




ICAO

Security & Facilitation

75
YEAR ANNIVERSARY
OF ANNEX 9
FACILITATION

2024 YEAR OF
FACILITATION

FACILITATION GLOBAL SUMMIT
RIYADH, SAUDI ARABIA, 21-22 MAY 2024

HOSTED BY:  **GACA**
الهيئة العامة للطيران المدني
General Authority of Civil Aviation

Past, Present, Future: 75 Years of Enabling Air Transport

Facilitating the Traveller Journey Through Innovation in Travel Document Format

Christiane DerMarkar, ICAO Traveller Identification Programme Officer

Past, Present, Future: 75 Years of Enabling Air Transport



01

1968

ICAO started to work on MRTDs



02

1980

1st Edition of Doc 9303 – Machine Readable Travel Document



03

1995

Started the work on:
1- Biometrics as the best way to link TD to rightful owner and
2- Adding data storage to the MRTDs



04

2004

Introduction of the 1st ePassport



05

2020

ICAO DTC VC specifications adopted and published.

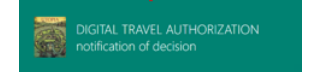


Vaccination certificate in VDS-NC format

06

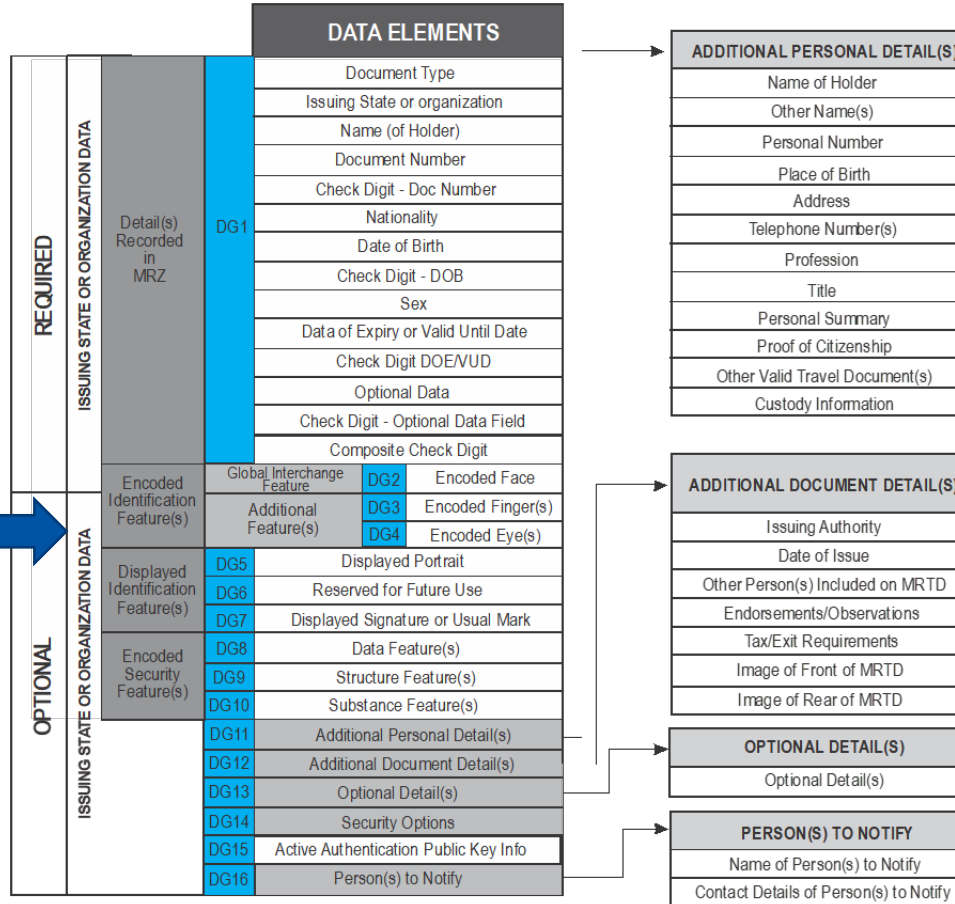
2021

VDS-NC and its multiple use case has been adopted by ICAO Council



Past, Present, Future: 75 Years of Enabling Air Transport

Purpose of the Passport booklet



- Biographic and biometric information contained in chip establish the “claimed identity”
- Binding between the traveler and the “claimed identity” can be established through biometric matching.

The book establishes the “entitlement” of the traveler to the “claimed identity” – A second factor

Past, Present, Future: 75 Years of Enabling Air Transport

From ePassport to the ICAO DTC-VC and DTC-PC



An ePassport can be viewed as a combination of:

- A **Virtual Component (VC)** consisting of the data contained in the chip;
- A **Physical Component (PC)** consisting of the booklet and/or cryptographic link between the VC and the PC and acts as an **authenticator** (second factor).

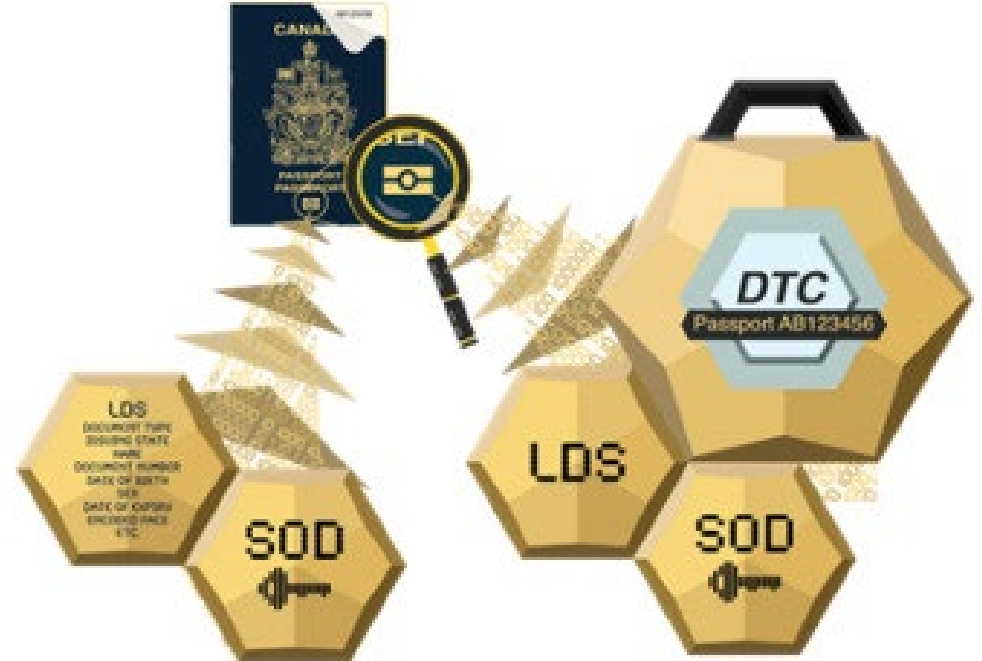
ICAO DTC Hybrid Model

- The Data from the chip is enclosed in a file structure and called a Virtual Component (VC);
- A device that can be cryptographically linked to the VC and is called the Physical Component (PC).



What is an ICAO DTC

- A **DTC** is a travel credential in a **digital format** that conforms with the specifications and are meant to temporarily or permanently substitute a conventional passport with a digital representation of the traveler's identity..
- It's the **conformance with ICAO-endorsed technical specifications** which makes a DTC **ICAO-compliant** (or not).
- if the ICAO DTC extracted is broken into micro-credential, and then signed by an entity other than the issuing authority
- This cannot be considered an ICAO DTC



ICAO DTC Types

Three Types

1. eMRTD bound DTC
 - Chipdata is read from existing travel document creating the VC
 - The eMRTD booklet acts as the authenticator and can be considered a PC
 - Anyone can create this DTC
2. eMRTD-PC bound DTC
 - Chipdata is read from existing travel document creating the VC
 - Option to cryptographically link to a different physical device(PC) with the eMRTD as a fallback
 - Can only be created by the same authority that issued the eMRTD
 - DTC can be issued any time after the issuance of the eMRTD
3. PC Bound DTC
 - No eMRTD is issued, but only a PC with form factor different from an eMRTD
 - Can only be created by an eMRTD issuing authority
 - No eMRTD available as a fallback

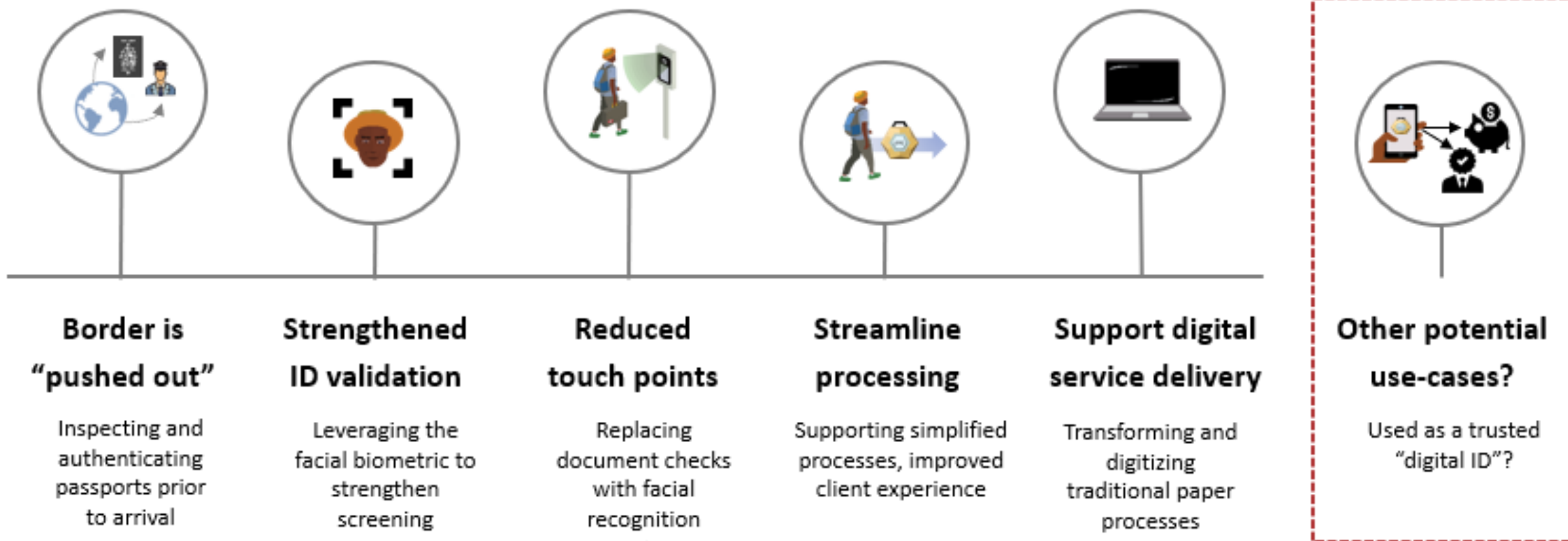
ICAO DTC Specifications

- ICAO DTC Type 1: DTC-VC Technical Report approved in 2020
- ICAO DTC type 2 : DTC-PC specifications divided into two phases
 - Phase 1 – maintain backward compatibility to the extent possible with existing inspection systems and replicate behavior of eMRTD – The Technical Report approved 2023
 - Phase 2 – investigate other form factors like mobile phones – currently a gap analysis is being conducted to identify the difference between policy requirements and technology landscape

Past, Present, Future: 75 Years of Enabling Air Transport

Use Cases :

- Seamless Travel
- Advance Travel Authorization (ETA/DTA/...)
- Improving border processing time
- Emergency Travel Document



19th TRIP Symposium

• **Montréal, Canada,
13-15 Nov. 2024**

- ✓ a world-class forum
- ✓ for the exchange of information
- ✓ on all aspects of traveller identification management and the ICAO TRIP Strategy
- ✓ providing decision makers and technical experts
- ✓ with valuable insight on key current and emerging issues.



Thank You

