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# Passenger Data Exchange Systems

*Steven Waterman*

*ICAO API/PNR Officer*

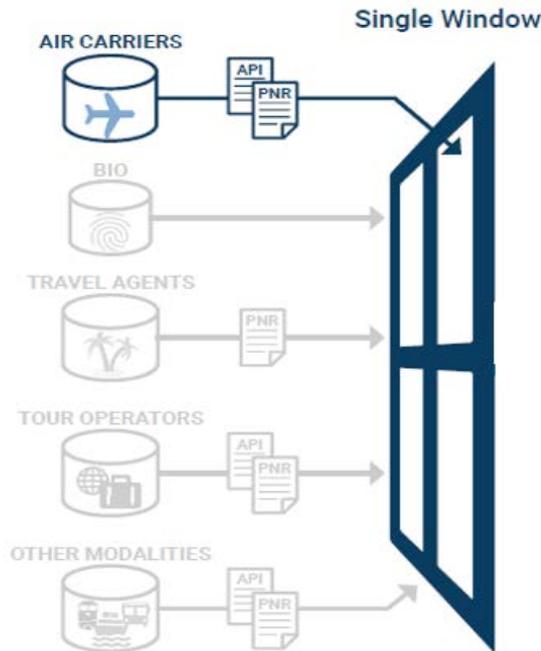


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# Passenger Data Single Window



- A facility that allows parties involved in passenger transport by air to lodge standardized passenger information (i.e. API, iAPI and/or PNR) through a single data entry point to fulfil all regulatory requirements relating to the entry and/or exit of passengers that may be imposed by various agencies of the Contracting State
- **Note.** — *The Passenger Data Single Window facility to support API/iAPI transmissions does not necessarily need to be the same facility used to support PNR data exchange.*



# Single Window

API - PAXLST

PNR - PNRGOV



Single Window Portal



Border Database

Passport Control



Immigration



MFA Visa



Customs



Transport Security



MoI / NCB



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# Single Window SARPs

- **\*Std 9.1:** shall create Single Window facility for each data category (API/iAPI and/or PNR);
- RP. 9.1.1: *should consider creating a Passenger Data Single Window facility for both data categories combined.*



# What is API?

- API consists of biographical data about passengers, plus information concerning the flight involved that is transmitted to a border agency before, or as the aircraft departs.
- The data is generated during airline check-in by the Departure Control System (DCS) and transmitted in the UN/EDIFACT message format.
- In some cases, the same data is also required for crew members.



# What is PNR?

- Consists of reservation data recorded by airline and/or other commercial reservation systems for each journey booked by or on behalf of any passenger.
- PNR data are used by airlines for their own commercial and operational purposes. This data can be sent to States in the PNRGOV message format for border and security purposes.
- PNR data content varies from airline to airline and even from passenger to passenger. PNR contains only as much as the airline or booking agency collects in the process of its travel bookings.





# Benefits of API

- **Border Integrity:** Helps to improve border control and to combat irregular immigration more effectively.
- **Facilitation:** Leads to a faster processing of bona fide travelers and improves citizens' perception of security.
- **Efficiency:** Allows for the reduction of the workload of border management officers through the use of technology and automated means.
- **International Information Sharing:** Complements existing data vetting processes, such as checking passenger passports against watch lists and INTERPOL databases (e.g. INTERPOL Stolen and Lost Travel Documents database).



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# API Stakeholders

- Passport Control (immigration);
- Customs;
- Aviation Security;
- Counter-Terrorism/National Security;
- Counter-Narcotics.



# WCO/IATA/ICAO Guidelines on API

- API Data Elements

- Data Relating to the Flight (Header Data)
- Biographical/Travel Document Data Elements
- Additional Data Elements Normally Found in Airline Systems
- Additional Data Elements NOT Normally Found in Airline Systems



# API Data Relating to the Flight (Header Data)

- Airline Code and Flight Number
- Scheduled Local Departure Dates/Times
- Scheduled Local Arrival Dates/Time
- Last Place/Port of Call for Aircraft
- Place/Port of Initial Arrival for Aircraft (AMS-YUL-YYZ-YVR)
- Subsequent Place(s)/Port(s) of Call within the Country (YYZ)
- Number of Passengers and Number of Crew Members







# Additional Data Elements Normally Found in Airline Systems

Easily captured or available – of great value

- Seating Information
- Baggage Information
- Traveller Status
- Place/Port of Original Embarkation (passenger)
- Place/Port of Clearance (Immigration)
- Place/Port of Onward Foreign Destination (AMS-YUL-BOS)
- Passenger Name Record Locator Number



# Additional Data *not* normally found in Airline systems

Not easily captured, perhaps better captured by the State directly through an online process

- Visa Number
- Issue Date of the Visa
- Place of Issuance of the Visa
- Other Document Number Used for Travel
- Type of Other Document Used for Travel
- Primary Residence
- Destination Address
- Place of Birth



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# Two methods of API Transmission

1. Batch/Legacy API
2. Interactive API



# Batch API

- Simplest form of API to implement
- Batch API is designed originally for the control of arriving passengers by the destination or transit country
- All passenger details (crew potentially in a separate message) are transmitted as a single data file, or “batch”
- Data is usually transmitted upon closure of the flight boarding process, government intervention is limited to the time of arrival
- Data quality validation is limited, and no-real time correction can be requested



# Interactive API

- More complex and costly form of API to implement
- All passenger details are transmitted in real-time on a per passenger basis as check-in is taking place, government intervention is immediate (response message)
- Receiving State must determine if any issues are preventing the passenger from entering the destination country, leaving the origin country or boarding an aircraft
- **Enhances aviation security and reduces the number of inadmissible passengers**



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# Passenger Name Record (PNR) Data





# PNR Definition

Defined by ICAO PNR Guidelines (ICAO Doc 9944)

- PNR is the generic name given to records created by aircraft operators or authorized agents for all the segments of a journey.
- PNR is commercial data supplied by or on behalf of the passenger concerning all the flight segments of a journey.
- The airline industry cannot guarantee the accuracy of PNR data, as reservation data is filled with self-asserted and unverified data collected for commercial purposes during time of booking.



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# Benefits of PNR

- Traditionally developed for Customs to identify contraband and smuggling routes
- To prevent terrorism and organized crime as well as a wide range of law enforcement measures.
- For risk assessment and analysis, helps States to identify unknown or suspicious people, trends or patterns, such as unknown travel routing and connections among individuals (including non-travellers), as well as between individuals and entities.



# PNR Guidelines – Doc 9944

- PNRs may include many of the separate data elements described in the list of possible elements contained in ICAO 9944.
- Includes changes to requested seating, special meals and additional services requested.
- PNR data are captured in many ways. Reservations may be created by various marketing organizations with pertinent details of the PNR then transmitted to the operating carrier(s).
- Accordingly, the structure of individual PNRs and the amount of data they contain will vary widely.



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# PNR Stakeholders

- Customs;
- Passport Control (immigration);
- Counter-Terrorism/National Security;
- Counter-Narcotics;
- Aviation Security;



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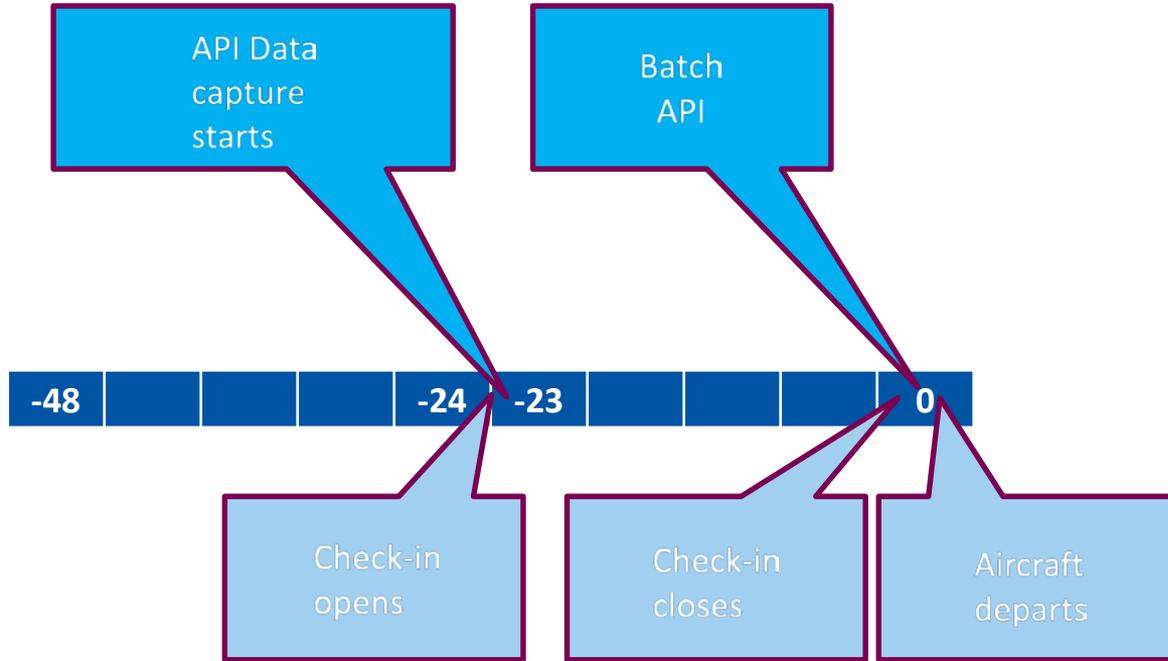


# Transmission Timings and Airline Systems



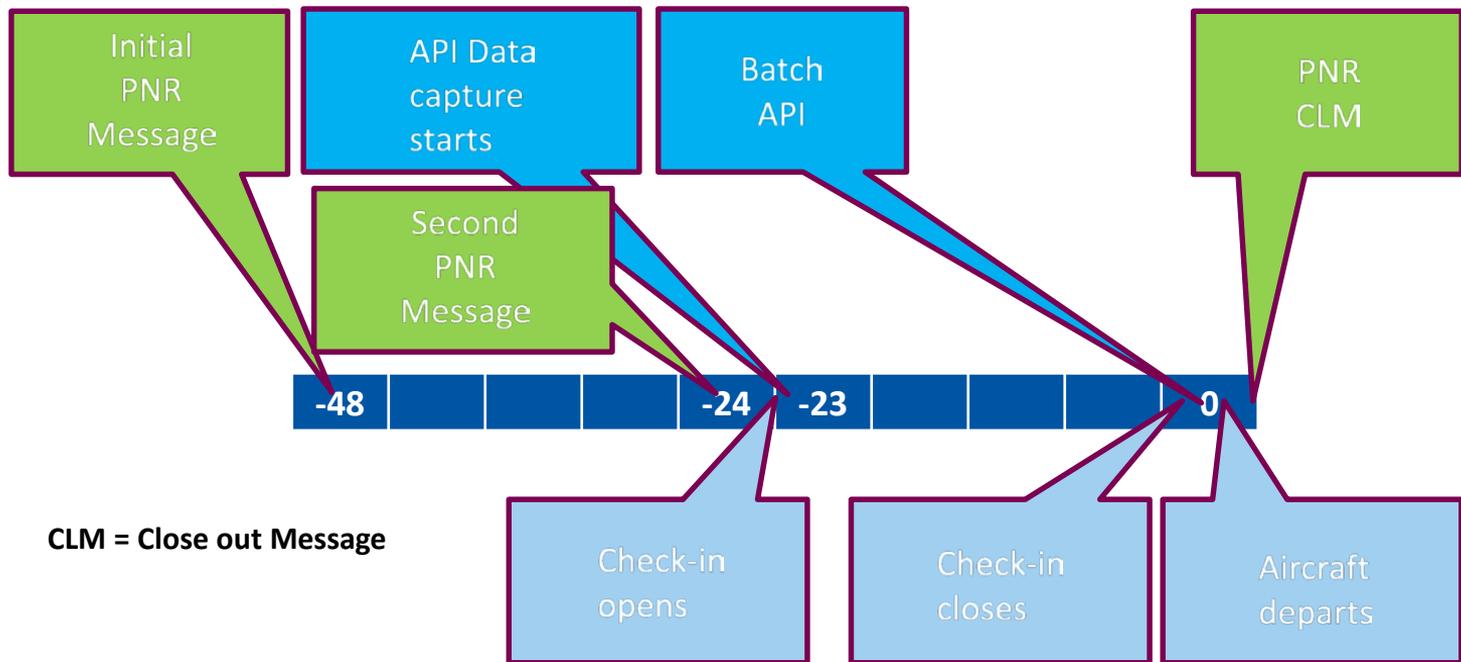


# Batch API Message Sequencing





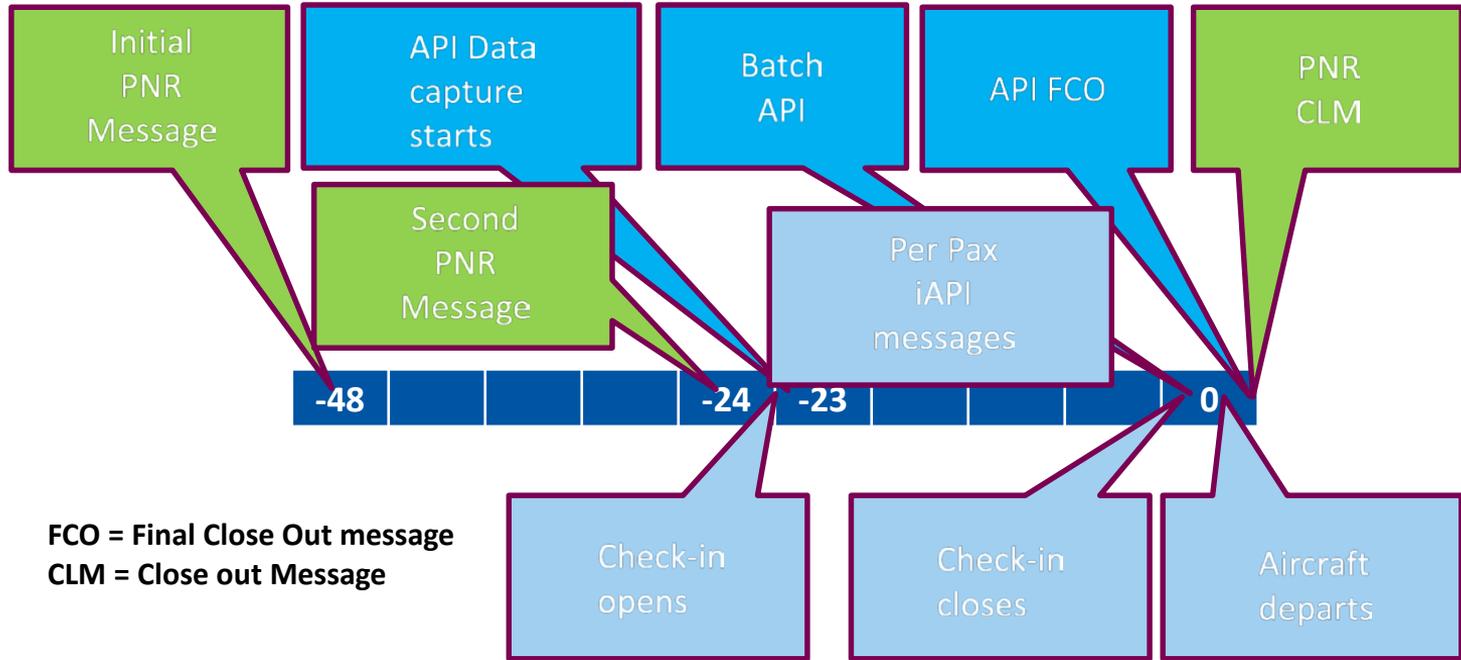
# Batch API & PNR Message Sequencing



CLM = Close out Message



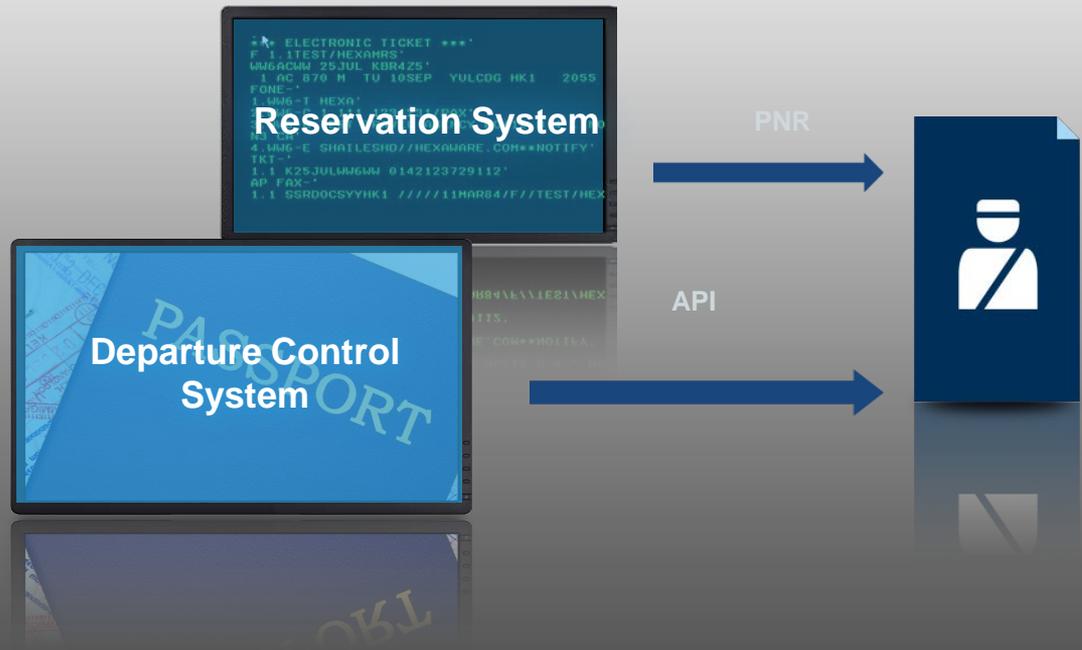
# iAPI & PNR Message Sequencing





# Airlines with segregated systems

Data Elements





Data Elements

# Airlines with integrated systems

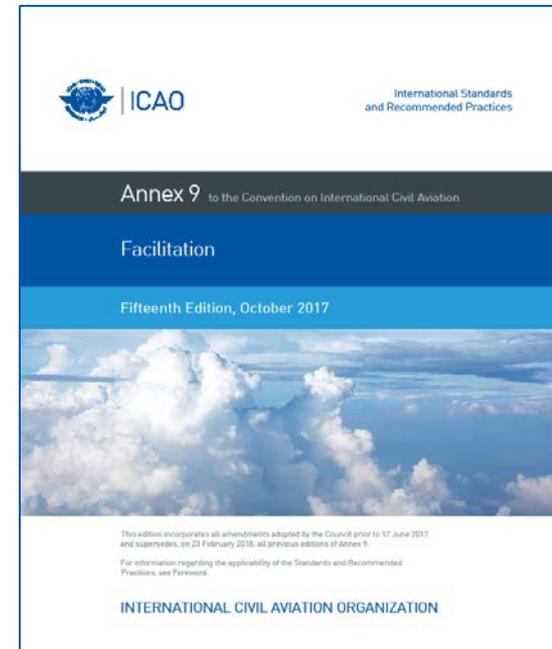




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# ICAO Annex 9 API SARPs





## API Mandatory Standard

- **\*Std. 9.7:** Each Contracting State shall establish an Advance Passenger Information (API) system.
- Note 1 UN security council, “Resolution 2178” (2014), paragraph 9;

*“[c]alls upon Member States to require that airlines operating in their territories provide advance passenger information to the appropriate national authorities in order to detect the departure from their territories, or attempted entry into or transit through their territories, by means of civil aircraft, of individuals designated by the Committee established pursuant to resolutions 1267 (1999) and 1989 (2011) (“the Committee”),...”*



## Adherence to the Standards

- Std. 9.5: States shall not require non-standard data elements as part of API, iAPI and / or PNR.
- Std. 9.6: States that are considering to deviate from the standard shall submit a request to the WCO/IATA/ICAO Contact Committee in conjunction with the WCO's Data Maintenance Request (DMR) process via a review and endorsement process.



## API Legal Basis Standard

- **\*Std. 9.8:** The API system of each Contracting State shall be supported by appropriate legal authority (such as, inter alia, legislation, regulation or decree) and be consistent with internationally recognized standards for API.

*Note 1: Brief description of API*

*Note 2: Information on UN/PAXLST message of UN/EDIFACT*

*Note 3: Non-applicability to general aviation*

*Note 4: The UN/EDIFACT PAXLST msg is defined by WCO/IATA/ICAO guidelines*





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# Summary of API SARPs in Annex 9

- Consider the needs of all agencies (Single Window)
- Batch API is mandatory
- Legal Basis must be in place
- PAXLST Message format
- UN/EDIFACT Transmission Protocol
- Passport data according to ICAO Doc 9303 (MRTD)
- Data elements according to WCO/IATA/ICAO Guidelines on API
- Technical specifications:
  - Batch - PAXLST Message Implementation Guide



# Summary of iAPI SARPs in Annex 9

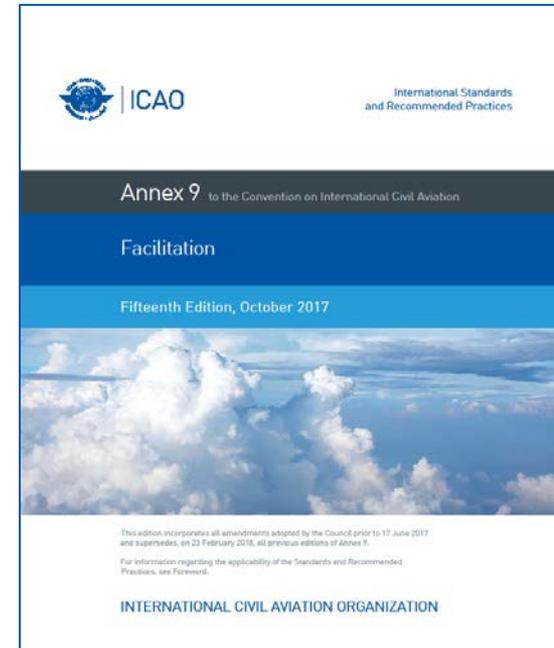
- Consider the needs of all agencies (Single Window)
- Introduction of iAPI is a Recommended Practice
- Legal Basis must be in place
- Adherence to the WCO/IATA/ICAO Guidelines on API and UN/EDIFACT Transmission Protocol is a Recommended Practice
- Passport data according to ICAO Doc 9303 (MRTD)
- Technical specifications:
  - iAPI - CUSRES Message Implementation Guide



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# ICAO Annex 9 PNR SARPs





## PNR Baseline Commitment

- **\*Std. 9.24:** Each Contracting State shall:
  - a) develop a capability to collect, use, process and protect PNR data ...supported by appropriate legal and administrative framework... and be consistent with all Standards contained in Section D, Chapter 9, Annex 9;
  - b) align its PNR programme with ICAO PNR Guidelines and WCO/ICAO/IATA guidance materials; and
  - c) adopt and implement the PNRGOV message for airline to-government PNR data transferal to ensure global interoperability.



## PNR Purpose Limitation

- **\*Std. 9.25:** with full respect for human rights and fundamental freedoms, State shall:
  - a) clearly identify in their legal framework the PNR data to be used in their operations;
  - b) clearly set the purposes for using PNR data...”proportional”, including in particular law enforcement and border security purposes to fight terrorism and serious crime;
  - c) limit disclosure of PNR data to other authorities in the same State or in other Contracting States...



## PNR Safeguards and redress mechanisms

- **\*Std. 9.26:** States shall:
  - a) prevent unauthorised access, disclosure and use of PNR data and include penalties in legal and admin framework;
  - b) ensure safeguards apply to all without unlawful differentiation;
  - c) take measures to ensure individuals are informed about collection, processing and protection of PNR data;
  - d) ensure that AOs inform customers about PNR transfer;
  - e) provide for administrative and judicial redress mechanisms;
  - f) provide mechanisms for individuals to obtain access and to request, if necessary, corrections, deletions or notations.



## PNR Redress mechanisms

- RP. 9.27: *Subject to necessary and proportionate restrictions, Contracting States should notify individuals of the processing of their PNR data and inform them about the rights and means of redress afforded to them as defined in their legal and administrative framework.*



## PNR Automated processing

- Std. 9.28: Contracting States shall:
  - a) base the automated processing of PNR data on objective, precise and reliable criteria that effectively indicate the existence of a risk, without leading to unlawful differentiation; and
  - b) not make decisions that produce significant adverse actions affecting the legal interests of individuals based solely on the automated processing of PNR data.



## PNR Independent oversight

- **\*Std. 9.29:** Contracting States shall designate one (or more) competent domestic authority(ies) as defined in their legal and administrative framework with the power to conduct independent oversight of the protection of PNR data and determine whether PNR data are being collected, used, processed and protected with full respect for human rights and fundamental freedoms.



## PNR Data content, non-filtering & sensitive data

- Std. 9.30: Contracting States shall:
  - a) not require AOs to collect PNR data that is not required as part of their normal business operating procedures nor to filter the data prior to transmission; and
  - b) not use PNR data revealing...sensitive aspects of an individual...other than in exceptional and immediate circumstances... In circumstances where such information is transferred, Contracting States shall delete such data as soon as practicable.



## PNR Data retention & depersonalization

- **\*Std. 9.31:** Contracting States shall:
    - a) retain PNR data for a set period necessary and proportionate for the purposes for which the PNR data is used;
    - b) depersonalise retained PNR data, which enable direct identification of the data subject, after set periods\*;
    - c) only re-personalise or unmask PNR data when used in connection with an identifiable case, threat or risk for the purposes identified in 9.25 (b); and
    - d) delete or anonymise PNR data at the end of the retention period\*.
- \*except when used in connection with an identifiable ongoing case, threat or risk purposes identified in 9.25 (b).



## PNR Data retention & depersonalization

- RP. 9.32: *Contracting States should retain PNR data for a maximum period of five years after the transfer of PNR data, except when required in the course of an investigation, prosecution, or court proceeding.*
- RP. 9.33: *Contracting States should depersonalise PNR data within six months of and no later than two years after the transfer of PNR data.*



## PNR Operational considerations

- Std. 9.34: Contracting States shall:
  - a) as a rule use the 'push' method, in order to protect the personal data that is contained in the operators' systems;
  - b) ...limit the operational and administrative burdens on aircraft operators, while enhancing passenger facilitation;
  - c) not impose fines and penalties on aircraft operators for any unavoidable errors caused by a systems failure; and
  - d) minimise the number of times the same PNR data is transmitted for a specific flight.



## PNR Global framework

- Std. 9.35: Contracting States shall:
  - a) not inhibit or prevent the transfer of PNR data provided the receiving State's PNR data system is compliant with Annex 9; and
  - b) retain the ability to introduce or maintain higher levels of protection of PNR data and to enter into additional arrangements with other Contracting States in particular to:
    - promote collective security;
    - achieve higher levels of protection of PNR data, including on data retention;
    - establish more detailed provisions relating to the transfer of PNR data, provided those measures do not otherwise conflict with Annex 9.



## PNR Global framework

- Std. 9.36: States shall demonstrate compliance with the PNR Standards to all States ASAP upon request.
- RP. 9.36.1: *Contracting States should allow other Contracting States, compliant with the PNR Standards, to receive PNR data, at least provisionally, while engaging in consultations, as necessary.*



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## PNR Global framework

- *RP. 9.37: Where Contracting States have determined they must inhibit, prevent or otherwise obstruct the transfer of PNR data, or that they might penalize an aircraft operator, they shall do so with transparency and with the intent of resolving the situation which caused that determination.*



## PNR Global framework

- RP. 9.38: *Contracting States establishing a PNR programme, or making significant changes to an existing programme, pursuant to these SARPs should proactively notify other Contracting States maintaining air travel between them prior to receiving data, including whether they are complying with these SARPs, to encourage or facilitate rapid consultation where appropriate.*
- RP. 9.39: *While attempting to resolve PNR data transfer disputes, Contracting States should not penalize aircraft operators.*



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