MINISTERIO DEL INTERIOR

SECRETARÍA DE ESTADO DE SEGURIDAD

SUBDIRECCIÓN GENERAL DE SISTEMAS DE INFORMACIÓN Y COMUNICACIONES PARA LA SEGURIDAD

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

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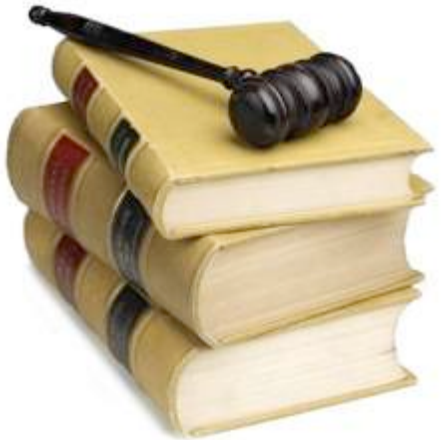
LEGISLATION

- 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

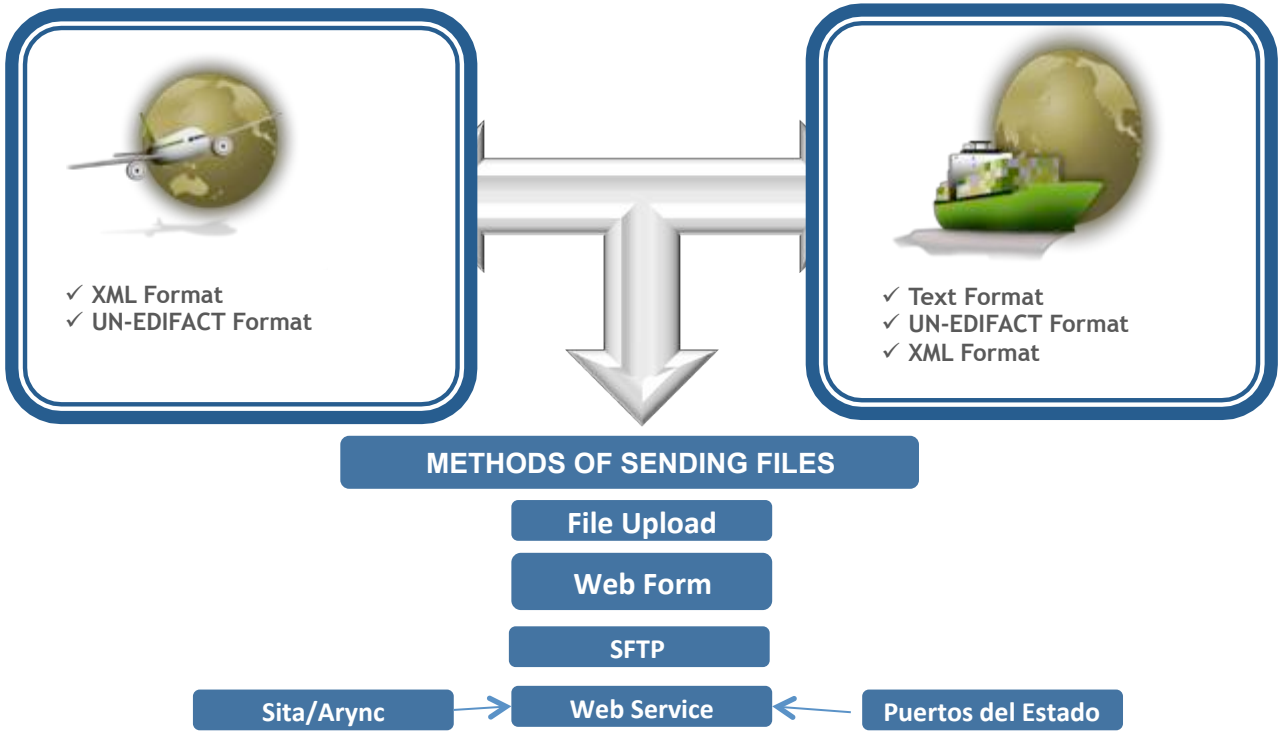
WHICH ROUTES DO THEY TRANSMIT

- 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

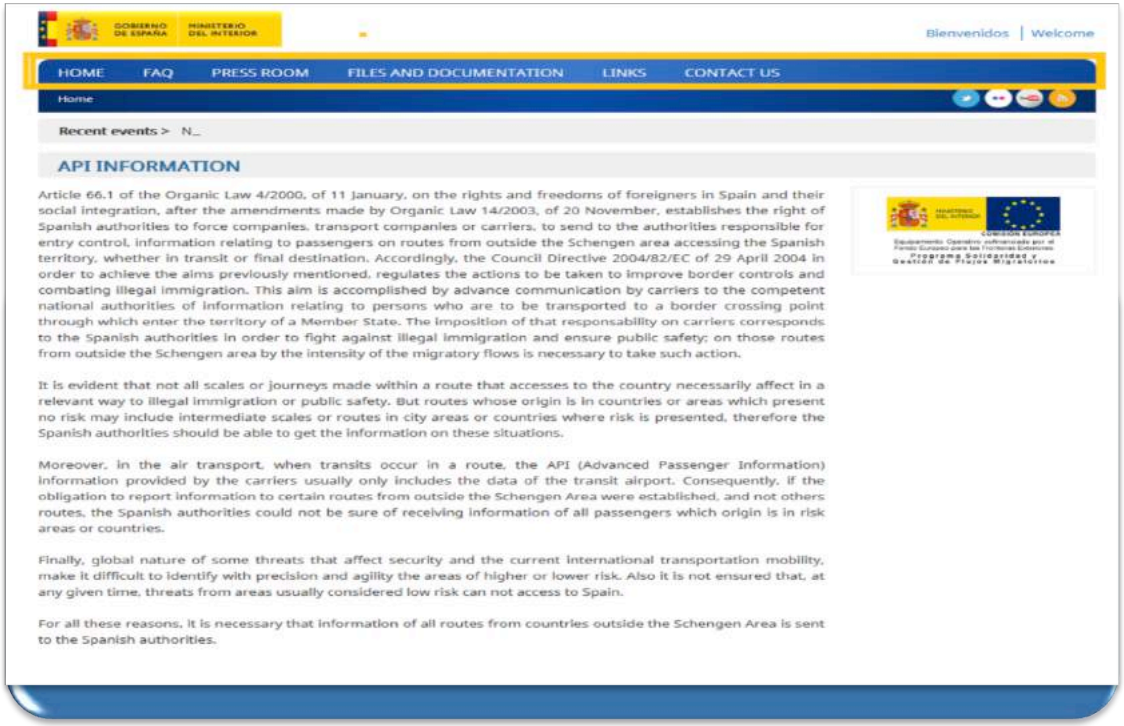
Formato XML

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 o more methods.



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.

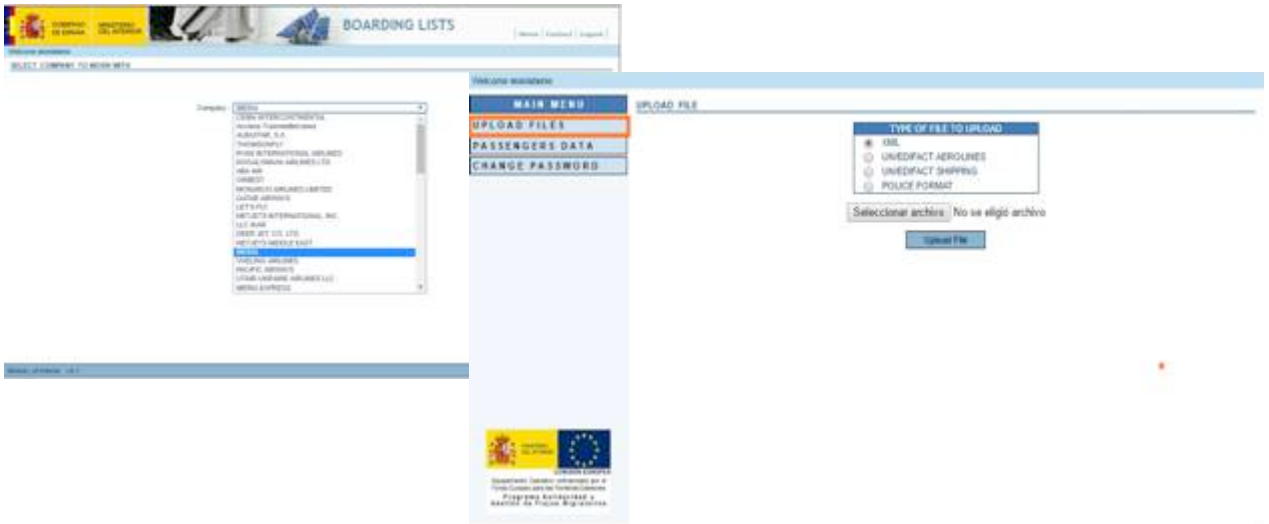
TECHNICAL SOLUTION – DATA FORMATS

WEB FORM

This system allows to save on-line the information needed of each flight. It is is a Web Service that can be reached throught 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 throught the SFTP secure protocol.

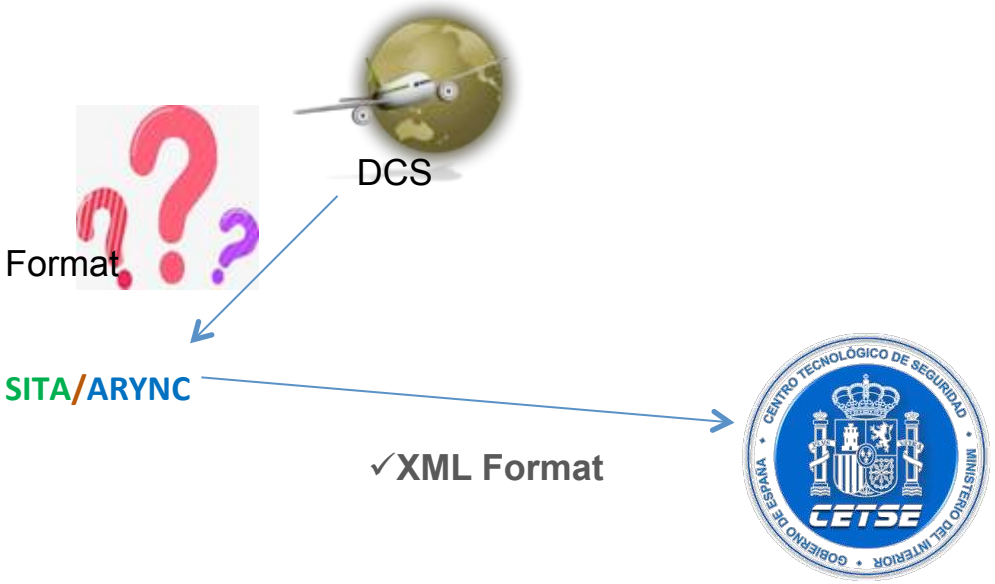
It is needed:

- Having a sftp user (this user is different to the previously described systems) asigned by the Ministry to the company.
- A public and prívate 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 iberia
drwxr-xr-x 11 root root 4096 mar 29  2012 transadat
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 inkav
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 sftpsci2
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
```

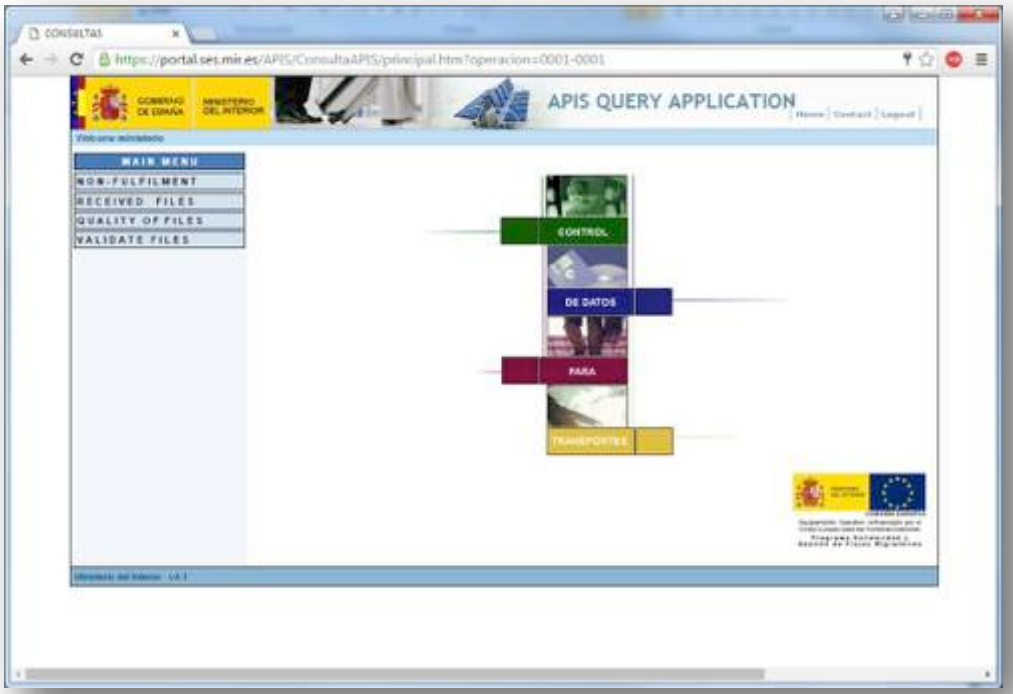
TECHNICAL SOLUTION – DATA FORMATS

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.

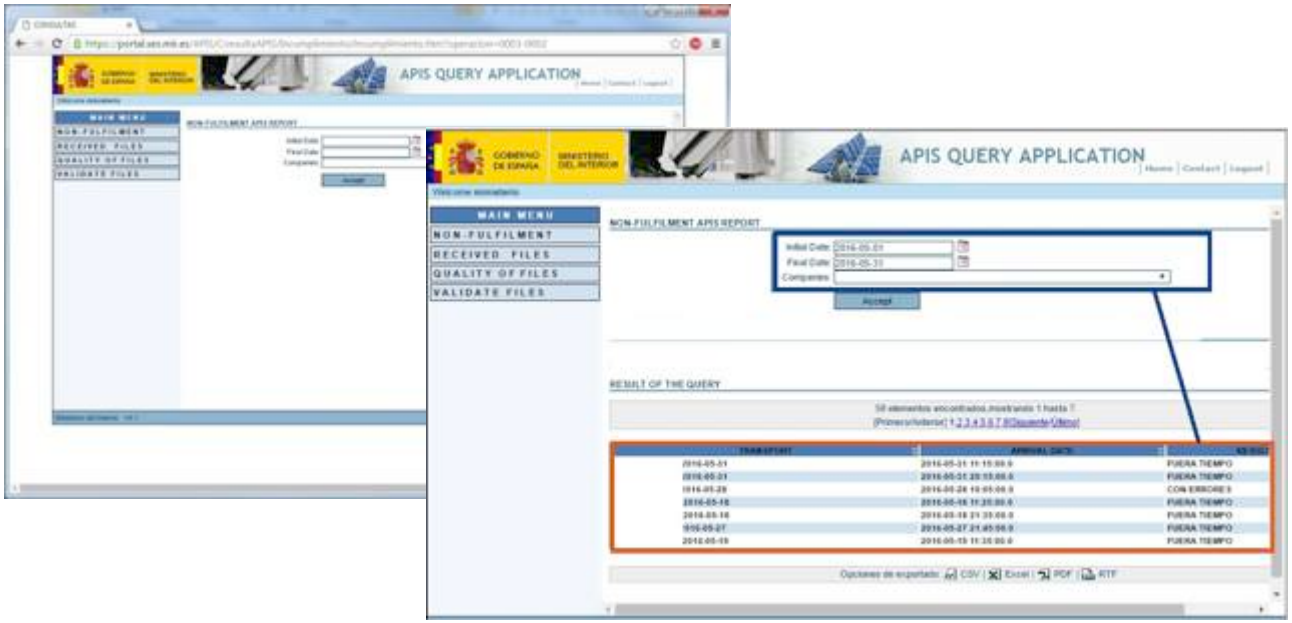


UNFULLFILMENT

The screen shows the following information:

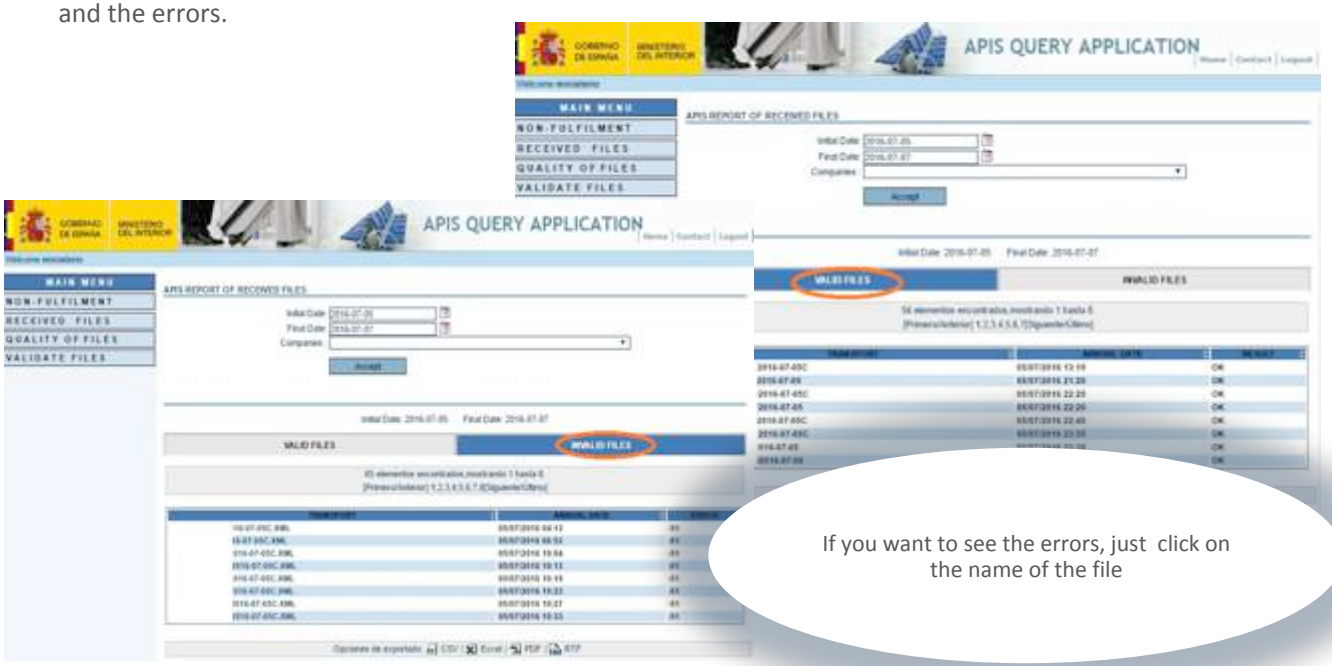
- Total number of files of passengers send by the carrier.
- Total number of files that should have been send by the carrier to the APIS system.
- Files of the carrier that have not been send according to the data.

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



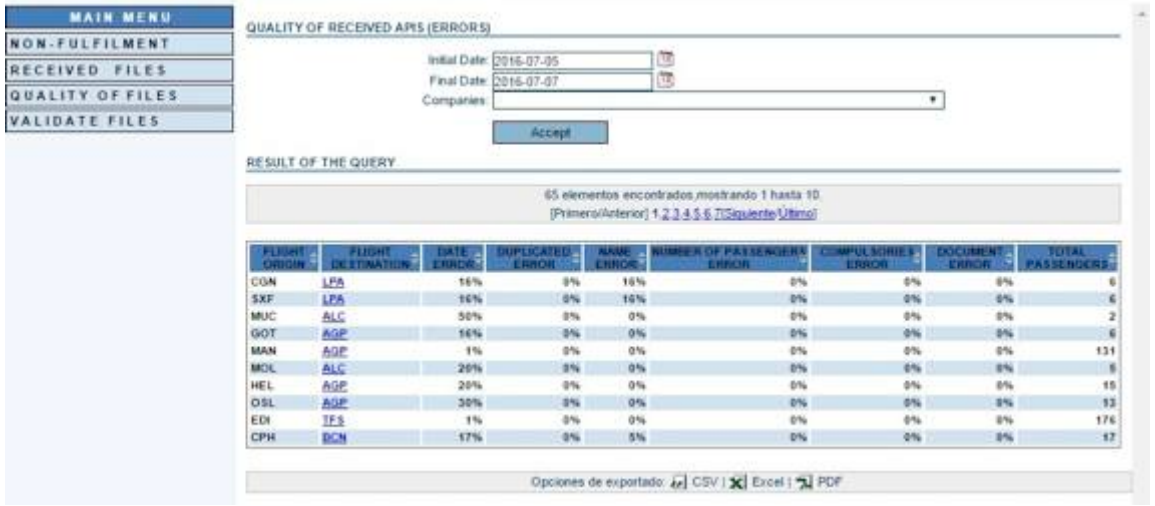
RECEIVED

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



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.

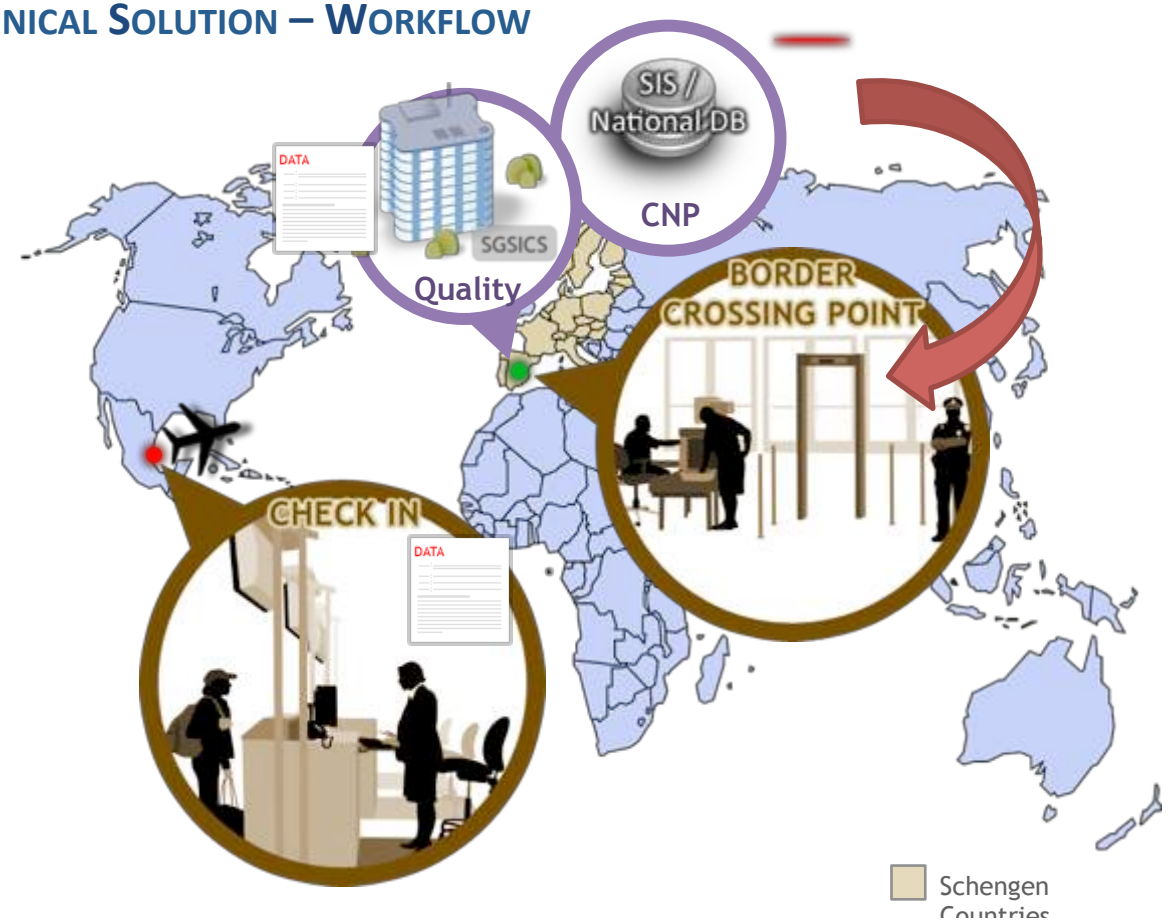


VALIDATE FILES

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

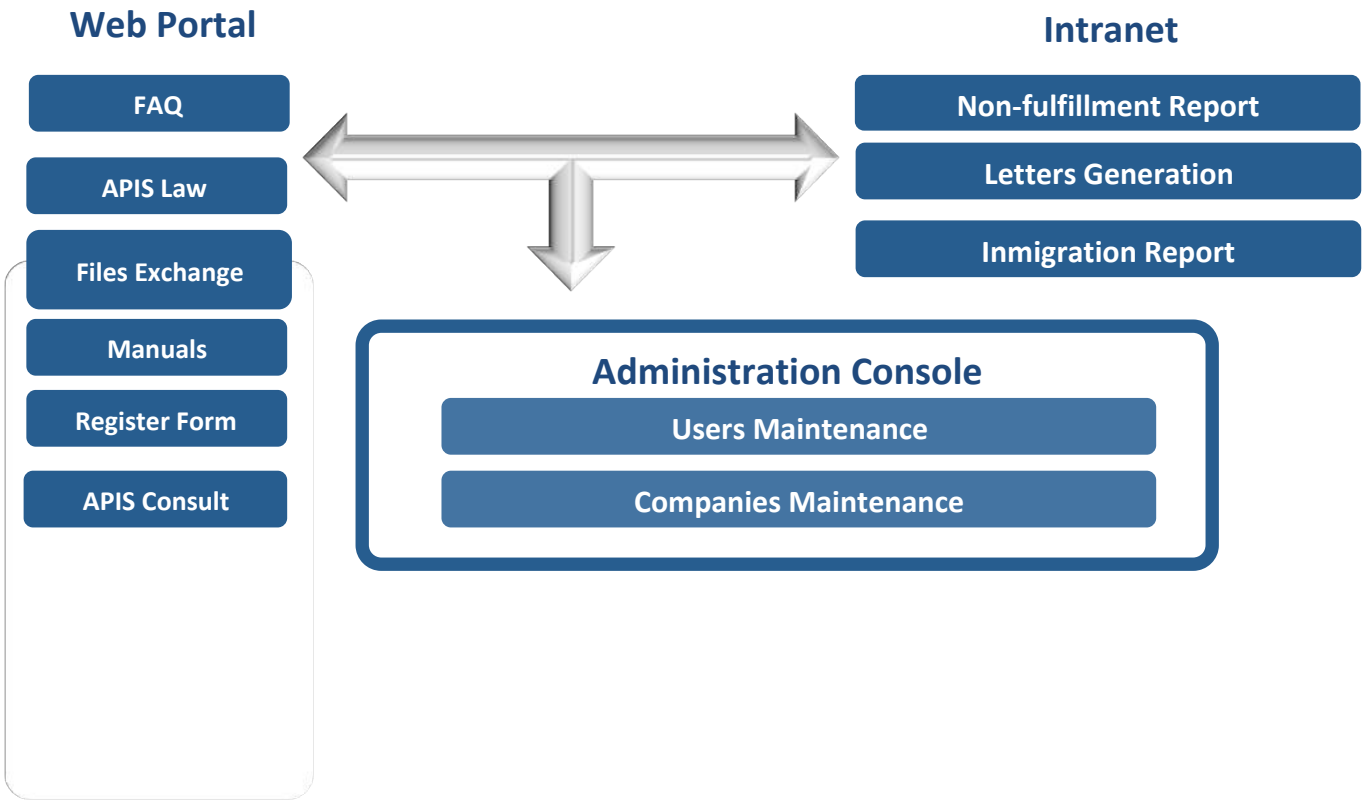
- Select the type of file to be validated xml, un-edifact etc
- Select the file to be validated in the local system of the transportation company.
- Once it is validated the errors are shown in a table.
- The screenshots of the screens that can be seen using this functionality are shown below.

TECHNICAL SOLUTION – WORKFLOW

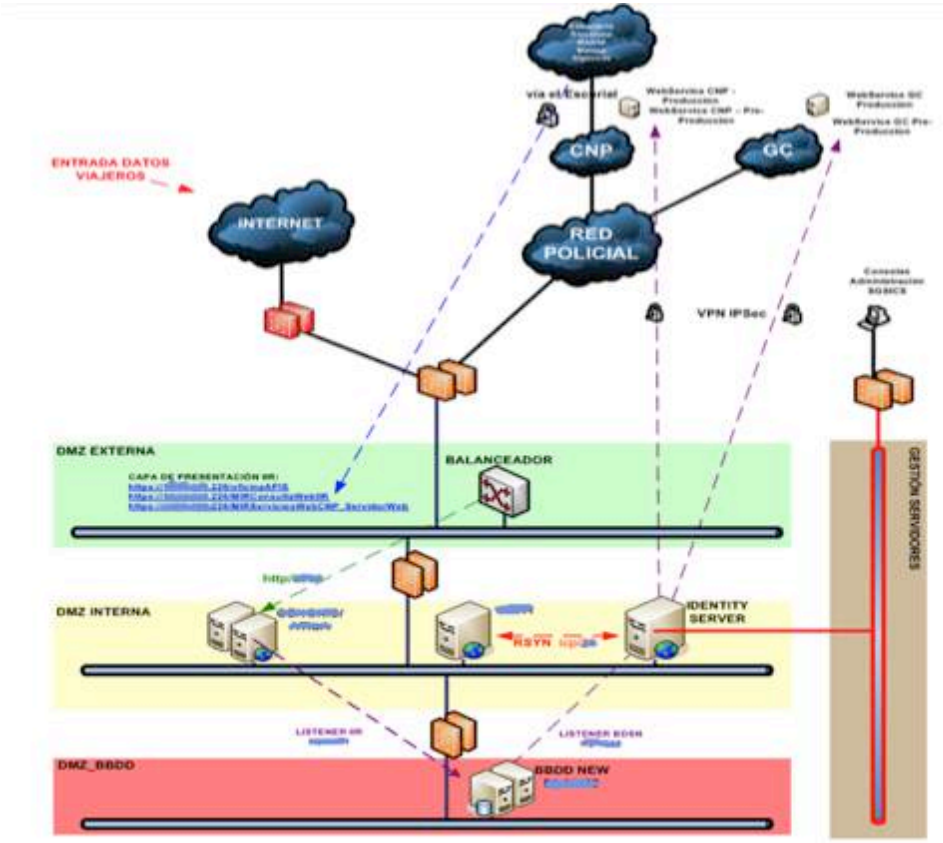


24

TECHNICAL SOLUTION – SYSTEM'S ARCHITECTURE



TECHNICAL SOLUTION – SYSTEM'S ARCHITECTURE



TECHNICAL SOLUTION – PROJECT STAFF

Project Manager
2 days / week

Tasks:
- POC: airlines, airports, CNP, SITA,…
- Issue management
- Hiring process collaboration
- Statistics and metrics update
- Data quality revision

1 Analist
3 days / week

Tasks:
- Technical solution design
- Issue resolution
- New funtionalities
- Logs check
- 24h issue attendant

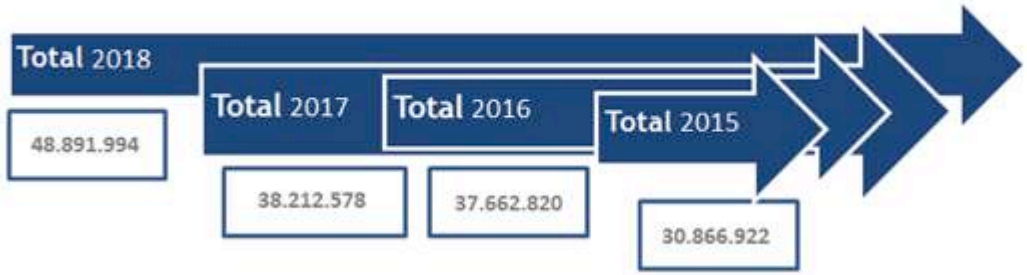
2 JAVA Programmers
2 days / week

Tasks:
- Issue resolution
- New funtionalities
- Logs check
- File data quality
- Monthly reports elaboration

1Database Administrador
2 h/ week

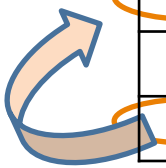
Tasks:
- Database Issue resolution
- Database logs check
- Backup and data protection
- Query tunning and optimization

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

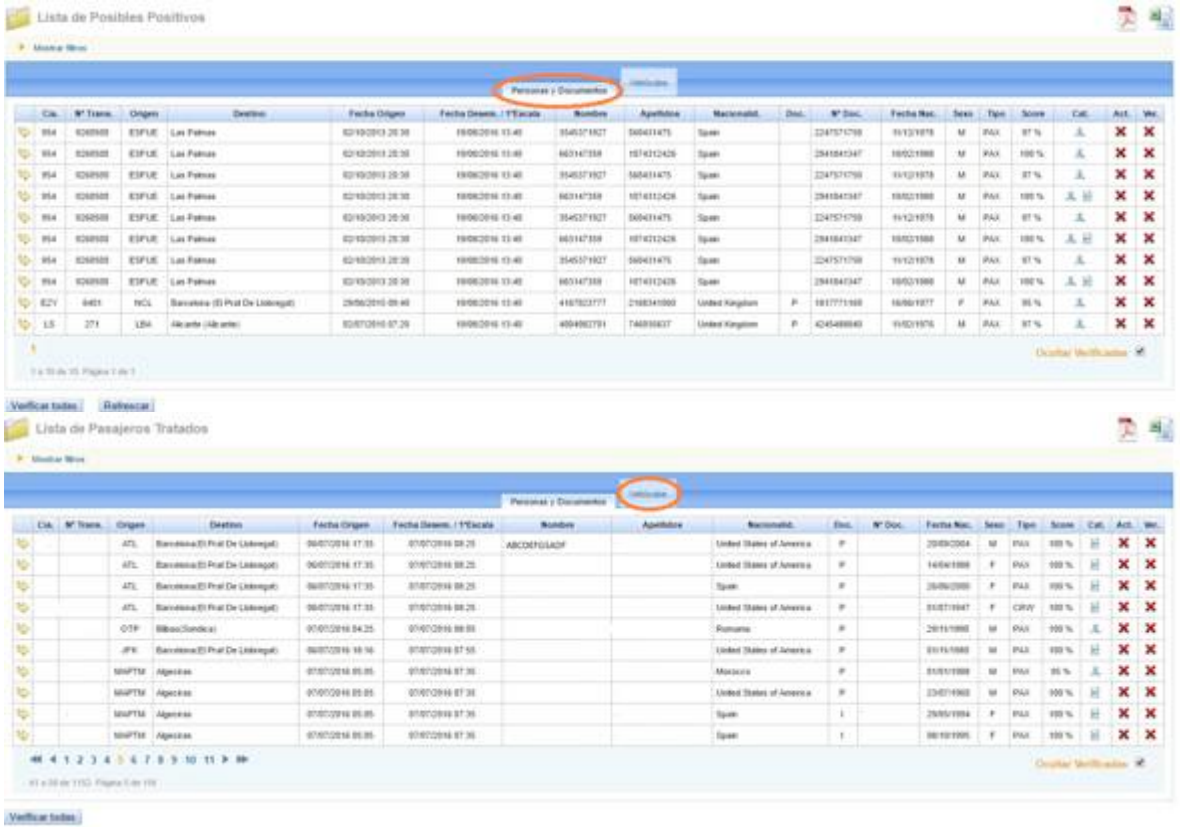


SYSTEM IMPROVED → MORE EFFECTIVENESS

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
- Arquitectural changes


Lista de Posibles Positivos
Personas y Documentos
Verificar todos
Refrescar
Lista de Pasajeros Tratados
Personas y Documentos
Verificar todos

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

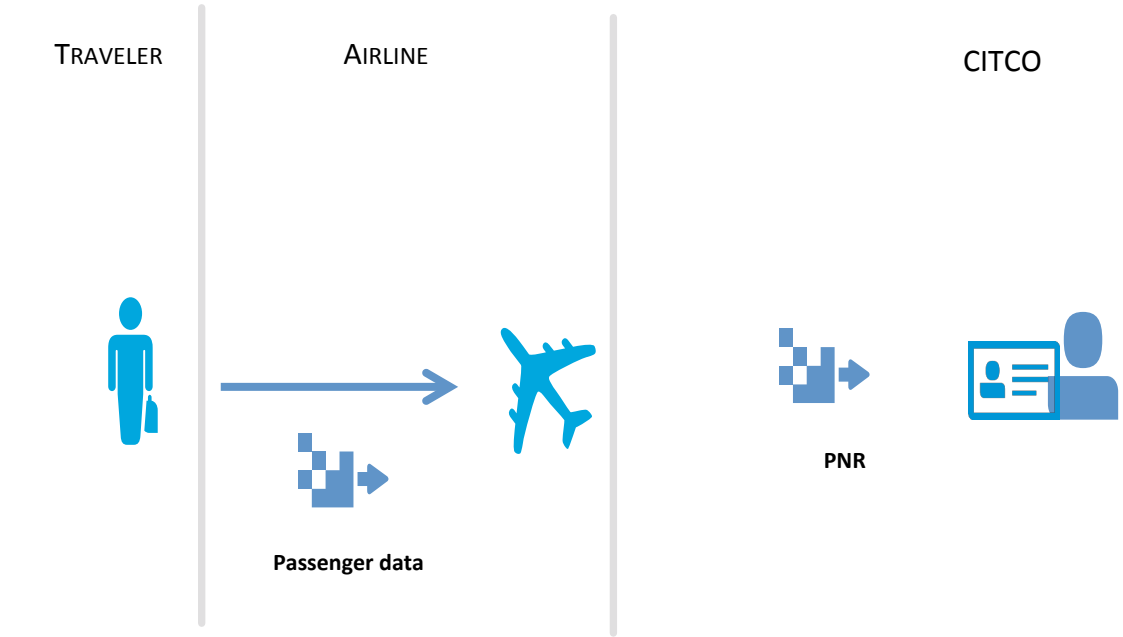
PNR data are critically important for the threat assessment that can be derived from the analysis of such data, particularly in relation to the fight against terrorism and serious crime.

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.

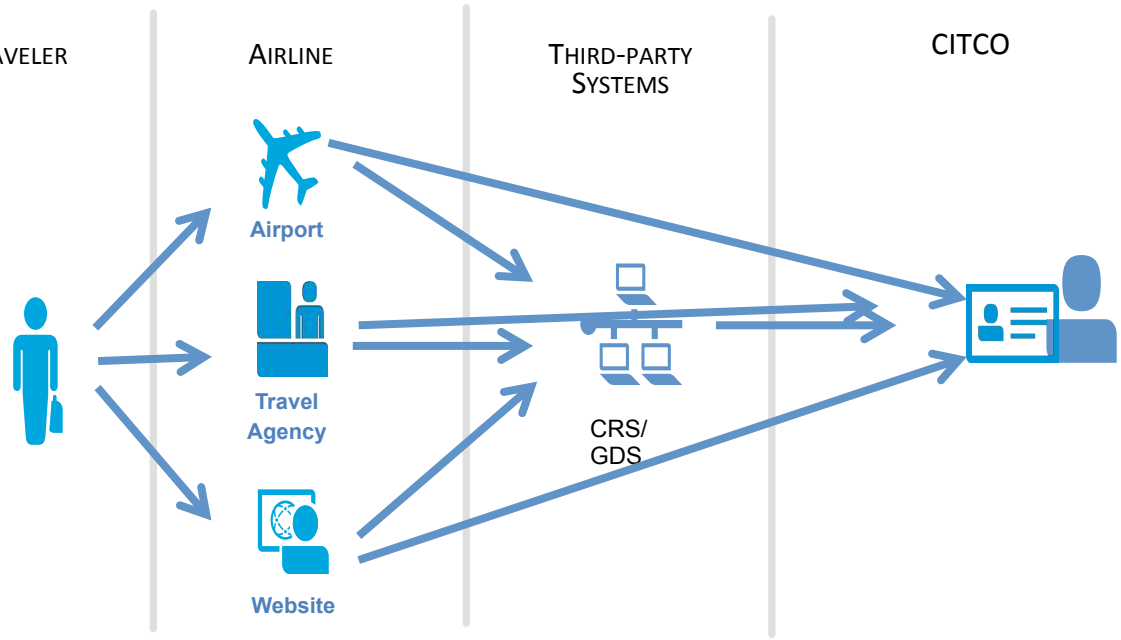
EU Directive, PNR data should be transferred to a single designated unit (Passenger Information Unit) in the relevant Member State, so as to ensure clarity and reduce costs to air carriers.

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 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 manteinance 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 swallowers 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 lead 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

Passenger Name Record (PNR)

Information about passengers and their travel plans

Airport Open Data (AOD)

Information about Airports and related relevant events

Passengers Identity can be used:

- For Immigration, Customs and Security

Person's travel reservation can be used:

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

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:

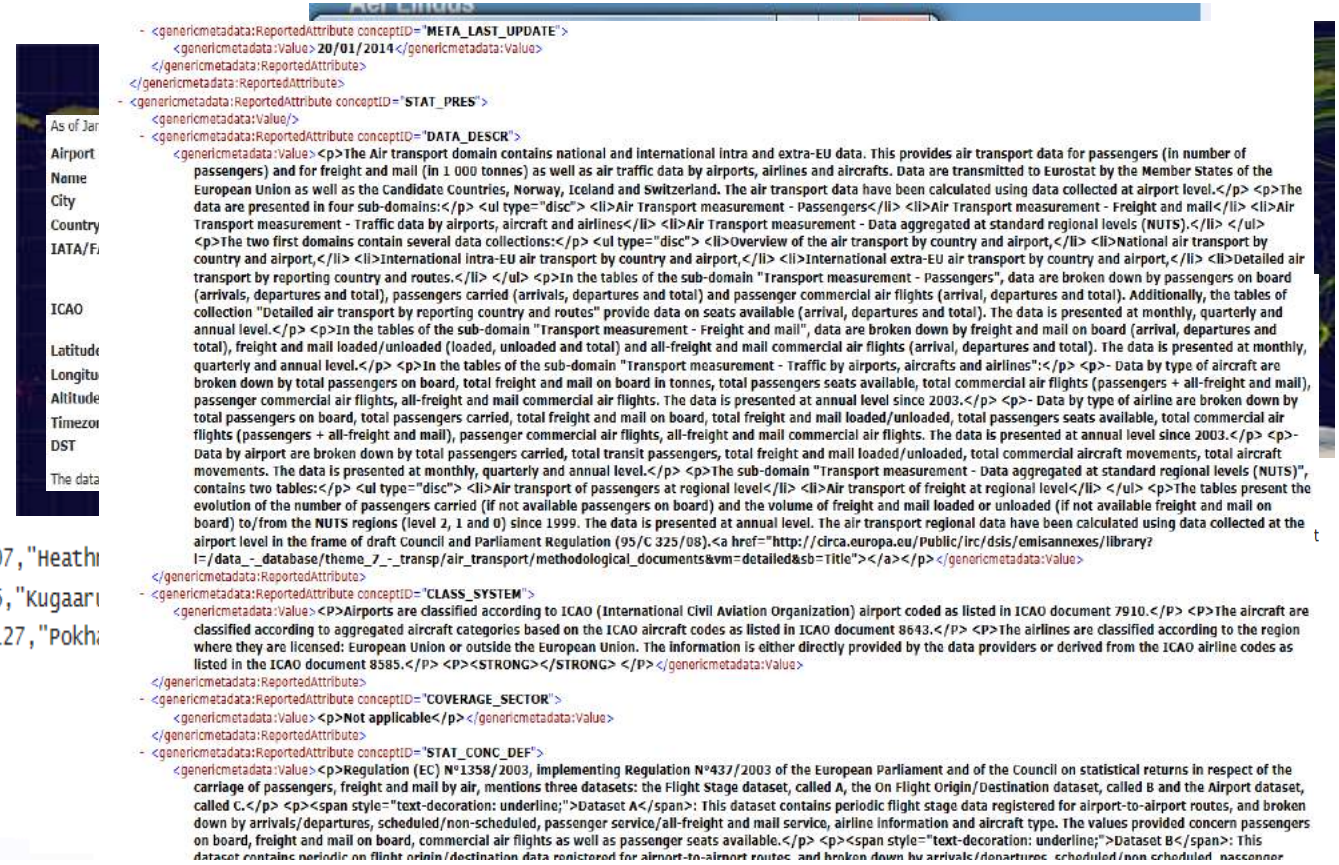
- Airport Intelligence (City News)
- Last minute cancelations
- Aircraft rerouting due bad weather conditions
- Enrich Passengers Profile with Social Network

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



PROPOSED ONLINE ANALYTICS SERVICES

Passenger Identification	Passenger Profile	Traveling Routes	Airport Intelligence
			
Uniquely Identify passenger across multiple names	Alerts on suspicious profiles based on passengers data	Identification of patterns Itineraries/routes	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	Passenger Profile	Traveling Routes	Airport Intelligence
			
Uniquely Identify passenger across multiple names	Alerts on suspicious profiles based on passengers data	Identification of patterns Itineraries/routes	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

Unión Europea
Fondo para las Fronteras Exteriores
MINISTERIO DEL INTERIOR

PASSENGERS PROFILE – ONLINE ANALYTICS SERVICES

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

Problem it solves

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”.

Benefits

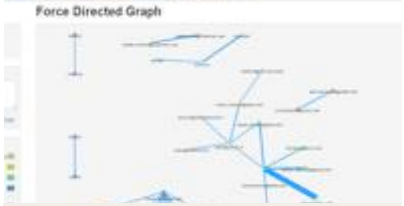
- ✓ Automatically identify passenger demographical and sociological profile.
- ✓ Tracking of travel itinerary changes (i.e. last minute cancelation)
- ✓ Identification of passengers traveling together.
- ✓ Tracking unusual usage of open social networks.

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

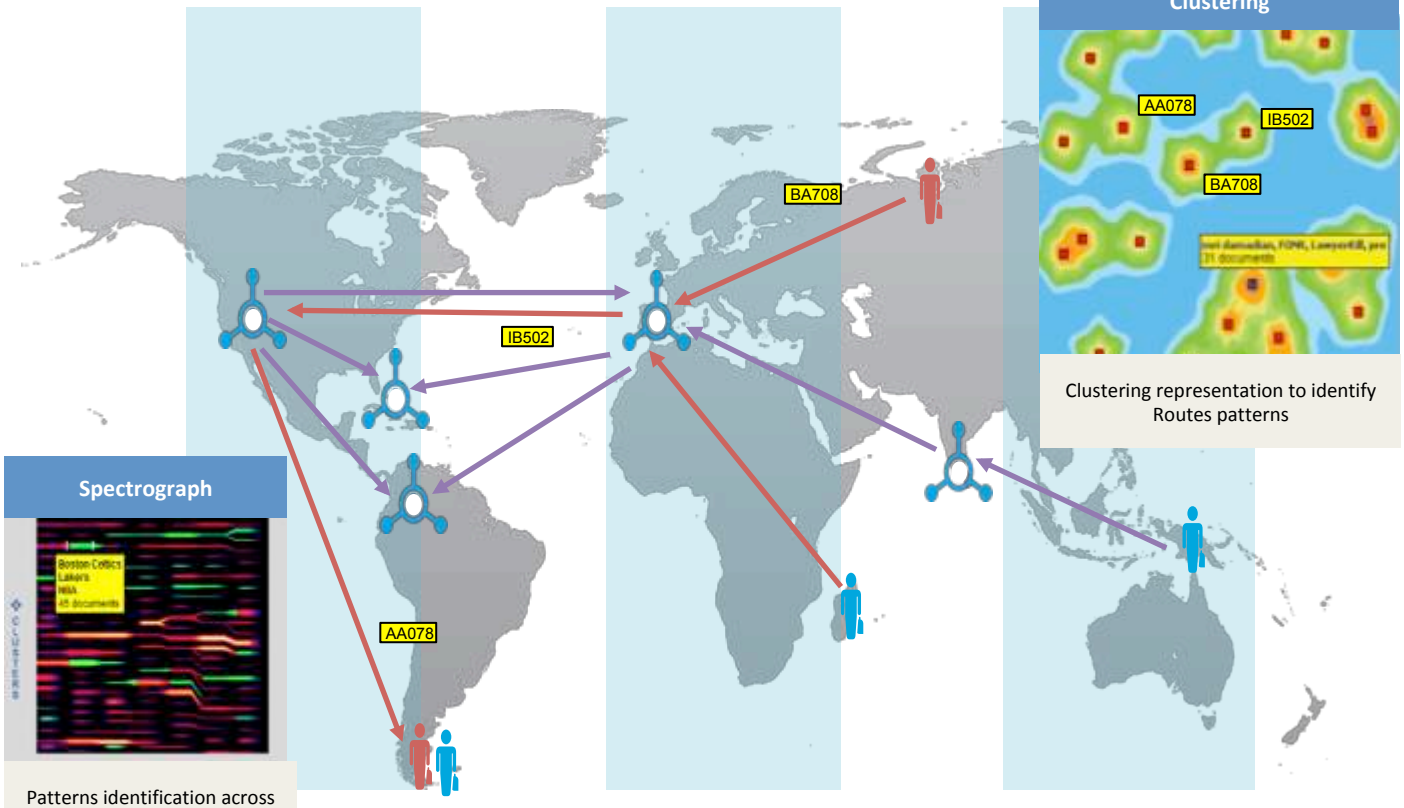
Problem it solves

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



Clustering

Clustering representation to identify Routes patterns

Spectrograph

Patterns identification across flexible Timelines

AIRPORT INTELLIGENCE - ONLINE ANALYTICS SERVICES

Passenger Identification	Passenger Profile	Traveling Routes	Airport Intelligence
			
Uniquely Identify passenger across multiple names	Alerts on suspicious profiles based on passengers data	Identification of patterns Itineraries/routes	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

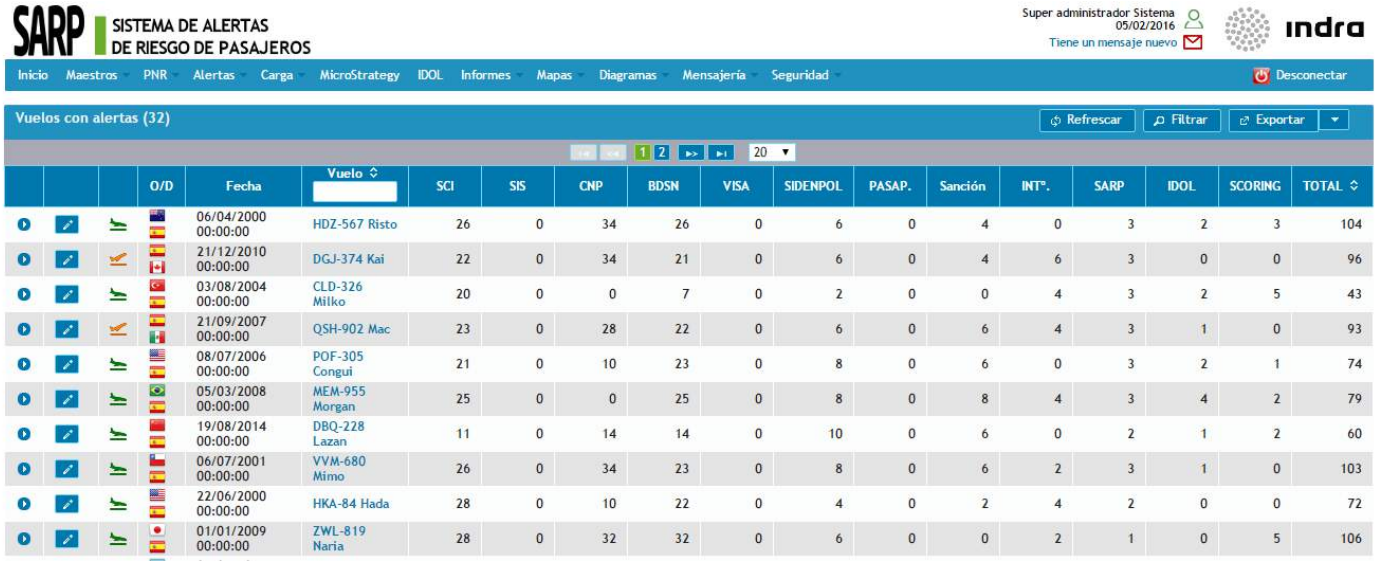
Example

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

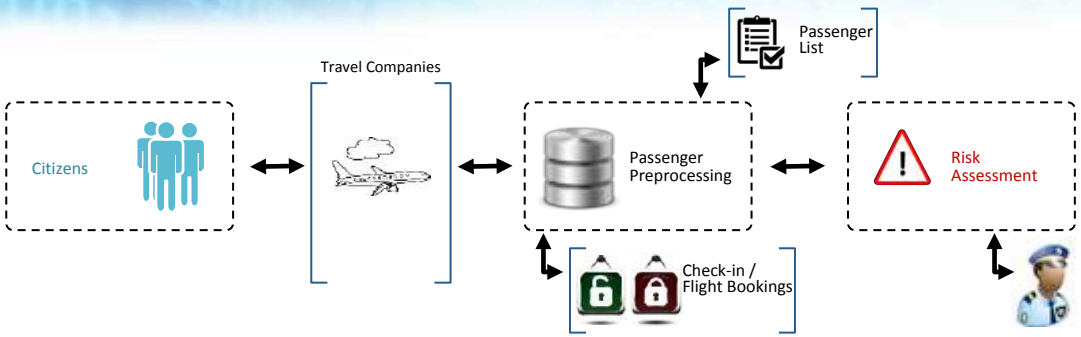
indra

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

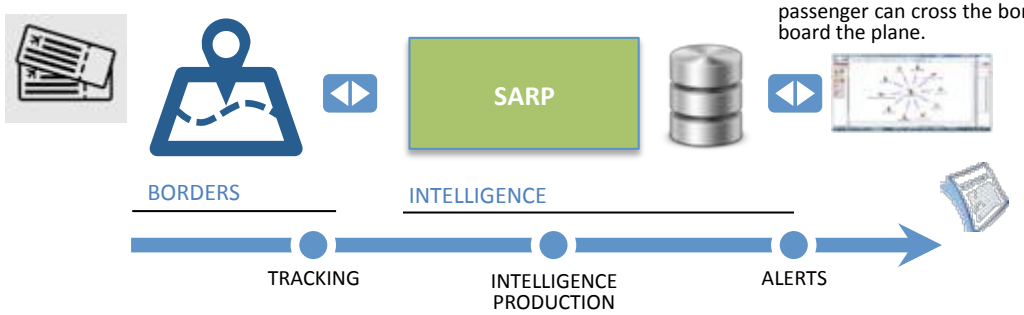
Vuelos con alertas (32) Refrescar Filtrar Exportar

1 2 20

			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.

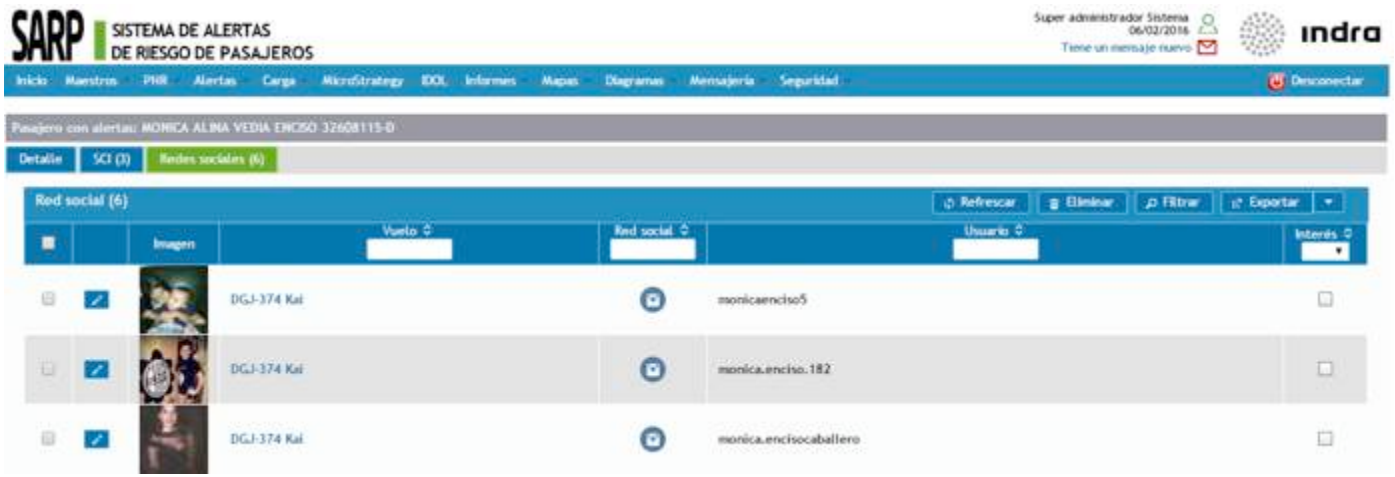


INTELLIGENCE

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

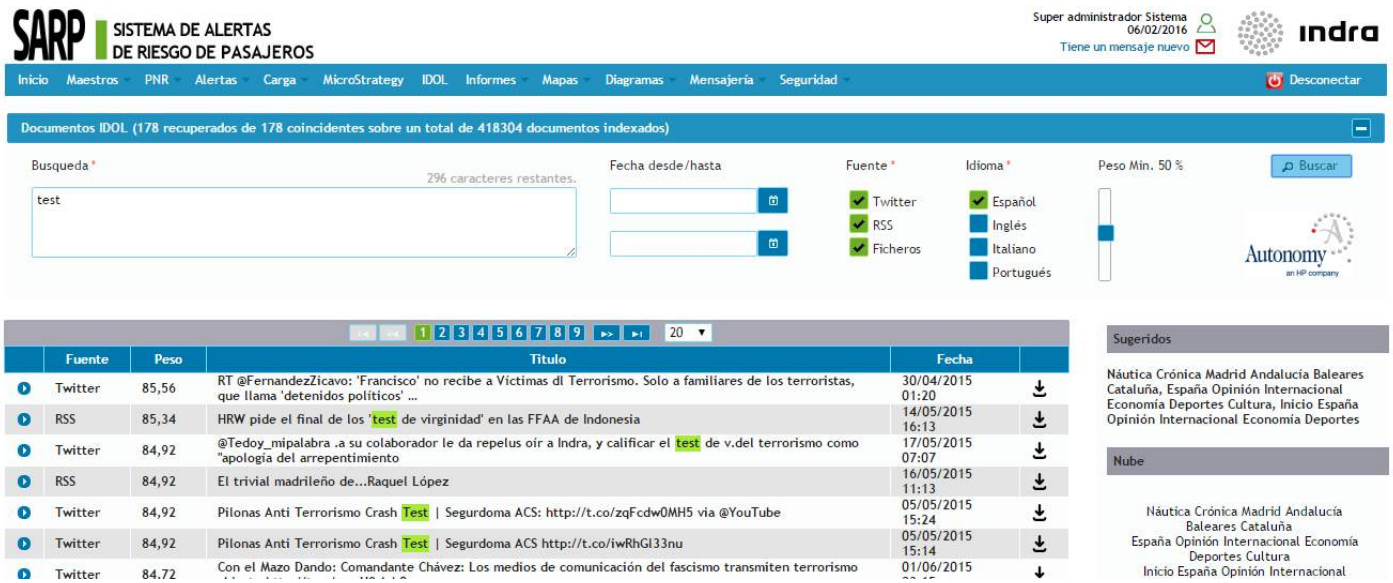
Open Source integration:

- ❑ 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 a analyst



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)

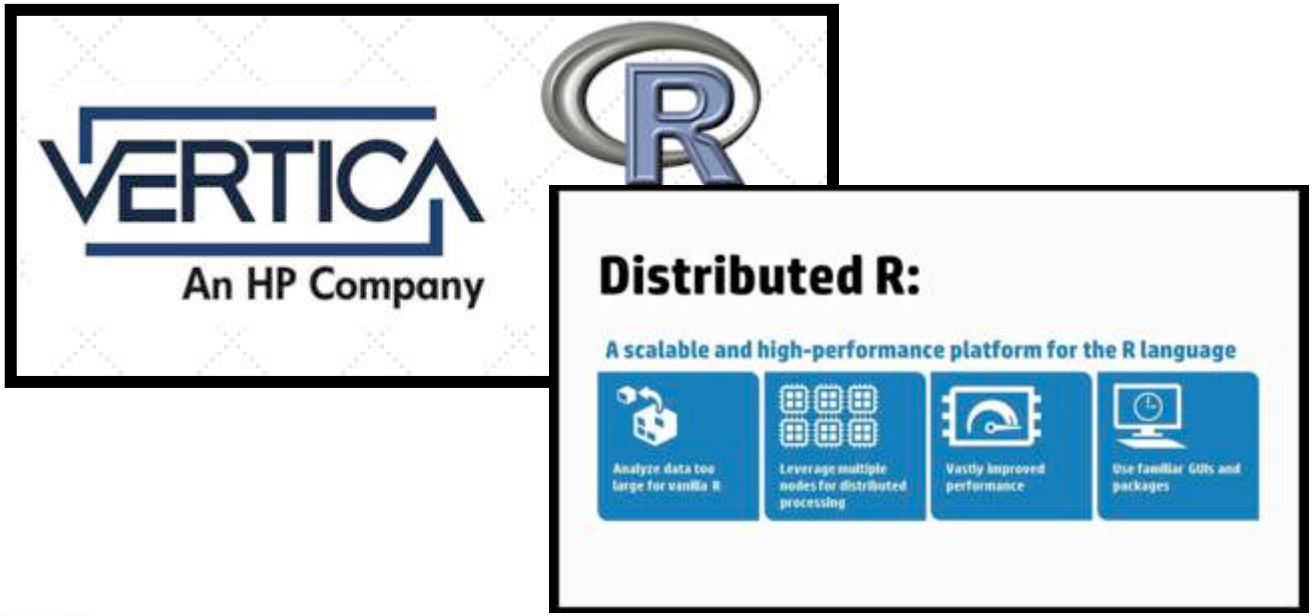


External Database integration:

- ❑ SARP is integrated with other spanish law enforcenment 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 throughtput, 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

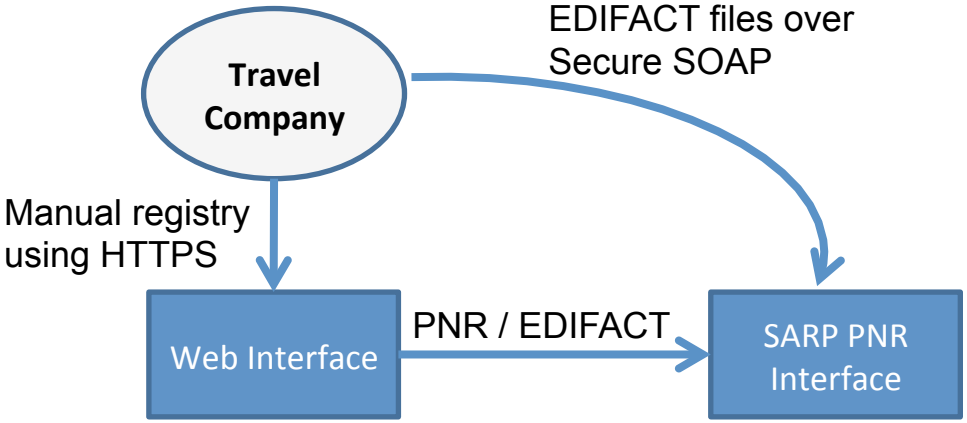
Statistical analysis:

- ❑ 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.



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 platorm 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 throughtput:

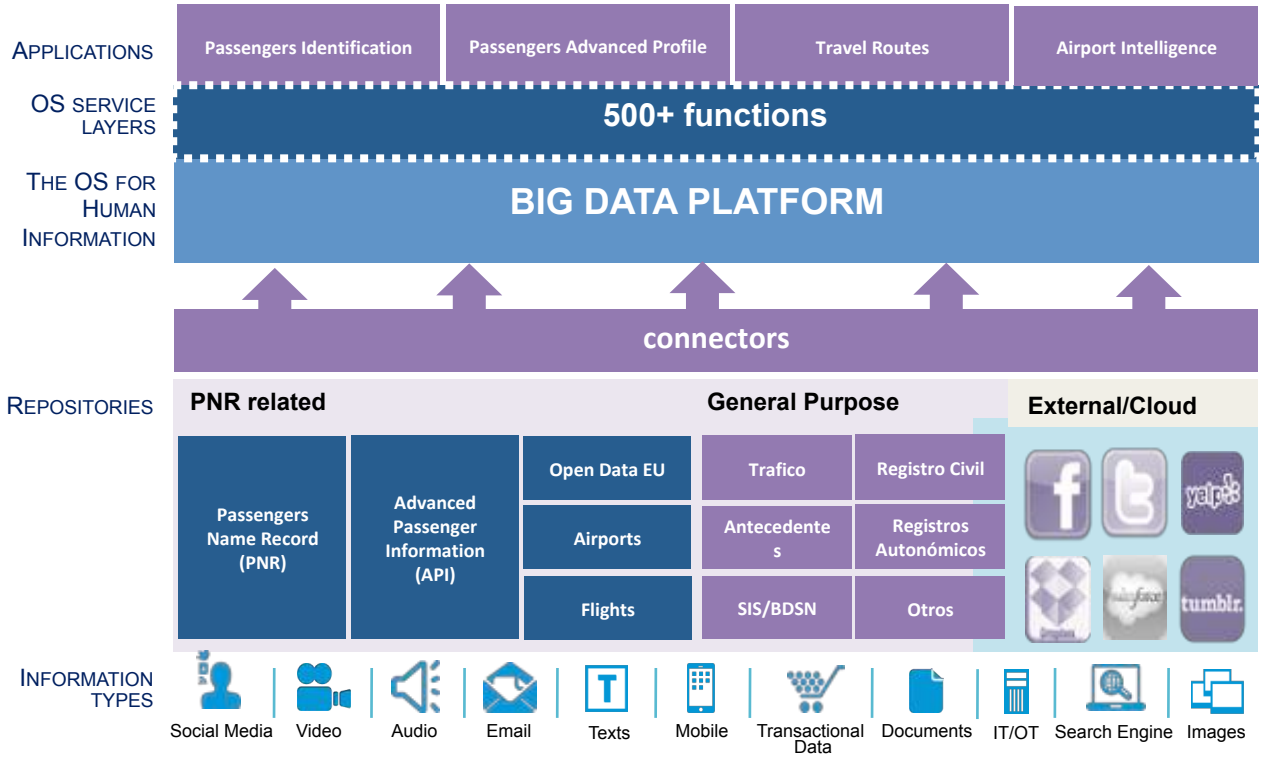
- ❑ In 2018, more than 200 M of passengers on flights used a spanish airport .
- ❑The number of PNR files will require a powerful platform for its load, validation and normalization
- ❑ Big Data platform, based in HP Vertica and Elasticsearch will allow to manage dictionaries using high performance document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

SARP implement data retention policy enforcenment:

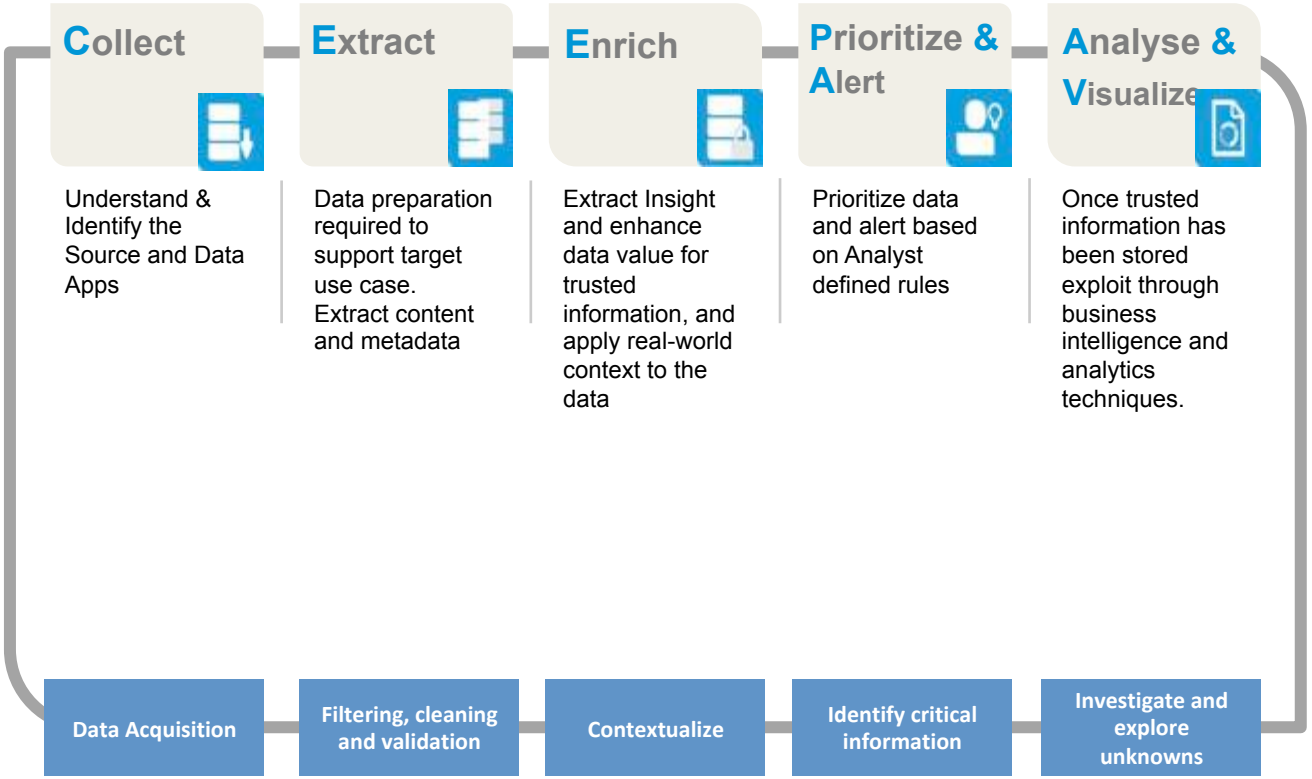
- ❑ Anonymize the data following the required period of time (6m)
- ❑ The global data retention, after the anonimization, is 5 years
- ❑ The anonymization process will be irreversible
- ❑ Further data retention processes will be implemented to comply with the Spanish data privacy laws
- ❑ Those data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

THE BIG DATA PLATFORM FOR HUMAN INFORMATION

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



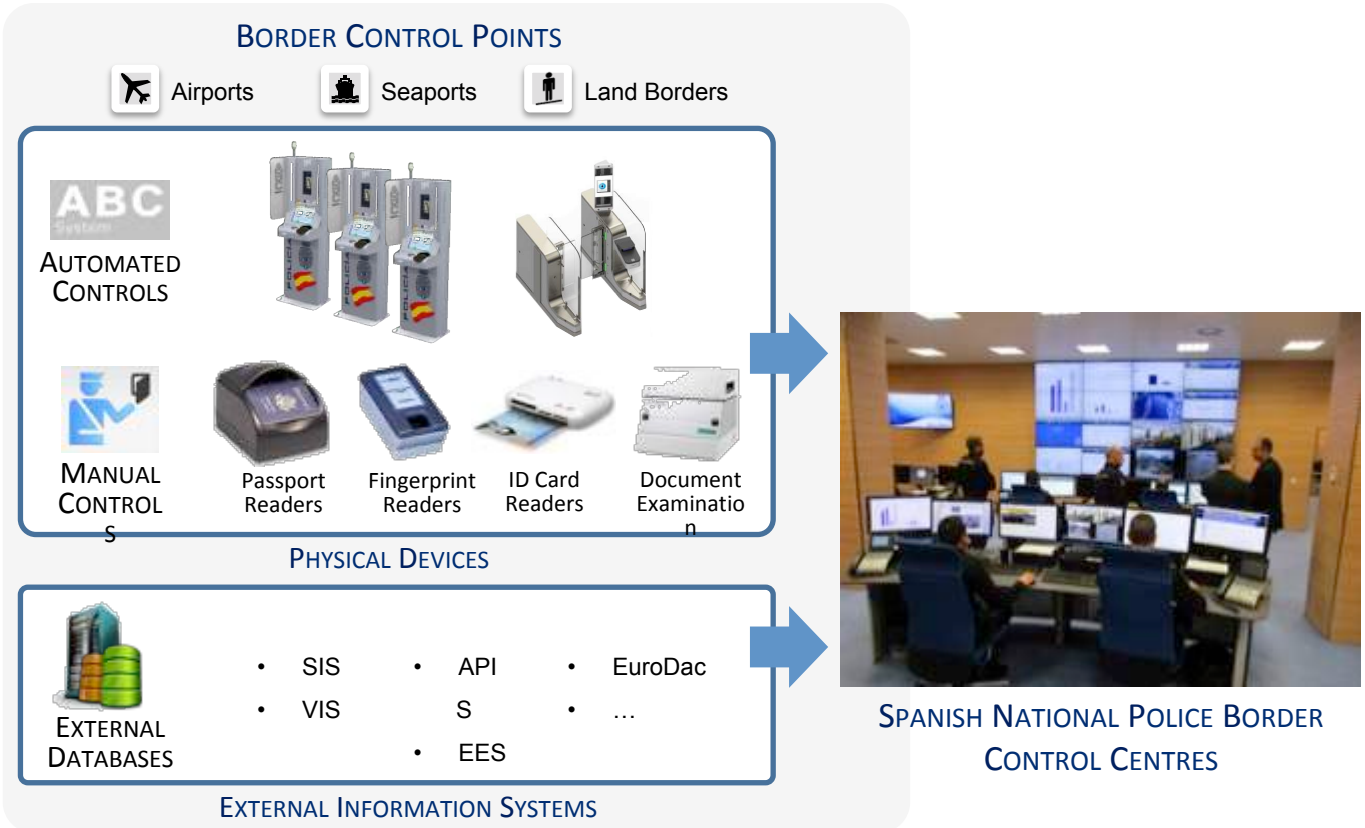
FROM DATA TO KNOWLEDGE - INFORMATION TO ACTION



BIOMETRICS

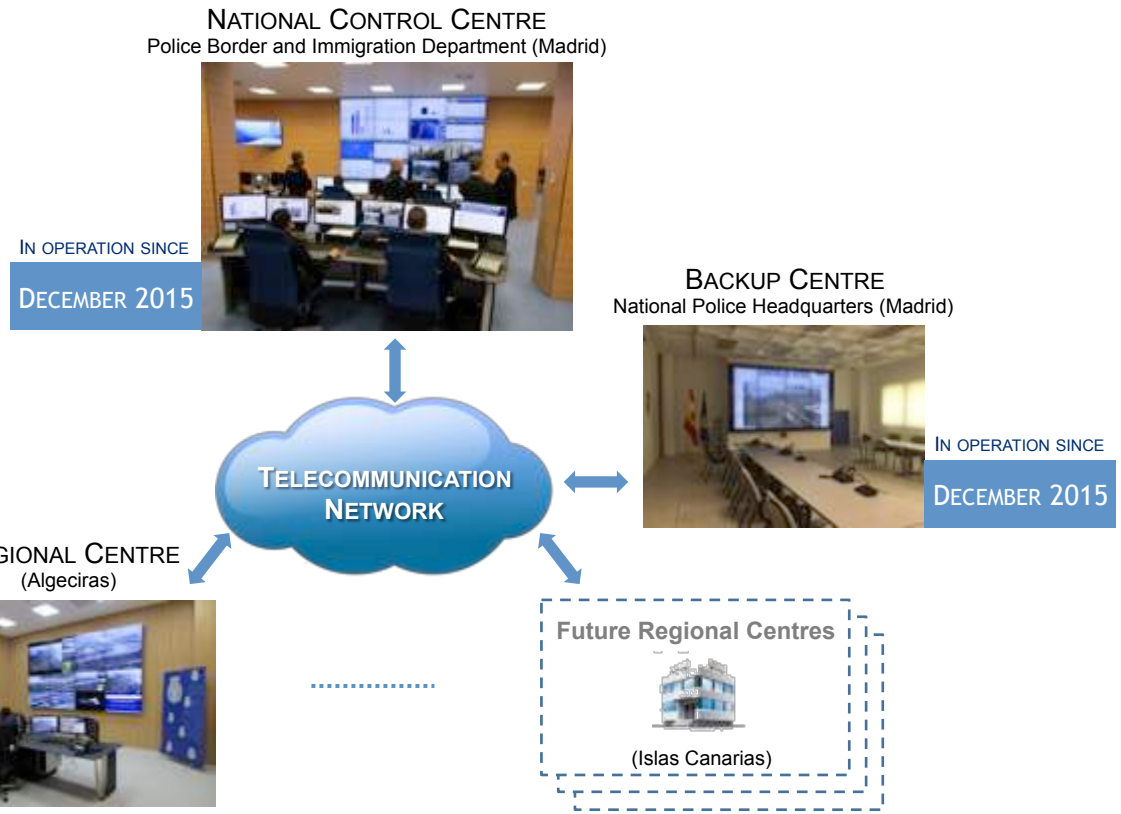
World Border Security Congress
Casablanca
2018

SPANISH SMART BORDERS PROJECT
DESCRIPTION

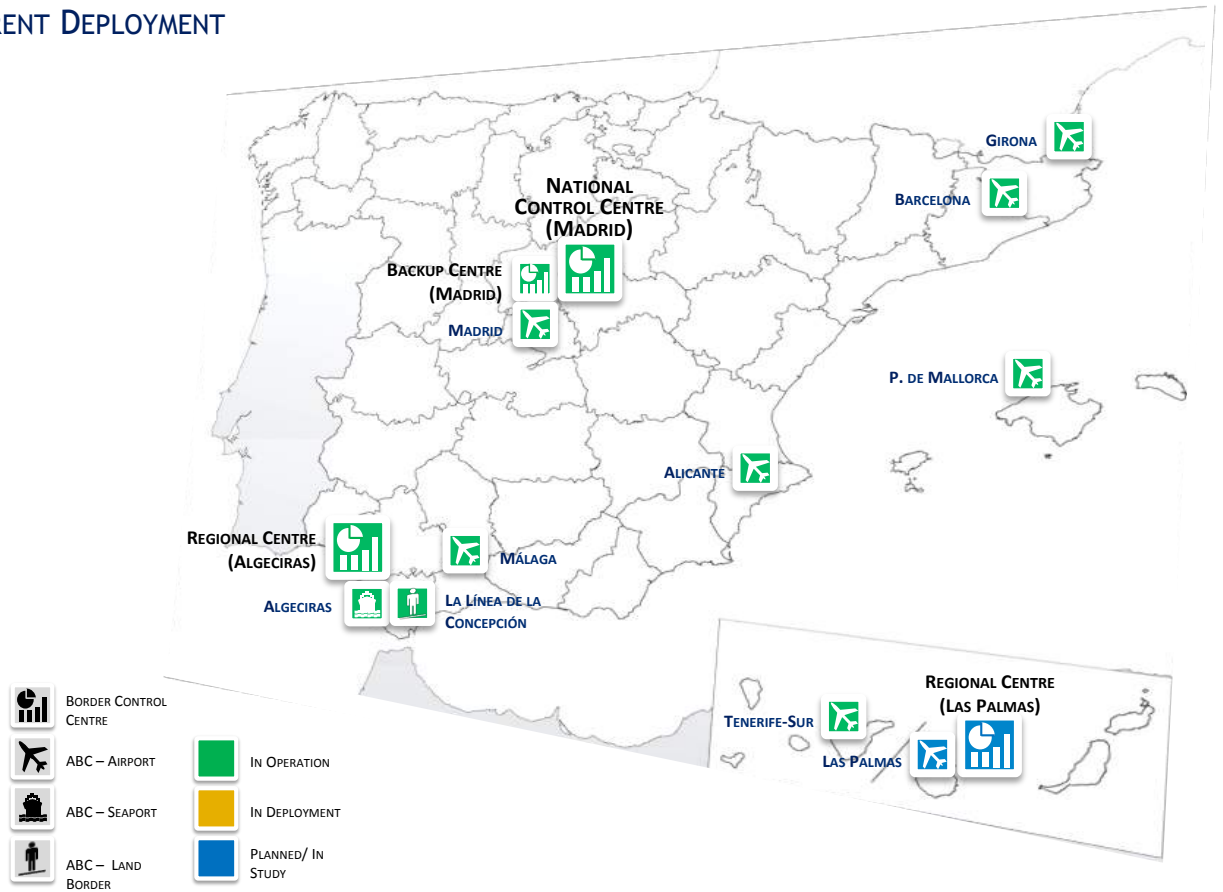


SPANISH NATIONAL POLICE BORDER CONTROL CENTRES

SPANISH SMART BORDERS PROJECT
BORDER CONTROL CENTRES



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

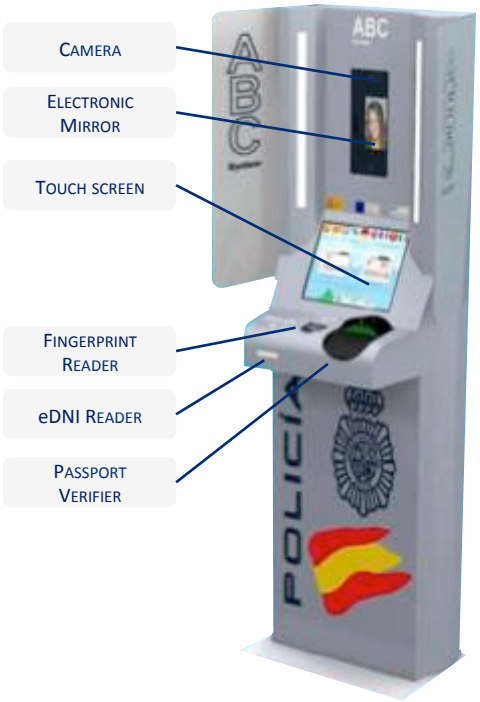
SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS

ABC - AUTOMATED VERIFICATION PROCCESS

- Spanish electronic ID Card (eDNI)

- Electronic Passport

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



IDENTIFICATION MODULE TYPE 1

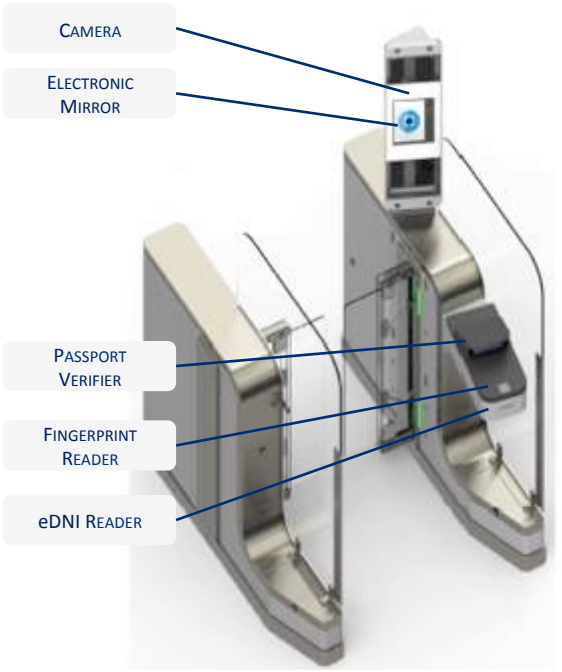
SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS

ABC - AUTOMATED VERIFICATION PROCCESS

- Spanish electronic ID Card (eDNI)

- Electronic Passport

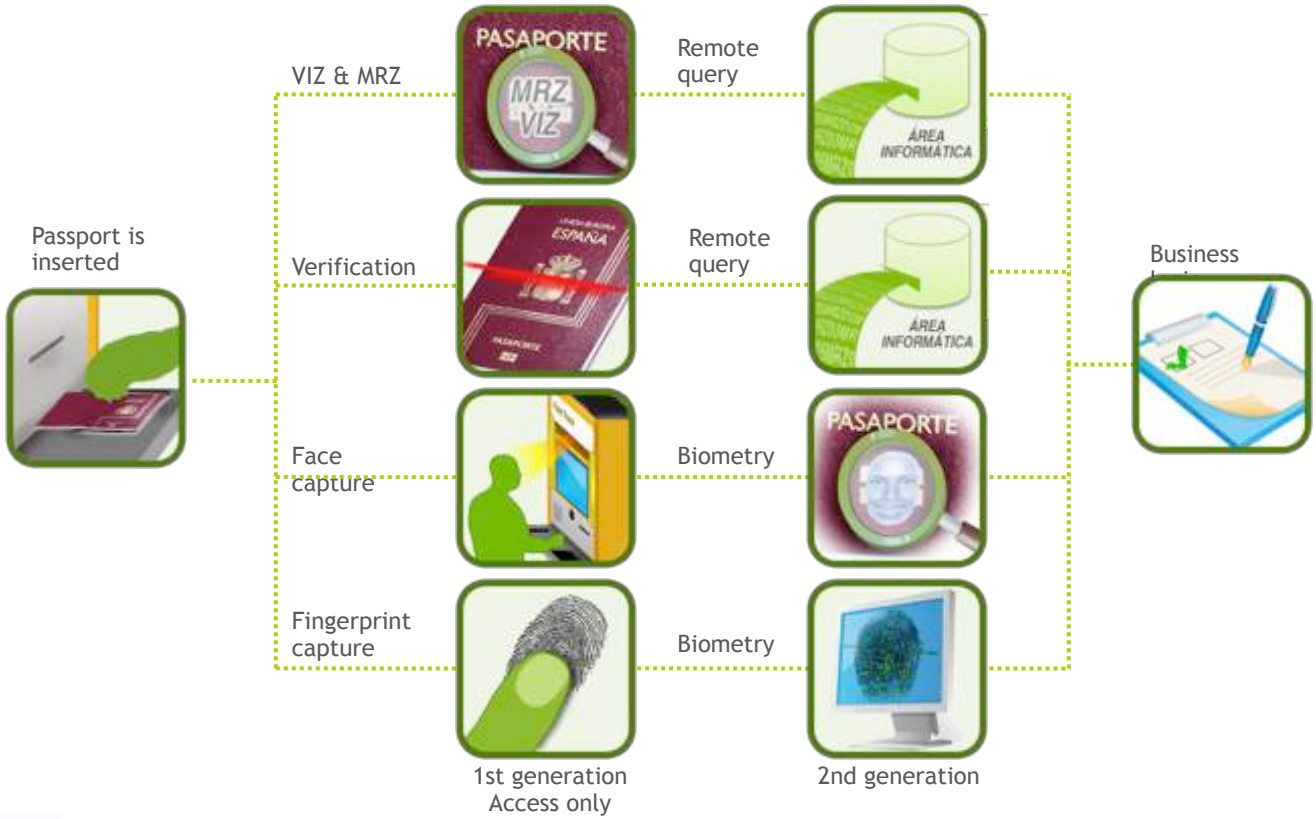
(*) 2nd generation electronic passports
VIZ: Visual Inspection Zone
MRZ: Machine Readable Zone



IDENTIFICATION MODULE TYPE 2

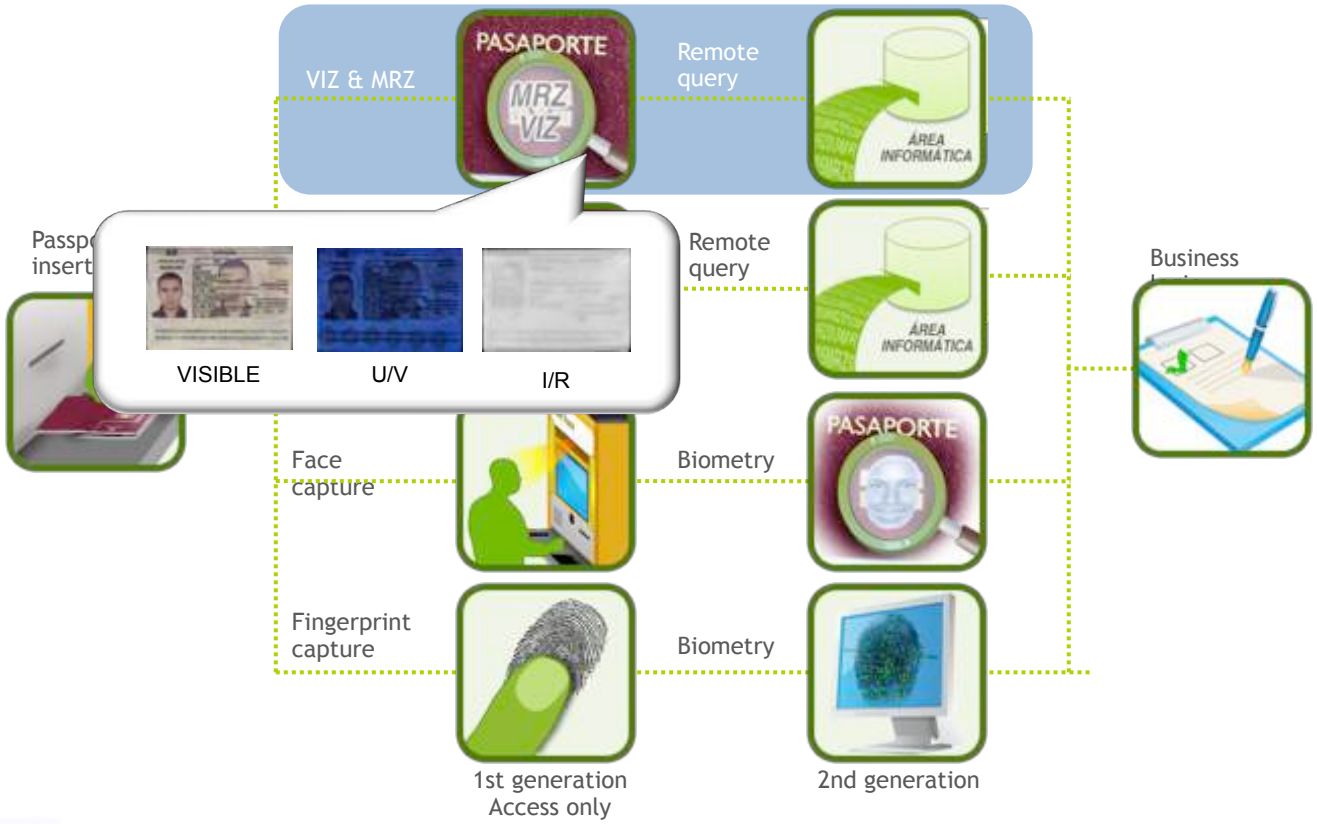
SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM)

AUTOMATED VERIFICATION PROCCESS. ELECTRONIC PASSPORT



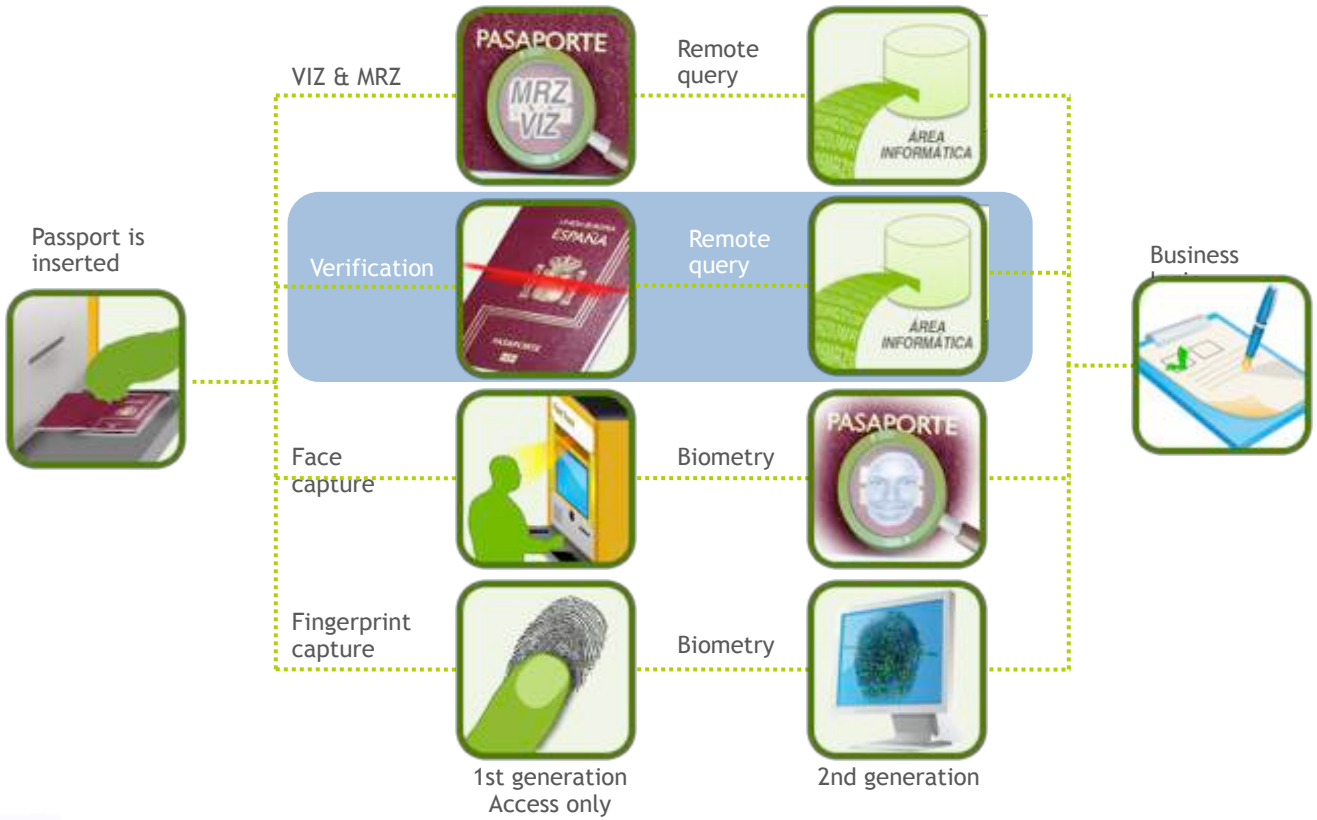
SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM)

AUTOMATED VERIFICATION PROCCESS. ELECTRONIC PASSPORT



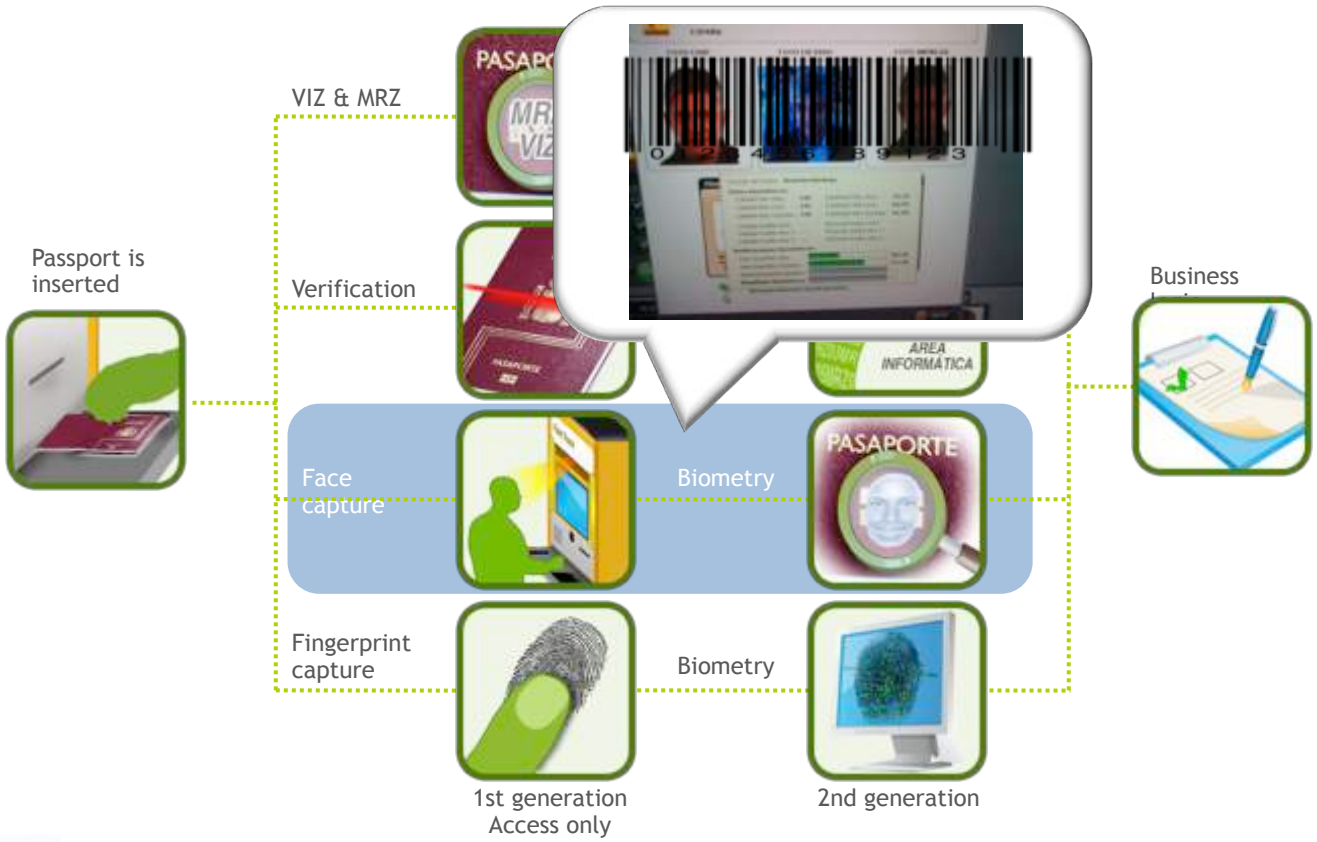
SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM)

AUTOMATED VERIFICATION PROCCESS. ELECTRONIC PASSPORT



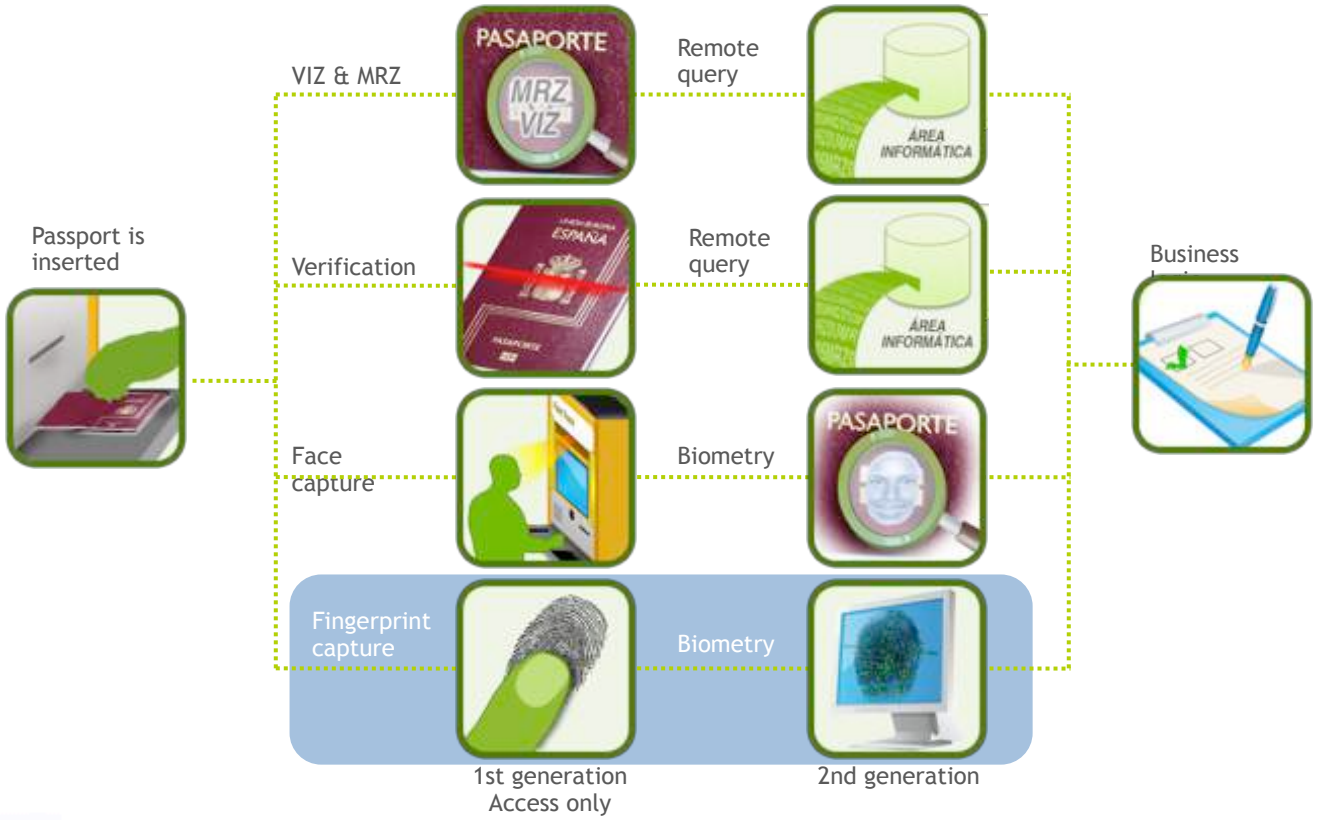
SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM)

AUTOMATED VERIFICATION PROCCESS. ELECTRONIC PASSPORT



SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM)

AUTOMATED VERIFICATION PROCCESS. ELECTRONIC PASSPORT

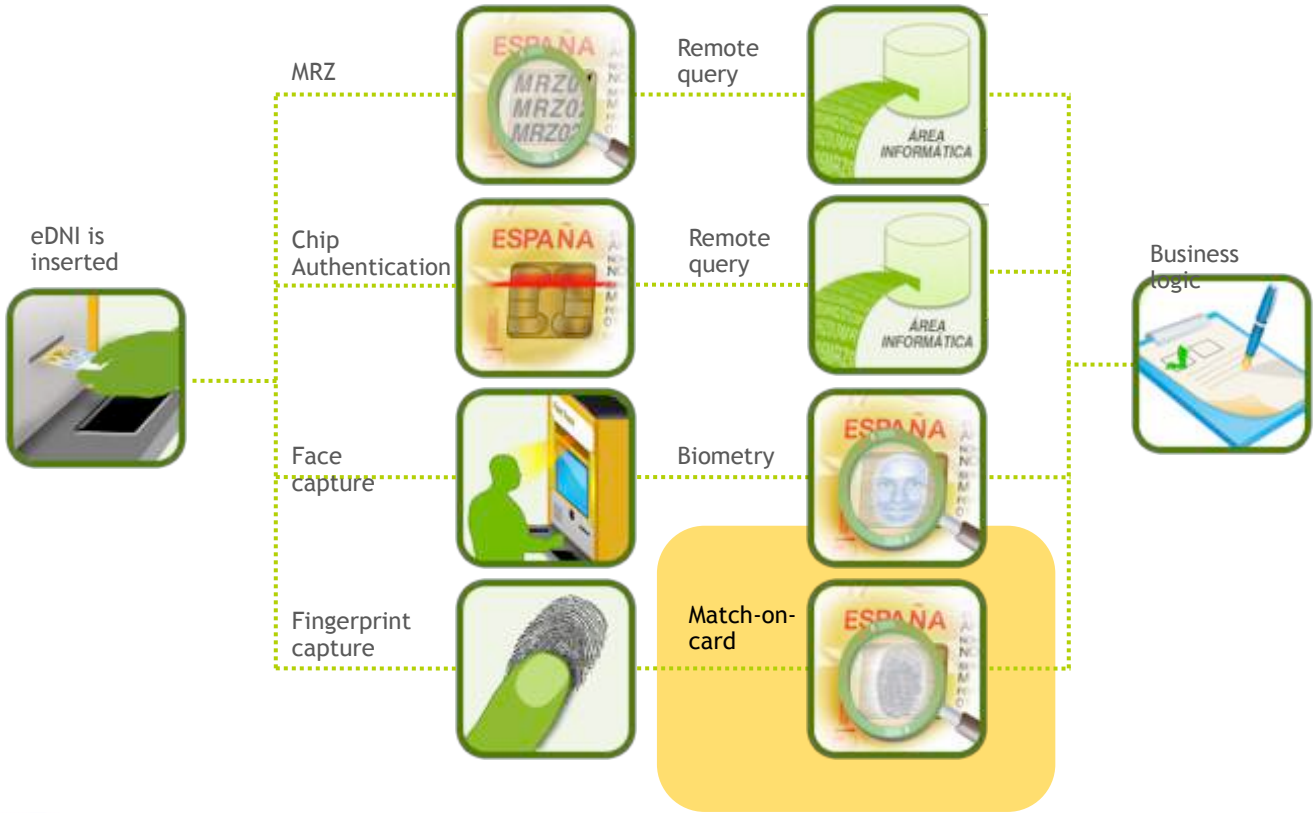


SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM)

AUTOMATED VERIFICATION PROCCESS. ELECTRONIC PASSPORT

SPANISH AUTOMATED BORDER CONTROL SYSTEM (ABC SYSTEM)

AUTOMATED VERIFICATION PROCCESS. SPANISH ELECTRONIC IDENTITY CARD - eDNI



SPANISH SMART BORDERS PROJECT. USE OF BIOMETRICS

ABC - EXAMPLES OF CURRENT SITES

BARCELONA T1

MADRID T4 SATELLITE

LA LÍNEA DE LA CONCEPCIÓN

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

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