



ICAO WCO IATA

Management Summary on Passenger-related Information

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Introduction

1. The purpose of this document is to provide a high-level executive brief that describes and distinguishes between the different sources and systems for passenger-related information that is required to be provided by international aircraft operators to border control agencies. General aviation operations are excluded from the scope of this executive brief, although the term “aircraft operators” is used throughout the document for the sake of consistency. Consequently, this document should not be considered a foundation for the evolution of API and PNR requirements for application to all international air transport.
2. A growing number of States require aircraft operators to provide information on passengers that intend to travel to, from or overfly their territory. The information usually exists in the aircraft operator’s reservation system and departure control system operated by the aircraft operator. Some States also require passenger related information from other modes of transport.
3. Taking into account the increasing number of air passengers, the increase in security related measures, the environmental and efficiency-driven innovations which result in bigger airplanes, together with the need for more efficient passenger flows at airports, it is necessary to develop more intelligent and efficient methods to check passengers and their baggage. This means that decisions to check passengers will have to be made more on the basis of pre-flight risk analysis instead of generally increasing (level or number) of checks at immigration or cross border desks and baggage claim areas.
4. Mainly as part of increased border controls, passenger-related information, available in the systems of the aircraft operators, are being used by border control authorities to manage in advance the cross border movement of persons and goods. Security-related controls are increasingly applied even before the passenger boards the aircraft at the beginning of the journey. In any case, such controls have to be applied before the arrival of the passenger in the country of destination, in order to perform risk-based targeted controls of persons and goods. Without substituting for border controls these measures also facilitate the flow of low-risk passengers at airports.
5. The use of passenger related information is often challenged by persons and organizations that are concerned about the protection of the privacy of personal information. API data is generally not required for aircraft operator processes, thus it

is only collected and stored in case of a legal requirement. In most jurisdictions, it is only permissible to use passenger-related information for law enforcement purposes, when ensuring proper guarantees for the protection of such information that authorities receive. This ensures that the privacy of the passenger is safeguarded and misuse is prevented.

6. Adoption of Resolutions 2178 (2014) and 2309 (2016) by the UN Security Council, which encouraged States to require airlines to provide passenger related Advance Passenger Information, will see the increase of passenger information regimes globally. Requirements based on standards enable seamless, cost efficient and timely implementation.

Passenger-related information

7. The flow of passenger-related information from the aircraft operators to border control authorities can be divided into three main streams:

1. Passenger Name Record (PNR)

- a. Reservation Data

A reservation can be made from approximately 360 days before departure until such time prior to departure the aircraft operator has decided they can no longer operationally process new passengers and ensure an on time departure (depending on the airport and route). Approximately 48 to 24 hours before departure all PNRs are transferred from the aircraft operator Reservation System to the Departure Control System (DCS)¹. In the DCS the operational handling of the flight will take place, at check-in (e.g. intake of baggage and issuing of boarding passes).

- b. Passenger Manifest

From information available, the passenger manifest can be generated. When States require a passenger manifest, the information requirements are limited (ICAO Annex 9, Standard 2.13 and Appendix 2). This passenger manifest can be sent digitally or in hard copy. Some aircraft operators forward the passenger manifest to the airport of destination for operational purposes (passenger and baggage handling). Annex 9, Standard 3.48.7 requires that States requiring passenger data to be transmitted electronically shall not also require a passenger manifest in paper form.

2. Advance Passenger Information (API)

As API data is not generally required for aircraft operator processes, it will normally be collected and stored only in case of a legal requirement². Depending on the timeframe of collecting the data, two methods are employed:

- a. the data can be entered manually:

- i. at the moment of reservation by the travel agent or by the passenger entered in the reservation record;
- ii. at the moment of check-in by the passenger on the internet or mobile application check-in (entered into the API section of the DCS);

- b. the data can be entered automatically from the machine readable zone of the travel document, if available:

- i. by the passenger at the kiosk check-in;

¹ A number of aircraft operators use one system, which accommodates both PNR and DCS information.

² EU based aircraft operators are bound by strict privacy legislation and are therefore only allowed to collect and disclose API data in case of a legal obligation

- ii. by the aircraft operator agent at the desk check-in;
- iii. at the moment of boarding(for exceptions) by the aircraft operator agent.

The registration by the passenger at the moment of reservation is operationally the best moment. Manually entered information has the risk that incorrect information is supplied (e.g. a zero instead of the letter 'O'). The best option from a data quality perspective is the collection of the machine-readable information via an automated process.

Passenger Name Record (PNR)

8. PNR information is the generic name given to records created by the aircraft operators for each flight a passenger books. PNR records contain information provided by the passenger and information used by the aircraft operator for their operational purposes. PNR information may include elements of API. PNR provides a mechanism for all the different parties within the aviation industry (including travel agents, aircraft operators and handling agents at the airports) to identify each passenger using a common format, and have access to all information relevant to his/her journey; departure and return flights, connecting flights (if any) and special services required on board the flight.
9. The amount and the nature of the information in a PNR record can vary from aircraft operator to aircraft operator and from passenger to passenger, often depending on how the reservation was made. A PNR may contain as little information as a name, or may contain full address, contact details, credit card information and all data pertaining to the booking.
10. A passenger or a travel agent may make a reservation for a flight with an aircraft operator even if a visa application or travel authorization has not been submitted. Passengers are able to make reservations in various ways, most commonly through direct contact with the aircraft operator via its website, mobile application, telephone reservations office, travel agents or via aircraft operator partners. Not all of the available PNR information involved in this reservation process is routinely transferred to the aircraft operator's PNR system.
11. PNR records are created at a time when a passenger requests a reservation on a flight or series of flights, typically from one year before intended departure date up to the day of departure for immediate travel. Information contained within the PNR may increase or be amended between time of creation and time of travel.
12. The basic information of a PNR may include:
 - a. passenger name (first, last and title);
 - b. details of the intended travel;
 - c. method of payment details, which may include (partial masked) credit card information;
 - d. special Service Requests (SSR) such as preferred seating, assistance for persons with reduced mobility etc., as requested by the passenger;
 - e. Contact information;
 - f. frequent flyer number;
 - g. travel document information, which may include biographic information, as part of the obligation for aircraft operators to provide API information to the border control authorities in the country of departure or destination;
 - h. additional remarks or comments (if any).

13. PNR information is used by governments to conduct analysis that helps to identify possible high-risk individuals that may have been otherwise unknown to government authorities and make, where appropriate, the necessary interventions. PNR information can be provided by aircraft operators by sending the information electronically ("Push" method) or allowing the appropriate authorities to access the parts of their reservation systems where the PNR information is stored ("pull" method). However, internationally there is an agreement to utilize the "Push" method, for data privacy reasons.
14. To ensure interoperability, relevant international messaging standards have been used to develop a push method message format called PNRGOV. PNRGOV is the international standard that must be used for the transmission of PNR information to the appropriate government authorities.
15. The information included in PNR records may not only relate to reservation information but also information gathered at check-in when the passenger presents himself to the aircraft operator representatives at the airport. Check-in Procedures are normally undertaken using the DCS of aircraft operators or the contracted handling agent, designed specifically to perform airport handling functions.
16. Check-in generally describes a procedure by which an aircraft operator is alerted to a confirmation that a passenger intends to utilize the seat for which a reservation is held and to actually board and travel as intended. This procedure may vary significantly between different aircraft operator business models and airports. This may include self-service check-in by internet, mobile telephone, airport kiosk or through-check when travelling on a sequence of connecting flights for which participating aircraft operators have commercial arrangements in place, including code-share agreements. Conventional agent check-in at the airport is decreasing as self-service options become more available and utilized.
17. Given that DCS systems are normally deployed in airport environments to facilitate functions associated with airport activity, check-in records are created very close to departure, normally not earlier than approximately 48 hours, although this time will vary by aircraft operator system business model.
18. The processes implemented by aircraft operators vary and some separate check-in formalities into distinct steps, which may be performed separately and several hours apart, for example, web check-in the night before baggage is checked at the airport. Where appropriate, and dependent on each airline's business practice, the check-in process may involve:
 - a. seat allocation or confirmation of a previously requested seat assignment;
 - b. recording information such as number of pieces or weight of baggage which is assigned to the hold of the aircraft;
 - c. collection of API (biographic information), to comply with any API program of the country/countries involved in the journey for which check-in is performed;
 - d. confirmation or action of any special requests;
 - e. some but not all systems may indicate whether passengers form part of a group or party.
19. In some cases aircraft operators conduct checks during the boarding process in order to satisfy security procedures, including baggage reconciliation, i.e. that baggage and its owner travel together. This does not necessarily involve the collection of information, but might include automatic (or automated) system functions that change a check-in record status from 'checked-in' to 'boarded'.

20. When necessary (for exceptions) check-in (seat assignment) and/or the collection of API data can be performed during the boarding process. Examples may include:
 - a. passengers who are in transit and connecting from another flight where check-in was not performed due to technical restrictions between aircraft operator systems;
 - b. API data was not previously collected because a data sharing agreement is not in place due to technical or legal reasons.

It is perhaps noteworthy that, where seat assignment is offered by aircraft operators as a service component, seat numbers may change several times for various operational reasons or upon passenger request both before and after boarding has taken place. Passengers may not occupy their assigned seat once on board.

Advance Passenger Information (API)

21. To facilitate the growth of air passenger traffic, API systems were developed by border services. The scope of the use of these API systems is widening as it is increasingly used for security measures. Identification Data of passengers are sent to authorities in advance (before the arrival of passengers) and can be processed against computer databases before the arrival of the passengers, resulting in faster clearance of low-risk passengers, improved compliance and reduced inspection time.
22. API includes identification details from the passport or other travel document of the passenger together with basic flight information. For the majority of the travellers, the identification details can be obtained from the machine-readable zone of Machine Readable Travel Documents (MRTDs), e.g. passports. The specifications for the machine-readable travel documents are found in ICAO Document 9303.
23. Aircraft operators are responsible for the accuracy, completeness and timeliness of transmission of API data. However, the accuracy of submitted API data will be affected by the time of transmission required by a government authority. Passenger API data may be collected at time of reservation or entered manually by the passenger during self-serve web or mobile check-in. If the authority requires the API data to be transmitted at time of check-in, the travel document information of these passengers will not have been verified, as an aircraft operator representative has yet to examine the travel documents. Passengers using self-service check-in will normally have their travel documents examined by an aircraft operator representative when depositing luggage or at the gate prior to boarding if the passenger has no luggage. At this stage aircraft operators may elect to validate the accuracy of API data previously supplied by the passenger and, if necessary, correct and resubmit the validated API data to the authorities.
24. A definition of *Advance Passenger Information (API) System* can be found in Annex 9 to the (ICAO) Convention on International Civil Aviation ("Chicago Convention"):

An electronic communications system 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.
25. A standardized API system should include the following key elements:
 - a. an API system should be user-friendly, seamless and facilitate the travel of passengers as a result of API data analysis;
 - b. an API system should, as an important part of the required API data, contain the data from the machine readable zone of travel documents (refer ICAO Document 9303);
 - c. an API system should take into account the interests of key stakeholders;

- d. all relevant data requirements of the requesting border agency must be taken into account. The data requirements should originate from one representative agency of the requesting Border Control Authority;
 - e. border Control Authorities should work together to respect the data requirements of different Control Authorities;
 - f. governments should ensure that data is transmitted from an aircraft to a government single window to avoid multiple requests from a government. The single window will perform an analysis of the data and enable other government agencies to have access to that data where the appropriate data sharing agreements and legal grounds are in place;
 - g. management of contractors and costs in a collective way to ensure unilateral systems are capable of operating in bilateral and multilateral environments, taking account of international recognised standards to achieve a harmonised environment;
 - h. with respect to the message format for transmission of API and interoperability with aircraft operators, per the Guidelines on Advance Passenger Information (API) published by WCO/ICAO/IATA, systems should be developed to support the use of the UN/EDIFACT PAXLIST messaging standard. However, this should not be seen as constraining the ability to adopt other internationally agreed standards in the longer term;
 - i. API systems should seek to minimize the impact on existing aircraft operator systems and technical infrastructure;
 - j. an API system should be capable of round-the-clock operation, with contingency procedures in place to minimize disruption to aircraft operator operations in the event of system failure.
26. Border Control Authorities choosing to introduce API systems should adopt the guidelines contained in this document. However, nothing in this document is to be construed as contradictory to national legislation or regulations.

Interactive API (iAPI)

27. The API approach is being gradually superseded by more demanding approaches in light of increased threats to security. For example in some States, a more sophisticated form of API is being deployed as an instrument to confront potential risks posed by aircraft operator passengers, especially in regard to aviation security, immigration requirements, drug trafficking and other threats to national security. This form of API called interactive API (iAPI) is an additional means of enhancing border security. A distinguishing feature of iAPI is that it provides for passenger-by-passenger real-time interactive interchange of electronic messaging between the aircraft operator and the border control authority in the country of departure or destination. At the instant a passenger checks-in to a flight, passenger information flows from the aircraft operator's DCS to the border control authorities, who in turn transmit (in real time) an electronic message response to the aircraft operator permitting or preventing the boarding of the passenger. This type of system is referred to as "Board/No Board", "Red Light/Green Light System" and "Authority to Carry". The aircraft operator does not issue a boarding pass until a response is received from the government.
28. A definition of interactive API (iAPI) can be found in Annex 9 to the Chicago Convention:

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.

29. iAPI of benefit to aircraft operators as it reduces the exposure of the aircraft operators to penalties and removal and detention costs associated with bringing improperly documented passengers into the country of destination. iAPI may improve data quality issues as a result of the passenger-by-passenger real-time exchange of data.
30. Implementation of iAPI poses certain technical challenges in terms of system availability, training of ground handling staff, outage management, and reliability of electronic message transmissions, managing service levels, and maintaining data quality by systems operated by both the aircraft operator and State.
31. The WCO/IATA/ICAO Guidelines on Advance Passenger Information are intended to address the structure and processes relating to iAPI systems developed internally by a State, or which are developed by a commercial service provider based on the State's technical specifications. The WCO/IATA/ICAO Guidelines are not intended to address systems developed entirely by commercial service providers and then marketed to a State as a turn-key data exchange solution.

Use of passenger-related information by immigration authorities

32. Immigration authorities are responsible for facilitating the legitimate entry and exit of passengers and to prevent illegal immigration. With the use of passenger related information, border control authorities can make a decision if a passenger can be allowed to enter or leave a country before the passenger has presented himself to the border control authorities. This can limit the number of physical inspections and facilitate the flow of passengers at an airport.

Use of passenger-related information by customs authorities

33. In most countries the customs authority is responsible for monitoring the cross border movement of goods and to prevent the entering of prohibited, restricted and regulated goods. Part of that responsibility includes inspection of carry-on and checked-in baggage. Passenger information has proved to be useful when following a risk-based approach in identifying high-risk passengers and to secure and facilitate the entry and exit of the baggage of passengers with minimal intrusive inspections.

Legal basis

34. The obligation for passengers and aircraft operators to provide passenger-related information must be based on legal provisions, which should include rules for the collection, use and storage of passenger related information, together with measures to protect the information and safeguard privacy.
35. On an international level, basic rules for the use of API, iAPI and PNR are developed in ICAO Annex 9–Facilitation to the Convention on International Civil Aviation (Chicago Convention, 1944) and the Revised Kyoto Convention of the WCO. For API, Standard 3.48 of Annex 9 obliges each Contracting State that introduces an API system under its national legislation, to adhere to international recognized standards for the transmission of API. Recommended Practice 3.48.8 has a similar recommendation, for iAPI systems.

36. The Revised Kyoto Convention states in Recommended Practice 8 of Specific Annex J, Chapter 1 that Customs, in co-operation with other agencies and trade, should seek to use internationally standardized advance passenger information, where available, in order to facilitate the Customs control of travellers and the clearance of goods carried by them.
37. On PNR information, Recommended Practice 3.49 of Annex 9 states that Contracting States requiring PNR access should align their data requirements and their handling of such data to guidelines contained in ICAO Document 9944.

PNR Guidelines

38. The PNR Guidelines were developed by ICAO in close cooperation with IATA and the WCO. Currently, the PNR Guidelines include an explanatory text for the use of PNR information and an Annex with a maximum list of PNR data. The first version of the PNR Guidelines was published in 2006. The latest edition of the PNR Guidelines was published in 2010 as ICAO document 9944. The cooperation between the three organizations was consolidated by the creation of the Contact Committee for the WCO/IATA/ICAO Guidelines on Advance Passenger Information (API) and Passenger Name Record (PNR) Data. Their goal is to secure uniformity in the interpretation and the application, to monitor the implementation and to consider any amendment to these guidelines.

API Guidelines

39. The API Guidelines were developed in 1993 under the auspices of the WCO and IATA. In 2003, ICAO joined the development of the API Guidelines. Further versions of the API Guidelines have been published in 2010 and 2013. The API Guidelines comprise an explanatory section for the use of API, including iAPI details. The Guidelines also consist of a maximum list of API data elements, an Annex with the internationally recognised electronic UN/EDIFACT message (PAXLST) and an implementation guide for the PAXLST message. The iAPI response message details for an UN/EDIFACT message (CUSRES) are also included in a separate Annex to the API Guidelines.

Electronic exchange of passenger related information

40. The electronic exchange of passenger related information is a prerequisite for the efficient application of API, iAPI and PNR information. However, various data exchange requirements, often in different message formats and at various times, have resulted in the proliferation of sometimes conflicting national requirements, causing unnecessary cost and compliance burdens for aircraft operators. Standardized messages for API, iAPI and PNR are necessary to be able to efficiently exchange information between aircraft operators and border control authorities.
41. PAXLST and CUSRES requirements, used in API and iAPI transmissions are in the approved UN/EDIFACT (United Nations rules for Electronic Data Interchange For Administration, Commerce and Transport) format. New message formats for transmission of PAXLST and CUSRES should be approved so as to function as internationally recognized standardized messaging. The PNRGOV message has been developed for reporting PNR data. This message is based on EDIFACT rules and syntax. The message is supported by an aircraft operator industry directory identified as the PADIS directory.

42. The UN/EDIFACT rules comprise a set of internationally agreed standards, directories and guidelines for the electronic interchange of structured data, and in particular that related to trade in goods and services between independent, computerized information systems. The PAXLST message is the standardized message for API and iAPI messages. The CUSRES message is the standardised response message for iAPI. The PNRGOV message is the standardised message for PNR information.
43. The standardised messages are also being supplemented by modern message techniques, such as international XML standards or web-based applications.

International cooperation

44. The developments on API and PNR are discussed and coordinated within each of the three organizations WCO, IATA and ICAO. Interested governments and other stakeholders, including aircraft operators, take part in these discussions with the aim to further develop common Guidelines and to maintain the standardised messages. More specifically, the work related to the maintenance of the API PAXLST and iAPI CUSRES message and the PNRGOV message is carried out by the contact committee for the WCO/IATA/ICAO guidelines on advance passenger information (API) and passenger name record (PNR) data.

NB: This document does not address state requirements for crew-related information.

Structure of the Passenger Information Guidelines and Messages

