

ICAO Annex 9 API & PNR

Passenger Data Exchange Systems



- ☐ Definitions & General Aspects
- ☐ Advance Passenger Information (API)
- ☐ Electronic Travel Systems (ETS)
- ☐ Passenger Name Record (PNR) data





Definition:

- → 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."



Definition:

→ API system: "An <u>electronic communications system</u> whereby required data elements are collected and transmitted to border control agencies prior to flight departure or arrival and made available on the primary line at the airport of entry."



Definition:

→ Interactive API system: "An electronic system that transmits, during check-in, API data elements collected by the aircraft operator to public authorities who, within existing business processing times for passenger check-in, return to the operator a response message for each passenger and/or crew member."



Definition:

→ Electronic Travel System: "The <u>automated process</u> for the lodgement, acceptance and verification of a passenger's authorization to travel to a State, in lieu of the standard counterfoil paper visa."



Definition:

- **→** Passenger Name Record data:
 - Personal information provided by passengers for flight reservations and collected by aircraft operators;
 - Used by operators for commercial and operational purposes.



General Passenger Data SARPs

- *Std. 9.1: shall create Single Window facility for each data category (API/iAPI/PNR);
- RP. 9.1.1: should create a combined facility for all data categories (API/iAPI/PNR);
- RP. 9.2: operational and technical support for system outage or failure;
- RP. 9.3: notification and recovery procedures;
- RP. 9.4: contact support.



General Passenger Data SARPs

- *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.

Advance Passenger Information (API)

- Description
- Purpose
- Stakeholders
- ☐ Annex 9 SARPs





API Description

An API system involves the following steps

→ Capturing passport information <u>prior to</u> <u>departure</u>;

- Complemented with flight data;
- Potentially also routing data



Transmitted

Electronic PAXLST message to border control agencies in advance;

Processed for:

- Border integrity;
- Facilitation;
- Watchlisting.



API is an Obligation

- *Std. 9.7: "Each Contracting State shall establish an API system"
 - UN Security Council Resolution 2178 (2014):

"[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"),..."



Two modes of API

- → Standard 9.7 creates an obligation for States to establish API systems.
- → States have a choice between:
- 1. Batch API
- 2. Interactive API
- Annex 9 Standards on Single Window (9.1), standardized data elements found in API Guidelines (9.5), need for legal authority (9.8), and PAXLST message format (9.10) apply equally to both modes of 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 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, no-real time correction can be requested.
- ☐ When crew data is requested, it is sent in a separate message



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.



API Stakeholders

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



API Legal Basis and Standards

*Std. 9.8: API must be supported by legal framework and be consistent with internationally recognized standards

- Defined by WCO/IATA/ICAO Guidelines on API
- > Jointly agreed on max set of API data incorporated
- > PAXLST message format



API – MRZ main source of biographic data



- ➤ When specifying the identifying information on passengers to be transmitted, Contracting States shall require only data elements that are available in machine readable form in travel documents conforming to the specifications contained in Doc 9303.
- ➤ All information required shall conform to specifications for UN/EDIFACT PAXLST messages found in the WCO/IATA/ICAO API Guidelines.



→ PAXLST Message

- 1. Data relating to the Flight (Header Data);
- 2. Data relating to each individual passenger (Item Data)
 - Core Data Elements as may be found in the MRZ of the Official Travel Document.
 - b. Additional data as available in Airline systems.
 - c. Additional data not normally found in Airline systems and which must be collected by, or on behalf of the Airline.



→ PAXLST Message

Data relating to the Flight (Header Data)

- Flight Identification (IATA Airline code)
- Scheduled Departure Date (local day of departure)
- Scheduled Departure Time (local time of departure)
- Scheduled Arrival Date (local day of arrival)
- Scheduled Arrival Time (local time of arrival)
- Last Place/Port of Call of Aircraft (last foreign port)
- Place/Port of Aircraft Initial Arrival
- Subsequent Place/Port of Call Within the Country
- Number of Passengers (only in Batch)

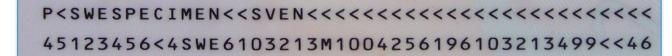


→ PAXLST Message

Data relating to each individual passenger (Item Data)

Core Data Elements as may be found in the MRZ of the MRTD.

- Travel Document Number
- 2. Issuing State or Organization of the Official Travel Document
- 3. Official Travel Document Type
- 4. Expiration Date of Official Travel Document
- 5. Surname/Given Name(s) (as they appear in the MRZ)
- 6. Nationality
- 7. Date of Birth
- 8. Sex





→ PAXLST Message

Data relating to each individual passenger (Item Data)

Additional data as available in Airline systems.

- Seating Information (Specific seat assignment not reserved seat)
- Baggage Information
- Traveller's Status (Passenger, Crew, In transit)
- Place/Port of Original Embarkation (foreign port where travel started)
- Place/Port of Clearance (where traveller is cleared by immigration)
- Place/Port of Onward Foreign Destination (in case of transit)
- Passenger Name Record Locator Number
- Unique Identifier (only in interactive API)



→ PAXLST Message

Data relating to each individual passenger (Item Data)

Additional data not normally found in Airline systems.

- 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
- Passenger Contact Information (Telephone numbers, emergency contact, email, primary residence, destination address)
- Place of birth



API & Multiple Travel Documents

Std. 9.11: States shall not penalise or hold aircraft operators responsible for inconsistencies in passenger data exchange in regards to a second travel document, e.g.:

- Dual nationals;
- Laissez-passer;
- ... etc.



API – Reducing burdens on aircraft operators

- RP. 9.12: minimize number of times API data is transmitted for a flight.
- Std. 9.13: limit the operational and administrative burdens on aircraft operators;
- RP. 9.14: refrain from imposing fines and penalties on operators for errors caused by a systems failure;
- Std. 9.15: not require a passenger manifest in paper form, if already requiring electronic transmission through an APIS.



Interactive API

- RP. 9.16: consider the introduction of an interactive APIS (iAPIS);
- RP. 9.17: States seeking to implement an iAPIS should:
 - a) Minimize impact on operators' systems and technical infrastructure by consulting them in advance;
 - b) Work together with operators to develop iAPIS;
 - c) Conform to guidelines adopted by WCO/ICAO/IATA.
- RP. 9.18: APIS and iAPIS should be capable of 24/7 operation, with procedures in place to minimize disruption.



Summary of API SARPs in Annex 9

- → Single Window: consider the needs of all agencies;
- → API is mandatory (choice between Batch and interactive API);
- → Legal basis must be in place;
- → PAXLST Message format;
- → 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.
 - iAPI PAXLST & CUSRES Message Implementation Guide.



Electronic Travel Systems (ETS)

☐ Annex 9 SARPs

- RP. 9.19: integrate the pre-travel verification system with an iAPIS:
 - →provide a real-time response to the airline to verify the authenticity of a passenger's authorization during check-in;
- RP. 9.20: States seeking to implement ETS should:
 - a) Ensure a robust <u>electronic lodgement platform</u> where an online application for authority to travel can be made;
 - b) Include tools built into the application to assist individuals to avoid errors;
 - c) Institute automated and continuous vetting of relevant alert lists;
 - d) Provide <u>electronic notifications</u> to passengers;
 - e) Ensure info required from passenger is easily understood.



Electronic Travel Systems (ETS)

- ☐ Annex 9 SARPs
 - RP. 9.21: allow for an implementation schedule;
 - RP. 9.22: include a period of informed compliance after the initial implementation deadline;
 - RP. 9.23: adopt policies to ensure that:
 - **Passengers** are informed of the ETS requirements at the time of booking;
 - → <u>Operators</u> are encouraged to extend the ETS verification check to the point where travel originates, rather than to the point of uplift for the last segment before entry into the country for which the ETS mandate applies.



- PNR definition: ICAO PNR Guidelines (ICAO Doc 9944)
 - → Generic name given to records created by aircraft operators or authorized agents for all the segments of a journey.
 - → Commercial data supplied by or on behalf of the passenger concerning all the flight segments of a journey.
 - → Includes changes to requested seating, special meals and additional services requested.
 - → 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).

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*** ELECTRONIC TICKET ****

F 1.1TEST/HEXAMRS'
WW6ACWW 25JUL KBR4Z5'
1 AC 870 M TU 10SEP YULCDO
FONE-'
1.WW6-T HEXA'
2.WW6-C 1 111 1231231/PAX'
3.WW6-A TEST TRAVEL AGENCY AC
N3 CA'
4.WW6-E SHAILESHD//HEXAWARE.C
TKT-'
1.1 K25JULWW6WW 0142123729112
AP FAX-'
1.1 SSRDOCSYYHK1 /////11MAR8
```

☐ 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.



☐ Data capture, transmission timing:

- → PNR data are captured by reservation systems many days or weeks in advance of a flight. This can be up to approximately a year in advance of departure.
- → API and flight information in the DCS is, on the other hand, available only from when the flight is "open" for check-in.



☐ Conflicts of Laws

- → Since its inception, PNR data transfer and processing has raised data protection and privacy concerns.
- Thus, some States require bilateral agreements to permit PNR data transfer based on legally binding appropriate safeguards.
- → Unfortunately, not many agreements have been signed. This has resulted in conflicts of laws in which States are not receiving PNR data from certain aircraft operators because these operators are prohibited or inhibited from transferring PNR data by those States requiring bilateral agreements.



☐ Annex 9 SARPs — Baseline commitment, *Std. 9.24:

- Annex 9 stipulates that States shall develop a capability to collect, use, process and protect PNR data. PNR programmes need to be:
 - supported by an appropriate legal and administrative framework, which shall be consistent with the ICAO PNR standards
 - aligned with the PNR Guidelines and PNRGOV message implementation guidance materials
 - transferred in PNRGOV message format



☐ Annex 9 SARPs – Purpose limitation, *Std. 9.25:

- ➤ Proper use of PNR data has long been a key point of discussion in aligning legal requirements regarding PNR data processing.
- > Standard 9.25 is designed to limit the scope of PNR data use, needs to focus on border security purposes to fight terrorism and serious crime.
- This Standard emphasizes that processing and use of PNR data be done with full respect for human rights and fundamental freedoms.



☐ Annex 9 SARPs – Purpose limitation, *Std. 9.25:

- Clearly identify in their legal and administrative framework the PNR data to be included in their PNR processing.
- Does not mean that States are able to mandate the collection of certain PNR data elements by aircraft operators.
- ➤ Clearly set the purposes for which PNR data may be used, for example for purposes related to border security, fighting terrorism and serious crime.
- Places a restriction on domestic and international data sharing and limits the disclosure to other entities, based on the criteria of comparable purpose and data protection.
- Receiving entity must use the data for similar purposes, as well as employ similar data protection measures as the disclosing authority.



☐ Annex 9 SARPs – Safeguards & redress mechanisms, *Std. 9.26:

- > One of the main purposes of PNR data processing is to find otherwise unknown subjects of interest.
- That requires disaggregation of data based on pre-defined rules to identify threats, eventually resulting in lawful differentiation between individuals.
- Such a differentiated approach needs to be lawful, meaning that any rule-based targeting of PNR data or continued investigation into an individual based on information gained from PNR data needs to be based on law.



□ Annex 9 SARPs – 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.



☐ Annex 9 SARPs – Automated processing, *Std. 9.28:

- > Effective processing of PNR data requires automated processing.
- Automated decisions shall therefore take place under human supervision and control, especially regarding enforcement measures taken based on information gained from PNR data.
- Law enforcement use of PNR data involves use of rule-based information in automated targeting systems to identify risks and trends. Identification of risks and trends occurs based on human analysis and machine generated knowledge. Consequently, human supervision becomes even more important.
- > Significant adverse actions affecting legal interests of individuals must be accompanied by human oversight.



☐ Annex 9 SARPs – Independent oversight, *Std. 9.29:

- > States to define in their legal and administrative frameworks, one or more authorities with the power to perform independent oversight of their PNR programme.
- The standard takes into consideration that States around the world have different approaches to oversight and thus does not specifically require that the oversight function be external to the authority that processes PNR data, stressing instead the concept of independent oversight.
- Allows for oversight functions and control mechanisms to be performed both internally or externally to the public authority processing PNR data.



☐ Annex 9 SARPs – Data content & non-filtering, **Std. 9.30**:

- ➤ PNR data is commercial self-asserted data that is collected differently by every entity according to its business requirements.
- > States shall not require airlines to collect PNR data elements that are not required as part of their normal business operating procedures, a long-standing principle of PNR data collection and transfer.
- ➤ States shall not require aircraft operators to filter any data the State considers to be sensitive personal data, even if it has, pursuant to Standard 9.25(a), declared that it will not use a certain data set that the State considers sensitive.
- > States must not use PNR data that is sensitive personal data and must delete such data as soon as practicable.



☐ Annex 9 SARPs – Data retention, *Std. 9.31:

- How long PNR data may be retained is an issue on which States have differing perspectives. Some States contend that data should be kept for an extended period of years, with others electing to maintain much stricter data retention schedules.
- Annex 9 does not set a maximum limit for which PNR data can be retained.
- Annex 9 does require that States set a specific period for data retention in their legal and administrative framework necessary and proportionate for the purposes of the PNR programme, which is outlined per "purpose limitation" under Standard 9.25.



☐ Annex 9 SARPs – De & Re-personalization, *Std. 9.31:

- Depersonalization masks information that would enable direct identification of an individual. It does not hinder law enforcement use of PNR data, it is a safeguard for data protection and privacy.
- > Annex 9 specifies
 - Depersonalization of PNR data after set periods except when used in connection with an identifiable ongoing case, threat or risk – related to "purpose limitation" under Standard 9.25.
 - ➤ Re-personalization of PNR data *only when* used in connection with an identifiable ongoing case, threat or risk related to "purpose limitation" under Standard 9.25.



☐ Annex 9 SARPs – Deletion or anonymization, *Std. 9.31:

- Under Annex 9 States shall delete or anonymize PNR data at the end of the retention period.
- Instead of deleting data, some States choose to anonymize PNR data, which is the permanent removal of identity information of a person from the PNR record, and this is permissible under the Standard.
- ➤ PNR data does not need to be deleted or anonymized if it is currently being used for law enforcement purposes.



- □ Annex 9 SARPs Set periods for retention & depersonalization, RPs. 9.32 & 9.33:
 - Maximum data retention & depersonalization periods are spelled out in Recommended Practices.
 - \triangleright Retention period 5 years data after the transfer of PNR data.
 - > Except when required for law enforcement reasons.
 - ➤ Depersonalization within 6 months and no later than 2 years after the transfer of PNR data.



☐ Annex 9 SARPs – Operational considerations, **Std. 9.34**:

- ➤ Data acquisition as a rule using the "push" method, with PNRGOV message format for airline-to-government PNR data transferal
- > Push method protects personal data contained in operators' systems
- > Limit operational and administrative burdens on aircraft operators
- ➤ Not impose fines/penalties for unavoidable errors caused by an outage
- ➤ Minimize number of times same PNR data is sent for a specific flight



☐ Annex 9 SARPs – Global framework:

- > Standards 9.35, 9.36 and 9.37 address means to resolve the conflict of laws surrounding PNR data transfer.
- As outlined in Standard 9.24, the suite of PNR standards is meant to be implemented as a package, such that a State's legal and administrative framework shall be consistent with all of the PNR standards in ICAO Annex 9, Section D, Chapter 9.
- ➤ The PNR standards have also been designed to function as a global PNR framework governing the collection, use, processing and protection of PNR data which all States should adopt without difference.



☐ Annex 9 SARPs – Global framework, **Std. 9.35**:

- ➤ Under Annex 9, States shall not inhibit/prevent PNR data transfer to a certain State, which has implemented ICAO PNR standards in Annex 9.
- ➤ ICAO's global framework will reduce the need for States to establish bilateral agreements in order to implement an effective PNR system.
- ➤ States retain the ability to introduce or maintain higher levels of PNR data protection than outlined by Annex 9 and sign additional arrangements that go beyond ICAO PNR standards.
- > Additional arrangements cannot conflict with Annex 9 PNR standards.



☐ Annex 9 SARPs – Global framework, **Std. 9.36 & RP. 9.36.1**:

- > Standard 9.36 allows any State to request information from other States about their level of compliance with ICAO PNR standards.
- > States are to cooperate in this process in good faith and as quickly as possible to avoid uncertainties and to safeguard the predictability.
- ➤ Demonstration of compliance can take place through bilateral consultations or via the ICAO Compliance Checklist for Annex 9, which contains information on the implementation level of SARPs.
- ➤ RP 9.36.1 recommends that States should allow other States, which have shown compliance with the ICAO PNR standards, to continue to receive PNR data, at least provisionally, while engaging in consultations.



☐ Annex 9 SARPs – Global framework, **Std. 9.37**:

- ➤ Standard 9.37 outlines that if States must inhibit, prevent or obstruct the transfer of PNR data by aircraft operators to other States, they shall be transparent about their reasons for doing so, including by referencing the implementation level of the ICAO PNR SARPs.
- ➤ Moreover, States shall take such actions with the intent of resolving the situation that resulted in the prevention or suspension of PNR data transfer in the first place, without making aircraft operators the proxy of such disputes.



☐ Annex 9 SARPs – Global framework, RPs. 9.38 & 9.39:

- > States should proactively inform other States when they are
 - preparing a PNR requirement or
 - making significant changes to an existing PNR programme.
- Early notification allows ample time for States to consult each other on making determinations about compliance with ICAO PNR SARPs.
- > States should not fine or penalize aircraft operators when attempting to resolve disputes about PNR data transfer as this would not resolve the situation nor the bilateral conflict.



Summary of PNR SARPs in Annex 9

- → Single Window: consider the needs of all agencies
- → Development of PNR capacity is mandatory
- → Legal basis must be in place
- → ICAO PNR Guidelines shall be followed (operational considerations)
- → Purpose limitation
- → Safeguards/redress mechanisms in place
- → Automated processing and independent oversight
- → Data content, non-filtering and sensitive data
- → Data retention and depersonalization
- → ICAO Annex 9 as global framework



- PNR Name Details Passenger name, family name, given name/initial, title, other names on PNR;
- Address Details Contact address, billing address, emergency contact, email address, mailing address, home address, intended address [in State requiring PNR data transfer];
- □ Contact Telephone Number(s) Telephone details;
- Any collected API data Any collected API data, e.g. name on passport, date of birth, sex, nationality, passport number;



- □ Frequent flyer information Frequent flyer account number and elite level status;
- □ PNR locator code − 6-digit file locater number, booking reference and reservation tracking number;
- Number of passengers on PNR Number;
- Passenger travel status Standby information;



- □ All date information − PNR creation date, booking date, reservation date, departure date, arrival date, PNR first travel date, PNR last modification date, ticket issue date, "first intended" travel date, date of first arrival [in State requiring PNR data transfer], late booking date for flight;
- □ Split/divided PNR information Multiple passengers on PNR, other passengers on PNR, other PNR reference, single passenger on booking;
- □ All ticketing field information Date of ticket issue/purchase, selling class of travel, issue city, ticket number, one-way ticket, ticket issue city, automatic fare quote (ATFQ) fields;



- All travel itinerary for PNR PNR flight itinerary segments/ports, itinerary history, origin city/board point, destination city, active itinerary segments, cancelled segments, layover days, flown segments, flight information, flight departure date, board point, arrival port, open segments, alternate routing unknown (ARNK) segments, non-air segments, inbound flight connection details, on-carriage information, confirmation status;
- ☐ Form of payment (FoP) information All FOP (cash, electronic, credit card number and expiry date, prepaid ticket advice (PTA), exchange), details of person/agency paying for ticket, staff rebate codes;



- □ All check-in information Generally available only after flight close-out: check-in security number, check-in agent I.D., check-in time, check-in status, confirmation status, boarding number, boarding indicator, check-in order;
- □ All seat information Seats requested in advance; actual seats only after flight close-out*;
- All baggage information Generally available from DCS only after flight close-out: number of bags, bag tag number(s), weight of bag(s), all pooled baggage information, head of pool, number of bags in pool, bag carrier code, bag status, bag destination/ offload point;



- □ Travel agent information Travel agency details, name, address, contact details, IATA code;
- Received from information Name of person making the booking;
- Go-show information Generally available only after check-in and flight close-out: go-show identifier (stand-by without reservation);
- No-show information Only available after flight close-out: no-show history;



- ☐ General remarks All information in general remarks section;
- ☐ Free text/code fields in Other Service Information (OSI), Special Service Requests (SSR), Special Service Information (SSI), remarks/history All IATA codes.



