpose of authentication at all the Airport check points till the Boarding. My Face Biometric template data shall be deleted from the local BBS by (*Name of Airport)*, after Takeoff of my flight.

i. Biometric Boarding Processing System (BBS) does three important verifications
   i. E-Ticket/ Boarding Pass validation with the Airline DCS
   ii. Establish Identity of Passenger through manual intervention of the CISF officer
   iii. Validates Time limits to permit Passenger entry into the Airport

j. Once the Ticket / Boarding Pass validation is successful and the CISF presses the Accept button, the Passenger's Biometrics (Face) is activated for creation of the "Passenger Dataset" for identification at other checkpoints in the Airport.
    i. The Face Biometrics stored are in the form of a Digital template and not the Actual Face Biometric captured by the Biometric reader. This is done to ensure that there is no potential misuse of the stored Biometric data.
k. "Passenger Dataset" with the (Face Biometric + PNR) is created with a unique identifier as the single token
l. In case of unsuccessful validation, Passenger's ID is manually checked by the Security Staff and only after CISF Security Accepting the Passenger in the system, the "Passenger Dataset" is created, In this case there is no Digi Yatra ID created, however the Passenger can travel with his Face Single Biometric Token.

NB: In case a passenger does not wish to share his/ her face biometrics, he/ she will be asked to go through the exception handling/ manual processing check points at every check point including ID check, wherever necessary.

AIRPORT REGISTRATION KIOSK - CISF ROLE

a. The CISF staff will be enrolled into the System with their Face Biometrics and every login will be using the Face Biometric.
b. CISF Security Staff Intervention needed for the Red & Amber alerts
c. CISF Security Staff at the Airport Registration Kiosk gets a display of Passenger's travel document (Ticket/Boarding pass) verification status whether successful or not.
    i. The Passenger is subject to a manual ID check before being permitted/ accepted by the CISF Security Staff
    ii. Passenger's ID Card Scanned copy may be collected at the Entry E-Gate for updating the Digi Yatra Records (optional)
d. The "Passenger Dataset" (Face Biometric + PNR) is created once CISF Security Staff accepts the Passenger

AIRPORT "LIVE PASSENGER DATASET"

a. BBS shall store the Passengers following Data and store it as a "Live Passenger Dataset"
    i. Passenger Name Record (PNR) with the following mandatory fields
        i. Passenger Name

ii. Flight number

iii. Date & Time of Flight

iv. From & to Destination

v. Sequence Number

vi. Seat Number

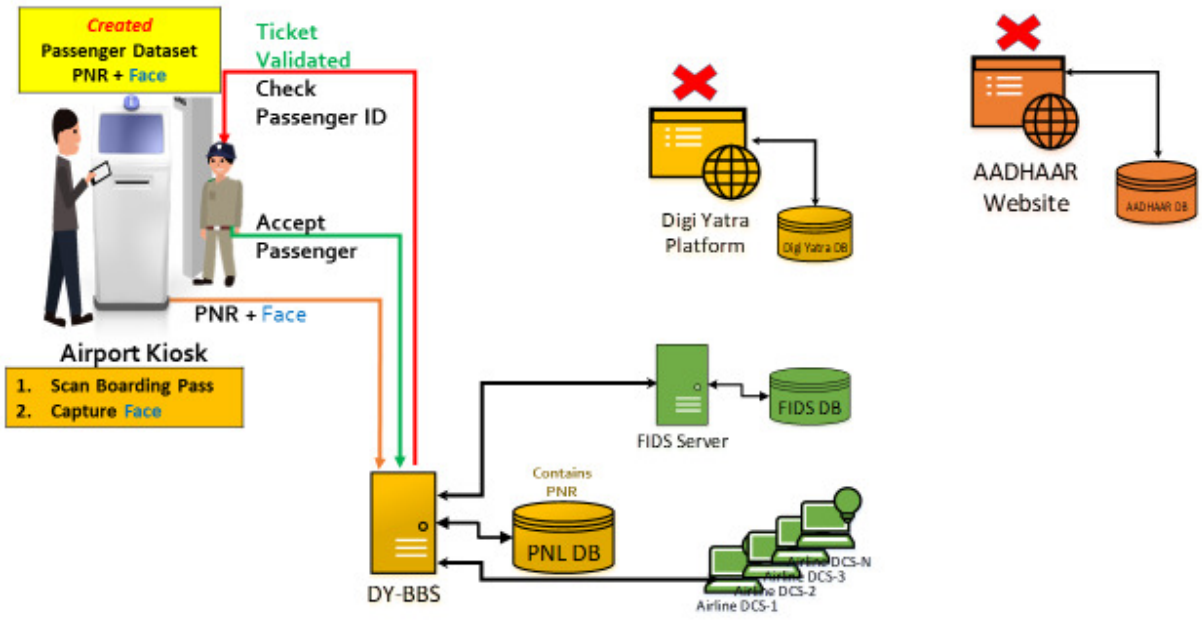
ii. Passenger's Face Biometrics in the form of a Digital Template

iii. A unique identifier for each Passenger

b. The "Passenger Dataset" shall be used for all further Identification of the Passenger using "Biometrics or 2D/QR Code on BCBP as a Single Token" at all other Checkpoints until Boarding.

OPERATING PROCESS AT AIRPORT ENTRY GATE-FIRST TIME & REPEAT

PASSENGER WITHOUT DIGI YATRA ID(CONCEPTUAL)

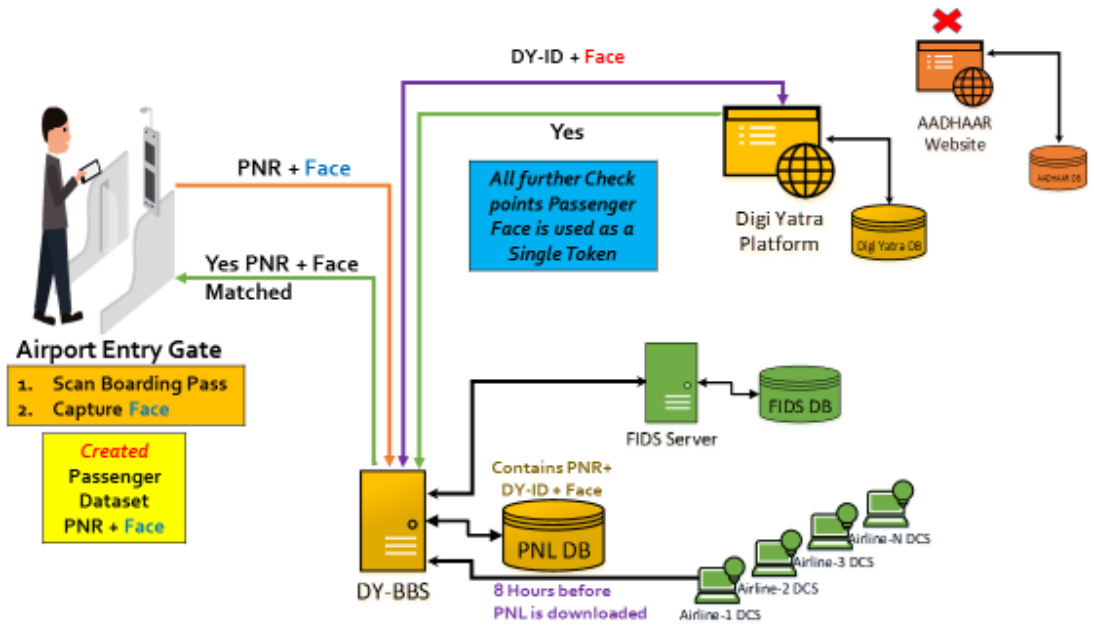


STEP-4 AIRPORT ENTRY GATE: E-GATES

a. Passenger having completed registration, moves to the Airport Entry E-Gate
b. Passenger Scans E-Ticket / Boarding Pass with 2D/QR code
c. DY-BBS E-Gate captures the Passenger Biometrics Face
d. The "Passenger Dataset" (Face Biometric + PNR) is used to authenticate the Passenger
e. Passenger is identified by the "Passenger Dataset" (Face Biometric + PNR) and E-Gate opens
f. The CISF security officers will perform the function of oversight and profiling and ensure that there is no misuse of the E-Gate
g. The "Passenger Dataset" shall be used for all further Identification of the Passenger using "Biometrics or 2D/QR Code on BCBP as a Single Token" at all other Checkpoints until Boarding

OPERATING PROCESS AT AIRPORT ENTRY GATE POST DIGI YATRA ID REGISTRATION COMPLETE

PASSENGER WITH "ACTIVATED" DIGI YATRA ID FOR ALL (CONCEPTUAL)



STEP-5 FLIGHT RESCHEDULING/ REBOOKING OF TICKET

a. If Any Passenger enters the Airport on a valid ticket & subsequently finds that
    i. The Flight is cancelled or
    ii. If He/ She intends to change the flight
    iii. He/ She can go to the Airline Ticketing Counter and reschedule his/ her ticket to another flight
b. A Standard Operating Process is followed where the Rescheduling and update to the Passenger Data Set happens at a Registration Kiosk in the Check-in Hall
c. Changes in Flight/ Airline is updated on the BBS
d. If Passenger Cancels his ticket & travel plans then,
    i. The Travel cancellation is recorded
    ii. Passenger is authenticated using his biometrics & taken by the Airline Staff to the CISF Supervisor for updating records
    iii. He/she will be escorted by the concerned airline staff to the CISF and after making log entry by the CISF at the SHA and subsequently at the departure entry point
    iv. The said Passenger would be allowed to exit the terminal building
    v. Passengerthe Exits the Airport Building

STEP-6A AIRPORT CHECK-IN (2 STEP PROCESS WITH SELF BAG DROP/ HYBRID BAG DROP)

STEP-1 OF THE 2-STEP PROCESS

a. If Passenger registers and enters the Airport with only E-Ticket,
    i. Passenger moves to the CUSS Kiosk
    ii. Passenger is identified by his Biometric on the Biometric Reading device (Face) or 2D/QR Code on Boarding Pass.
b. **"Live Passenger Dataset"** is used to authenticate Passenger

c. The BBS system is able to identify the Passenger Flight from the Live PassengerDataset, validated with the PNL and automatically opens the Check-in app/ function of the relevant Airline in the Kiosk.
d. Once this validation is completed, the Passenger has to make a choice of the seat/ Frequent Flyer number etc.
e. Passenger Does his seat selections and Checks-in
OR
f. **If Passenger has already Checked in and has a Mobile Boarding Pass or Home Printed Boarding Pass**
    i. Passenger moves to the CUSS Kiosk
    ii. Passenger is identified by his Biometric on the Biometric Reading device (Face) or 2D/QR Code on Boarding Pass.
g. Passenger Selects the number of Bag Tags to be printed
h. Prints & collects the Baggage Tags.
i. The System updates the Status of Check-in on the **"Live Passenger Dataset"** for use at further Check Points
j. Passenger then Tags his Bag and moves towards the Self Baggage Drop Area

STEP-6B BAGGAGE DROP (2 STEP PROCESS WITH SELF BAG DROP/ HYBRID BAG DROP)

STEP-2 OF THE 2-STEP PROCESS

a. Passenger walks towards the Baggage Drop unit/ Counter, he/ she is identified by his/ her Biometric on the Biometric Reading device (Face) or 2D/QR Code on Boarding Pass
b. **"Passenger Dataset"** is used to authenticate the Passenger& Flight details shown on the display
c. Passenger is prompted to deposit the bags in the Self Bag Drop Machine.
    i. This process could also be used with a manually assisted Bag drop service.
d. Passenger is issued with a Baggage Claim Slip as an acknowledgement of the received Bag.
e. Bag tags are linked to the unique identifier of the traveler

STEP-7 TRANSFER Passenger PROCESS

a. Transfer Passenger shall have to register to the Authentication System by
    i. Scanning the Boarding Pass at the Designated Kiosk (which also contains capability to enterDigi Yatra ID)
    ii. Entering the Digi Yatra IDif not already entered or showing any other Govt. ID proof to the CISF Security Staff and/ or use Passport document for Domestic to International Transfer Passengers
    iii. Registering the Passenger'sFace biometrics and storing them in the form of a Digital Template to avoid any misuse
    iv. "Live Passenger Dataset" is updated to his/her specific flight

STEP-8 PESC ENTRY

a. Entry to the PESC Zone is Restricted to Registered and Authenticated Passengers only.
b. Passengeris identified by his/ her FaceBiometrics or 2D/QR Code on Boarding Pass at the E-Gate Biometric/ 2D/ QR reader, using the "Live Passenger Dataset"
c. The E-Gate Opens
d. Passenger then enters the PESC Zone

STEP-9 PESC FRISKING

a. Entry to the PESC is regulated & controlled using Biometric Validation with the "Live Passenger Dataset"
b. There is no further need to validate the Passengeror Stamp the Boarding Pass by the CISF Staff as is the current practice.
c. Passenger divests his Personal Belongings into the X-Ray Machine / CT Scan Machine (Smart Lane Enhanced Hand Baggage Screening System with Automated Tray Return)
d. Passenger then moves through the DFMD/ Body Scanner (If Installed)
    i. In case of DFMD CISF Officer Carries out the Frisking of the Passenger and clears him/her after verifying/ satisfying himself, clears the Passenger.
    ii. If he/ She is clear of any Threat Items, then he/ She moves to the X-Ray output lanes to collect his belongings from the Tray
e. If any additional checks are needed the Passenger is subjected to the same as per the SOP of the CISF
f. Cameras in the PESC Area shall be used to monitor the proceedings in the Frisking Area & can be used for any Forensic Analysis

OPTIONAL ADDITIONS TO THE PESC PROCESS

Based on specific requirements of any airport, additional non-intrusive data capturing elements such as camera, sensors etc. may be added to the system to capture Passenger Queue waiting times, Queue Lengths & processing times. However, the Passenger related process shall remain unchanged as mentioned in this Policy document.

STEP-10 BOARDING GATE

a. Passengeris identified using the **"Passenger Dataset"** using his/ her FaceBiometrics or 2D/QR Code on Boarding Pass at the E-Gate Biometric/ 2D/ QR Code reader
b. Passenger then enters the Boarding Gate
c. The Airline DCS is updated for Passenger boarding status
d. Airline staff gets to see the Status of Boarding on a real-time Dashboard

STEP-11 AIRCRAFT

a. Passengerproceeds to Board the Aircraft
b. Passengers shall be validated digitally by the Airlines (if needed).
c. At a future date, it is proposed to have a face recognition reader for this purpose. This could be on a smartphone/ Tablet with Face recognition using the DYBBS "Passenger Dataset" to display passenger flight details and seat number

DOMESTIC ARRIVALS: STANDARD OPERATING PROCESS

STEP-1: ARRIVING INTO THE AIRPORT

a. Passengers enter the Airport Building
b. Collects his Baggage from the Baggage claim belt
c. Exits the Airport building

INTERNATIONAL DEPARTURES- PHASE2: STANDARD OPERATING PROCESS

STEP-1: TICKET BOOKING

a. Ticket Booking: On the Airline Reservation System, Portal or App & On other Agencies Viz. Online Travel Agents (OTA)/ Global Distribution Systems (GDS)
    i. While Booking a Ticket the Foreign/ Indian Citizen enters their Passport number in the SSR: DOCS field
b. Airlines and Online Ticketing Agencies shall issue a Ticket with a 2D/ QR code as per **IATA Resolution 792** which has the following minimum Data:
    i. PNR number
    ii. Passenger Name (Last name & First name)
    iii. Flight number
    iv. From and To Destinations
    v. Date of Flight
    vi. Time of Departure
    vii. Foreign/ Indian Citizens Passport number in the Passport Field

STEP-2 HOME CHECK-IN/ WEB CHECK-IN

a. On the Airline App/ Website, the Passenger completes the seat Selection & checks-in to the Flight
b. Passenger gets his/ her Boarding Pass printed at home or gets an E-Mobile Boarding Pass
    i. Passengers shall have the option of Check-in using Web Check-in/ Mobile Check-in, before reaching the Airport to facilitate the process of identification of Passengerand easy validation of the bona-fides of the Passenger's Ticket.
    ii. Bar Coded Boarding pass shall be as per IATA Resolution 792
c. Passengers may also come to the Airport with just their ETKT with 2D/ QR code (ETKT with 2D/ QR code as per IATA Resolution 792)

STEP-3 AIRPORT ENTRY GATE: E-GATE

SINGLE PASSENGERS WITH INDIAN & FOREIGN PASSPORTS

a. Passenger goes straight to the Departure Entry E-Gate
b. Scans Passport first page
c. Validation of Passport (IR/UV/features) & Airline DCS done

i. For India Passport holders, the Passport number with Passenger name is validated with the Passport Database
ii. For International Passengers the Image from an Electronic Passport chip is retrieved using Public Shared Key & Face matching is done

d. On Successful validation, Passenger's Facial Biometricsare captured and Passenger is guided by visuals/ (if possible Audio) by the BBS Software on the Kiosk/ E-Gate to co-operate in the process of capture.(PassengerFace+Iris can be captured simultaeneously as an option.)
e. Biometric E-Boarding Processing System (BBS) does four important verifications
    i. Document check for authenticity, UV/ IR Checks & also Passport features check
    ii. Validation of Passport Document for genuineness and validation with Passport Database
        i. For International Passengers the Image from an Electronic Passport chip is retrieved using Public Shared Key & Face matching is done
    iii. Passenger Ticket/ BCBP is validated with the Airline DCS using the Passport data
    iv. Passenger Name matching on E- Ticket/ Boarding Pass with Name on Passport
    v. Validates Time limits to permit entry into the Airport
f. Passenger thus registers his Biometrics (Face) for identification at other checkpoints
g. In case of unsuccessful validation, Passenger's Passport is manually checked by the Security Staff and Passenger is accepted upon satisfactory manual Passport check.
h. Once Validation is Successful, "Passenger Dataset" with Single Biometric Token of Face is created, with a unique identifier.

AIRPORT ENTRY GATE- CISF ROLE

a. The CISF staff will be enrolled into the System with their Face Biometrics and every login will be using the Face Biometric.
b. The (Passport + Face Biometric + PNR) form the "Passenger Dataset" which is used to authenticate Passenger at every subsequent Process Step
c. E-Gates open automatically on positive identification/ Validation.
d. Display for Security will show Passenger details in a Green Envelope
e. CISF Security Officer does Exception handling &Passenger Profiling.
f. CISF Security Officer Intervenes only on the Red & Amber alerts
g. CISF Security Officer at the Airport Entry Gate gets a display of Passenger's Passport & travel document (Ticket/Boarding pass) verification status whether successful or unsuccessful.

i. In case of Passport validation/ Document Check being unsuccessful Passenger to be subject to a manual Passport check before being permitted by the CISF Staff into the Airport Building

h. Automated e-Gate will open if Passenger is successfully validated manually by the CISF

AIRPORT ENTRY GATE "LIVE PASSENGER DATASET"

a. BBS shall store the Passengers following Data and store it as a "Live Passenger Dataset"

   i. Passenger Name Record (PNR) with the following mandatory fields

      i. Passenger Name

      ii. Flight number

      iii. Date & Time of Flight

      iv. From & to Destination

      v. Sequence Number

      vi. Seat Number

      vii. Passport Number

   ii. Passenger's Face Biometrics

   iii. A unique identifier for each Passenger

b. The "Live Passenger Dataset" shall be used for all further Identification of the Passenger using "Biometrics as a Single Token" at all other Checkpoints until Boarding.

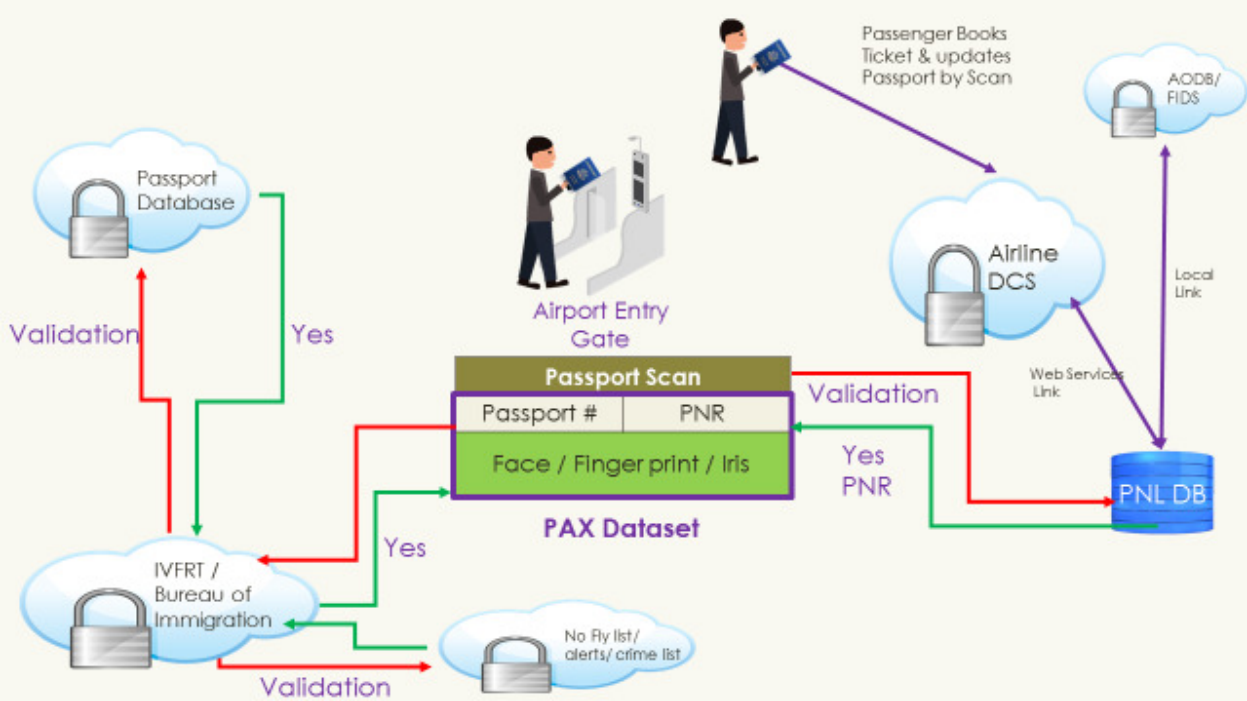
c. On Successful Authentication, a Green signal is given to the Passenger to proceed to the Airport Entry E-Gate.

d. Passenger then moves towards the E-Gate at the Airport Entry & presents his/ her Face Biometric on the Face Biometric Reading device.

e. Upon Successful Authentication with the "Live Passenger Dataset" The E-Gate Opens, Passenger enters into the Airport.

NB: BBS shall provide real time Passengers' data to the Immigrations

OPERATING PROCESS - CONCEPT ONLY



GROUP PASSENGERS WITH 2D/ QR CODED TICKET / BOARDING PASS (BCBP) EACH PASSENGER HAS AN INDIVIDUAL TICKET / BOARDING PASS (BCBP)

a. Families with Infants (below 2 years)

b. Groups with all Adults and Minors

c. Separate Lanes with CISF Security Officer intervention for all the Group Passengers

d. Passenger from the Group Scans the first page of the Passport on the Registration Kiosk/ E-Gate

e. Passenger Ticket is validated with the Airline DCS using the Passport data

f. On Successful validation, Passenger's Facial Biometrics are captured

g. Biometric E-Boarding Processing System (BBS) does four important verifications

   i. E-Ticket/ Boarding Pass validation with the Airline DCS
   ii. Validation of Passport Document for genuineness and validation with Passport Database
   iii. Passenger Name matching on E- Ticket/ Boarding Pass with Name on Passport

iv. For International Passengers the Image from an Electronic Passport chip is retrieved using Public Shared Key & Face matching is done

v. Validates Time limits to permit entry into the Airport

h. Passenger thus registers his Biometrics (Face) for identification at other checkpoints

i. In case of unsuccessful validation, Passenger's Passport is manually checked by the Security Staff and Passenger is accepted upon satisfactory manual Passport check.

j. "Passenger Dataset" is created with unique identifier as single token

k. Similarly, for all other Adult Passengers the same process as per clause above (d), (e) & (f) are followed.

l. If the Passenger is an infant (below 2 years) then the infant will be tagged to the Head of the Group and for all process points by default, theInfant will be tagged to the Passenger as per Choice made by the Passenger in the Group/Family

STEP-3A FLIGHT RESCHEDULING/ REBOOKING OF TICKET

a. If Any Passenger enters the Airport on a valid ticket & subsequently finds that

iv. The Flight is cancelled or

v. If He/ She intends to change the flight

vi. He/ She can go to the Airline Ticketing Counter and reschedule his/ her ticket to another flight

b. A Standard Operating Process is followed where the Rescheduling and update to the Passenger Data Set happens

c. Changes in Flight/ Airline is updated on the BBS

d. If Passenger Cancels his ticket & travel plans then,

i. The Travel cancellation is recorded and updated on the BBS

ii. Passenger is authenticated using his Face biometrics & taken to CISF Supervisor for updating records on the BBS

iii. Passenger Exits the Airport Building under CISF security/ Airline escort as per the prevailing process

STEP-4A AIRPORT CHECK-IN (2 STEP PROCESS WITH SELF BAG DROP/ HYBRID BAG DROP)

STEP-1 OF THE 2-STEP PROCESS

a. If Passenger registers and enters the Airport with only E-Ticket,
   i. Passenger moves to the CUSS Kiosk
   ii. Passenger is recognized by the Face Biometric by the Biometric Reading device
b. **"Live Passenger Dataset"** is used to authenticate Passenger
c. The BBS system is able to identify the Passenger Flight from the Live Dataset, validated with the PNL and automatically opens the Check-in app/ function of the relevant Airline in the Kiosk.
d. Once validated, the Passengermakes his choice of seat/ Frequent Flyer number etc.
e. Passenger Does his seat selections and Checks-in

OR

f. **If Passenger has already Checked in and has a Mobile Boarding Pass or Home Printed Boarding Pass**
   i. Passenger moves to the CUSS Kiosk
   ii. Passenger is identified by the Face Biometric by the Biometric Reading device
g. Passenger Selects the number of Bag Tags to be printed
h. Prints & collects the Baggage Tags.
i. The System updates the Status of Check-in on the **"Live Passenger Dataset"** for use at further Check Points
j. Passenger then Tags his Bag and moves towards the Self Baggage Drop Area

STEP-4B BAGGAGE DROP (2 STEP PROCESS WITH SELF BAG DROP/ HYBRID BAG DROP)

STEP-2 OF THE 2-STEP PROCESS

a. Passengeris identified by the Face Biometric by the Biometric Reader
b. **"Live Passenger Dataset"** is used to authenticate the Passenger& Flight details shown on the display
c. Passenger then deposits the bags in the Self Bag Drop Machine.
   i. This process could also be used with a manually assisted Bag drop service.

d. Passenger is issued with a Baggage Claim Slip as an acknowledgement of the received Bag.
e. Bag tags are linked to the unique identifier of the traveler

STEP-5 TRANSFER Passenger PROCESS

a. Transfer Passenger shall have to register to the BBS Authentication System
b. Passenger Scans the first page of the Passport on the Registration Kiosk/ E-Gate
c. Passenger Ticket is validated with the Airline DCS using the Passport data
d. On Successful validation, Passenger's Facial Biometrics are captured
e. Biometric Boarding System (BBS) does four important verifications
    i. Document check for authenticity, UV/ IR Checks & also Passport features check
    ii. Passenger Ticket/ BCBP is validated with the Airline DCS using the Passport data
    iii. For Domestic Passengers, using the connectivity to the PSP database a Face Matching is done with the Passengers' captured face.
    iv. For International Passengers the Image from an Electronic Passport chip is retrieved using Public Shared Key & Face matching is done
f. "Live Passenger Dataset" is Created/ updated to his/her specific flight

NB: For Passengers who are on Domestic-Domestic-International Flights there will be a similar SOP to register the Passengerand to re-validate into the BBS

STEP-6 DEPARTURE IMMIGRATIONS (INDIAN&FOREIGN PASSPORT HOLDERS)

a. The Immigrations process is carried out through a double flap door/ Trap door E-Gate system.
b. Entry to the Immigration Zone is Restricted only to Passengers who are Registered & Authenticated by the BBS
c. Passengeris identified using the Face Biometricin the "Live Passenger Dataset" at the first flap door E-Gate Biometric reader.
d. The first flap door of the Dual Door E-Gate Opens on positive identification with the BBS single token of face.
e. Passenger then enters the Dual door E-Gate and reaches the second Flap door for the Immigration clearance.
    i. The First Flap door closes once Passenger enters the Dual Gate Door to prevent any other Passenger from entering inadvertently

f. At the second flap door, Passenger Scans his/ her Passport First Pageand he/ she is validated with the Immigrations database
g. Passenger then presents his Biometrics (Finger/ Face/ Iris) as per Immigration Biometric Check process. (The IVFRT Database is updated with the current transaction and Face + Iris may be updated to the Passenger records)
    i. For foreign Passengers with E-Passports, an additional check of Face matching with the Face retrieved from the Passport and actual face captured by the Face + Iris Camera is done. IVFRT records are updated accordingly
    ii. If as per the IVFRT the Passenger needs FRRO registration, then Passenger is diverted to manual processing Immigration Counters
h. Once the Passenger is validated by the Immigration system, the second Flap door opens.
    i. In case of a reject by the Immigrations, the first flap door opens and the Passenger is then goes back and is processed through the manual entry counter
i. Successfully validated Passenger then moves to the Security Check Zone

NB: Immigrations System is a completely isolated system not connected to the BBS.

The E-Gate second Flap door sends a "Clear" or "Reject" signal of a Passenger to the BBS, using the E-Gatesignals and other sensors in the E-Gate. This ensures that there is complete isolation of the Immigration System with the BBS.

In case of Rejection of the Passenger at the Second Flap door, the Passenger is asked to go out of the E-Gate and go to the Manual Counters. In this case the Immigrations CPU sends signal to the First flap door to Open.

Visa Checks shall only be done by the Airlines and is considered as an Airline responsibility

STEP-7 PESC HAND BAGGAGE SCREENING AREA & FRISKING

a. Entry to the PESC being regulated & controlled using Face Biometric Validation with the "Live Passenger Dataset"
b. There is no further need to validate the Passenger by the CISF Security Staff
c. Passenger divests his Personal Belongings into the X-Ray Machine / CT Scan Machine (Smart Lane Enhanced Hand Baggage Screening System with Automated Tray Return) (If Installed)
d. Passenger then moves through the DFMD/ Body Scanner

i. In case of DFMD CISF Security Officer Carries out the Frisking of the Passenger and clears him/her after verifying/ satisfying himself, clears the Passenger.
ii. If he/ She is clear of any Threat Items, then he/ She moves to the X-Ray output lanes to collect his belongings from the Tray

e. If any additional checks are needed the Passenger is subjected to the same as per the SOP of the CISF
f. Cameras in the PESC Area shall be used to monitor the proceedings in the Frisking Area & can be used for any Forensic Analysis

STEP-8 BOARDING GATE

a. Passengeris identified using his/ her Face Biometrics at the E-Gate Biometricreader
b. Passenger is identified using the **"Live Passenger Dataset"**
c. Passenger then enters the Boarding Area
d. The Airline DCS is updated for Passenger boarding status
e. Airline staff gets to see the Status of Boarding on a real-time Dashboard

STEP-9 AIRCRAFT

a. Passenger proceeds to Board the Aircraft
b. Passengers shall be validated digitally by the Airlines (if needed)
c. At a future date, it is proposed to have a face recognition reader for this purpose. This could be on a smartphone/ Tablet with Face recognition to display passenger flight details and seat number

INTERNATIONAL ARRIVALS: STANDARD OPERATING PROCESS

STEP-1: ARRIVAL INTO THE AIRPORT

a. Passenger enters the Airport Building
b. Passenger moves towards the Immigration area

STEP-2: ARRIVAL IMMIGRATIONS (INDIAN & FOREIGN PASSPORT HOLDERS)

a. The Arrival Immigrations will consist of AutomatedBorder Control E-Gates with Dual flap doors E-Gate
b. At the first flap door of the E-Gate, Passengeris allowed to enter as soon as he moves towards the e-Gate and if there is no other Passenger in the E-Gate.
c. Once Passenger enters the E-Gate, the first flap door closes behind him/ her
d. Passenger then Scans his/ her Passport First Page on the Document reader at the Second Flap door.
e. Airline DCS validation for the Passenger is conducted
f. Immigrations System does the following:
    i. Document check for authenticity, UV/ IR Checks & also Passport features check
    ii. Passenger Ticket/ BCBP is validated with the Airline DCS using the Passport data
        i. It is understood that there is an existing Connectivity from the Immigrations system to the Airline DCS, inbound APIS data is available for all flights
    iii. For Indian Passengers, using the connectivity to the IVFRT database a Face Matching is done with the Passengers' captured face.
    iv. IVFRT records are updated accordingly with the latest Face/ Iris captured at the E-Gate
    v. For ForeignPassengers the Image from an Electronic Passport chip is retrieved using Public Shared Key & Face matching is done. IVFRT records are updated accordingly with the latest Face/ Iris captured at the E-Gate
g. Passengers' Face + Iris biometrics are captured for updating the IVFRT database
    i. For foreign Passengers with E-Passports, an additional check of Face matching with the Face retrieved from the Passport and actual face captured by the Face + Iris Camera is done.

ii. IVFRT records are updated accordingly with the latest Face/ Iris captured at the E-Gate

iii. If as per the IVFRT the Passenger needs FRRO registration, then E-Gate Does not Open and the Passenger is diverted to manual processing Immigration Counters

h. On successful validation and updation of the transaction, the second flap door of the E-Gate Opens

i. Passenger moves to the Customs area/ Baggage Claim area.

NB: Immigrations System is a completely isolated system not connected to the BBS.

STEP-3: CUSTOMS PROCESS

a. All Passengers move through the Green or the Red Channel without any further process

b. Only if any Passenger is found or caught with contraband Goods, the Customs Officer shall scan Passenger's Passport and capture Face and biometrics of the Passenger to update the record into the Centralized database maintained by Govt. of India.

STEP-4: EXIT FROM THE AIRPORT

c. Passenger collects his Baggage from the Baggage claim belt and moves to Duty free area.

d. Passenger then walks through the Customs Red/ Green Channel and exits the Airport

HIGH LEVEL DATA PRIVACY GUIDELINES

DATA PRIVACY

Airports using the BBS shall conform and adhere to the Data Protection laws as applicable and mandated by the GOI

The BBSData management shall be compliant with IT Act 2000 and IT Amendment Act 2008 & the UIDAI Act 2016 for all the AADHAAR related transactions.

The BBS shall also be compliant to Data Security techniques -- Privacy framework. As summarized below.

a. Specifies a common privacy terminology
b. Defines the actors and their roles in processing Personally Identifiable Information (PII)
c. Describes privacy safeguarding considerations
d. Provides references to known privacy principles for information technology

As applicable to natural persons and organizations involved in specifying, procuring, architecting, designing, developing, testing, maintaining, administering, and operating information and communication technology systems or services where privacy controls are required for the processing of Personally Identifiable Information (PII).

For the Digi Yatra Platform, Periodic Audits, Once every two Years shall be conducted by CERT-IN And/ Or STQC or any other Govt. of India nominated agency as applicable

Following are the principles

1. Accountability/ Management
    a. Define, document, Communicate& Assign Accountability for the privacy policies & Procedures
2. Identify Purpose/ Notice
    a. Give notice in relation to Personnel Information Collected, Used or Disclosed by the National laws and policies
3. Choice & Content
    a. Describe clearly the choices available to and obtain implicit / explicit consent in relation to Personnel Information Collected, Used or Disclosed
4. Limit Collection
    a. Identify and adhere to the identified purpose for Personnel Information Collected
5. Limit use, disclosure & retention

    a. Limit and use the Personnel Information Collected, Used or Disclosed for the identified purpose
6. Accuracy/ Quality
    a. Maintain Confidentiality, Availability and integrity of the Personnel Information Collected
7. Safeguards/ Security for Privacy
    a. Protect personal information against unauthorized physical and logical access
8. Openness/ Disclosure to third parties
    a. Disclosure of Personal Information shall be only for the identified purpose
9. Challenging Compliance/ Monitoring & Enforcement
    a. Monitor Compliance with Privacy Policies and Procedures and have procedures in place to address disputes, grievances and complaints

DATA PRIVACY BY DESIGN TECHNIQUES

a. Authentication Protocols
b. Credentials
c. Encryption
d. Data Minimization
e. Privacy in Databases
f. Data Masking Techniques
g. Data Storage
h. Transparency enhancing techniques

PERSONAL DATA GUIDELINES

1. Personal data shall be processed fairly and lawfully
2. Personal data shall be obtained only for the specified lawful purpose, and shall not be further processed in any manner other than for that purpose or those purposes.
3. Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed.
4. Personal data shall be accurate and, where necessary, kept up to date.
5. Personal data processed for any purpose or purposes shall not be kept for a longer time than necessary for that purpose or those purposes.
6. Personal data shall be processed in accordance with the rights of data subjects under the national law.
7. Appropriate technical and organizational measures shall be taken against unauthorized or unlawful access and or processing of personal data and against accidental loss or destruction of, or damage to, personal data.

8. Personal data shall not be transferred nor stored to a country or territory outside India unless it is needed for the purpose of carrying out the Passenger Identification/ validation process at the Destination Airport and only with the willful consent from the Passenger. "For International Travel, the Biometrics capture (Face, Iris, Fingerprints) process will be as mandated by the Govt. of India as per existing protocols prevalent at that time"
9. Biometric data shall be purged from the BBS System at the end of the Passenger's Journey at the Airport i.e. after completion of Boarding and Departure of the Passengers' Flight.
    a. BBS shall have an ability to change the data purge settings based on security requirements on a need basis.
10. Passenger Travel Logs without the Biometric data shall be stored for the purpose of audits as per the mandate from Govt. of India.
11. Any Security Agency, BOI or other Govt. Agency may be given access to the Passenger Data based on the current/ existing Protocols prevalent at that time.
12. The BBS shall be audited as per the requirements of the Data Protection standards as applicable and mandated by GOI.

AADHAAR RELATED PRIVACY GUIDELINES FOR ALL STAKEHOLDERS

AUTHENTICATION OF Passenger TO THE AADHAAR DATABASE

a. e-KYC transactions shall take place using AUA/ KUA service of the Digi Yatra Platform
b. All the Airports shall become Sub-AUA/ KUA of the Digi Yatra Platform
c. All AADHAAR Related data security shall be as per the AADHAAR Act 2016
d. AUA/KUA guidelines issued by UIDAI shall be followed from time to time
e. Protocol for data exchange between KUA and CIDR database would be based on AUTH API 2.5 and above as defined by UIDAI
f. KUA would use only STQC/UIDAI certified registered devices for the purpose of reading Biometric Data
g. AADHAAR References as per Annexure 7

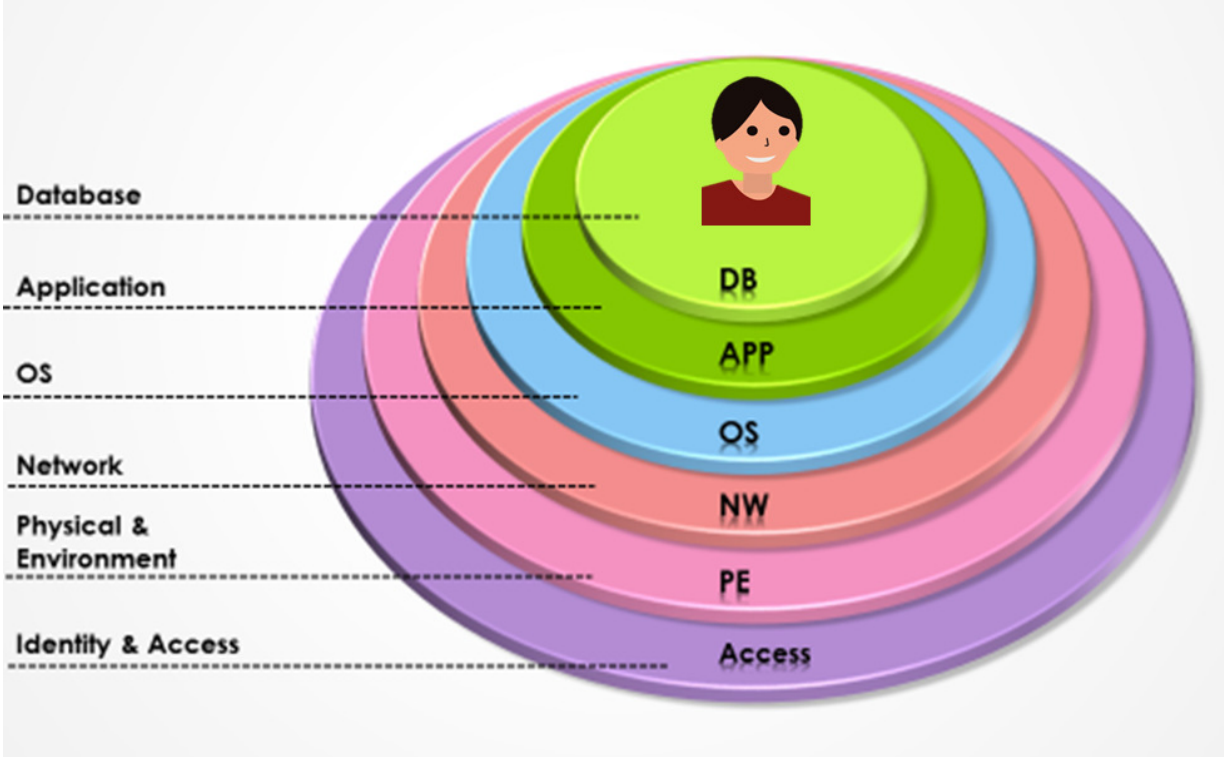
NB:

1. **Biometric Data Captured for Identity Validation using AADHAAR Verification cannot be stored or Reused as per the AADHAAR Act.**
2. **Use of AADHAAR will be solely for IdentityValidation, which will be subject to the prescribed guidelines of UIDAI from time to time.**

GUIDELINES FOR AIRLINES, OTAS AND OTHER STAKEHOLDERS

1. Airlines and Online Ticketing agencies shall maintain the Passengernames and Digi Yatra ID of travelers on the web application of the airlines and should be secure. The database maintaining the links of Digi Yatra ID and 2D/QR code should also be secured with the Airline Systems
    a. Digi Yatra ID should not be a part of the 2D/ QR Code of the Ticket or the Boarding Pass to prevent any inadvertent loss or leakage of the Digi Yatra ID number
    b. Digi Yatra ID shall be shared with the BBS of the Airport as a part of the PNL download
    c. Airlines, OTAs and various portals maintain the Passengerphone number, Email ID, Digi Yatra ID etc. The crucial aspect of data sharing protocols amongst travel portal, airlines, airports etc. would require to be defined in secured and stringent manner to prevent data breach as mentioned in the BBS CYBER SECURITY REFERENCE ARCHITECTURE AND RECOMMENDED BEST PRACTICES section as given below in this Document.

    d. The Digi Yatra ID shall be encrypted at the Airline database as part of the web service call, this information will then be sent to Airports' BBS.
        i. Airlines and Airports shall mutually agree on a decryption logic for the BBS.
2. Data privacy norms for the Digi Yatra IDshall beapplicable as per the IT Act 2000 and IT Amendment Act 2008and the AADHAAR Act 2016 as relevant.
3. With the consent of the Airline, Any Security Agency, BOI or other Govt. Agency may be given access to the Passenger Data based on the current/ existing Protocols prevalent at that time.
4. Airlines, OTAs and other Ticket Booking Agents shall take the necessary precautions in the process of capturing Digi Yatra IDdata at the time of Booking.
5. While booking the ticket, Passenger enters the Digi Yatra IDvoluntarily as an option
6. Digi Yatra IDwill be stored only in the database of the airline and/ or the OTA and they shall maintain the integrity and privacy of the data and protect the same as per GOI, IT Act 2000 and IT Amendment Act 2008.
7. The Ticket or the Boarding Pass and the 2D/ QR code therein, shall conform to IATA standards (IATA Resolution 792)
8. Digi Yatra IDwill not be displayed either on the Ticket or on the Boarding pass
    a. It shall also not be coded into the 2D barcode/ QR Code of the Ticket/ Boarding Pass
9. The Airport operator BBS will retain the Travel Data including theDigi Yatra IDfor a duration of 30 days from the date of travel after the Passenger's Flight departs.
10. Airlines, OTAs and other Ticket Booking agents shall be subject to Audits as per the standards prescribed in the UIDAI Act 2016 and any other as mentioned in this Policy Document.



1. Identity and Access Management

Streamlining the provisioning, management and monitoring of user access across all systems, Shall be achievedby using directory systems such as Active Directory. This can be further enhanced and controlled by the extension to identity-based micro segmentation systems.

This will avoid inadequate authentication and authorization mechanism that can lead to loss/ leakage of PID (Personal Identifiable Data)

The proposed solution should have functionality for –

a. Privilege Access Management
b. Biometric based multi-factor authentication
c. Single Sign-on
d. Monitor Activity and Enforce Policy
e. Provisioning and Governance

2. Network Intrusion Detection and Prevention

Enabling detection and prevention measures for network based intrusions. These may be implemented in standalone network appliances or as a feature of next generation firewalls.

Advance or zero day cyber-attacks can bring the entire BBSsystem down and cause severe business continuity issue that is not acceptable in the aviation environment. The BBSsolution should have below functionality –

1. Next-Generation Firewall, in physical or Digi Yatra ID form, classifies all traffic – including encrypted traffic – and enforces policies based on applications, users, and content without sacrificing performance.
2. Cloud-based threat analysis service to dynamically analyze suspicious content in a Digi Yatra ID environment to discover zero-day threats.
3. Threat Prevention includes IPS, malware protection, DNS sinkhole, and command-and-control protection.
4. URL Filtering continually updates new phishing and malware sites, as well as sites associated with attacks, even blocking malicious links in emails.

3. Network Segmentation and Firewalling

Separation of logical IT assets into security zones reflecting the value of the information being protected as determined by the business. The principal purpose of network segmentation is to prevent network traversal of malware, advanced persistent threats or malicious actors between less sensitive environments and more highly sensitive ones. Software defined micro-segmentation provides more granularity and ease of management than physical network segmentation. Note that VLANs are not a secure means of segmentation. For example, the e-gate and kiosks at the airports or even the entire IT network need to be segmented properly to mitigate the risk of a breach happening on one environment traversing to the other. Also making e-gates/kiosks/Baggage system Digi Yatra IDly segmented (and cloaked) on the same physical network will make hacking much more difficult. The solution should have below functionality –

a. Solution provides software equivalent of physical separation of devices/systems that are located in different microsegments on the same network.
b. Devices/systems in different microsegments are mutually undetectable by ping/port scanning or other network techniques.
c. Granularity of segmentation is down to the individual endpoint and user.
d. Endpoints may be located in datacenter network, Digi Yatra ID network, remote offices, private or public cloud.
e. Supports mobile device endpoints / BYOD.
f. Protects networked endpoints running any operating system or embedded system. Includes, but is not limited to, Windows, Linux, UNIXes, MacOS, mainframe OS, embedded systems such as printers, IoT devices, SCADA systems.

g. Users may be assigned to microsegments. User identity is defined and authenticated by common directory systems such as LDAP, Active Directory.
h. Supports integration with common SIEM solutions for monitoring, alerts and exception reporting.
i. Supports encryption of data-in-motion from segmented endpoint to endpoint and should supports automated creation and teardown of encrypted tunnels
j. Supports perfect forward secrecy, i.e. past sessions protected against future compromise of secret keys or passwords.
k. Supports encryption of all IP protocols including TCP, UDP, ICMP etc.

4. Physical and Environmental Security

Physical and environmental protection of information assets using appropriate mechanisms, including:

a. Video surveillance and recording
b. Site and data center access management
c. Temperature and humidity controls
d. Situational Awareness solution for centralized dash boarding

5. Network Access Control

Restriction and control of the admission of network devices, both wired and wireless, onto the enterprise network. Modern solutions integrate with identity management systems to authenticate devices through service accounts or digital certificates.

6. OS Security

This encompasses a number of principles:

a. Hardening Operating Systems based on defined procedures
b. Reviewing OS security based on server risk profiles
c. Implementing necessary controls e.g.
d. Malware protection
e. Host-based firewalls
f. Network cloaking

7. Application Firewall

Protecting against attacks and intrusions to systems at layer 7. Typically implemented as a network appliance or as a feature of network load balancers.

8. Database Security

Database hardening, access control to databases, tables and fields based on information classification, encryption, monitoring and review of access. In the Digi-Yatra program, the PII data will be stored in the database for a short period while Passenger is still at the airport so it is extremely important to have strong security control for database. The demographic data / PNR data withDigi Yatra IDshall be masked to ensure security and privacy. The server storing data shall not be connected to internet/WAN/Cloud except for Airline DCS through a secured environment.

9. Data Encryption

Data encryption (biometric and biographic) both at rest and in transit is key for the Digi-Yatra program. The biometric data once lost cannot be changed as it is tied to the physiological properties of the individual. Following are some of the key factors that should be considered around encryption -

a. Encrypting sensitive data at rest
b. Encrypting data in motion either over the Internet or untrusted network segments, including wireless, to prevent eavesdropping.
c. Supports encryption of data-in-motion from segmented endpoint to endpoint.
d. Supports industry-standard encryption algorithms and protocols compliant with NSA Suite B.
e. Supports automated creation and teardown of encrypted tunnels
f. Supports automated re-keying of tunnels on specified schedule.
g. Supports perfect forward secrecy, i.e. past sessions protected against future compromise of secret keys or passwords.
h. Supports encryption of all IP protocols including TCP, UDP, ICMP etc.
i. Supports encryption of IPv4 and IPv6 traffic.
j. Supports NAT/PAT traversal of encrypted traffic.
k. Supports definition of unencrypted traffic paths.

10. Secure Wireless

Securing wireless deployments. Ensuring that all corporate access is encrypted and separated from any guest access. The proper segmentation of business and guest Wi-Fi network to be done and also the integration with Network Access Control.

11. Secure Remote Access

Ensuring that all remote access is provided on a 'need to know' basis and using multifactor authentication. All remote communication must take place over encrypted channels e.g. Digi Yatra ID Private Networks. For example if any trouble shooting, servicing or maintenance activity for any airport infrastructure or IT component is required and secured remote access should be provisioned.

12. Web and Mail Content Inspection and Delivery

Sanitizing inbound mail and web content e.g. detection and removal of malware, malicious links etc. This would mitigate the risk of an internal user unknowingly clicking on a malicious link (via email or web). This is one of the most common attack vector as human is the weakest link in the security chain. If a user inadvertently click on a malicious link it can affect the entire network pretty fast and hence segmentation of the environment in addition to the content inspection solution should be put in place.

13. End User Education & Cultural Change

Frequent end user education to teach the basics of cyber security as people tend to be the weakest link in the security chain. Facilitate cultural change so that security is built into the DNA of the organization and seen as an enabler rather than an inhibitor.

14. Vulnerability and Patch Management

Proactive detection of vulnerabilities, through scanning and penetration testing in systems and applying relevant patches before vulnerabilities can be exploited. Vulnerability analysis and penetration testing are important phases within the cybersecurity lifecycle and allows an organization to understand the key security risks they are exposed to.

LOGS, METRICS AND DASHBOARDS

TECHNICAL LOGS: TIME-STAMPED TECHNICAL DATA, EVENTS &ALARMS

Operational logs like but not limited to:

- ID End Point
- Timestamp
- Nationality
- Gender
- Date of Birth
- Age
- Number of biometric captures
- Biometric capture quality score
- AADHAAR authentication result
- AADHAAR authentication process time
- Biometric Matching Score
- Matching Result
- Biometric identification time
- BCBP type
- BCBP process time
- Booking reference validation result
- Booking reference validation process time
- Complete process time
- Boarding DCS result
- Boarding DCS process time
- Processing step result

TYPICAL REPORTS

- Number of transactions (per type, status)
- Endpoint statistics (per Endpoint)
- Transaction duration
- Total number of Transactions terminated due to Operational Reasons / Total number of Terminated Transactions
- Total number of Transactions terminated due to Technical Reasons / Total number of Terminated Transactions
- Usability /Ergonomics (number of attempts for captures)
- ID usage (quantity of Identity document per type)
- Exceptions Reports (number of interventions required)

METRICS AND DASHBOARDS

- Passenger wise details should display Passenger flow between various checkpoints
- Airline wise details should display no of Passengers for that particular airline at various checkpoints
- Identify the local of Passenger in a particular zone
- Passenger dwell time between various checkpoints & at various checkpoints
- Flight wise details should display no of Passengers for that particular flight at various checkpoints
- Health monitoring of all devices at all checkpoints

AMENDMENTS TO DIGI YATRA PROCESS

The passenger processes considered in the policy are designed as per the currently available mature technologies. The implementation of this policy envisages the use of the latest technologies fulfilling the process requirement. However, it may be noted that this document will be subject to amendment from time to time to adapt the best technology and solutions available in the industry from time to time.

ANNEXURES & REFERENCES

AUTHENTICATION OF Passenger TO THE AADHAAR DATABASE

As per AADHAAR ACT 2016, GOI

Website: https://uidai.gov.in/images/the_aadhaar_act_2016.pdf

CUSS, CUPPS & WEB SERVICES

As per IATA standards as renewed on date:

CUSS: RP 1706c Common Use Self Service 2016

CUPPS: RP 1797CUPPS 2016 & Web Services

BIOMETRIC ACQUISITION PRODUCTS: FINGERPRINTS READERS

AS PER ISO Standards and the latest amendments: ISO/IEC 19794-4:2017

And As per GOI recommended standards

BIOMETRIC ACQUISITION PRODUCTS: FACE READERS

AS PER ISO Standards and the latest amendments: ISO/IEC 19794-5:2011

And As per GOI recommended standards

BIOMETRIC ACQUISITION PRODUCTS: IRIS READERS

AS PER ISO Standards and the latest amendments: ISO/IEC 19794-6:2011

And As per GOI recommended standards

FRONT END DEVICES (E-GATE AND KIOSKS)

As per IATA Standards

BOOKING AND CHECK-IN STANDARDS

As per IATA Standards, Resolution 792. Annexure-1, 2 & 2A

API ECOSYSTEM

As per the IATA "Simplifying the Business" STB guidelines Annexure-3

PRIVACY BY DESIGN FUNDAMENTAL PRINCIPLES

Credits to IAB. URL: https://iab.org/wp-content/IAB-uploads/2011/03/fred_carter.pdf

PASSENGER PROCESS FLOW CHARTS

DOMESTIC PASSENGER PROCESS FLOWS FROM AIRPORT ENTRY TO THE BOARDING GATE: ANNEXURE-5

PASSENGER PROCESS FLOW CHARTS

INTERNATIONAL PASSENGER PROCESS FLOWS FROM AIRPORT ENTRY TO THE BOARDING GATE: ANNEXURE-6& 6A

PREPARED BY:

THE TECHNICAL WORKING COMMITTEE

DIGITAL CELL

MOCA, INDIA

ANNEXURE-1: ETKT WITH 2D BARCODE

eTicket Itinerary / Receipt

Issuing Airline : [illegible] Airways

Place of Issue : [illegible]

Date of Issue : Thursday, [illegible] Dec, 2016

Issue By : [illegible] Airway

Contact Number : [illegible]

Email : [illegible]@gmail.com

Address : [illegible] Road, [illegible] Airport Road, [illegible] (East), Mumbai [illegible]

Booking Reference (PNR)

QODKHV

Passenger / Itinerary Details

Passenger Name	Frequent Flyer #	eTicket #
Mrs [illegible]		[illegible]

Date	Due Time	From	To	Flight No.	Terminal	Airline
[illegible]	[illegible]	Mumbai (BOM)	Ahmedabad (AMD)	[illegible]	2	Airways

Detailed Itinerary

Flight	Depart	Arrive	Class	Fare Basis	MAB	MAA	Status	Duration / Stops	Baggage
[illegible]	Mumbai (BOM) [illegible]	Ahmedabad (AMD) [illegible]	Economy (PV)	[illegible]	[illegible]	[illegible]	Confirmed	[illegible]	[illegible]

Operated by : Airways - Departure TERMINAL 2 (INTERNATIONAL), Arrival TERMINAL 1

Boarding Desk Benefits

Complimentary Meals (Refreshment) | Change Fee (Applicable) | Cancellation Fee (Applicable)

[illegible]

Fare Details (Includes Base Fare, Taxes, Fees and Charges)

[illegible]

[illegible]

ANNEXURE-2: BOARDING PASS

AGENT COPY

Economy WEB CHECK-IN Economy

Name	FFP Number	FFP Tier		Name
MR SURESH M KHADAKBHAVI	9W202862236	BLU		MR SURESH M KHADAKBHAVI
From	Flight No.	Date	Time	From/To
Delhi	S 37 CODESHARE W 7128	07 OCT 16	0935	DEL/BLR
To	Boarding Time	Class		Date / Time / Seat
Bengaluru	0850	N		07 OCT 16 / 0935 / 25B
Eticket	PNR	Seat	SEQ No.	Flight / Class / Seq
589916 06819	LTOMCG	25B	0041	S 4837 / N / 0041

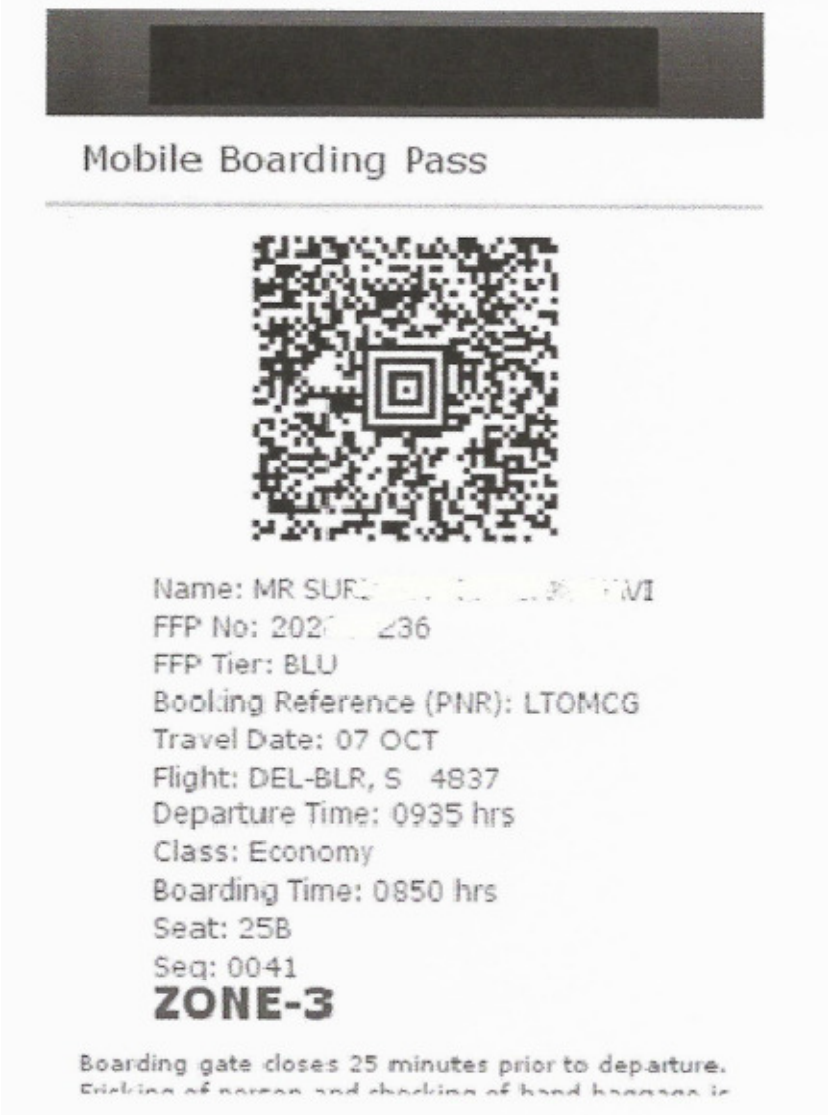
THE BOARDING GATE WILL CLOSE 25 MINUTES BEFORE DEPARTURE.

Frisking of person and checking of hand baggage is mandatory for all.
Passengers are requested tc co-operate with the Security Staff.
Please check your final gate number on the terminal display at the airport.

ZONE-3

cut here

ANNEXURE-2A: E-MOBILE BOARDING PASS WITH QR CODE



ANNEXURE-3: API ECOSYSTEM

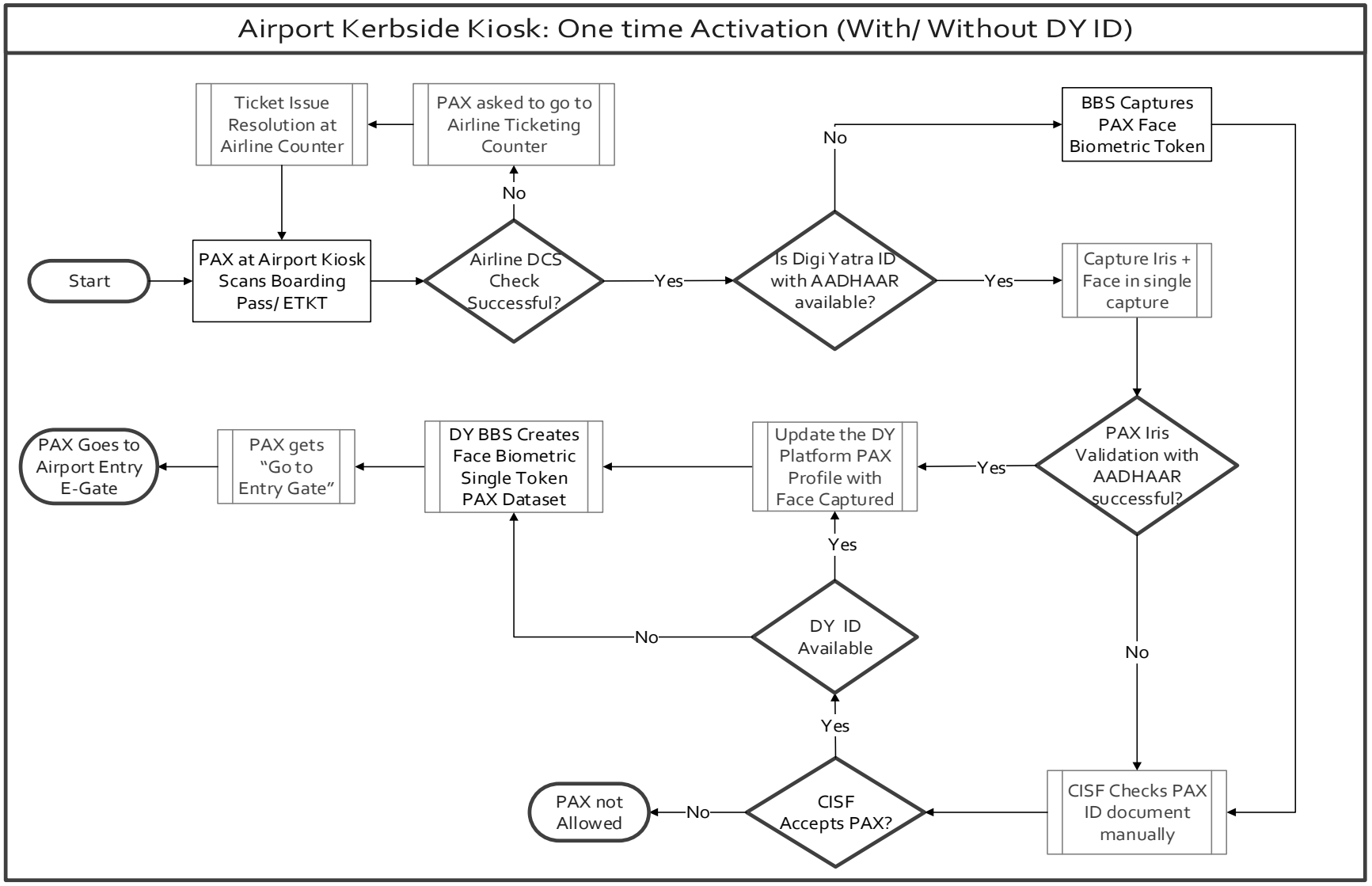
The Open API Ecosystem shall be along the IATA STB guidelines. All Stakeholders to work over a period of time and implementation to be done by March 2019.

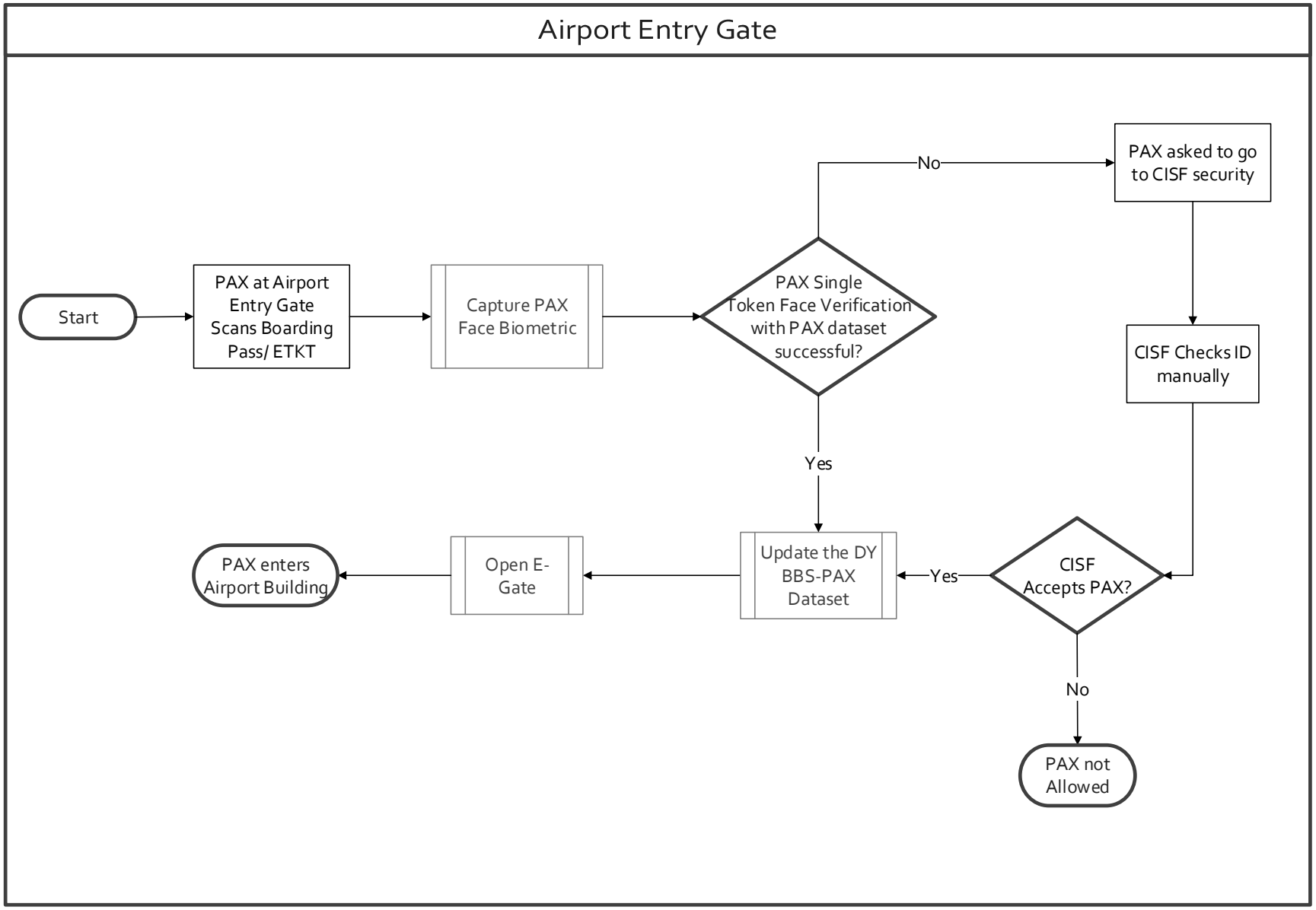
Open Application Programming Interfaces, commonly referred to as Open APIs, are a way to share data between entities in a trusted, timely yet open manner. The need for the entire aviation industry to share data is becoming greater every year. Initiatives such as artificial intelligence, customer personalization, and real-time operations need relevant, trusted, and timely data to operate. The vision is to use Open APIs to allow airlines and airports to communicate with Passengers and publish relevant data. Moreover, the aim is to ensure the data exposed from individual airline API platforms is consistent in terms of definition, format and the way the data is accessed (or shared).

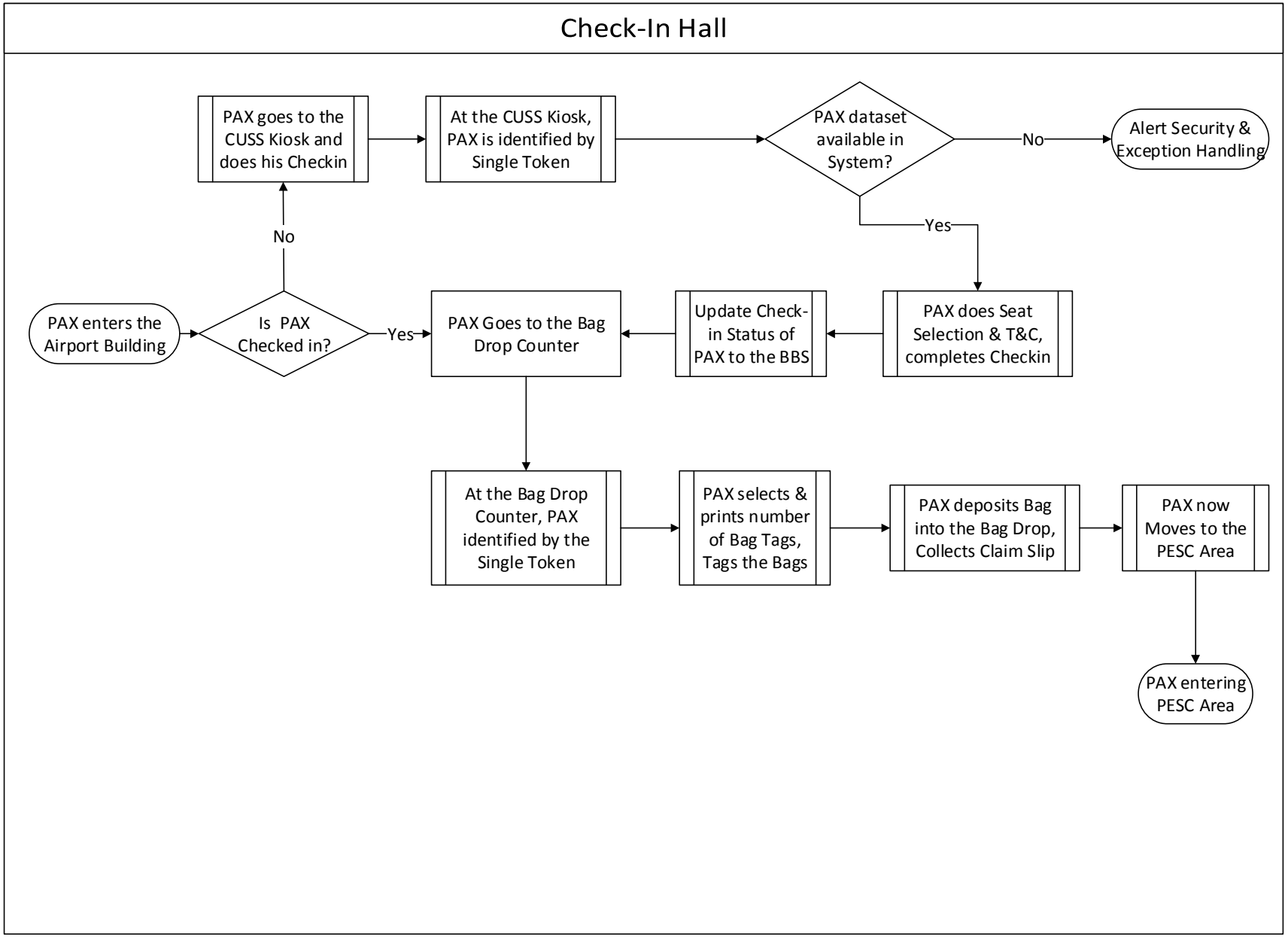
General Purpose API					
Flight Status API	This API provides information about a particular flight like flight status (security, boarding etc), check-in counters, gates, scheduled and estimated arrival / departure times.	L1- Mandatory	AODB/FIDS or DCS	Provided	Open
Complaints API	This API allows users to provide complaints. feedback, or suggestions to Airlines and/or OTAs NB: This is needs to be integrated with Airsewa App	L1 - Mandatory	Hosted by Airport	Provided	Airlines / OTA
Traveler API	Flight Number, Passenger Name, Unique ID, Date, time of Travel, PNR, e-Ticket Number,	L1- Mandatory	AODB/FIDS or DCS	Provided	Open

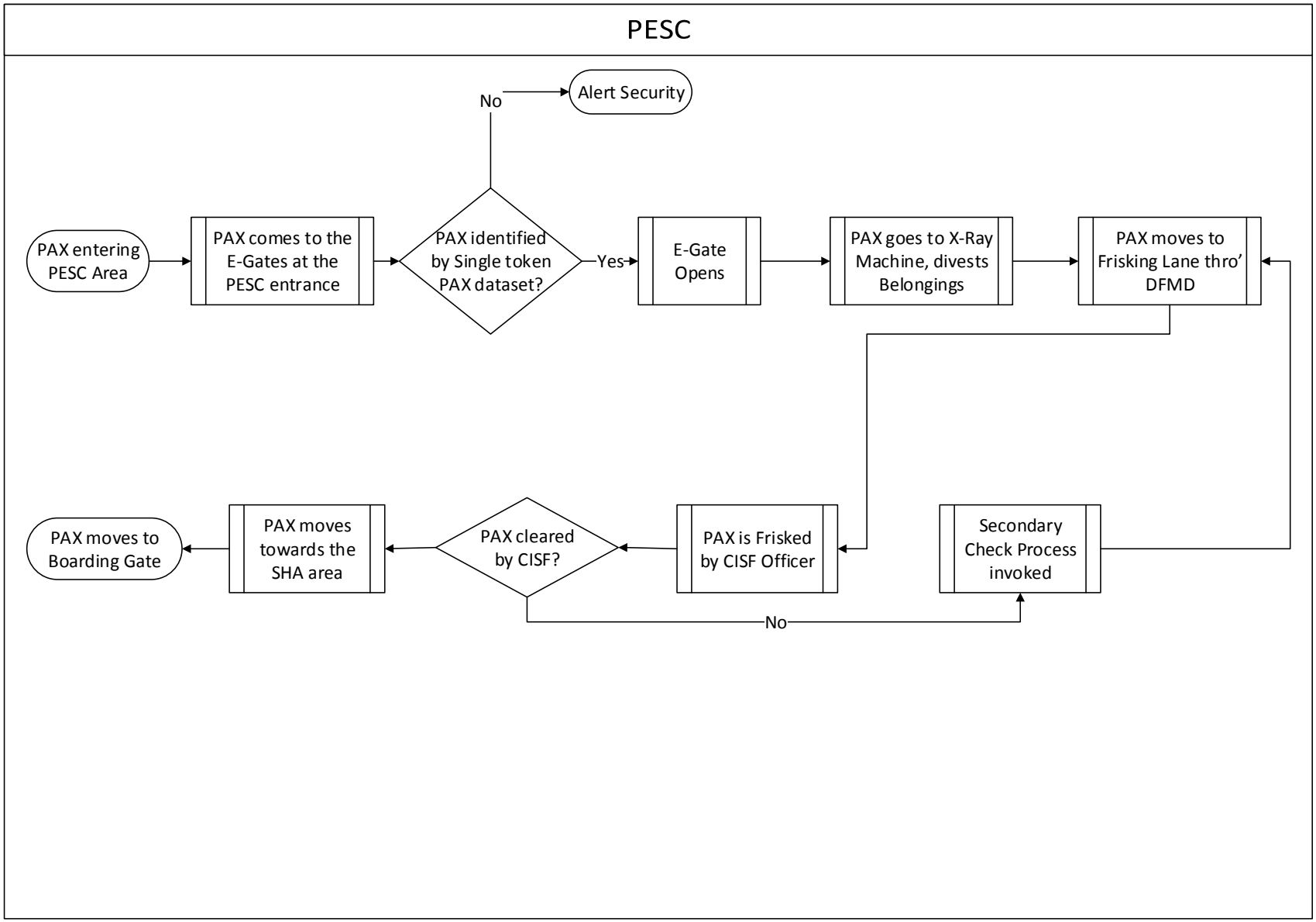
	mobile number, status Status can be "Booked", "Checkin", "Passenger Validation", "Checkin", "Baggage Checked in", "Security check", "Boarding", "Landed", "Baggage arrived".				
At Airport API	Fallback: In case IMID doesn't work, the fallback is for the Passenger to scan the e-Boarding Pass (QR Code) and the gates default to close. Therefore, every IMID scanner should periodically download the latest Passengers Manifest and have the ability to perform a verification locally.				

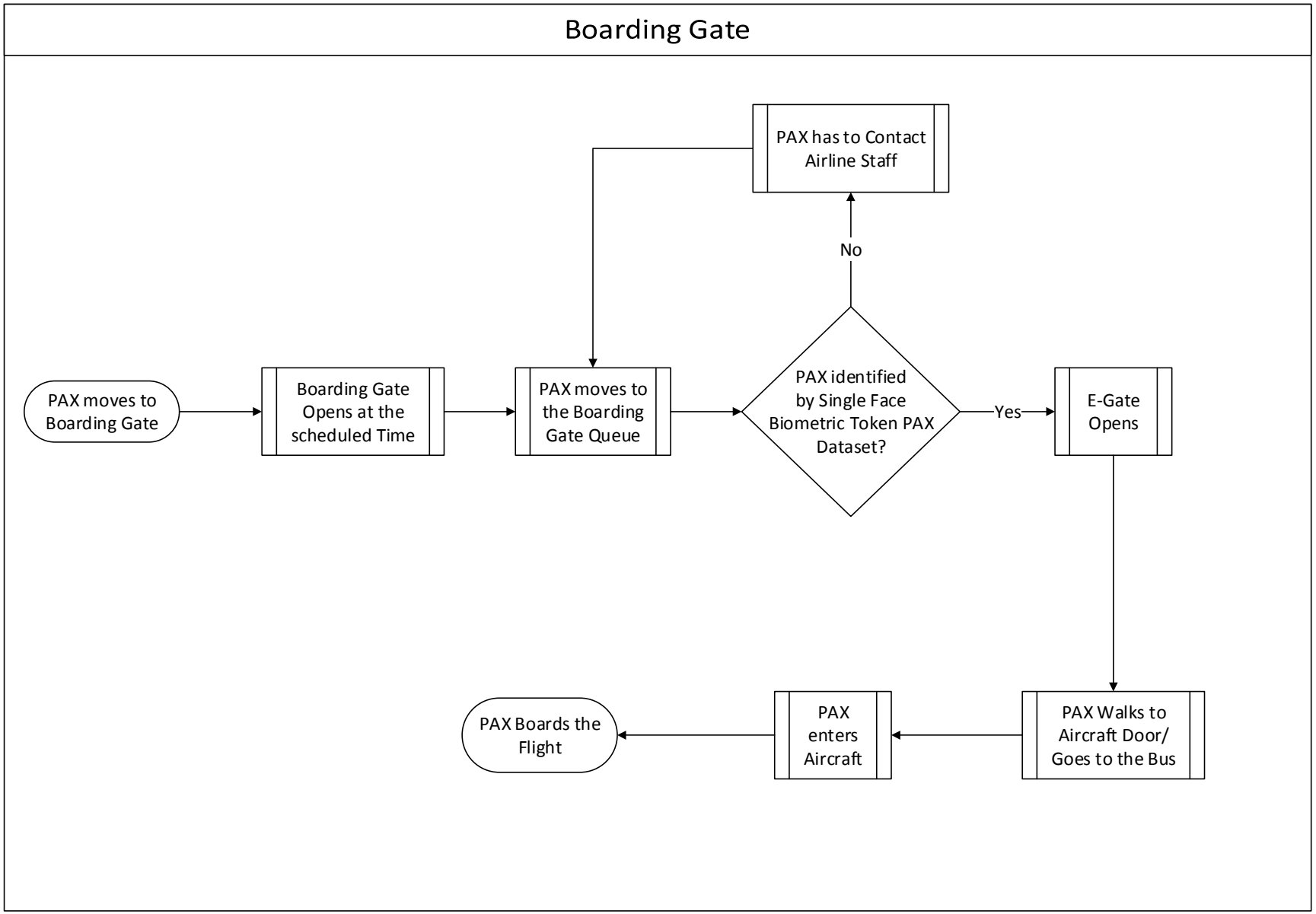
ANNEXURE-4: DOMESTIC PASSENGER PROCESS FLOWCHART: AIRPORT ENTRY TO THE BOARDING GATE




Airport Entry Gate
Start
PAX at Airport Entry Gate Scans Boarding Pass/ ETKT
Capture PAX Face Biometric
PAX Single Token Face Verification with PAX dataset successful?
No
PAX asked to go to CISF security
CISF Checks ID manually
Yes
CISF Accepts PAX?
Yes
Update the DY BBS-PAX Dataset
Open E-Gate
PAX enters Airport Building
No
PAX not Allowed


Check-In Hall
PAX goes to the CUSS Kiosk and does his Checkin
At the CUSS Kiosk, PAX is identified by Single Token
PAX dataset available in System?
No
Alert Security & Exception Handling
Yes
No
PAX enters the Airport Building
Is PAX Checked in?
Yes
PAX Goes to the Bag Drop Counter
Update Check-in Status of PAX to the BBS
PAX does Seat Selection & T&C, completes Checkin
At the Bag Drop Counter, PAX identified by the Single Token
PAX selects & prints number of Bag Tags, Tags the Bags
PAX deposits Bag into the Bag Drop, Collects Claim Slip
PAX now Moves to the PESC Area
PAX entering PESC Area

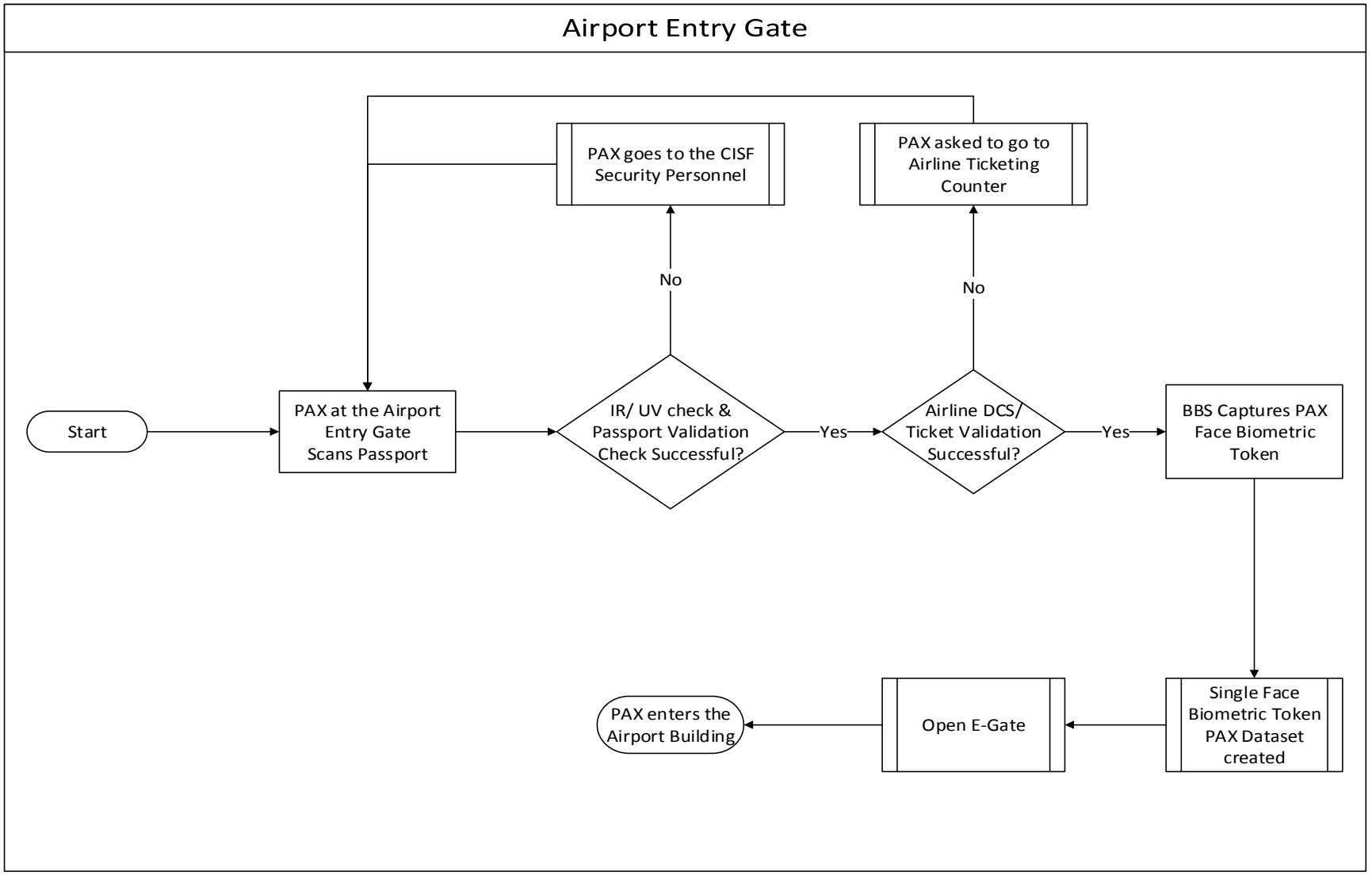

PESC
No
Alert Security
PAX entering PESC Area
PAX comes to the E-Gates at the PESC entrance
PAX identified by Single token PAX dataset?
Yes
E-Gate Opens
PAX goes to X-Ray Machine, divests Belongings
PAX moves to Frisking Lane thro' DFMD
PAX moves to Boarding Gate
PAX moves towards the SHA area
PAX cleared by CISF?
PAX is Frisked by CISF Officer
Secondary Check Process invoked
No

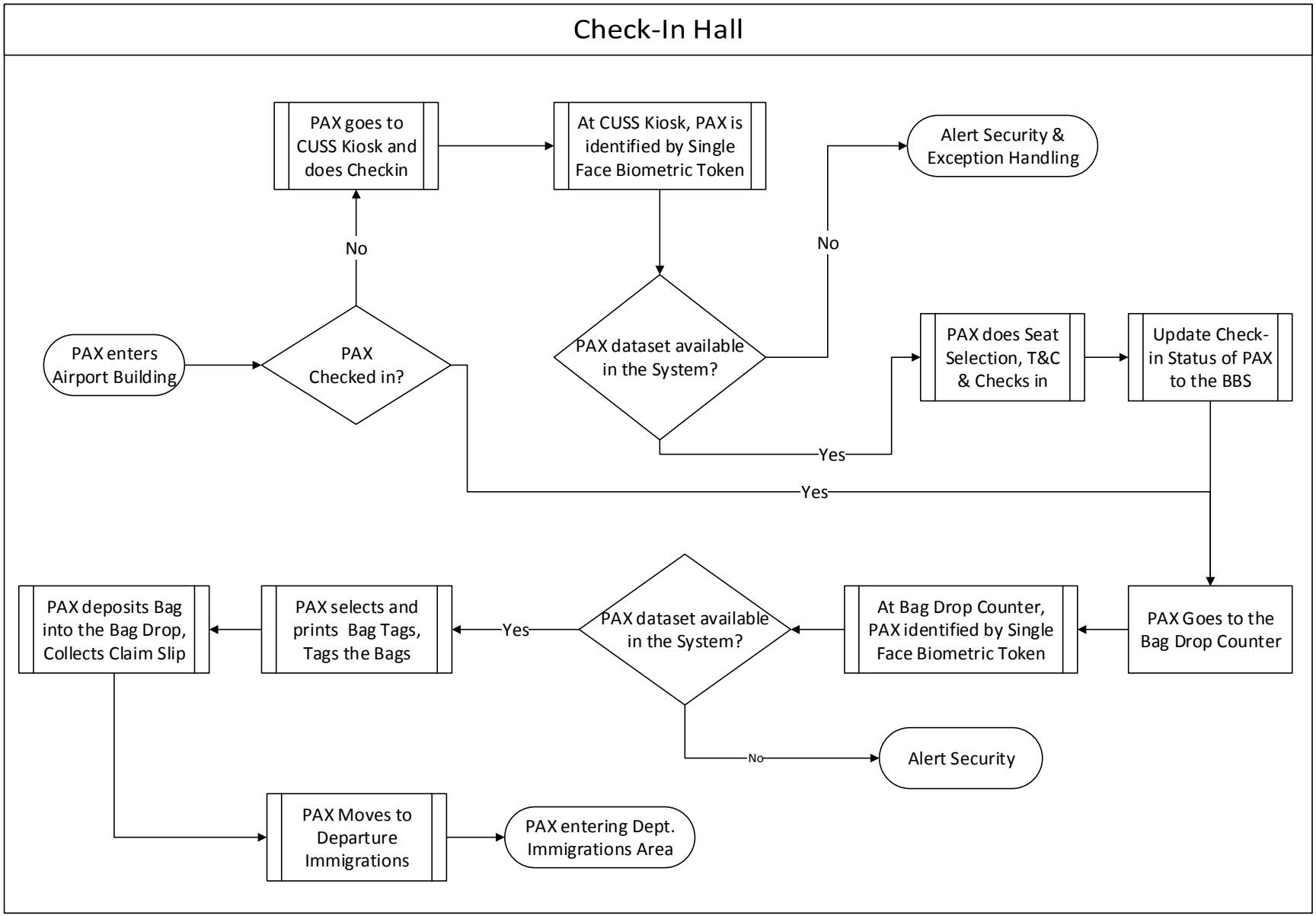

Boarding Gate
PAX has to Contact Airline Staff
No
PAX moves to Boarding Gate
Boarding Gate Opens at the scheduled Time
PAX moves to the Boarding Gate Queue
PAX identified by Single Face Biometric Token PAX Dataset?
Yes
E-Gate Opens
PAX Boards the Flight
PAX enters Aircraft
PAX Walks to Aircraft Door/ Goes to the Bus

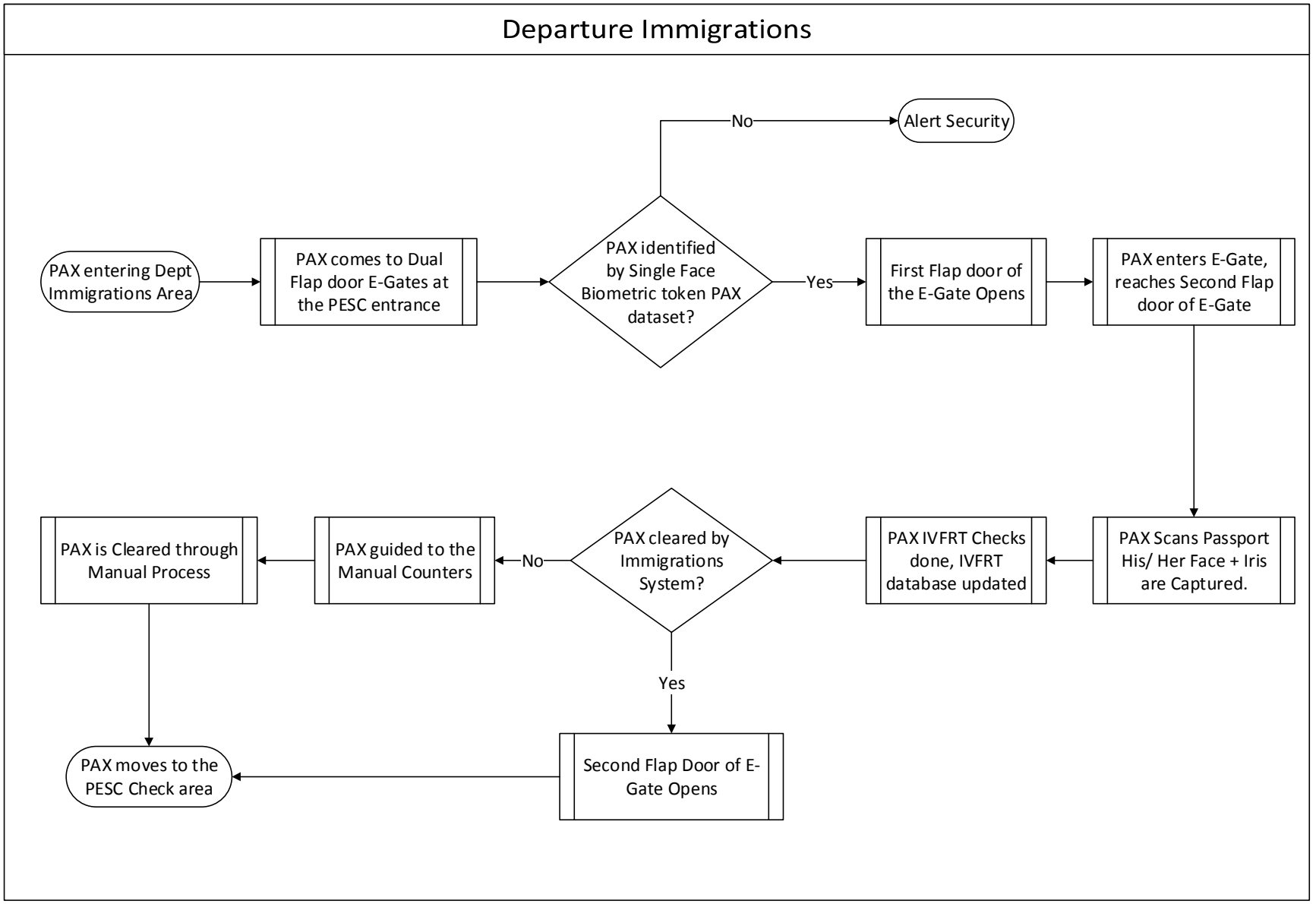
ANNEXURE-5: REFERENCE CHECKLIST

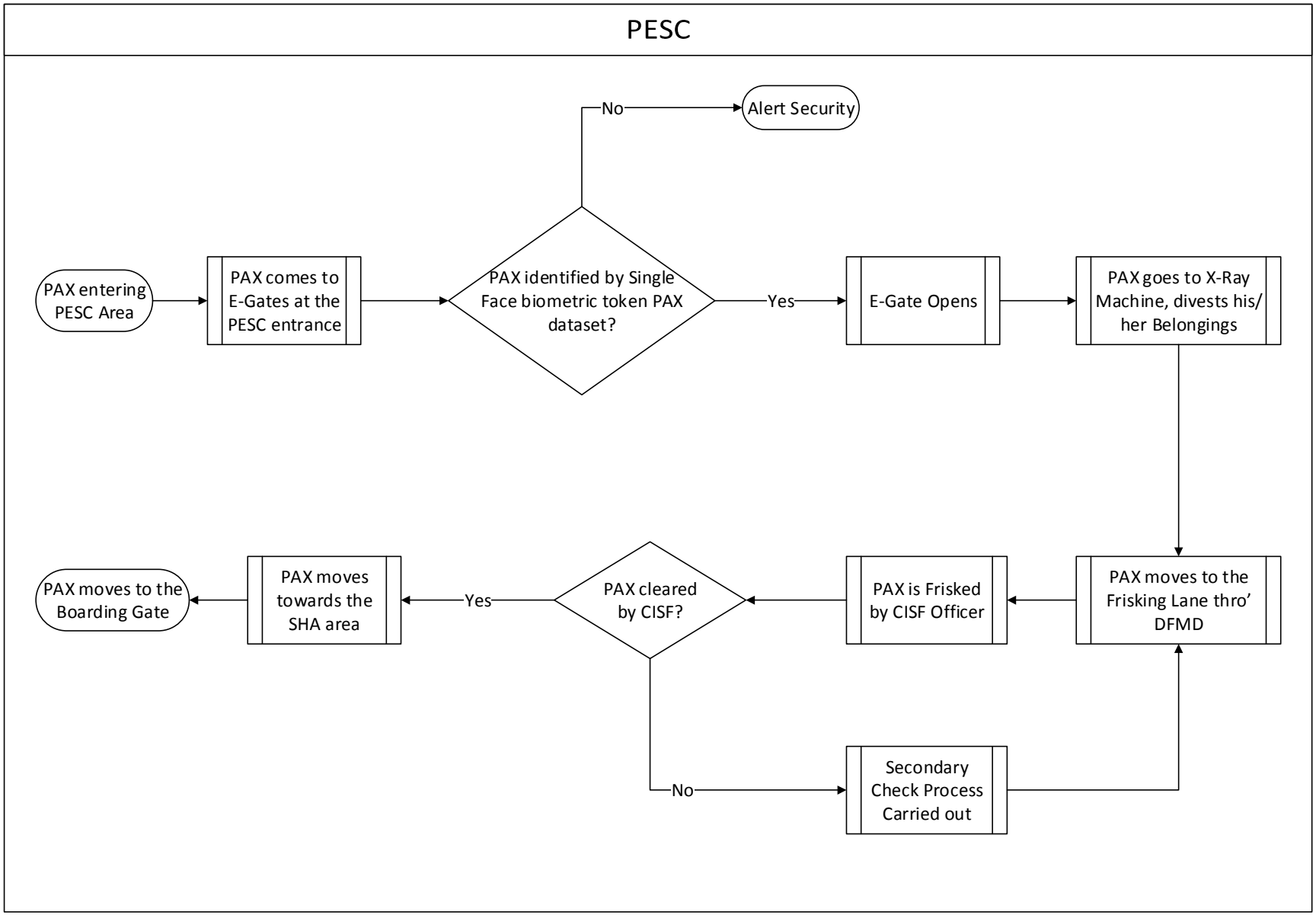
SRN	Item	URL
1.	Reference for WCAG2.0	https://www.w3.org/TR/WCAG20/ https://www.w3.org/WAI/intro/wcag https://www.w3.org/WAI/WCAG20/glance/
2.	Example of Government implementation in digital Accessibilities	
3.	Developing Accessible IOS mobile App	https://developer.apple.com/library/content/documentation/UserExperience/Conceptual/iPhoneAccessibility/Introduction/Introduction.html
4.	Developing Accessible Apps for Android	https://developer.android.com/guide/topics/ui/accessibility/apps.html
5.	WCAG2.0 standard for mobile apps	http://www.w3.org/Mobile/mobile-web-app-state/
6.	Universal accessible design Government of India portal	http://www.incometaxindiaefiling.gov.in http://www.irctc.co.in http://www.socialjustic.nic.in

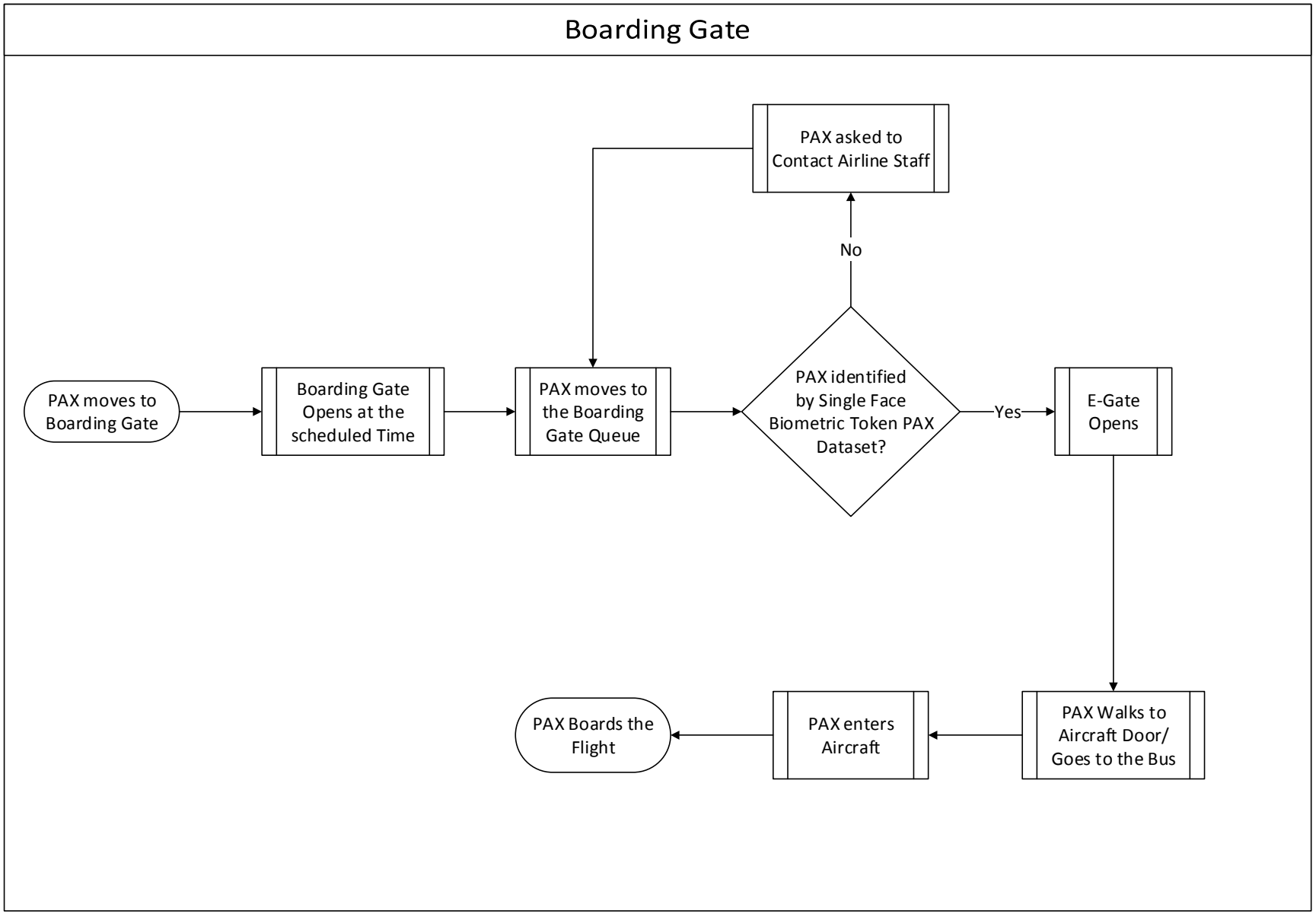
ANNEXURE-6: INTERNATIONAL PASSENGER PROCESS FLOW CHART: AIRPORT ENTRY TO BOARDING GATE



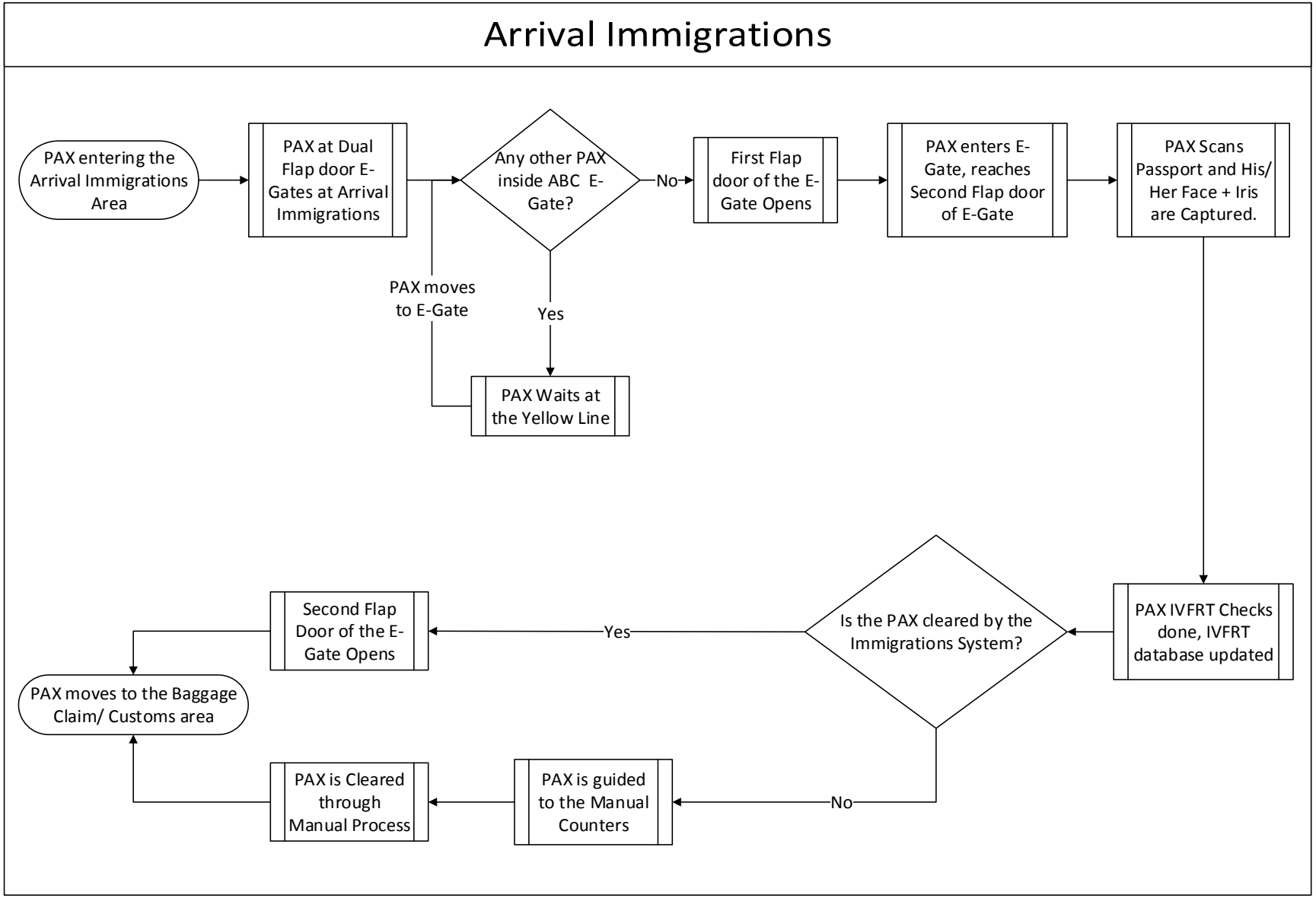

Check-In Hall
PAX goes to CUSS Kiosk and does Checkin
At CUSS Kiosk, PAX is identified by Single Face Biometric Token
Alert Security & Exception Handling
No
No
PAX enters Airport Building
PAX Checked in?
PAX dataset available in the System?
PAX does Seat Selection, T&C & Checks in
Update Check-in Status of PAX to the BBS
Yes
Yes
PAX deposits Bag into the Bag Drop, Collects Claim Slip
PAX selects and prints Bag Tags, Tags the Bags
Yes
PAX dataset available in the System?
At Bag Drop Counter, PAX identified by Single Face Biometric Token
PAX Goes to the Bag Drop Counter
No
Alert Security
PAX Moves to Departure Immigrations
PAX entering Dept. Immigrations Area


Departure Immigrations
PAX entering Dept Immigrations Area
PAX comes to Dual Flap door E-Gates at the PESC entrance
PAX identified by Single Face Biometric token PAX dataset?
No
Alert Security
Yes
First Flap door of the E-Gate Opens
PAX enters E-Gate, reaches Second Flap door of E-Gate
PAX Scans Passport His/ Her Face + Iris are Captured.
PAX IVFRT Checks done, IVFRT database updated
PAX cleared by Immigrations System?
No
PAX guided to the Manual Counters
PAX is Cleared through Manual Process
Yes
Second Flap Door of E-Gate Opens
PAX moves to the PESC Check area


PESC
No
Alert Security
PAX entering PESC Area
PAX comes to E-Gates at the PESC entrance
PAX identified by Single Face biometric token PAX dataset?
Yes
E-Gate Opens
PAX goes to X-Ray Machine, divests his/ her Belongings
PAX moves to the Frisking Lane thro' DFMD
PAX is Frisked by CISF Officer
PAX cleared by CISF?
Yes
PAX moves towards the SHA area
PAX moves to the Boarding Gate
No
Secondary Check Process Carried out


Boarding Gate
PAX asked to Contact Airline Staff
No
PAX moves to Boarding Gate
Boarding Gate Opens at the scheduled Time
PAX moves to the Boarding Gate Queue
PAX identified by Single Face Biometric Token PAX Dataset?
Yes
E-Gate Opens
PAX Boards the Flight
PAX enters Aircraft
PAX Walks to Aircraft Door/ Goes to the Bus

ANNEXURE-6 A: INTERNATIONAL PASSENGER PROCESS FLOW CHART: ARRIVAL IMMIGRATIONS



ANNEXURE- 7: UIDAI REFERENCES AS PER UIDAI WEBSITE

UIDAI Documents

https://uidai.gov.in/resources.html

Authentication Overview:

https://uidai.gov.in/authentication/authentication-overview.html

Authentication Service Agencies:

https://uidai.gov.in/authentication/authentication-partners/service-agency.html

Authentication Request Agencies:

https://uidai.gov.in/authentication/authentication-partners/user-agency.html

Authentication Devices:

https://uidai.gov.in/authentication/authentication-devices-documents.html