



WORKING PAPER

**SEVENTH WORLDWIDE AIR TRANSPORT CONFERENCE
(ATCONF/7)**

Montréal, HQ, 16 to 20 November 2026

Agenda Item 4: Emerging technologies, new business models and other associated aspects

4.3: Leveraging air transport data and the digital ecosystem for seamless, secure and resilient operations

**BRAZIL'S POLICY FRAMEWORK FOR A SEAMLESS, SECURE AND
RESILIENT BIOMETRIC AIR TRAVEL ECOSYSTEM**

(Presented by Brazil, and supported by 17 LACAC Member States¹)

EXECUTIVE SUMMARY

The increasing adoption of biometric technologies in air transport may lead to fragmented, operator-specific solutions, redundant biometric enrolment databases and limited interoperability. Such fragmentation may increase implementation costs and prevent passengers, airports and airlines from fully benefiting from a seamless and trusted digital identity ecosystem.

Brazil is developing a policy for a national coordinated and standardized implementation of biometric identity verification capabilities in air transport. The policy seeks to strengthen identity assurance for passengers, crew members and airport personnel while improving facilitation and operational efficiency across key stages of the air travel journey.

Under an integrated and federated digital identity model, biometric identities will be securely validated against authoritative government sources through a State-coordinated service. Airports and airlines will use this validation framework without creating separate and redundant biometric enrolment databases, thereby improving interoperability, data consistency and the passenger experience. The framework also establishes governance arrangements for the protection and appropriate use of personal data.

Initial proofs of concept are demonstrating the technical and operational feasibility of the model and generating evidence to support national implementation. Although the policy has a broader multimodal scope covering air, port and waterway transport, this paper focuses on its application to civil aviation and its contribution to seamless, secure and resilient air transport operations.

Action: The action by the conference is detailed in paragraph 4.1.

<i>Strategic Goals:</i>	This working paper relates to Strategic Goals: <i>The Economic Development of Air Transport Assures the Delivery of Economic Prosperity and Societal Well-Being for All; and Aviation Delivers Seamless, Accessible, and Reliable Mobility For All.</i>
<i>Financial implications:</i>	N/A
<i>References:</i>	N/A

¹ Belize, Bolivia (Plurinational State of), Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Uruguay and Venezuela (Bolivarian Republic of).

1. INTRODUCTION

1.1 The global aviation industry has witnessed a significant surge in the adoption of biometric technologies, driven by the increasing demand for heightened security and operational efficiency. These technologies offer a transformative potential to strengthen identity assurance, facilitate a more seamless passenger journey, and significantly bolster operational performance within transport hubs.

1.2 However, the current landscape in Brazil faces a critical challenge: uncoordinated adoption. The prevalence of operator-specific solutions has led to redundant biometric registrations, a lack of interoperability between governmental and private databases, and the duplication of investments. Ultimately, these systemic fragmentations result in inconsistent experiences for passengers, who often encounter varying procedures at different points of entry.

1.3 To address these issues, this document presents the Brazilian approach through the establishment of a national policy for biometric identification, providing a structured framework to modernize and unify identification procedures. It is important to note that, while this policy is inherently multimodal—encompassing the air, maritime, and waterway sectors—this working paper will focus exclusively on its application and implementation within civil aviation.

2. DISCUSSION

2.1 The Brazilian Biometric Identification Policy

2.1.1 Brazil is developing a national biometric identification policy designed to establish a nationally coordinated, standardized, and integrated approach for transport hubs. This policy serves as a strategic framework to guide the implementation of biometric capabilities by all relevant stakeholders, ensuring that technological adoption is uniform across the country. Its primary objectives are to strengthen security at critical infrastructure points, enhance operational efficiency, and improve passenger experience during identity verification stages.

2.1.2 The policy is designed to encompass various groups, including passengers, crew members, and workers who require access to restricted and controlled areas. However, the central focus is the passenger journey, specifically targeting the stages of access to restricted areas (pre-security) and aircraft boarding. Throughout this implementation, the policy maintains a rigorous commitment to personal data protection, ensuring full compliance with the Brazilian General Data Protection Law (LGPD) to safeguard individual privacy and fundamental rights.

2.2 A National and Integrated Biometric Verification Model

2.2.1 The cornerstone of the Brazilian model is the validation of identity through authoritative government sources. This validation process is offered as a state-coordinated service, managed by a designated federal entity (SERPRO), which ensures national sovereignty and data security. Under this framework, airports and airlines can utilize the centralized validation service without the need to build and maintain their own redundant and costly biometric registration databases.

2.2.2 This integrated model is expected to deliver significant strategic benefits, such as greater identity reliability, consistency of information across different terminals, and seamless interoperability between systems. Furthermore, it aims to provide superior passenger experience while simultaneously reducing the duplication of infrastructure and private investments.

2.2.3 From a security standpoint, this unified framework strengthens threat mitigation and border protection. By making authoritative biometric information available to border control authorities, including the Federal Police, the Brazilian Health Regulatory Agency (Anvisa), and the International Agricultural Surveillance (*Vigiagro*), it supports more reliable identity verification. Combined with Advance Passenger Information (API) and Passenger Name Record (PNR) data, it enables more effective risk assessments, threat detection, and border control activities.

2.3 Proof of Concept and Implementation

2.3.1 The implementation of the model is being supported by ongoing proof-of-concept (PoC) initiatives. The model has already been tested in operational environments, with biometric validation conducted for passengers on commercial flights. These PoCs help assess the model's feasibility, identify operational adjustments, and generate evidence to support its broader implementation.

3. CONCLUSION

3.1 The establishment of a National Biometric Identification Policy represents a strategic milestone for Brazil, effectively addressing the systemic risks of technological fragmentation and the vulnerabilities inherent in manual document verification. By implementing a nationally coordinated and standardized framework, Brazil ensures that biometric adoption in air transport is not only efficient but also fully interoperable across different stakeholders.

3.2 A fundamental pillar of this model is the validation of identities against authoritative government sources via a state-coordinated service (SERPRO), which prevents the creation of redundant private databases and enhances the reliability of the entire ecosystem. Furthermore, the policy is deeply rooted in the Brazilian General Data Protection Law (LGPD), adopting privacy by design and security by design principles to ensure the highest standards of data protection and individual rights.

3.3 Ongoing proofs of concept have provided encouraging evidence of the technical and operational feasibility of this integrated approach and are generating valuable insights to support future implementation decisions. Its application to civil aviation represents an important step toward a more seamless, secure and resilient air travel experience for passengers, crew and airport personnel.

3.4 Ultimately, the direct availability of verified biometric data to border control authorities coupled with the integration of API and PNR information, acts as a vital and comprehensive tool for national security, preventing illicit activities and enforcing cross-border law compliance efficiently.

4. ACTION

4.1 The conference is invited to:

- a) recognize the potential of nationally coordinated and standardized biometric identity frameworks to strengthen identity assurance, facilitation, and operational efficiency in air transport;
- b) encourage Member States to establish governance frameworks for the deployment of biometric technologies in air transport, promoting interoperability, trusted identity assurance, protection of personal data, and the avoidance of duplicative biometric enrolment systems.

- c) encourage the International Civil Aviation Organization (ICAO) and Member States to share experiences and lessons learned from national biometric identity initiatives, with a view to promoting compatible and harmonized approaches within the global air transport industry.

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