

# ICAO Facilitation Regional Forum

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Ulaanbaatar, Mongolia  
7 to 8 July 2025

Hosted by:



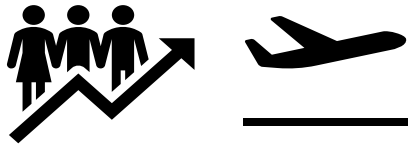
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# Shaikh Abdullah Ab Sukor

Deputy Director, Airport Operations and Aviation Security  
Civil Aviation Authority of Singapore

# Harnessing Technology to Balance Security and Seamless Travel

## Rapid growth in passenger traffic



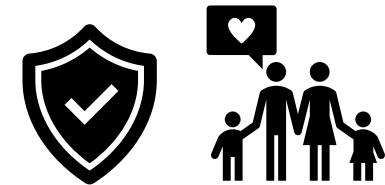
- ICAO projects global pax traffic to double to 10 Billion Passengers by 2040

## Evolving Security Threats



- Stopping bad actors at the borders
- Evolving nature of security threats

## Balancing Operations Efficiency and passenger satisfaction



- Need to maintain:
  - Efficiency
  - Border security
  - Positive passenger experience

**Automated Border Control aligns with ICAO Annex 9, Standard 3.46 – Use of technology to expedite passenger inspections**

# Thailand's Auto Channel



<https://go.gov.sg/thaiautochannel>

# Implementing Automatic Border Control in Thailand

## ❑ Thailand Digital Arrival Card (TDAC)

- A cutting-edge digital form that replaces the traditional paper-based arrival card

## ❑ Auto Channel—a passport screening system

- Replaces conventional checks conducted by immigration officers, allowing for increased efficiency and speed in passport processing
- First phase, available only to eligible departing passengers

# Future Stage of Implementation



- ☐ **Expand Auto Channel—a passport screening system**
  - Use to all travelers
  
- ☐ **Available to arrival and departing passengers**

# Singapore's New Clearance Concept



<https://go.gov.sg/newclearanceconcept>  
tatchan@airport

# Singapore's New Clearance Concept

## NEW CLEARANCE CONCEPT (PASSENGER)



**Before arrival:**  
Visitors' details will be submitted via the **SG Arrival Card**



▶ **On arrival:**  
Visitors proceed to the **next-gen automated lanes** equipped with multi-modal biometrics capability (e.g. iris, facial or fingerprints) for self-clearance



▶ Visitors eligible for entry will receive an **electronic Visit Pass (ePass)** indicating the length of stay granted, via email



▶ **On departure:**  
Visitors will perform self-clearance using automated lanes

*\*SG Arrival Card captures additional details not found on travel documents, such as contact details, address in Singapore, place of birth and whether traveler has used a passport with different name.*

# Transformative Outcomes: Faster, Smarter, Safer Borders

## Improved Passenger Experience

Faster, Document-free Clearance for Travellers



## Increased Operational Efficiency

Smarter manpower deployment



## Enhanced Security

More accurate identity verification

Improved threat detection capabilities



## Infrastructure Optimisation

Increased throughput without proportional infrastructure expansion



# Insights from our implementation journey

- **Technological Integration**

- Combining various technologies, such as biometric scanners, data systems, and existing border control infrastructure, required careful planning and coordination

- **Data Privacy**

- Protecting passenger data and ensuring compliance with data privacy regulations was a paramount concern, and robust data protection measures were implemented to safeguard sensitive information

- **System Resilience**

- Ensuring the continuous operation of automated systems and mitigating the risk of disruptions required robust infrastructure, backup systems, and comprehensive business continuity plans

# Beyond operations: Strategic value for Nations

## Hub Competitiveness

*Enhanced airport efficiency strengthens hub position and attracts airlines & routes*

## Crisis Adaptability

*Flexible system architecture enables rapid adaptation to changing travel patterns and requirements*

## Data-Driven Planning

*Data-driven insights enable smarter infrastructure and passenger planning*

## International Collaboration

*Enhanced regional cooperation through interoperable border solutions*

## FAL Regional Forum

- **ICAO Annex 9, Standard 3.46**
  - encourages the use of technology to expedite passenger inspections
- **ICAO ABC Cost-Benefit Analysis Tool**
  - User Guide
  - Modifiable calculator sheets
  - Conduct financial analysis alongside qualitative benefits assessment
- **Implementation considerations**
  - Operational Realities
  - State priorities
  - Existing Capabilities
  - Data sharing agreements and data privacy regulations

[illegible]

# Way forward

- The ICAO ABC Cost-Benefit Analysis Tool can support the evaluation process.
- Knowledge sharing and collaboration among Contracting States will be crucial for successful implementation of automated clearance systems.
- States are encouraged to share experiences and learn from established best practices to address common challenges.
- Singapore and Thailand stand ready to share its experience and expertise with interested Contracting States to advance this important initiative.

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# Thank You

