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AGENDA ITEM 6: ECONOMIC DEVELOPMENT OF AIR TRANSPORT

DOMESTIC AND INTERNATIONAL PASSENGER INTEGRATION PROGRAM (DIPIP)

(Presented by IATA - International Air Transport Association)

INFORMATION PAPER

SUMMARY

The Domestic and International Passenger Integration Program (DIPIP) explores the benefits of removing physical segregation between domestic and international passengers in airport terminals through biometric technologies. This integration improves travel experience, efficiency, reduces costs, and enhances sustainability. Removing segregation optimizes airport space, boosts revenue, and streamlines passenger flow through the optimization of existing infrastructure. DIPIP research provides an evidence-based justification for passenger integration across various regional contexts globally. It also provides some preliminary conceptual implementation solutions.

DOMESTIC AND INTERNATIONAL PASSENGER INTEGRATION PROGRAM (DIPIP)

1. INTRODUCTION

1.1 Current state of passenger flows

Domestic and international passengers have unique requirements, set by international and regional authorities, which are often written into aviation laws and regulations. International passengers can be subject to extra security, customs and immigration checks to board an aircraft, whilst domestic passengers often require less documentation and sometimes security, or baggage policies may come with fewer restrictions. Additionally, international passengers are often higher paying customers, so are typically offered a greater range of facilities and retail offerings (e.g., duty-free shops).

As a result of these requirements, the treatment of domestic and international passengers in airport terminal buildings varies hugely. Local contexts determine different designs for airport passenger terminals and set different security and immigration rules for coordinating passengers. The passenger journey experiences, therefore, are numerous and range from having separate international and domestic terminal buildings, to separation pre-security within a common terminal. This variation results in inefficient use of space, duplication of resources and operationally inflexible.

1.2 DIPIP and Passengers Flows in the Future

DIPIP envisages a convergence of flows at airports in the future where international and domestic passengers will mix throughout departure facilities until they board their flight regardless of their destination. This convergence will remove the variety in the flows we experience today and their inefficiencies, therefore delivering significant benefits to all stakeholders.

Improved airport layouts and passenger experience will be enabled by biometric technologies which distinguish between different passenger types, enabling stakeholders such as control authorities, airports, airlines and handlers to carry out relevant checks on international passengers before they travel. Logical, rather than physical, segregation will see passengers enroll themselves in the biometric system, validating their travel documents if necessary and freely mixing in the terminal before undergoing a reconciliation at boarding. This reconciliation will confirm that they are the enrolled passengers and have been appropriately processed to travel. The equipment and process maturity of the integration will vary depending on the level of investment, ambition and stakeholder buy-in.

2. DISCUSSION

2.1 Benefits of integrating International and Domestic Passengers

The research conducted evidenced that the integration of domestic and international passengers will position airports, airlines and ground handlers to better handle future growth and evolving passenger expectations. There are many significant benefits associated with the removal of physical segregation using biometric solutions:

- Future CAPEX Reductions: passenger integration reduces future CAPEX for airports, airlines and ground handlers because terminal areas can be used more efficiently and capacity for growth is unlocked.
- Increased Revenue: removing passenger segregation increases revenue for airlines and airports due to greater efficiencies in passenger journeys and the more flexible use of terminal space resulting in better MCTs and connections.
- OPEX Savings: combined passenger terminal areas offer opportunities for airports, airlines

and ground handlers to save OPEX costs on staff efficiency and resources (energy, water, etc.).

- Sustainability Improvements: combining passenger flows unlocks headroom for growth in terminals, removes duplicate utility consumption and lower fuel burn, providing the opportunity to reduce operational carbon for airlines and airports, and reduce future embodied carbon for airports.
- Improved Passenger Experience: integrated terminals improve passenger experiences by reducing connection times, offering more services and allowing for seamless journeys. Improvements in passenger experience eventually increase airports and airlines reputation.

2.2 Solutions and Levels of implementation

The solutions identified vary in complexity and technological maturity. Each airport's assessment of the most suitable integration strategy depends on specific operational scenarios, budget constraints, regulatory environments, and passenger experience goals.

Additionally, the research considers current limitations, such as the solutions currently employed by border authorities, the extent of biometric technology utilization, and the progress in adopting Digital Travel Credentials.

Three levels of implementation have been identified: Baseline, Integrated, and End-State implementation.

2.2.1 *Level 1 – Baseline Implementation*

The Baseline Implementation utilizes biometric solutions as a passenger flow tool to manage international and domestic passengers within shared terminal spaces, ensuring efficiency and security without major workflow changes. Passengers enroll in the biometric system before entering the departure lounge, streamlining identity verification and boarding. Airports can implement this flexibly through self-service touchpoints or retrofitted agent desks, adapting to their operational needs.

This approach does not make use of biometrics to conduct any of the passenger journey (i.e. check-in, passport control, etc.) steps and therefore does not require integration with other stakeholders' systems integrate passport checks for international travelers, the trade-off is mitigated by the broader benefits of a unified biometric experience, reducing manual processes and laying the groundwork for future enhancements.

2.2.2 *Level 2 – Integrated Implementation*

The Integrated Implementation introduces a mature biometric solution that streamlines domestic and international passenger flows. By integrating biometric systems across multiple stakeholders, including border control agencies and airlines, this approach reduces process duplication and enhances operational efficiency. Border checks are consolidated with biometric enrolment for international passengers before they enter the shared departure lounge, while domestic passengers follow a simplified enrolment process at designated touchpoints. Both passenger types are verified at boarding, ensuring security and compliance. This multi-party system enables real-time data sharing between airports, airlines, and border authorities, improving coordination and reducing redundancies. Airports can deploy self-service biometric touchpoints or retrofit agent desks, offering flexibility in implementation. Some stakeholders may integrate enrolment at check-in kiosks or bag drop stations, further simplifying the process.

By aligning border and airline operations with biometric technology, this solution creates a more seamless, secure, and efficient terminal experience for passengers and stakeholders alike.

2.2.3 *Level 3 – End-state Implementation*

The End-State Implementation is the most advanced biometric solution, shifting enrolment from airport terminals to mobile devices for seamless, decentralized passenger identity verification. International travelers can complete pre-travel emigration procedures remotely, reducing infrastructure demands and improving convenience. While traditional on-site processes may still be required during the transition, the system deeply integrates airlines, government agencies, and airport operators through secure, interoperable platforms.

By enabling real-time data sharing and decentralizing identity management, the solution optimizes passenger flows, enhances security, and streamlines airport operations. Full adoption will require technological advancements, regulatory adjustments, and stakeholder collaboration.

To successfully implement a biometric solution for integrating domestic and international passenger flows, airports, airlines and authorities should consider a structured approach to implementation, which enables to systematically design, implement, and operate biometric solutions that integrate passenger flows while ensuring security, compliance, and operational efficiency.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this Paper.

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