



PNR, API AND BIOMETRICS AT THE BORDER



World Border Security Congress
Casablanca
2018

Mr. JUAN JESUS RODRIGUEZ OLMOS

DEPUTY DIRECTORATE GENERAL OF COMMUNICATIONS AND INFORMATION SYSTEMS FOR SECURITY

SPANISH MINISTRY OF INTERIOR



- INTRODUCTION TO DEPUTY DIRECTORATE GENERAL OF COMMUNICATIONS AND INFORMATION SYSTEMS FOR SECURITY (SGSICS)
- API
- PNR
- USE OF BIOMETRICS IN THE SPANISH SMART BORDERS



INTRODUCTION TO SGSICS
TECHNOLOGY CENTER FOR SECURITY (CETSE)



CENTRO TECNOLÓGICO DE SEGURIDAD (CETSE)
El Pardo - Madrid



INTRODUCTION TO SGSICS

DEPUTY DIRECTORATE GENERAL OF COMMUNICATIONS AND INFORMATION SYSTEMS FOR SECURITY



SGSICS

SUBDIRECCIÓN GENERAL DE SISTEMAS DE INFORMACIÓN Y COMUNICACIONES PARA LA SEGURIDAD

MISSION









Procurement of Communication and Information Systems for the Spanish Security Forces.

The primary objective of these Systems is to enable the Spanish Security Corps to exercise its role in safeguarding the rights, freedoms and security of citizens more efficiently and effectively.

MAIN AREAS



-  Emergency Communication Systems
-  Schengen and Smart Borders
-  Security Databases and Data Exchange
-  Lawful Interception and Data Retention
-  Operation Coordination Systems
-  Other Projects



SECURITY PROJECT EXAMPLES



SGSICS PROJECT PORTFOLIO



STATE EMERGENCY DIGITAL
RADIOCOMMUNICATIONS SYSTEM



LAWFUL INTERCEPTION AND DATA RETENTION
SYSTEM



DNA PROFILES DATABASE



AUTOMATIC FINGERPRINT IDENTIFICATION SYSTEM



CRITICAL INFRASTRUCTURES INFORMATION SYSTEM



COUNTER-TERRORISM COORDINATION SYSTEM



SECURITY PROJECT EXAMPLES



SGSICS PROJECT PORTFOLIO



SIS-II: SCHENGEN INFORMATION SYSTEM



PASSENGER NAME RECORD (PNR)



SMARTER BORDERS PROJECT



ADVANCED PASSENGER INFORMATION SYSTEM (API)

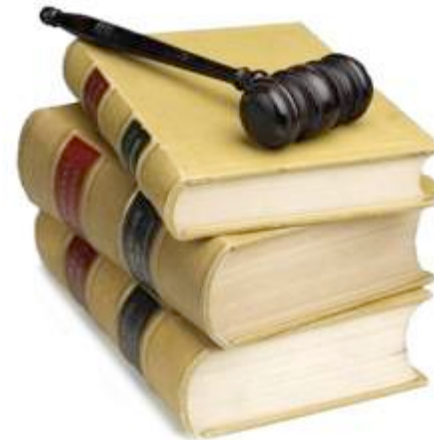
API



World Border Security Congress
Casablanca
2018

LEGISLATION

- ❑ L.O. 4/2000 (Aliens law), about rights and freedoms of foreigners in Spain and their social integration.
Art. 66.1 (Carriers obligation)
Art. 55.1 c) Fine from 10.001 to 100.000 euros
- ❑ Council Directive 2004/82/EC of April 29 2004 on the obligation of carriers to communicate passenger data.
- ❑ Decision of The Undersecretary Office issued on February 14th, 2007 which sets down the routes on which carriers must comply with these regulations.





LEGISLATION

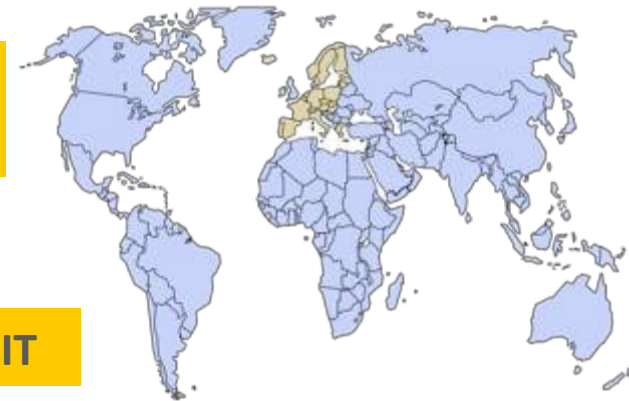
- Directive – Only for air carriers /EU
- National legislation – All type of carriers/Schengen

WHEN DO COMPANIES SEND THE INFORMATION

- Once boarding is closed and before departure

WHICH ROUTES DO THEY TRANSMIT

- All routes coming from outside the Schengen Area

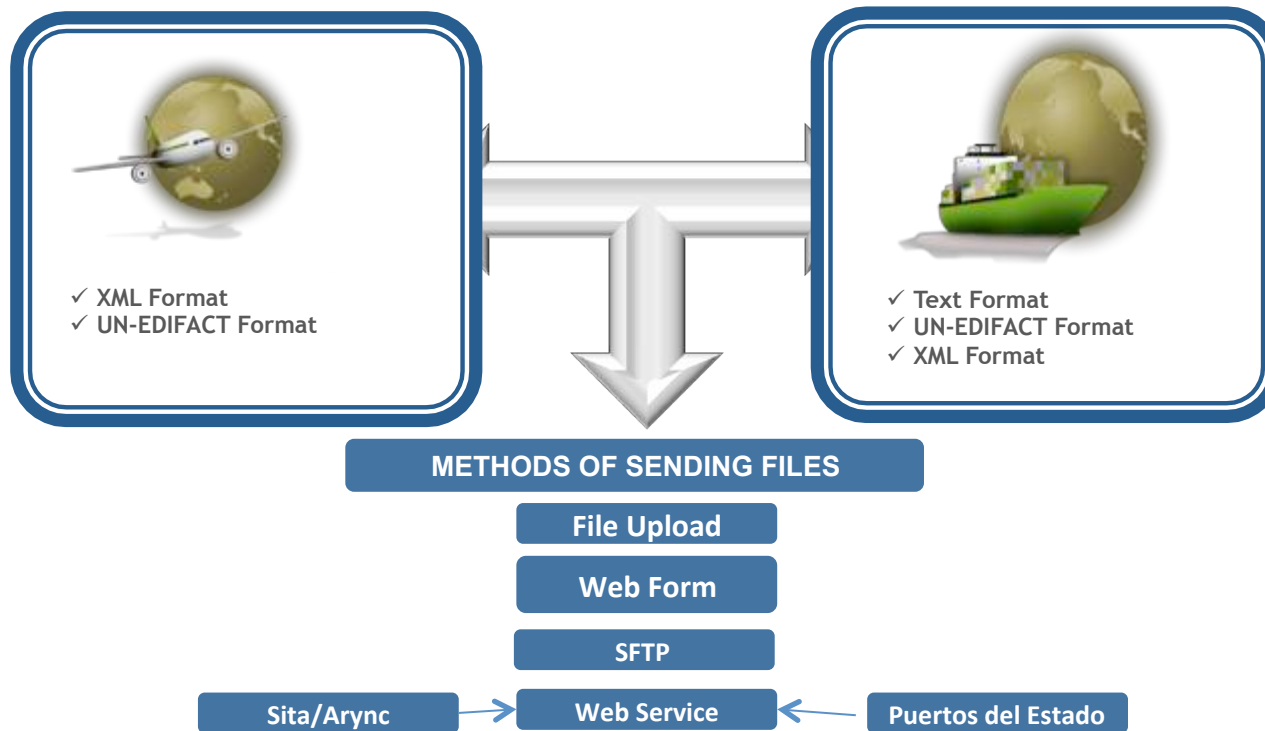


REQUESTED DATA

- The number and type of travel document used
- Nationality
- Full Name
- Birth date
- The border crossing point into Spanish territory
- The transport code
- The time of departure and arrival
- The total number of passengers carried
- The initial point of boarding



TECHNICAL SOLUTION





TECHNICAL SOLUTION – DATA FORMATS

The system accepts xml files or text files with un-edifact files.

The extension for xml files shall be “xml” and the extension for un-edifact files shall be “txt”.

Formato Un-edifact

<https://portal.ses.mir.es/APIS/es/content/documentos/Ficheros-ejemplo/Aerolineas/WT0009TASMAD2010-11-09.txt>

Hoja de cálculo de Microsoft Excel

Formato XML

<https://portal.ses.mir.es/APIS/es/content/documentos/Ficheros-ejemplo/Aerolineas/WT0009TASMAD2010-11-09.xml>

Hoja de cálculo de Microsoft Excel



TECHNICAL SOLUTION – METHODS OF SENDING FILES

Next five methods of sending the information to the Ministry of Interior are detailed. Each company can choose one or more methods.

HOME FAQ PRESS ROOM FILES AND DOCUMENTATION LINKS CONTACT US

Home

Recent events > N_

API INFORMATION

Article 66.1 of the Organic Law 4/2000, of 11 January, on the rights and freedoms of foreigners in Spain and their social integration, after the amendments made by Organic Law 14/2003, of 20 November, establishes the right of Spanish authorities to force companies, transport companies or carriers, to send to the authorities responsible for entry control, information relating to passengers on routes from outside the Schengen area accessing the Spanish territory, whether in transit or final destination. Accordingly, the Council Directive 2004/82/EC of 29 April 2004 in order to achieve the aims previously mentioned, regulates the actions to be taken to improve border controls and combating illegal immigration. This aim is accomplished by advance communication by carriers to the competent national authorities of information relating to persons who are to be transported to a border crossing point through which enter the territory of a Member State. The imposition of that responsibility on carriers corresponds to the Spanish authorities in order to fight against illegal immigration and ensure public safety; on those routes from outside the Schengen area by the intensity of the migratory flows is necessary to take such action.

It is evident that not all scales or journeys made within a route that accesses to the country necessarily affect in a relevant way to illegal immigration or public safety. But routes whose origin is in countries or areas which present no risk may include intermediate scales or routes in city areas or countries where risk is presented, therefore the Spanish authorities should be able to get the information on these situations.

Moreover, in the air transport, when transits occur in a route, the API (Advanced Passenger Information) information provided by the carriers usually only includes the data of the transit airport. Consequently, if the obligation to report information to certain routes from outside the Schengen Area were established, and not others routes, the Spanish authorities could not be sure of receiving information of all passengers which origin is in risk areas or countries.

Finally, global nature of some threats that affect security and the current international transportation mobility, make it difficult to identify with precision and agility the areas of higher or lower risk. Also it is not ensured that, at any given time, threats from areas usually considered low risk can not access to Spain.

For all these reasons, It is necessary that information of all routes from countries outside the Schengen Area is sent to the Spanish authorities.

TECHNICAL SOLUTION – DATA FORMATS

FILE UPLOAD

This gives the chance to upload a xml or un-edifact format file of the company to the Web of the Ministry.

It is accessed by typing the url :

<https://portal.ses.mir.es/APIS/listasembarque/>

- ❑ The next is needed user name and password provided by the Ministry in order to enter the Web.



TECHNICAL SOLUTION – DATA FORMATS WEB SERVICE

The Ministry of Interior provides the companies with a web service. The companies shall integrate this service in their system the calling to the Ministry web service in order to provide the suitable data information flight.

To use this method it is needed :

- ❖ To have a user name and a password. This user name and password shall be provided by the Ministry of Interior in order to get access in the system.
- ❖ A client program that does the communication with the web service. The Ministry provides an example program so that the company could integrate it in their service.

The web service needs:

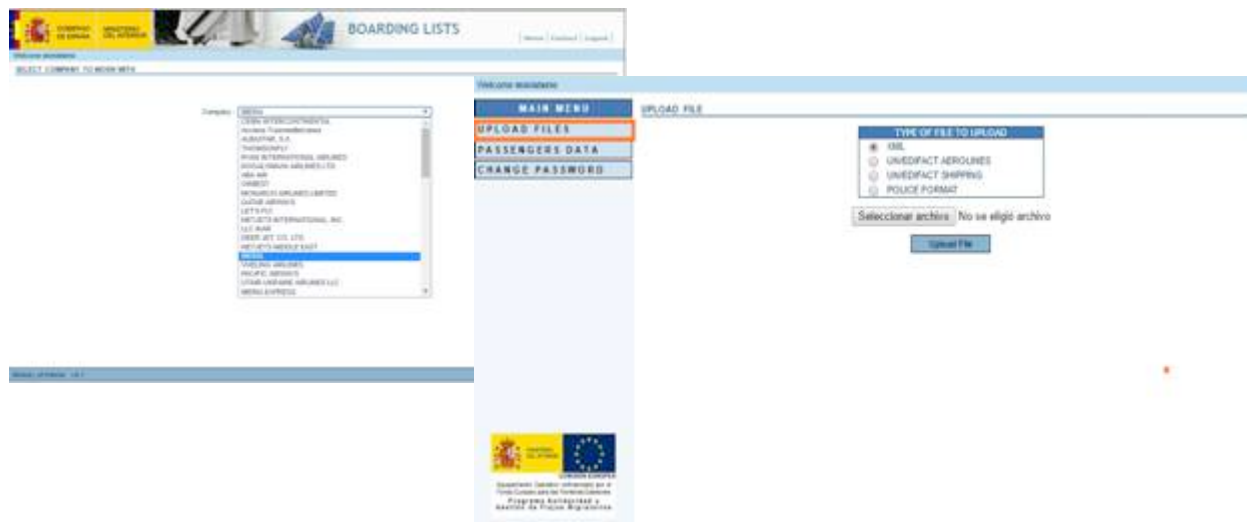
- File content with the suitable information. The file can be xml or un-edifact format.
- Name of the file.
- User Name.
- Password.

TECHNICAL SOLUTION – DATA FORMATS WEB FORM

This system allows to save on-line the information needed of each flight. It is a Web Service that can be reached through the url:

<https://portal.ses.mir.es/APIS/listasembarque/>

- The next is needed user name and password provided by the Ministry in order to enter the Web.



TECHNICAL SOLUTION – DATA FORMATS

SFTP

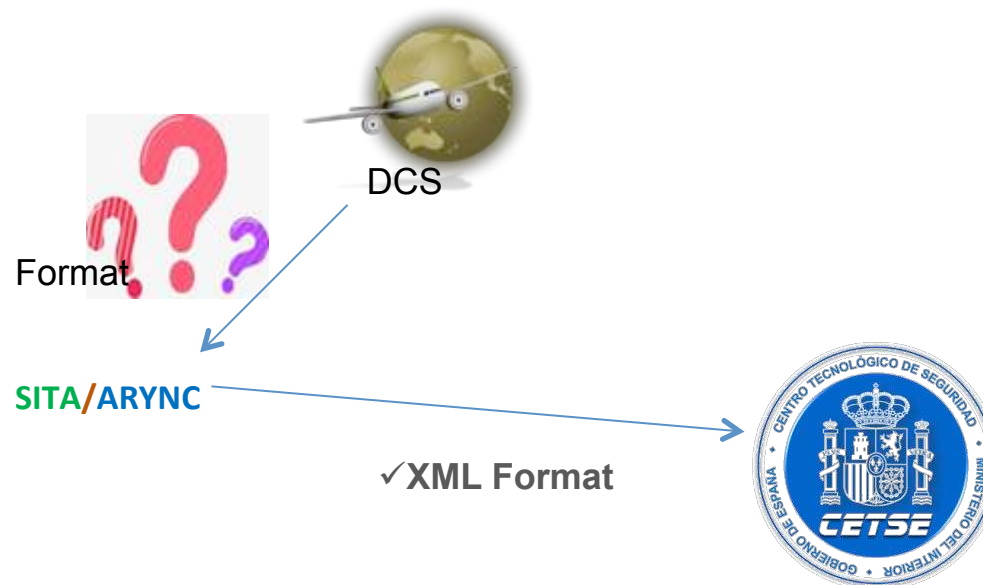
Another access way to send files is through the SFTP secure protocol.

It is needed:

- Having a sftp user (this user is different to the previously described systems) assigned by the Ministry to the company.
- A public and private key from the machine where the command SFTP is going to be used must be generated using a SSH So that a trust relationship among the two machines is established and the sftp command shall be used. Once the trust relationship is established, the sftp command must be executed in the system command interpreter to the IP of the machine of the Ministry. Once the connection is done, the files are placed through the instruction put.

```
drwxr-xr-x 11 root root 4096 mar 29 2012 hermes
drwxr-xr-x 11 root root 4096 mar 29 2012 liberia
drwxr-xr-x 11 root root 4096 mar 29 2012 transdat
drwxr-xr-x 11 root root 4096 mar 29 2012 aircomp
drwxr-xr-x 11 root root 4096 mar 29 2012 airtransport
drwxr-xr-x 11 root root 4096 mar 29 2012 comarit
drwxr-xr-x 11 root root 4096 mar 29 2012 ferrimaroc
drwxr-xr-x 11 root root 4096 mar 29 2012 futinair
drwxr-xr-x 11 root root 4096 mar 29 2012 inkay
drwxr-xr-x 11 root root 4096 mar 29 2012 utair
drwxr-xr-x 11 root root 4096 mar 29 2012 vim-avia
drwxr-xr-x 11 root root 4096 mar 6 2013 sftpeci2
drwxr-xr-x 11 root root 4096 abr 23 2013 navarmas
drwxr-xr-x 11 root root 4096 may 16 2013 pegasus
drwxr-xr-x 11 root root 4096 jun 4 2015 navline
```

TECHNICAL SOLUTION – DATA FORMATS SITA/ARYNC





APIS QUERY APPLICATION

This web site the quality of the data sent can be checked so that the companies shall consult this data and take measures in order to fulfil their obligations.



UNFULFILMENT

The screen shows the following information:

- Total number of files of passengers send by the carrier.
- Total number of files that should have been send by the carrier to the APIS system.
- Files of the carrier that have not been send according to the data.

The results can be obtained in a pdf, Excel, rtf and cvs file.

The screenshot displays the 'APIS QUERY APPLICATION' interface. On the left, a 'MAIN MENU' is visible with options: NON-FULFILMENT, RECEIVED FILES, QUALITY OF FILES, and VALIDATE FILES. The main area shows a 'NON-FULFILMENT APIS REPORT' with search filters for 'Initial Date' (2016-05-01), 'Final Date' (2016-05-31), and 'Company'. Below the filters, a 'RESULT OF THE QUERY' section contains a table with the following data:

START DATE	ARRIVAL DATE	STATUS
2016-05-01	2016-05-01 11:10:00.0	FUERA TIEMPO
2016-05-01	2016-05-01 20:05:00.0	FUERA TIEMPO
2016-05-20	2016-05-20 10:05:00.0	CON ERRORES
2016-05-10	2016-05-10 11:20:00.0	FUERA TIEMPO
2016-05-10	2016-05-10 11:20:00.0	FUERA TIEMPO
2016-05-01	2016-05-01 21:00:00.0	FUERA TIEMPO
2016-05-01	2016-05-01 11:10:00.0	FUERA TIEMPO

At the bottom of the interface, there are options to export the data: 'Opciones de exportación: CSV, Excel, PDF, RTF'.

RECEIVED

Allow carriers to know how many files have been sent to the APIS system and to know the invalid files and the errors.

The screenshot displays the 'APIS QUERY APPLICATION' interface. On the left is a 'MAIN MENU' with options: NON-FULFILMENT, RECEIVED FILES, QUALITY OF FILES, and VALIDATE FILES. The main area shows the 'APIS REPORT OF RECEIVED FILES' with search filters for 'Initial Date' (2016-07-05), 'Final Date' (2016-07-07), and 'Company'. Below the filters, there are two tabs: 'VALID FILES' and 'INVALID FILES'. The 'INVALID FILES' tab is selected, showing a table with columns: 'TRANSMISSION', 'ARRIVAL DATE', and 'STATUS'. A callout bubble points to the 'INVALID FILES' tab with the text: 'If you want to see the errors, just click on the name of the file'.

TRANSMISSION	ARRIVAL DATE	STATUS
0916-07-05C.XML	09160705 13:19	OK
0916-07-05C.XML	09160705 13:20	OK
0916-07-05C.XML	09160705 13:21	OK
0916-07-05C.XML	09160705 13:22	OK
0916-07-05C.XML	09160705 13:23	OK
0916-07-05C.XML	09160705 13:24	OK
0916-07-05C.XML	09160705 13:25	OK
0916-07-05C.XML	09160705 13:26	OK
0916-07-05C.XML	09160705 13:27	OK
0916-07-05C.XML	09160705 13:28	OK



QUALITY

This screen offers information about the quality of the received files. This screen allows to carriers to know the most common errors in order to improve the quality of the data to be send. The information is grouped by routes with the possibility of deploy each of them.

MAIN MENU

- NON-FULFILMENT
- RECEIVED FILES
- QUALITY OF FILES
- VALIDATE FILES

QUALITY OF RECEIVED APIS (ERRORS)

Initial Date:

Final Date:

Companies:

RESULT OF THE QUERY

65 elementos encontrados, mostrando 1 hasta 10.
[Primera/Anterior] 1 2 3 4 5 6 7 [Siguiente/Ultimo]

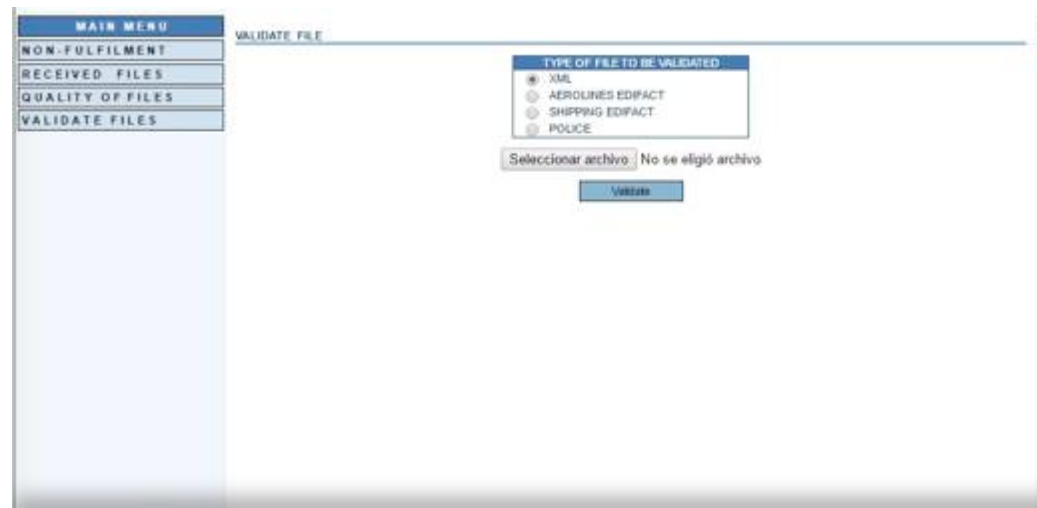
FLIGHT ORIGIN	FLIGHT DESTINATION	DATE ERROR	DUPLICATED ERROR	NAME ERROR	NUMBER OF PASSENGERS ERROR	COMPULSORIES ERROR	DOCUMENT ERROR	TOTAL PASSENGERS
CON	LPA	16%	0%	10%	0%	0%	0%	6
SXF	LPA	16%	0%	10%	0%	0%	0%	6
MUC	ALC	50%	0%	0%	0%	0%	0%	2
GOT	AGE	14%	0%	0%	0%	0%	0%	6
MAN	AGE	1%	0%	0%	0%	0%	0%	131
MOL	ALC	26%	0%	0%	0%	0%	0%	6
HEL	AGE	20%	0%	0%	0%	0%	0%	10
OSL	AGE	50%	0%	0%	0%	0%	0%	13
EDI	TFS	1%	0%	0%	0%	0%	0%	176
CPH	DCN	17%	0%	0%	0%	0%	0%	17

Opciones de exportado: CSV | Excel | PDF

VALIDATE FILES

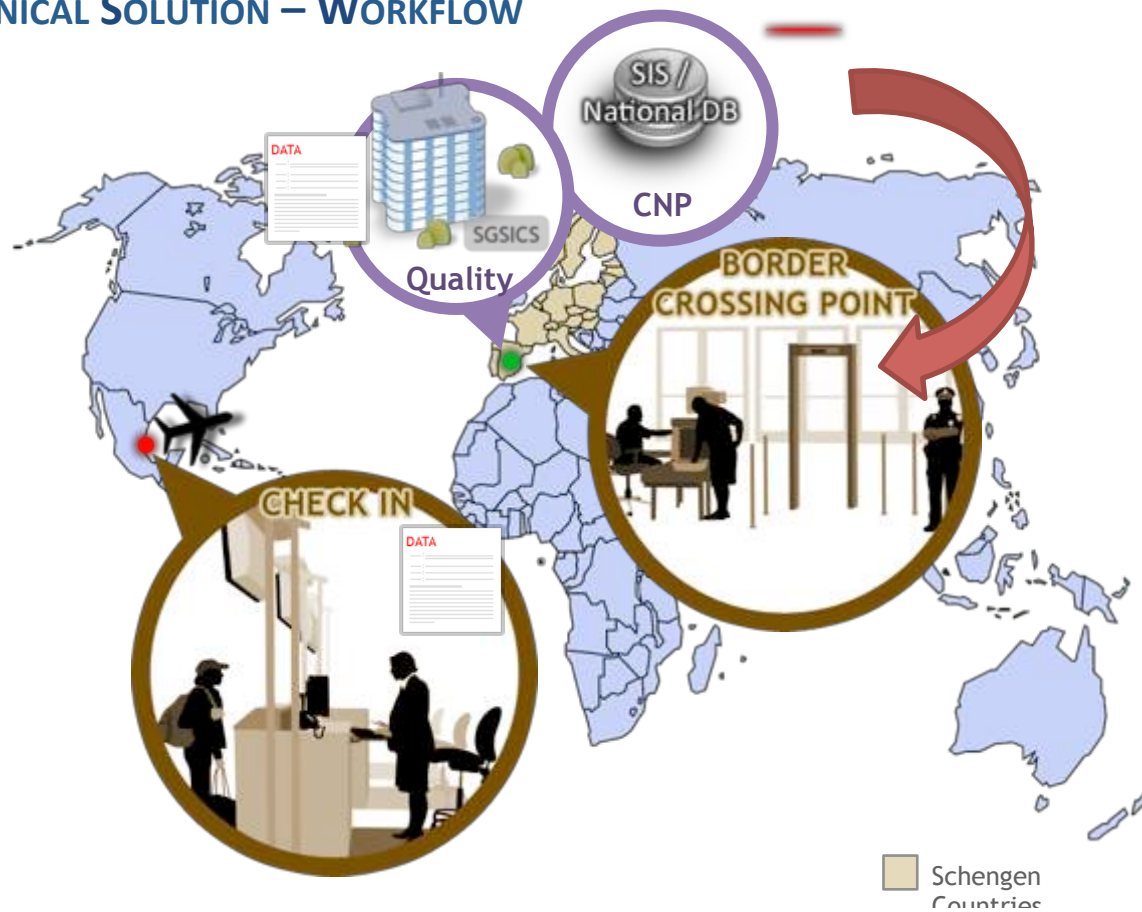
This screen has been developed for carriers to validate the file before sending it to the APIS System.

- Select the type of file to be validated xml, un-edifact etc
- Select the file to be validated in the local system of the transportation company.
- Once it is validated the errors are shown in a table.
- The screenshots of the screens that can be seen using this functionality are shown below.



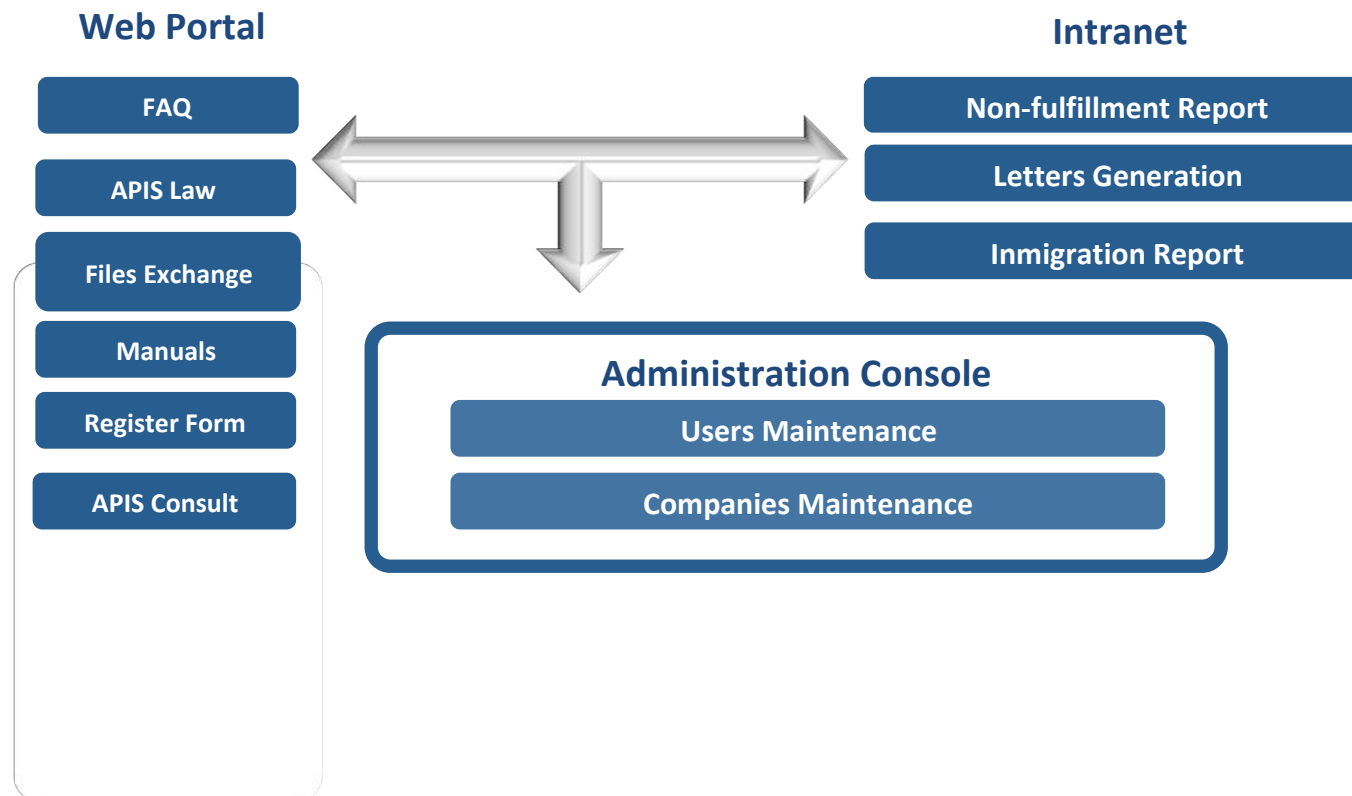


TECHNICAL SOLUTION – WORKFLOW

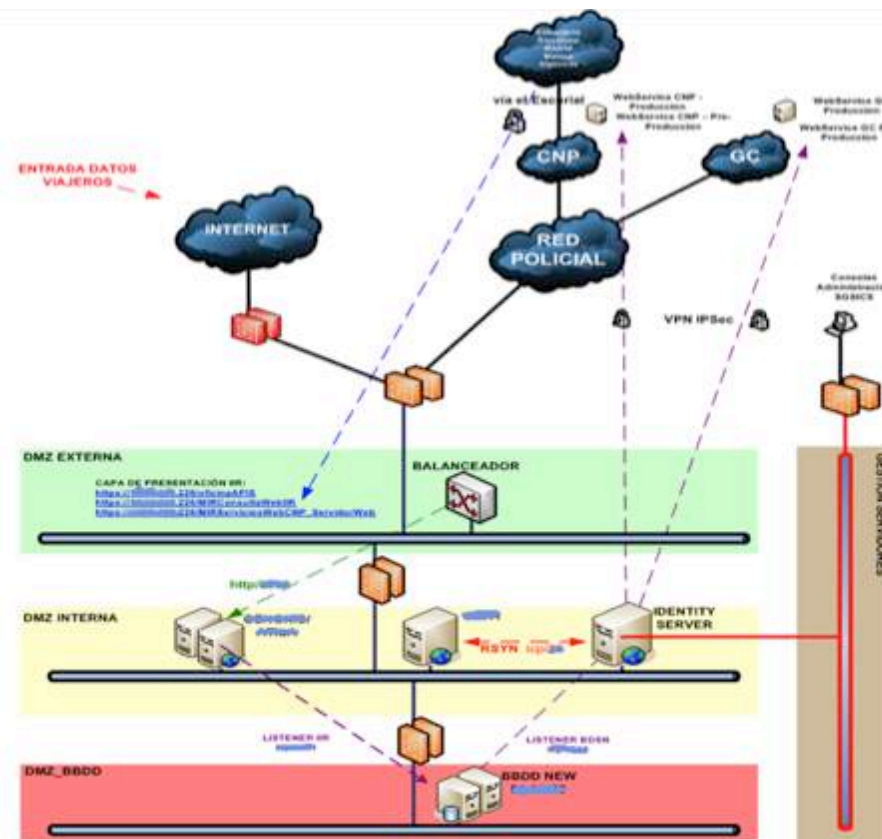




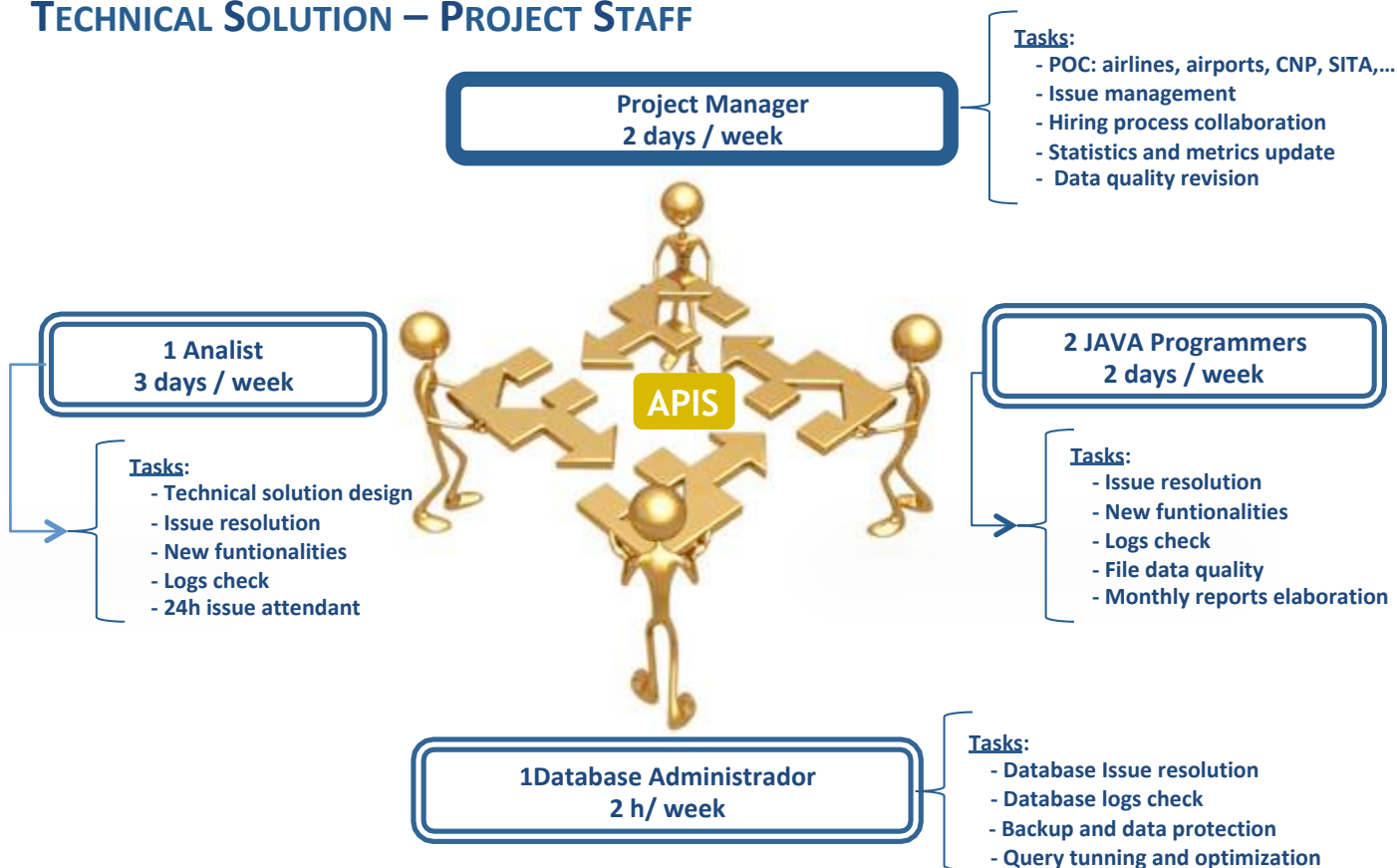
TECHNICAL SOLUTION – SYSTEM’S ARCHITECTURE



TECHNICAL SOLUTION – SYSTEM’S ARCHITECTURE



TECHNICAL SOLUTION – PROJECT STAFF





PNR, API AND BIOMETRICS AT THE BORDER



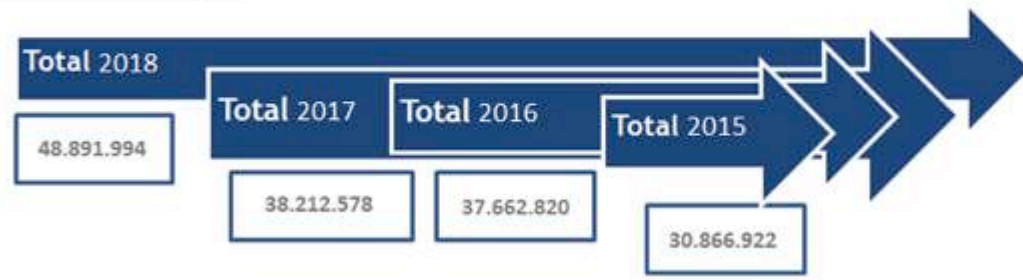
GOBIERNO DE ESPAÑA

MINISTERIO DEL INTERIOR

SUBDIRECCIÓN GENERAL DE SISTEMAS DE INFORMACIÓN Y COMUNICACIONES PARA LA SEGURIDAD



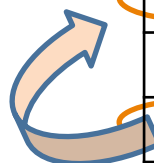
Companies 7860





GENERAL STATISTICS

STATISTICS 2013-2018			
	Nº de actuaciones policiales	Nº de pasajeros tratados	Nº Total Posibles Positivos
2018	7.860	46.897.994	352.905
2017	7.576	38.212.578	253.972
2016	6.501	37.362.820	165.557
2015	5.733	30.866.922	108.121
2014	3.990	24.985.554	796.20
2013	3.370	21.682.808	96.850



SYSTEM IMPROVED



MORE EFFECTIVENESS



IIR BENEFITS

Improvements of identity identification

- Reduction of reading errors
- Reduce the number of possible hits, increasing the real hit rate
- Increased reliability
- Intelligent search
- Architectural changes





PNR, API AND BIOMETRICS AT THE BORDER



GOBIERNO DE ESPAÑA

MINISTERIO DEL INTERIOR

SUBDIRECCIÓN GENERAL DE SISTEMAS DE INFORMACIÓN Y COMUNICACIONES PARA LA SEGURIDAD

Lista de Posibles Positivos

Mostrar Menú

Personas y Documentos														Acciones			
Ca.	Nº Trans.	Origen	Destino	Fecha Origen	Fecha Destino / Tª Escala	Nombre	Apellidos	Nacionalidad	Doc.	Nº Doc.	Fecha Not.	Sexo	Ejeto	Score	Cal.	Act.	Ver.
954	826858	ESFLU	Las Palmas	02/10/2019 20:30	18/06/2016 13:40	3545171827	588431475	Spain		2247571759	19/12/1978	M	PAU	87 %	3	X	X
954	826858	ESFLU	Las Palmas	02/10/2019 20:30	18/06/2016 13:40	663147339	1074312426	Spain		2841843347	18/02/1988	M	PAU	100 %	3	X	X
954	826858	ESFLU	Las Palmas	02/10/2019 20:30	18/06/2016 13:40	3545171827	588431475	Spain		2247571759	19/12/1978	M	PAU	87 %	3	X	X
954	826858	ESFLU	Las Palmas	02/10/2019 20:30	18/06/2016 13:40	663147339	1074312426	Spain		2841843347	18/02/1988	M	PAU	100 %	3	X	X
954	826858	ESFLU	Las Palmas	02/10/2019 20:30	18/06/2016 13:40	3545171827	588431475	Spain		2247571759	19/12/1978	M	PAU	87 %	3	X	X
954	826858	ESFLU	Las Palmas	02/10/2019 20:30	18/06/2016 13:40	663147339	1074312426	Spain		2841843347	18/02/1988	M	PAU	100 %	3	X	X
954	826858	ESFLU	Las Palmas	02/10/2019 20:30	18/06/2016 13:40	3545171827	588431475	Spain		2247571759	19/12/1978	M	PAU	87 %	3	X	X
954	826858	ESFLU	Las Palmas	02/10/2019 20:30	18/06/2016 13:40	663147339	1074312426	Spain		2841843347	18/02/1988	M	PAU	100 %	3	X	X
82V	8481	NCL	Barcelona (El Prat De Llobregat)	26/06/2016 09:40	18/06/2016 13:40	4167823771	2188341000	United Kingdom	P	1817771160	18/09/1977	F	PAU	95 %	3	X	X
LS	271	LSA	Alicante (Albufera)	03/07/2016 07:20	18/06/2016 13:40	4094982791	148836837	United Kingdom	P	4245488840	19/01/1975	M	PAU	87 %	3	X	X

1 a 10 de 10. Página 1 de 1

Verificar todos Verificar

Lista de Pasajeros Tratados

Mostrar Menú

Personas y Documentos														Acciones			
Ca.	Nº Trans.	Origen	Destino	Fecha Origen	Fecha Destino / Tª Escala	Nombre	Apellidos	Nacionalidad	Doc.	Nº Doc.	Fecha Not.	Sexo	Ejeto	Score	Cal.	Act.	Ver.
		ATL	Barcelona(El Prat De Llobregat)	06/07/2016 17:35	07/07/2016 09:25	ALCONGILADP		United States of America	P	20830204		M	PAU	100 %	3	X	X
		ATL	Barcelona(El Prat De Llobregat)	06/07/2016 17:35	07/07/2016 09:25			United States of America	P	145641888		F	PAU	100 %	3	X	X
		ATL	Barcelona(El Prat De Llobregat)	06/07/2016 17:35	07/07/2016 09:25			Spain	P	26062090		F	PAU	100 %	3	X	X
		ATL	Barcelona(El Prat De Llobregat)	06/07/2016 17:35	07/07/2016 09:25			United States of America	P	81071947		F	CPVY	100 %	3	X	X
		OTR	Bilbao(Sancti)	07/07/2016 04:25	07/07/2016 08:00			Romania	P	20111980		M	PAU	100 %	3	X	X
		JFK	Barcelona(El Prat De Llobregat)	08/07/2016 16:16	07/07/2016 07:55			United States of America	P	81161880		M	PAU	100 %	3	X	X
		MWPM	Algerias	07/07/2016 05:05	07/07/2016 07:30			Marocco	P	81071989		M	PAU	85 %	3	X	X
		MWPM	Algerias	07/07/2016 05:05	07/07/2016 07:30			United States of America	P	23074363		M	PAU	100 %	3	X	X
		MWPM	Algerias	07/07/2016 05:05	07/07/2016 07:30			Spain	I	26051994		F	PAU	100 %	3	X	X
		MWPM	Algerias	07/07/2016 05:05	07/07/2016 07:30			Spain	I	88101995		F	PAU	100 %	3	X	X

46 4 1 2 3 4 5 6 7 8 9 10 11 > 88

11 a 18 de 113. Página 1 de 13

Verificar todos Verificar

PNR



World Border Security Congress
Casablanca
2018



PROPOSAL ON THE USE OF PASSENGER NAME RECORD DATA

European Threats

- As a response to the threat posed by serious crime and terrorism, and the abolition of internal border controls under the Schengen Convention
- Measures for the collection and exchange of personal data between law enforcement and other authorities.
- the need for increased cooperation between law enforcement authorities with respect to passengers on international flights
- More systematic use of Passenger Name Record (PNR) data of such passengers for law enforcement purposes.

About PNR

- PNR data is unverified information provided by passengers, and collected by and held in the carriers' reservation and departure control systems for their own commercial purposes.
- It contains several different types of information, such as:
 - ✓ travel dates and travel itinerary
 - ✓ ticket information
 - ✓ contact details
 - ✓ the travel agent at which the flight was booked
 - ✓ means of payment used,
 - ✓ seat number
 - ✓ and baggage information.



EU PNR

- EU PNR Directive: **to better protect European citizens against security threats, such as terrorism or serious crime.**
- **Obliges air carriers to transfer the PNR data of passengers on international flights to the Member States of arrival or departure.** There the PNR data will be analyzed and used for the purpose of fighting serious crime and terrorism.
- The experience of the Member States that use PNR data, shows that **PNR data are necessary to fight serious crime and terrorism.**
- **Create a coherent EU wide system which ensures close cooperation between law enforcement authorities within the EU.** It also harmonizes the national systems



DATA TRANSFER TO STATES (PIU) PASSENGER INFORMATION UNIT

PNR data are critically important for the threat assessment that can be derived from the analysis of such data, particularly in relation to the fight against terrorism and serious crime.

Identification of potentially high-risk passengers through PNR data analysis provides States and aircraft operators with a capacity to:

- a) Improve aviation security;
- b) Enhance national and border security;
- c) Prevent and combat terrorist acts and related crimes and other serious crimes that is transnational in nature, including organized crime, and to enforce warrants and prevent flight from custody for such crimes;
- d) Protect the vital interests of passengers and the general public, including health;
- e) Improve border control processing at airports; and
- f) Facilitate and safeguard legitimate passenger traffic.

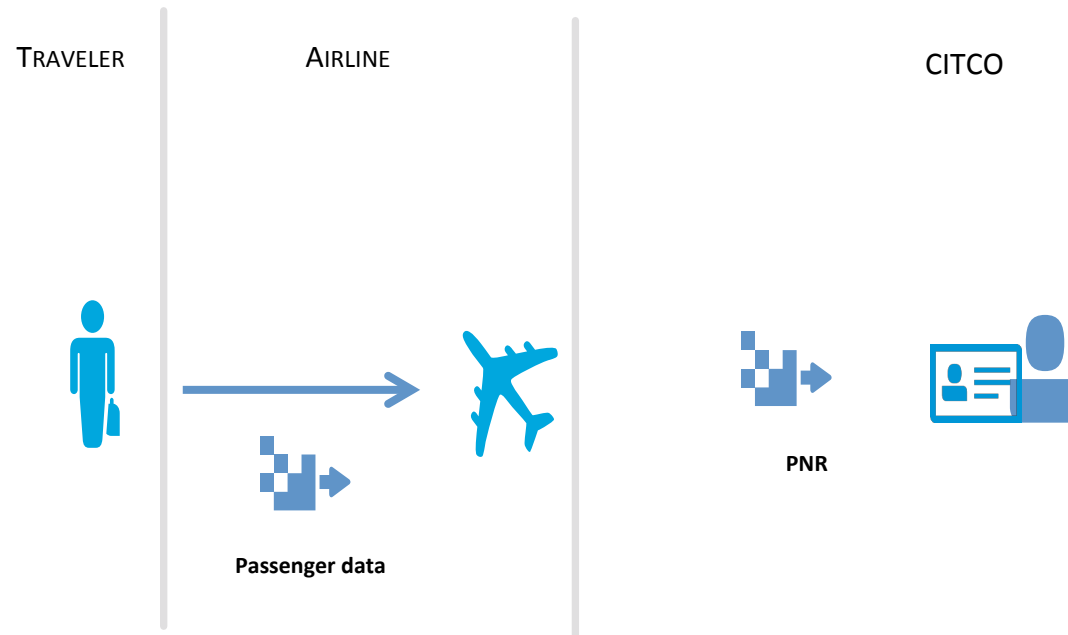
EU Directive, PNR data should be transferred to a single designated unit (Passenger Information Unit) in the relevant Member State, so as to ensure clarity and reduce costs to air carriers.



PNR, API AND BIOMETRICS AT THE BORDER

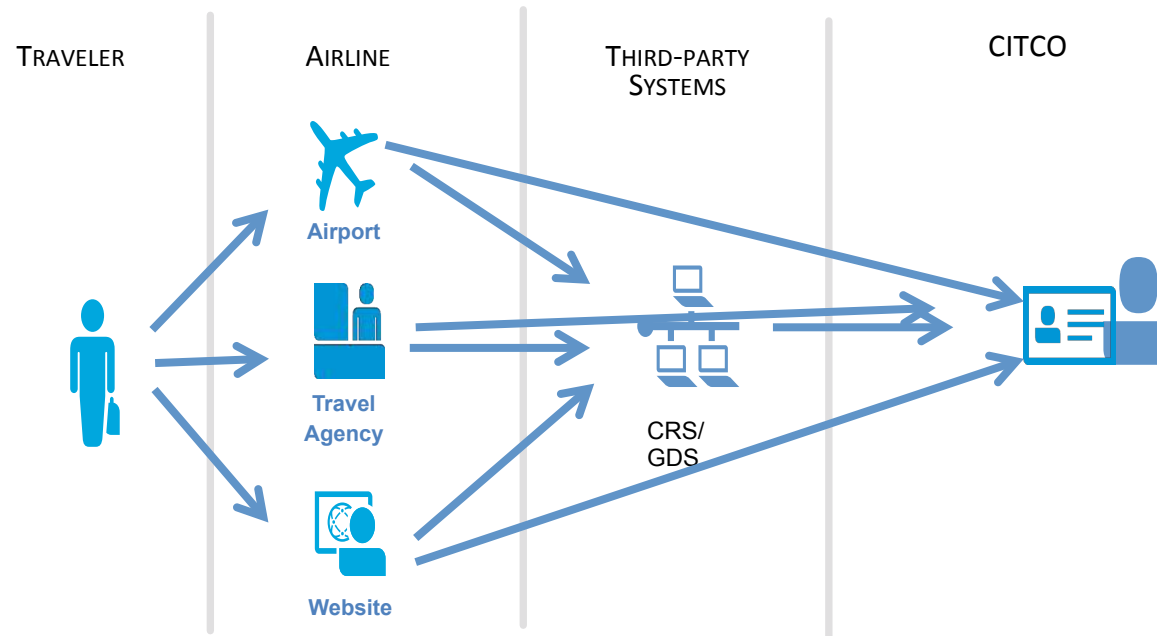


TRAVEL DATA “IDEAL SCENARIO”



Passenger Name Record (PNR) data accessed & “ingested”

AIRLINES AND THIRD-PARTY SYSTEMS ADDS COMPLEXITY



Computerized Reservation System" (CRS)
or "Global Distribution System (GDS)

The technological modernization of border control systems is essential to improve security and safety and guarantee the free movement of people across borders.

The number of travelers at ports and airports, which continues to increase each year, demands innovative solutions that allow us to better manage the flow of travelers through regulated borders.



01

Cooperation in the fight against illegal immigration, organized crime and terrorism

02

Advances in technology have made it easier for people to travel around the world

03

The removal of border controls within the Schengen Zone

Taking into account:

- ⦿ National and international law
- ⦿ Coordination between all involved parties
- ⦿ The changing state of technology



PNR, API AND BIOMETRICS AT THE BORDER



PNR NATIONAL DATABASE

The development and implementation of the PNR database at the national level

PNRGOV STANDARD

To implant the standard of communication PNRGOV – Push for the exchange of information between the member states

ACCORDANCE WITH THE LAW

The maintenance of the PNR database with international traveler information in accordance with the future UE Directive and the Spanish laws

AUTHORIZED PERSONNEL ONLY

To manage and limit the access to database information to authorized personnel only

SOFTWARE APPLICATION

To develop and implement a software application capable of managing, analyzing and processing of unstructured data

INFORMATION EXPLOITATION

The exploitation of the information contained in the PNR database and others



USE CASES



MOST RELEVANT REQUIREMENTS FOR PNR IMPLEMENTATION

REAL-TIME:

In such cases PNR data are necessary for running against predetermined assessment criteria in order to identify previously 'unknown' suspects and for running against various databases of persons and objects sought.

RE-ACTIVE:

In order to allow law enforcement authorities to go back sufficiently in time, a commensurate period of retention of the data by law enforcement authorities is necessary.

PRO-ACTIVE:

In order to carry out such an analysis of relevance for the prevention, detection, investigation and prosecution of terrorist offences and serious crime, a commensurate period of retention of the data by law enforcement authorities is necessary.



RELEVANT USE CASES - PASSENGER PROFILE

Description:

The use of PNR data prior to arrival allows law enforcement authorities to conduct an assessment and perform a closer screening only of those persons who are most likely, based on objective assessment criteria and previous experience, to pose a threat to security.

Benefits / Example:

This facilitates the travel of all other passengers and reduces the risk of passengers being subjected to examination upon entry into the EU on the basis of unlawful criteria such as nationality or skin colour which may wrongly be associated with security risks by law enforcement authorities, including customs and border guards.



RELEVANT USE CASES - TRAVEL ROUTES

Description:

Analysis of PNR data may give indications on the most usual travel routes for trafficking people or drugs which can be made part of assessment criteria. By checking PNR data in real-time against such criteria, crimes may be prevented or detected.

Example / Benefits:

A case where PNR analysis uncovered a group of human traffickers always travelling on the same route. Using fake documents to check in for an internal flight, they would use authentic papers to simultaneously check in for another flight bound for a third country. Once in the airport lounge, they would board the internal flight.

Without PNR it would have been impossible to unravel this human trafficking network.



RELEVANT USE CASES - AIRPORT INTELLIGENCE

Description:

The credit card information which is part of the PNR data may enable law enforcement authorities to identify and prove links between a person and a known criminal or criminal organisation.

Potential use are Large scale human and drug trafficking involving a Member State and third countries.

Example:

Cartels were importing drugs to several destinations in Europe. They were using drugs swallows who were themselves trafficked persons. They were identified on the basis of having bought the ticket with stolen credit cards on the basis of PNR. This led to arrests in the Member State. On this basis, an assessment criterion was created which itself led to several additional arrests in other Member States and third countries.

ACCURATELY ENRICHES PASSENGERS DATA

Advance Passenger Information (API)



Information related to passenger's biographical data

Passengers Identity can be used:

- For Immigration, Customs and Security

Passenger Name Record (PNR)



Information about passengers and their travel plans

Person's travel reservation can be used:

- For customs, law enforcement, security
- To help identify contraband, smuggling, etc .
- To assist in risk assessment

Airport Open Data (AOD)



Information about Airports and related relevant events

Open data Airport information can be used:

- Airport Intelligence
- Aircraft rerouting or cancelations
- Richer Passengers Profiles



PASSENGER NAME RECORD (PNR)

Information about a person's travel reservation.

It can be useful:

- For customs, law enforcement, security
- To help identify contraband, smuggling, etc
- To assist in risk assessment

Data Elements (19)

The PNR data for passengers are as follows:

- (a) PNR record locator.
- (b) Date of booking and ticketing
- (c) Planned dates of travel.
- (d) Names and surnames.
- (e) Address and contact details (telephone number, e-mail address).
- (f) All payment details, including billing address.
- (g) Complete itinerary of the trip.
- (h) Information on frequent travelers.
- (i) Travel agency or tour operator.
- (j) Passenger flight status: confirmations, check-in, no-show or last minute passengers without reservation.
- (k) Split or divided PNR information.
- (l) General remarks, including all available information on unaccompanied minors under the age of 18, such as name, surname and sex of the minor, age, languages spoken, name, surname and contact address of the accompanying person at the airport of departure and link to the minor, name, surname and contact address of the accompanying person at the airport of arrival and link to the minor, agent at the place of departure and place of arrival.
- (m) Information on the ticket, including the ticket number, date of issue, one-way tickets and indication of the fare for electronic tickets (Automatic Ticket Fare Quote).
- (n) Seat data, including number.
- (o) Code-share information.
- (p) All baggage information.
- (q) Number of passengers and other names of passengers listed in the PNR.
- (r) Any information contained in the Passenger Advance Information System (API), including type, number, country of issue and expiry date of any identity document, nationality, surname, first name, sex, date of birth, air carrier, flight number, date of departure, date of arrival, airport of departure, airport of arrival, time of departure and time of arrival.
- (s) All history of changes to the PNR data referred to in paragraphs (a) to (r).



EUROPEAN UNION OPEN DATA

Information about Airports and Airline Traffic data.

It can be useful:

- Airport Intelligence (City News)
- Last minute cancelations
- Aircraft rerouting due bad weather conditions
- Enrich Passengers Profile with Social Network

Data Elements

- Flight updates
- Airlines Routes
- Airport Information (Connections and Infrastructures)
- Airport Traffic data
- Weather conditions
- Security Information
- City / Country News
- Popular Itinerary Data
- Mentions in Social Network

OPEN DATA - EXTRACT VALUE AND UNDERSTANDING

Human communication - Documents

- As of Jar
- Airport
- Name
- City
- Country
- IATA/FI
- ICAO
- Latitude
- Longitu
- Altitude
- Timezon
- DST
- The data

507, "Heathr
26, "kugaari
3127, "Pokh:

```
<genericmetadata:ReportedAttribute conceptID="META_LAST_UPDATE">
  <genericmetadata:Value> 20/01/2014 </genericmetadata:Value>
</genericmetadata:ReportedAttribute>
</genericmetadata:ReportedAttribute>
<genericmetadata:ReportedAttribute conceptID="STAT_PRES">
  <genericmetadata:Value/>
</genericmetadata:ReportedAttribute conceptID="DATA_DESCR">
  <genericmetadata:Value><p>The Air transport domain contains national and international intra and extra-EU data. This provides air transport data for passengers (in number of passengers) and for freight and mail (in 1 000 tonnes) as well as air traffic data by airports, airlines and aircrafts. Data are transmitted to Eurostat by the Member States of the European Union as well as the Candidate Countries, Norway, Iceland and Switzerland. The air transport data have been calculated using data collected at airport level.</p><p>The data are presented in four sub-domains:</p><ul type="disc"><li>Air Transport measurement - Passengers</li><li>Air Transport measurement - Freight and mail</li><li>Air Transport measurement - Traffic data by airports, aircraft and airlines</li><li>Air Transport measurement - Data aggregated at standard regional levels (NUTS).</li></ul><p>The two first domains contain several data collections:</p><ul type="disc"><li>Overview of the air transport by country and airport,</li><li>National air transport by country and airport,</li><li>International intra-EU air transport by country and airport,</li><li>International extra-EU air transport by country and airport,</li><li>Detailed air transport by reporting country and routes.</li></ul><p>In the tables of the sub-domain "Transport measurement - Passengers", data are broken down by passengers on board (arrivals, departures and total), passengers carried (arrivals, departures and total) and passenger commercial air flights (arrival, departures and total). Additionally, the tables of collection "Detailed air transport by reporting country and routes" provide data on seats available (arrival, departures and total). The data is presented at monthly, quarterly and annual level.</p><p>In the tables of the sub-domain "Transport measurement - Freight and mail", data are broken down by freight and mail on board (arrival, departures and total), freight and mail loaded/unloaded (loaded, unloaded and total) and all-freight and mail commercial air flights (arrival, departures and total). The data is presented at monthly, quarterly and annual level.</p><p>In the tables of the sub-domain "Transport measurement - Traffic by airports, aircrafts and airlines":</p><p>- Data by type of aircraft are broken down by total passengers on board, total freight and mail on board in tonnes, total passengers seats available, total commercial air flights (passengers + all-freight and mail), passenger commercial air flights, all-freight and mail commercial air flights. The data is presented at annual level since 2003.</p><p>- Data by type of airline are broken down by total passengers on board, total passengers carried, total freight and mail on board, total freight and mail loaded/unloaded, total passengers seats available, total commercial air flights (passengers + all-freight and mail), passenger commercial air flights, all-freight and mail commercial air flights. The data is presented at annual level since 2003.</p><p>- Data by airport are broken down by total passengers carried, total transit passengers, total freight and mail loaded/unloaded, total commercial aircraft movements, total aircraft movements. The data is presented at monthly, quarterly and annual level.</p><p>The sub-domain "Transport measurement - Data aggregated at standard regional levels (NUTS)", contains two tables:</p><ul type="disc"><li>Air transport of passengers at regional level</li><li>Air transport of freight at regional level</li></ul><p>The tables present the evolution of the number of passengers carried (if not available passengers on board) and the volume of freight and mail loaded or unloaded (if not available freight and mail on board) to/from the NUTS regions (level 2, 1 and 0) since 1999. The data is presented at annual level. The air transport regional data have been calculated using data collected at the airport level in the frame of draft Council and Parliament Regulation (95/C 325/08).<a href="http://circa.europa.eu/Public/irc/dsis/emisannexes/library?l=/data_-_database/theme_7_-_transp/air_transport/methodological_documents&v=detalled&w=title"></a></p></genericmetadata:Value>
</genericmetadata:ReportedAttribute>
<genericmetadata:ReportedAttribute conceptID="CLASS_SYSTEM">
  <genericmetadata:Value><p>Airports are classified according to ICAO (International Civil Aviation Organization) airport coded as listed in ICAO document 7910.</p><p>The aircraft are classified according to aggregated aircraft categories based on the ICAO aircraft codes as listed in ICAO document 8643.</p><p>The airlines are classified according to the region where they are licensed: European Union or outside the European Union. The information is either directly provided by the data providers or derived from the ICAO airline codes as listed in the ICAO document 8585.</p><p><strong></strong></p></genericmetadata:Value>
</genericmetadata:ReportedAttribute>
<genericmetadata:ReportedAttribute conceptID="COVERAGE_SECTOR">
  <genericmetadata:Value><p>Not applicable</p></genericmetadata:Value>
</genericmetadata:ReportedAttribute>
<genericmetadata:ReportedAttribute conceptID="STAT_CONC_DEF">
  <genericmetadata:Value><p>Regulation (EC) N°1358/2003, Implementing Regulation N°437/2003 of the European Parliament and of the Council on statistical returns in respect of the carriage of passengers, freight and mail by air, mentions three datasets: the Flight Stage dataset, called A, the On Flight Origin/Destination dataset, called B and the Airport dataset, called C.</p><p><span style="text-decoration: underline;">Dataset A</span>: This dataset contains periodic flight stage data registered for airport-to-airport routes, and broken down by arrivals/departures, scheduled/non-scheduled, passenger service/all-freight and mail service, airline information and aircraft type. The values provided concern passengers on board, freight and mail on board, commercial air flights as well as passenger seats available.</p><p><span style="text-decoration: underline;">Dataset B</span>: This dataset contains periodic on flight origin/destination data registered for airport-to-airport routes and broken down by arrivals/departures, scheduled/non-scheduled, passenger
```




PROPOSED ONLINE ANALYTICS SERVICES

Passenger Identification



Uniquely Identify passenger across multiple names

Passenger Profile



Alerts on suspicious profiles based on passengers data

Traveling Routes



Identification of patterns Itineraries/routes

Airport Intelligence



Collect and Analyze real-time data related to Airport

To provide **an online Analytics Services to Units** in response to the COUNCIL DIRECTIVE on the use of Passenger Name Record data **for the prevention, detection, investigation and prosecution of terrorist offences and serious crime**. Analytics Services will be **performed by expert Investigators** and extends the simple query and extraction of Passengers data by **providing advance analytics** in combination with Traveling Routes and Airport Intelligence from European Open Data Frameworks – including structured and unstructured data sources.



PASSENGERS IDENTIFICATION - ONLINE ANALYTICS SERVICES

Passenger Identification



Uniquely Identify passenger across multiple names

Passenger Profile



Alerts on suspicious profiles based on passengers data

Traveling Routes



Identification of patterns Itineraries/routes

Airport Intelligence



Collect and Analyze real-time data related to Airport

Problem it solves

Passenger information stored in disparate data sources may contain inaccurate or misspelling names causing issues in finding and retrieving all relevant passenger data across timelines and multiple destinations.

Benefits

- ✓ Ability to search by non full descriptive name
- ✓ Find and retrieve all related data to a desire passenger in a human readable format
- ✓ Validation of passenger identification and flight information
- ✓ Automatic highlighting of people that match "Watch-lists"



PASSENGERS IDENTIFICATION - ONLINE ANALYTICS SERVICES

Foster Investigation by automatically matching and connecting Passengers Information



PASSENGERS PROFILE - ONLINE ANALYTICS SERVICES

Passenger Identification  Uniquely Identify passenger across multiple names	Passenger Profile  Alerts on suspicious profiles based on passengers data	Traveling Routes  Identification of patterns Itineraries/routes	Airport Intelligence  Collect and Analyze real-time data related to Airport
---	--	---	---

Problem it solves <p>The vast amount of data available related to passengers is difficult to analyze manually to detect anomalies. The use of advanced analytics helps identify and alert on suspicious behaviors of passengers based on “pre-defined criteria”.</p>	Benefits <ul style="list-style-type: none">✓ Automatically identify passenger demographical and sociological profile.✓ Tracking of travel itinerary changes (i.e. last minute cancelation)✓ Identification of passengers traveling together.✓ Tracking unusual usage of open social networks.
--	---



PASSENGERS PROFILE - ONLINE ANALYTICS SERVICES

Advanced Search



Search and Find all relevant data associated to a given Passenger

Flights Graph



Represents graphically all flights in a given period of time and Geo

Schedule Heat Map



Represents graphically all activity for a given period of time, month, years

Passengers Graph



Represents graphically how passengers relate to others for a given flights, period of time or Country

Airports Map



Represents in a Map all stops for a given passenger or group.

Topic Map



Represents a Tree Map for a given criteria based on Data Entities.



TRAVELING ROUTES - ONLINE ANALYTICS SERVICES

Passenger Identification



Uniquely Identify passenger across multiple names

Passenger Profile



Alerts on suspicious profiles based on passengers data

Traveling Routes



Identification of patterns Itineraries/routes

Airport Intelligence



Collect and Analyze real-time data related to Airport

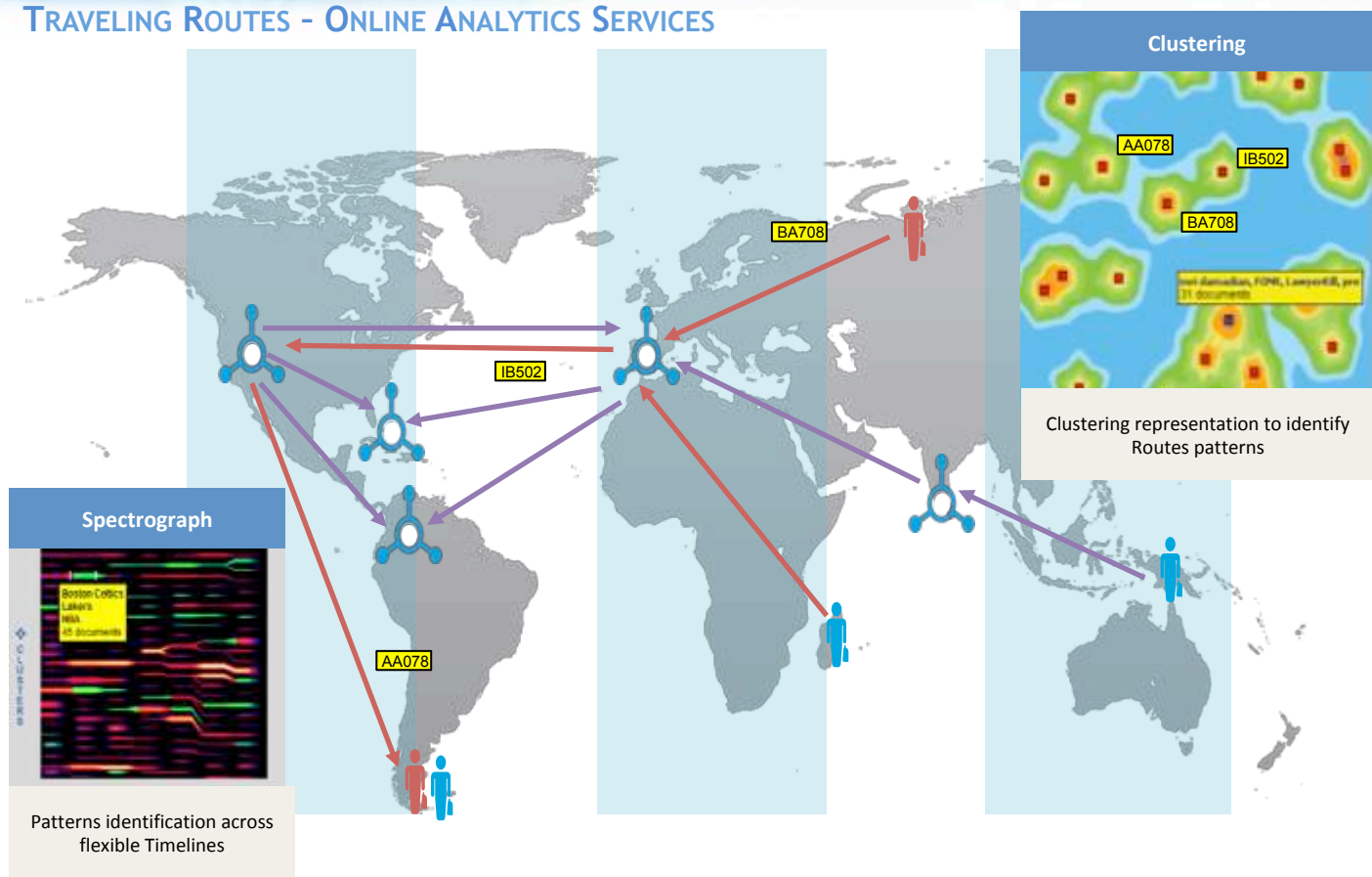
Problem it solves

Investigators typically know routes used by traffickers, however knowing origin and destination of an itinerary may not reveal the use of that routes due connection points or a "hidden route" using cross document and multiple agencies.

Benefits

- ✓ Guided support to identify frequent routes based on travelers and airlines data.
- ✓ Alerts of passenger or group (watch-listed) traveling on pre-defined routes/itinerary.
- ✓ Validation of passenger reaching destination due cancelations, delays or routes changes.

TRAVELING ROUTES - ONLINE ANALYTICS SERVICES





AIRPORT INTELLIGENCE - ONLINE ANALYTICS SERVICES

Passenger Identification



Uniquely Identify passenger across multiple names

Passenger Profile



Alerts on suspicious profiles based on passengers data

Traveling Routes



Identification of patterns Itineraries/routes

Airport Intelligence



Collect and Analyze real-time data related to Airport

Problem it solves

Passengers traveling left a digital print as they move across cities and airports, cross referencing with local real-time airport information can predict behaviors or alert on unexpected movements and decisions.

Benefits

- ✓ Alerts on country/city relevant events and physical security threats
- ✓ Alerting flights delays and/or cancellations due airlines or weather conditions
- ✓ Collect and Analyze Airport information

AIRPORT INTELLIGENCE SCENARIO



- **Bad weather conditions** affect the destination airport and after impact assessment by airport authorities and air traffic control authorities, decision is taken to close temporarily the destination airport.
- The flight needs then to be rerouted to one of its potential alternate destinations.
- Those alternate destinations are predefined by the airline operating the flight but the final decision is taken by coordination of air traffic control authorities together with the pilot; a number of parameters may influence the decision such as fuel, weather, and airport congestion.



SARP is a web application:

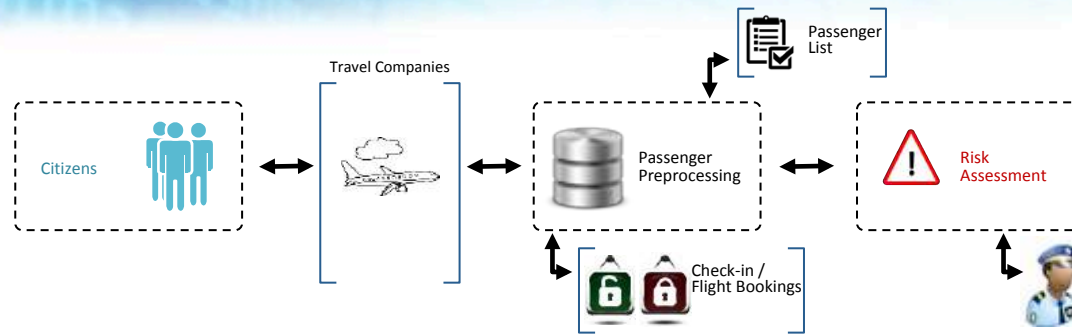
- The platform users use a centralized access using a web application
- Friendly for the users, allows a fast analysis and validation of the possible alerts
- All the user tools are integrated with the web application and inherit a common visual and security model

SARP SISTEMA DE ALERTAS DE RIESGO DE PASAJEROS

Super administrador Sistema 05/02/2016
Tiene un mensaje nuevo



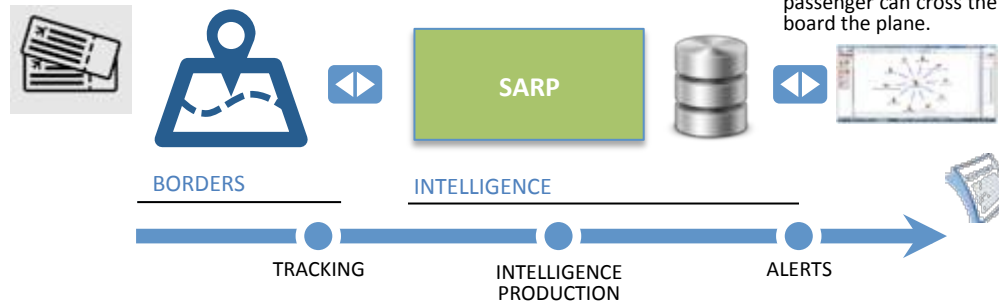
			O/D	Fecha	Vuelo	SCI	SIS	CNP	BDSN	VISA	SIDENPOL	PASAP.	Sanción	INT°.	SARP	IDOL	SCORING	TOTAL
				06/04/2000 00:00:00	HDZ-567 Risto	26	0	34	26	0	6	0	4	0	3	2	3	104
				21/12/2010 00:00:00	DGJ-374 Kai	22	0	34	21	0	6	0	4	6	3	0	0	96
				03/08/2004 00:00:00	CLD-326 Milko	20	0	0	7	0	2	0	0	4	3	2	5	43
				21/09/2007 00:00:00	QSH-902 Mac	23	0	28	22	0	6	0	6	4	3	1	0	93
				08/07/2006 00:00:00	POF-305 Congui	21	0	10	23	0	8	0	6	0	3	2	1	74
				05/03/2008 00:00:00	MEM-955 Morgan	25	0	0	25	0	8	0	8	4	3	4	2	79
				19/08/2014 00:00:00	DBQ-228 Lazan	11	0	14	14	0	10	0	6	0	2	1	2	60
				06/07/2001 00:00:00	VVM-680 Mimo	26	0	34	23	0	8	0	6	2	3	1	0	103
				22/06/2000 00:00:00	HKA-84 Hada	28	0	10	22	0	4	0	2	4	2	0	0	72
				01/01/2009 00:00:00	ZWL-819 Naria	28	0	32	32	0	6	0	0	2	1	0	5	106



Before citizens arrive in the country, passenger and flight data are provided by travel and booking companies

Several type of checks and verification are performed. For foreign passengers can also validate their visa.

Checks based on different criteria such as country of origin or date of birth. The result is a message to be launched indicating whether or not the passenger can cross the border or even board the plane.



INTELLIGENCE

Creating intelligence through a system capable of integrating and processing real-time information that allows taking optimal decisions.



Open Source integration:

- From identified alerts, the system will automatically extract information related to it, using rules designed by the platform users
- The unstructured information is structured in search for relevant data
- The information is shown in the alert summary in order to allow a fast validation from an analyst

SARP SISTEMA DE ALERTAS DE RIESGO DE PASAJEROS

Super administrador Sistema 06/02/2016
Tiene un mensaje reservo

Inicio Maestros PNR Alertas Carga MicroStrategy EOL Informes Mapas Diagramas Mensajería Seguridad Desconectar

Pasajero con alertas: MONICA ALINA VEDIA ENCISO 32608113-D

Detalle SCI (3) Redes sociales (6)

Red social (6)

	Imagen	Vuelo	Red social	Usuario	Interés
<input type="checkbox"/>		DGJ-374 Kai		monicaenciso5	<input type="checkbox"/>
<input type="checkbox"/>		DGJ-374 Kai		monica.enciso.182	<input type="checkbox"/>
<input type="checkbox"/>		DGJ-374 Kai		monica.encisocaballero	<input type="checkbox"/>



MINISTERIO DE INTERIOR
SUBDIRECCIÓN GENERAL DE SISTEMAS DE INFORMACIÓN Y COMUNICACIONES PARA LA SEGURIDAD

Search Engine for the data:

- ❑ Similar method of operation than the common search engines
- ❑ Allows the integration of data from all the sources (PNR, statistical and extracted from Open Sources)

SARP SISTEMA DE ALERTAS DE RIESGO DE PASAJEROS

Super administrador Sistema
06/02/2016
Tiene un mensaje nuevo



Inicio Maestros PNR Alertas Carga MicroStrategy IDOL Informes Mapas Diagramas Mensajería Seguridad Desconectar

Documentos IDOL (178 recuperados de 178 coincidentes sobre un total de 418304 documentos indexados)

Busqueda * 296 caracteres restantes.

Fecha desde/hasta

Fuente * Idioma * Peso Min. 50 %

test

Twitter Español
 RSS Inglés
 Ficheros Italiano
 Portugués

Autonomy an HP company

Fuente	Peso	Título	Fecha
Twitter	85,56	RT @FernandezZicavo: 'Francisco' no recibe a Víctimas dl Terrorismo. Solo a familiares de los terroristas, que llama 'detenidos políticos' ...	30/04/2015 01:20
RSS	85,34	HRW pide el final de los 'test de virginidad' en las FFAA de Indonesia	14/05/2015 16:13
Twitter	84,92	@Tedoy_mipalabra .a su colaborador le da repelus oír a Indra, y calificar el 'test' de v.del terrorismo como 'apología del arrepentimiento	17/05/2015 07:07
RSS	84,92	El trivial madrileño de...Raquel López	16/05/2015 11:13
Twitter	84,92	Pilonas Anti Terrorismo Crash 'Test' Segurdoma ACS: http://t.co/zqFcdw0MH5 via @YouTube	05/05/2015 15:24
Twitter	84,92	Pilonas Anti Terrorismo Crash 'Test' Segurdoma ACS http://t.co/iwRhGI33nu	05/05/2015 15:14
Twitter	84,72	Con el Mazo Dando: Comandante Chávez: Los medios de comunicación del fascismo transmiten terrorismo	01/06/2015

Sugeridos

Náutica Crónica Madrid Andalucía Baleares Cataluña, España Opinión Internacional Economía Deportes Cultura, Inicio España Opinión Internacional Economía Deportes

Nube

Náutica Crónica Madrid Andalucía Baleares Cataluña España Opinión Internacional Economía Deportes Cultura Inicio España Opinión Internacional



External Database integration:

- SARP is integrated with other spanish law enforcement databases
- This integration allows to create a risk analysis model using complex comparison criteria
- The PNR data is compared with external databases for the search for individuals or property (credit cards, identities, etc) of interest
- SARP allows to create and maintain a custom query policy for each database: every external system imposes its own limits for throughput, query types
- The requests of external databases are asynchronous: SARP collects the responses as they are delivered individually by each source and the risk evaluation is updated and notified after each response

Statistical analysis:

- ❑ HP Vertica and R are used for the design, evaluation and development of statistical models.
- ❑ Statistical experts will analyse the data using Big Data tools. Vertica allows to create dynamic and fast data models and statistical processes implemented in R.

VERTICA
An HP Company

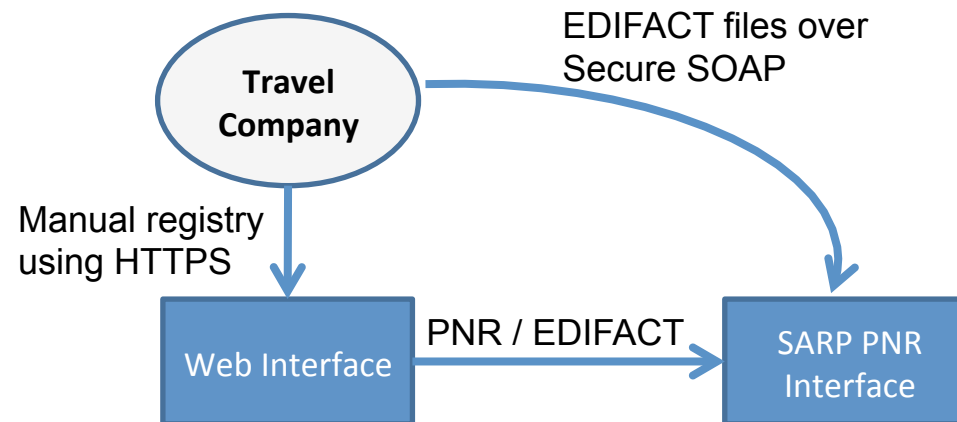
R

Distributed R:
A scalable and high-performance platform for the R language

- Analyze data too large for vanilla R
- Leverage multiple nodes for distributed processing
- Vastly improved performance
- Use familiar GUIs and packages

Ease data introduction:

- ❑ PNR schema based in the PNRGOV standard using EDIFACT (13.1)
- ❑ The final schema only contains the data required in the EU Directive
- ❑ Companies without the required IT platform will be able to use a web interface
- ❑ All the data is finally handled by the same interface





The Platform is able to collect the PNR files and run preparation and normalization using different dictionaries:

- Passenger names and other data
- Location, street addresses and other geographical data
- Common patterns (telephone numbers, card numbers)

The high volume of PNR files require a technical platform capable to handle and generate the required throughput:

- In 2018, more than 200 M of passengers on flights used a spanish airport .
- The number of PNR files will require a powerful platform for its load, validation and normalization
- Big Data platform, based in HP Vertica and Elasticsearch will allow to manage dictionaries using high performance document databases, as well as implement the comparison and validation algorithms with the required performance to handle all the data



SARP implement data retention policy enforcement:

- Anonymize the data following the required period of time (6m)
- The global data retention, after the anonimization, is 5 years
- The anonymization process will be irreversible
- Further data retention processes will be implemented to comply with the Spanish data privacy laws
- Those data retention processes will affect also the data requested and collected from other UNIPs

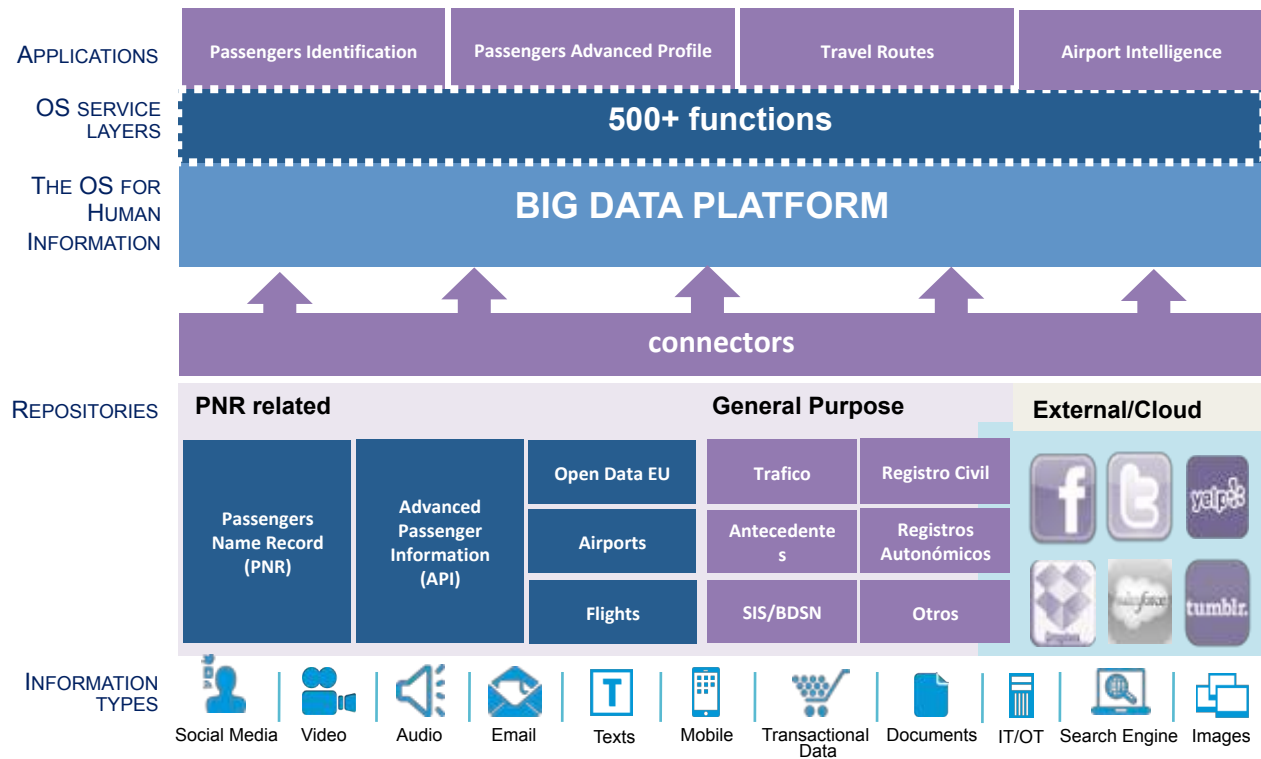


PNR, API AND BIOMETRICS AT THE BORDER



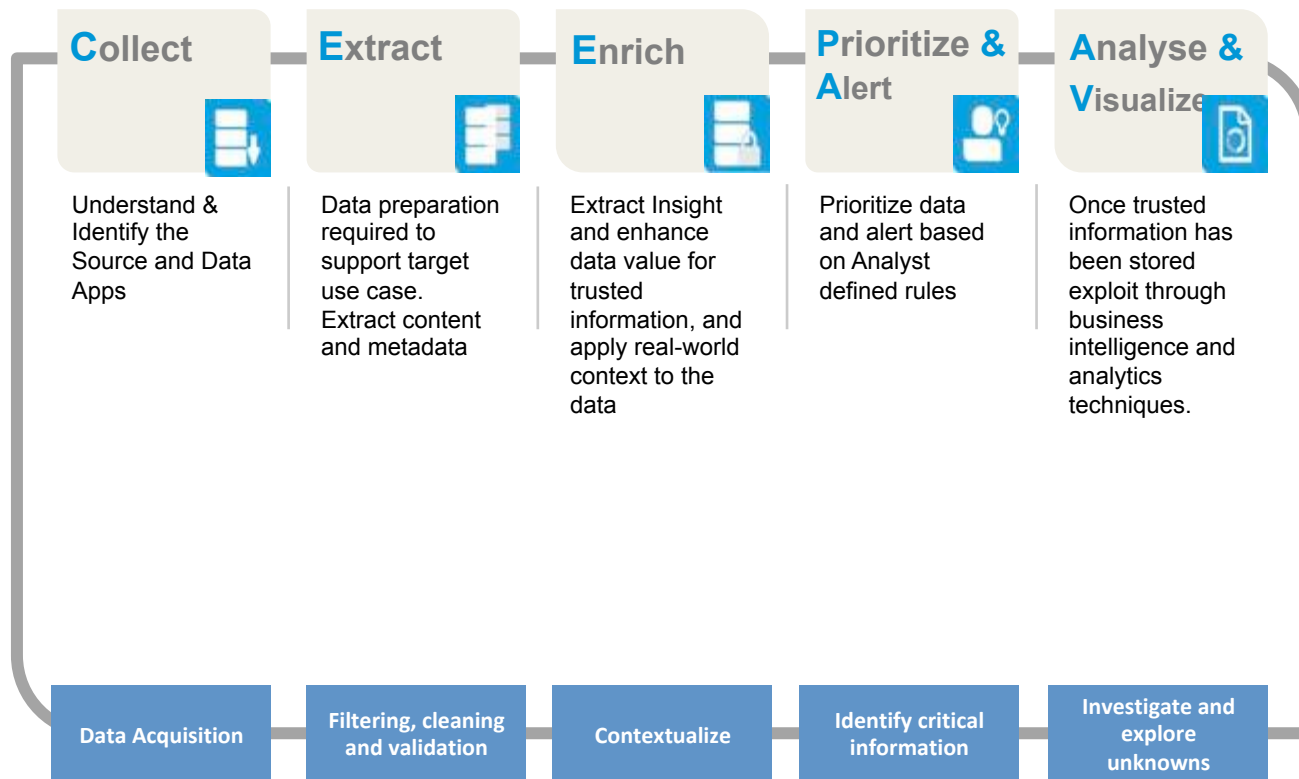
THE BIG DATA PLATFORM FOR HUMAN INFORMATION

Driven by advanced analytics to understand data in context from any source





FROM DATA TO KNOWLEDGE - INFORMATION TO ACTION

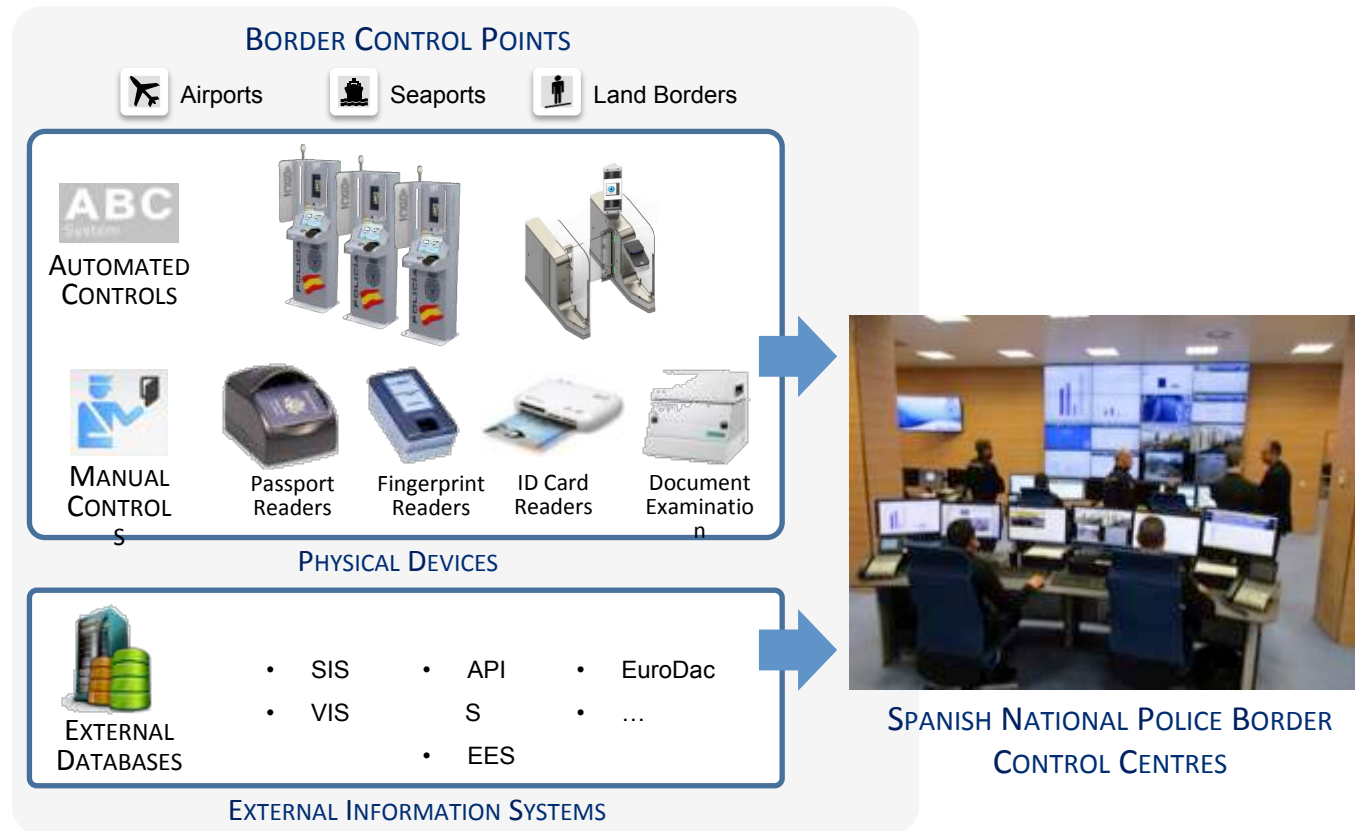


BIOMETRICS



World Border Security Congress
Casablanca
2018

SPANISH SMART BORDERS PROJECT DESCRIPTION





SPANISH SMART BORDERS PROJECT BORDER CONTROL CENTRES

NATIONAL CONTROL CENTRE
Police Border and Immigration Department (Madrid)



IN OPERATION SINCE
DECEMBER 2015

BACKUP CENTRE
National Police Headquarters (Madrid)



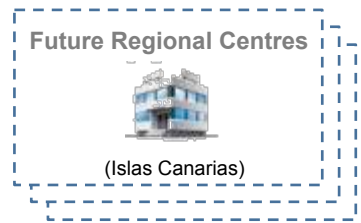
IN OPERATION SINCE
DECEMBER 2015



REGIONAL CENTRE
(Algeciras)



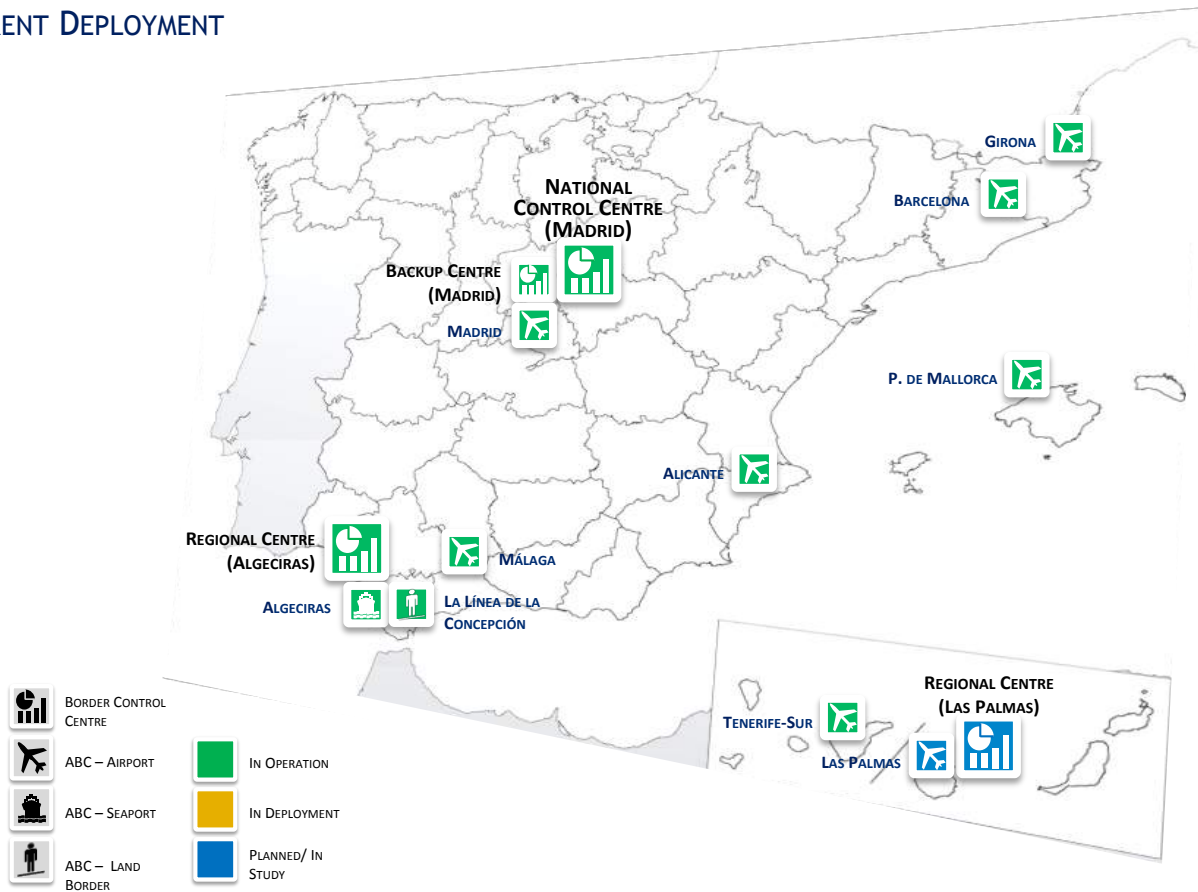
IN OPERATION SINCE
OCTOBER 2015





MINISTERIO DE ENERGIAS Y SEGURIDAD
SUBDIRECCIÓN GENERAL DE SISTEMAS DE INFORMACIÓN Y COMUNICACIONES PARA LA SEGURIDAD

SPANISH SMART BORDERS PROJECT CURRENT DEPLOYMENT





SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS ABC SYSTEM


TRAVELLER REQUIREMENTS

+18 Years Old



EU + Island + Norway +
Switzerland + Liechtenstein

TRAVELLER DOCUMENTS



- Spanish electronic ID Card (eDNI)
- Electronic Passport (ePassport)

- 9 Sites
- 127 Identification Modules
- > 6 Million Users

MAIN ELEMENTS



IDENTIFICATION MODULES



ACCESS MODULES



SYSTEM CONTROL POSTS



SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS ABC SYSTEM CONFIGURATIONS



CONFIGURATION A
Mantrap. One-Step



CONFIGURATION B
Two-Steps



CONFIGURATION C
Mixed configuration

SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS ABC - AUTOMATED VERIFICATION PROCESS



- Spanish electronic ID Card (eDNI)



MRZ



Chip



Facial Image



Fingerprint



- Electronic Passport



VIZ y MRZ



Document

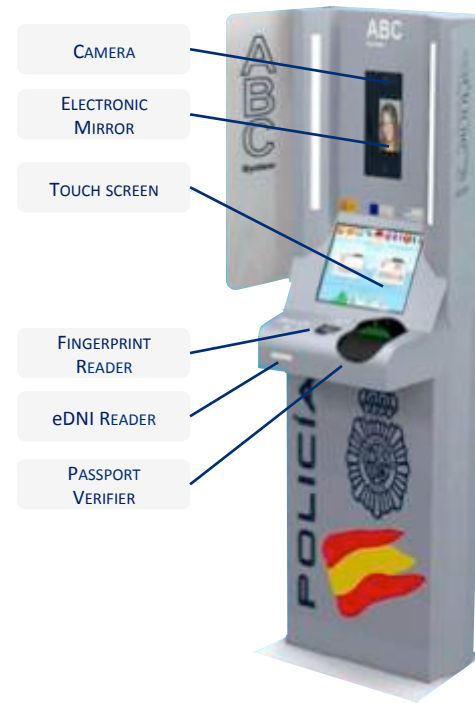


Facial Image



Fingerprint (*)

(*) 2nd generation electronic passports
VIZ: Visual Inspection Zone
MRZ: Machine Readable Zone



IDENTIFICATION MODULE TYPE 1



SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS ABC - AUTOMATED VERIFICATION PROCESS



- Spanish electronic ID Card (eDNI)



MRZ



Chip



Facial Image



Fingerprint



- Electronic Passport



VIZ y MRZ



Document

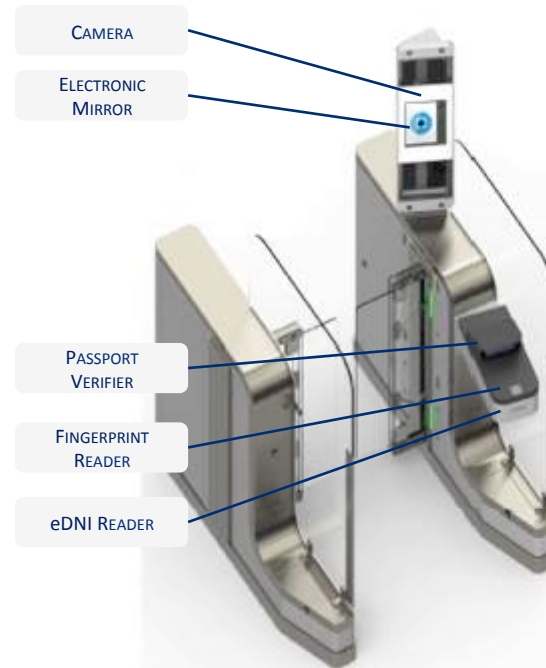


Facial Image



Fingerprint (*)

(*) 2nd generation electronic passports
VIZ: Visual Inspection Zone
MRZ: Machine Readable Zone

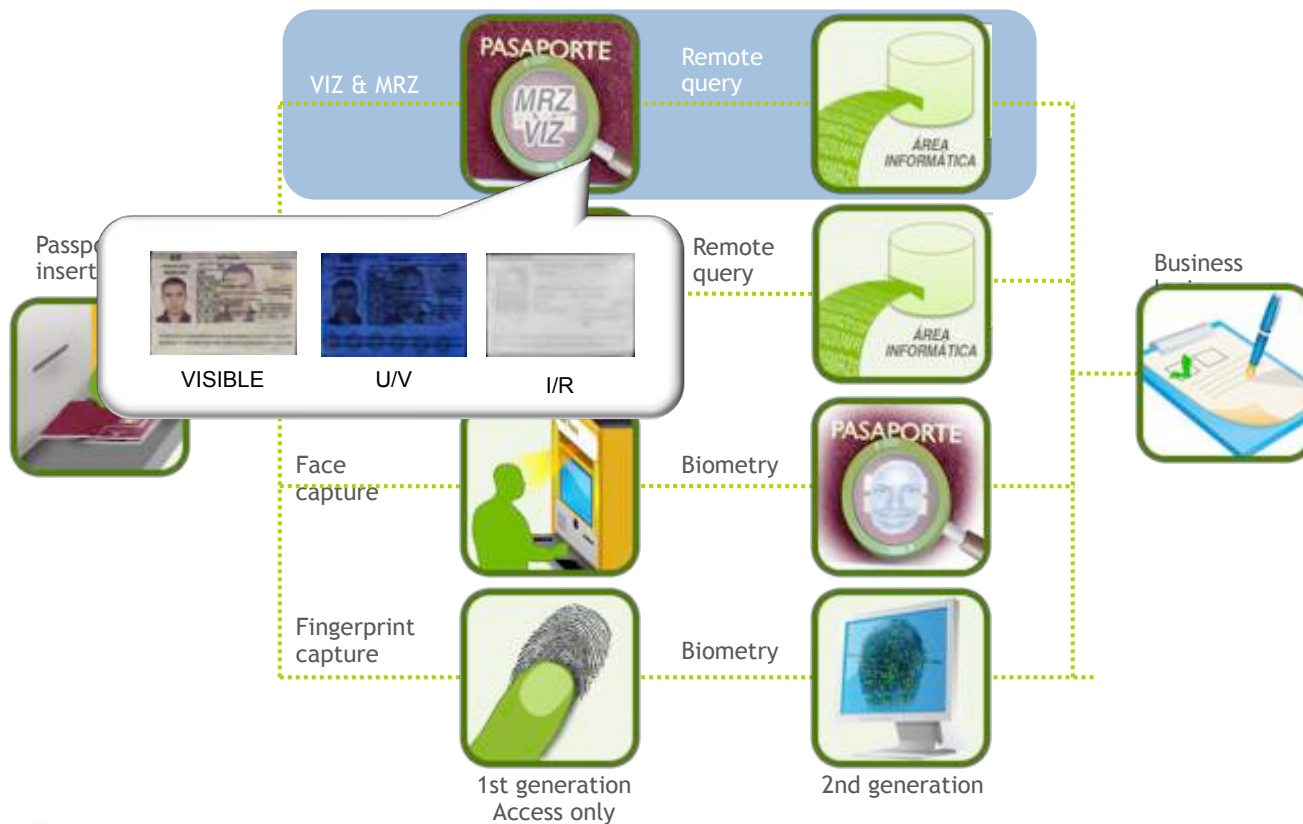


IDENTIFICATION MODULE TYPE 2

SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM) AUTOMATED VERIFICATION PROCESS. ELECTRONIC PASSPORT



SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM) AUTOMATED VERIFICATION PROCESS. ELECTRONIC PASSPORT

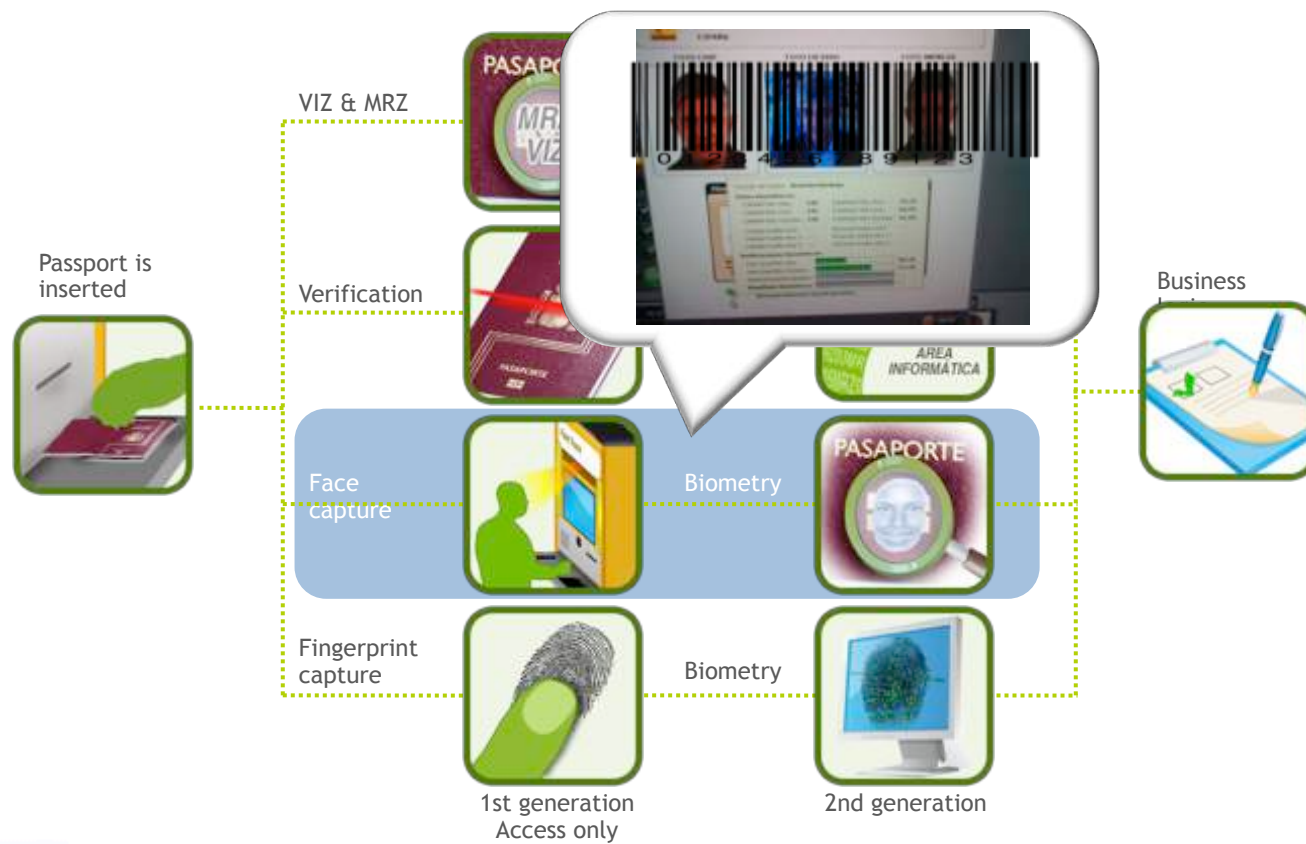


SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM)
AUTOMATED VERIFICATION PROCESS. ELECTRONIC PASSPORT





SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM) AUTOMATED VERIFICATION PROCESS. ELECTRONIC PASSPORT



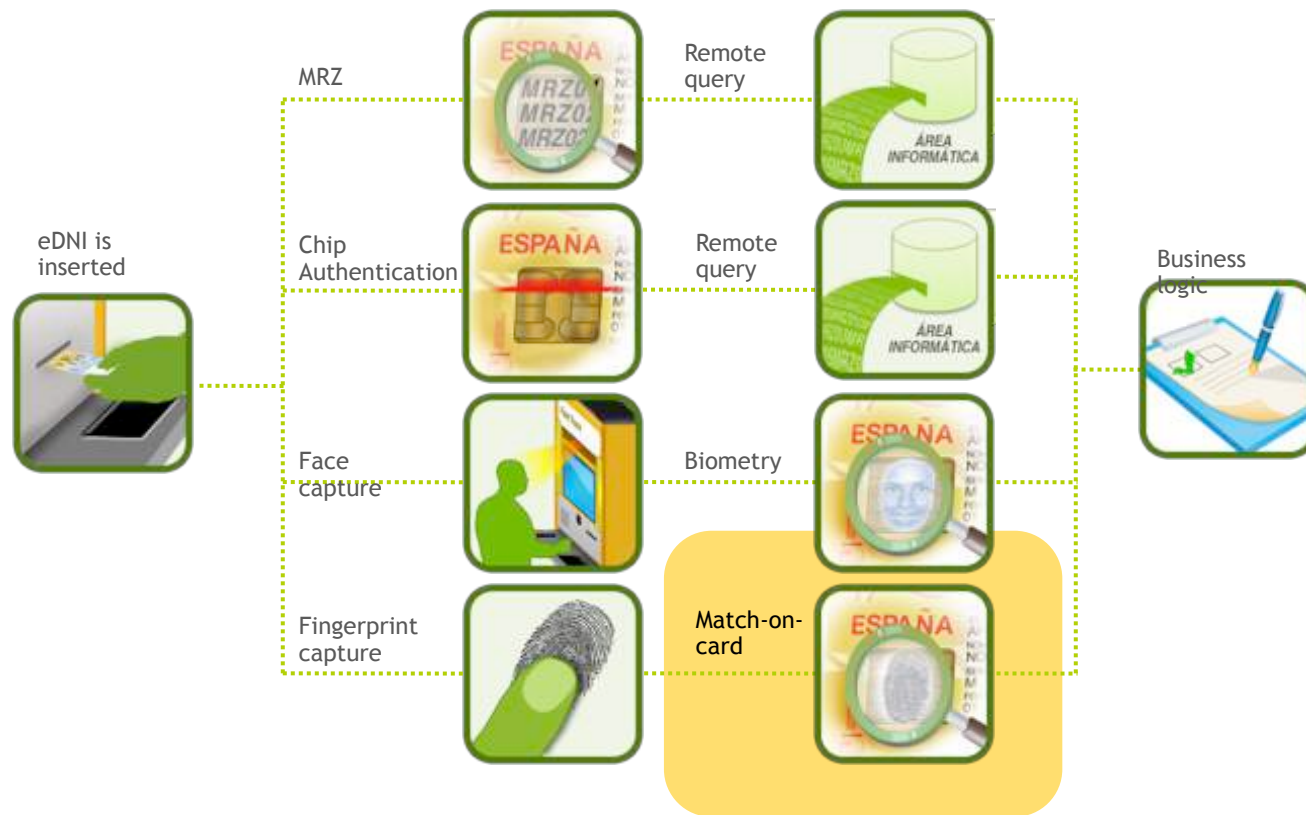
SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM)
AUTOMATED VERIFICATION PROCESS. ELECTRONIC PASSPORT



SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM) AUTOMATED VERIFICATION PROCESS. ELECTRONIC PASSPORT



SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM) AUTOMATED VERIFICATION PROCESS. SPANISH ELECTRONIC IDENTITY CARD - EDNI





PNR, API AND BIOMETRICS AT THE BORDER



SECRETARÍA DE ESTADO
DE SEGURIDAD
SUBDIRECCIÓN GENERAL
DE SISTEMAS DE INFORMACIÓN
Y COMUNICACIONES
PARA LA SEGURIDAD

SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS ABC - EXAMPLES OF CURRENT SITES



BARCELONA T1



MADRID T4
SATELLITE



LA LÍNEA DE LA
CONCEPCIÓN



PNR, API AND BIOMETRICS AT THE BORDER



MINISTERIO DE ESTADOS
Y SEGURIDAD
SUBDIRECCIÓN GENERAL
DE SISTEMAS DE INFORMACIÓN
Y COMUNICACIONES
PARA LA SEGURIDAD

SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS ABC - EXAMPLES OF CURRENT SITES



PALMA DE
MALLORCA



MÁLAGA



ALICANTE



SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS MANUAL CONTROLS



MANUAL
CONTROLS

Stand-Alone
Posts



Associated
to ABC
Systems





SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS
OTHER RELATED SYSTEMS DEPLOYED AT BCPS



AUTOMATIC LICENSE PLATES RECOGNITION



CCTV CAMERAS



SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS
OTHER RELATED SYSTEMS DEPLOYED AT BCPS



DOCUMENT EXAMINATION EQUIPMENT

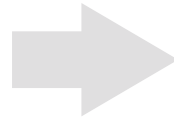


E-VISA EXPEDITION SYSTEMS



SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS CURRENT LINES OF ACTIVITY

EXTENSION OF THE USE OF 4 FINGERPRINTS AT BCPs CONTROLS



MOBILE BIOMETRICS

TRANSPORTABLE
SYSTEMS



MOBILE DEVICES





SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS CURRENT LINES OF ACTIVITY

USE OF BIOMETRICS IN OTHER SYSTEMS



EES, VIS,
INTEROPERABILITY

AFIS SIS



EURODAC

EXPLORATION OF OTHER BIOMETRIC IDENTIFICATION TECHNOLOGIES

- Voice recognition
- Physical contour
- Iris
- Palm recognition
- Recognition of behavioral traits



SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS FINAL REMARKS

ADVANTAGES OF BIOMETRY

- Allows faster border crossing
- Reduces waiting times
- Allows police officers to focus on the most interesting cases
- Verifies the authenticity of the travel document
- Verifies the identity of the bearer of the documents
- Allows automated query in police databases
- IDENTIFY MULTIPLE IDENTITIES





Thank you very much

Subdirección General de Sistemas de Información y Comunicaciones para la Seguridad - Ministerio del Interior
Centro Tecnológico de Seguridad (CETSE)
C/Cabo López Martínez, s/n
28048 El Pardo - Madrid
Tlf: (+34) 91 839 80 00
Fax: (+34) 91 839 80 19