



# **Border Management Information Systems (BMIS), including IOM's MIDAS**

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**ICAO Traveler Identification Program  
Jamaica Regional Seminar**

**November 2017**



# INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM)

**Established in 1951.**

**United Nations Migration Agency**

**Leading intergovernmental organization in the field of migration.**

**Not for profit.**

**IOM Mission: Humane and orderly migration benefits migrants and society.**

- I. Assist in meeting the growing operational challenges of migration management.
- II. Advance understanding and international cooperation on migration issues.



# INTERNATIONAL ORGANISATION FOR MIGRATION (IOM)



## Member States

90 (2001)  
**166 (2017)**



## Offices

150 (2001)  
**401 (2017)**



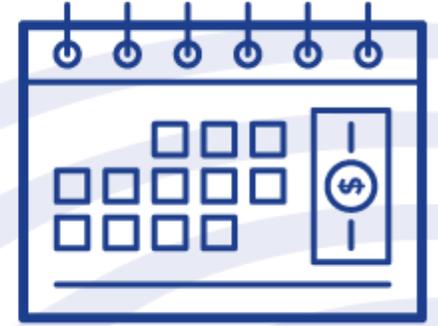
## Staff

2,600 (2001)  
**10,000 (2015)**



## Active Projects

830 (2001)  
**1,800 (2017)**



## Annual Expenditures

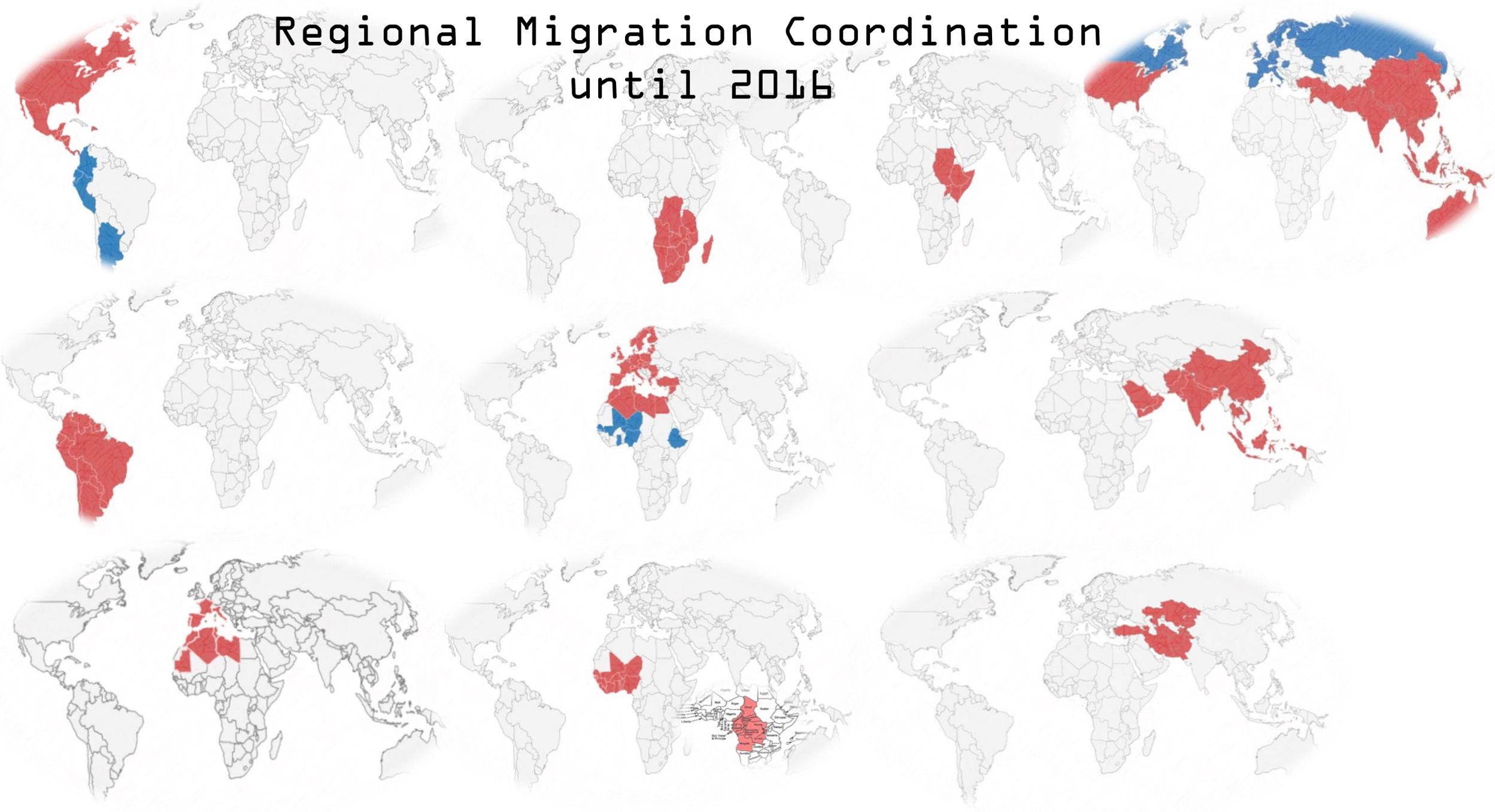
\$286.6 million (2001)  
**\$1.6 billion (2017)**



# INTERNATIONAL ORGANISATION FOR MIGRATION (IOM)



# Regional Migration Coordination until 2016





*Gulf of Mexico*

The Bahamas

*North Atlantic Ocean*

Cuba

Turks and Caicos

Cayman Islands

Jamaica

Haiti

Dominican Republic

Belize

Saint Kitts and Nevis

Antigua and Barbuda

*Caribbean Sea*

San Vincent and The Grenadines

Saint Lucia

Barbados

Aruba

Netherlands

Grenada

Trinidad and Tobago

*Pacific Ocean*

Guyana



# IMMIGRATION AND BORDER MANAGEMENT (IBM) DIVISION

## Areas of expertise:

- I. Migration and Border Management Assessments
- II. Integrated Border Management
- III. Identity Management
- IV. Intelligence and Risk Analysis
- V. Counter Migrant Smuggling
- VI. Humanitarian Border Management
- VII. Regularization of Irregular Migrants
- VIII. Facilitating Migration
- IX. Technical Solutions



**205**

Number of projects  
Worldwide

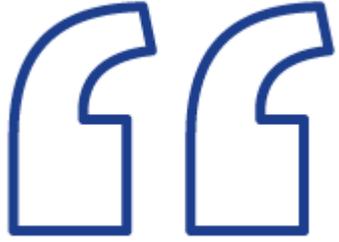


**USD 220  
million**

Donor funding



# IMMIGRATION AND BORDER MANAGEMENT (IBM) DIVISION



*IOM works with its partners to support countries strike the tenuous balance between human mobility, and helping exercise their sovereign right to know who is in their territory.”*

IOM Director General  
William Lacy Swing

## 1. Driving Forces:

- a. Millions of border crossings per year.
- b. Links between mobility, migration and economic development.
- c. But also with transnational crime, smuggling, trafficking and terrorism.

## 2. Challenges:

- a. Finding the right balance between facilitating legitimate movement of people and goods and border security.
- b. System Developers

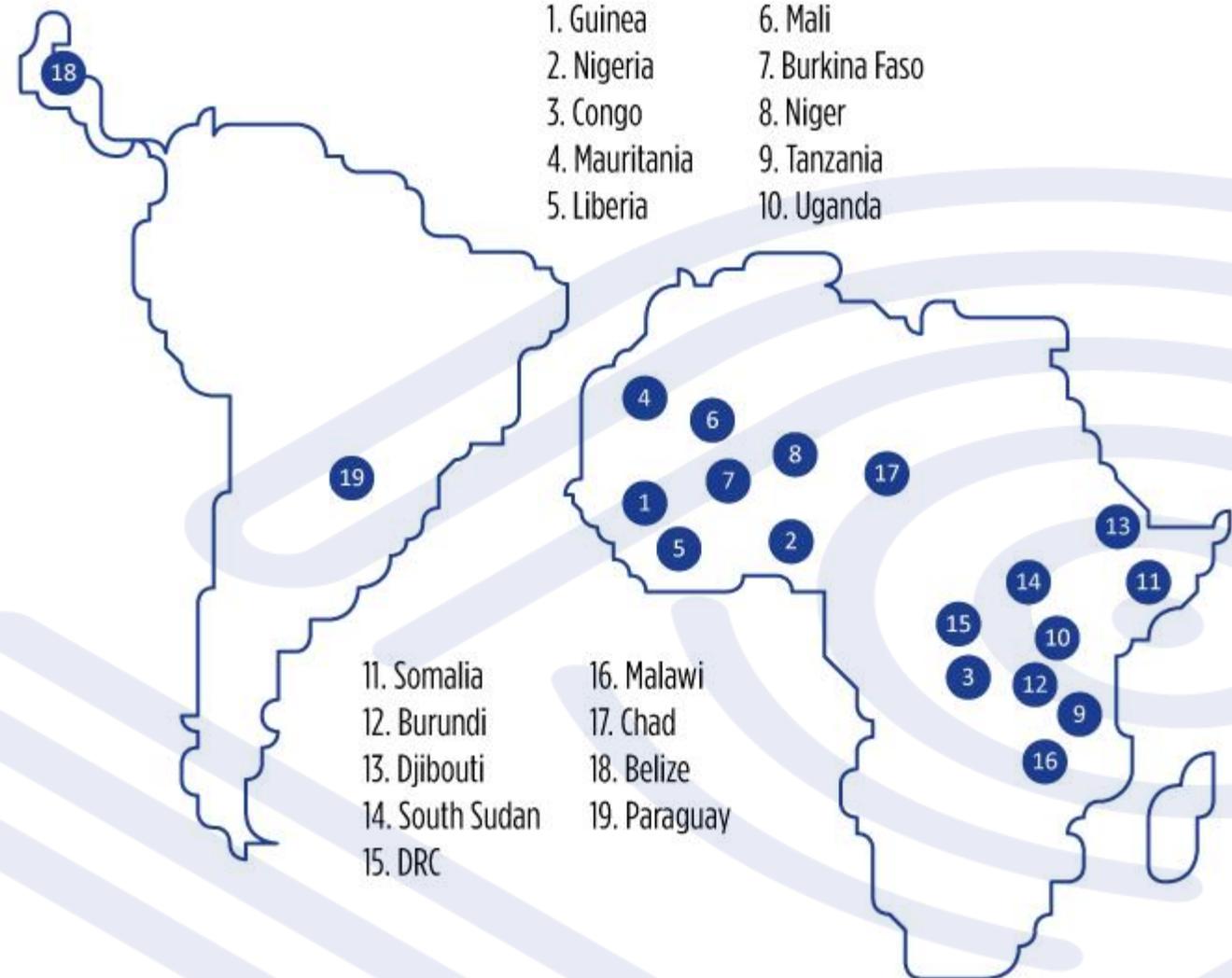


# MIGRATION INFORMATION AND DATA ANALYSIS SYSTEM (MIDAS)



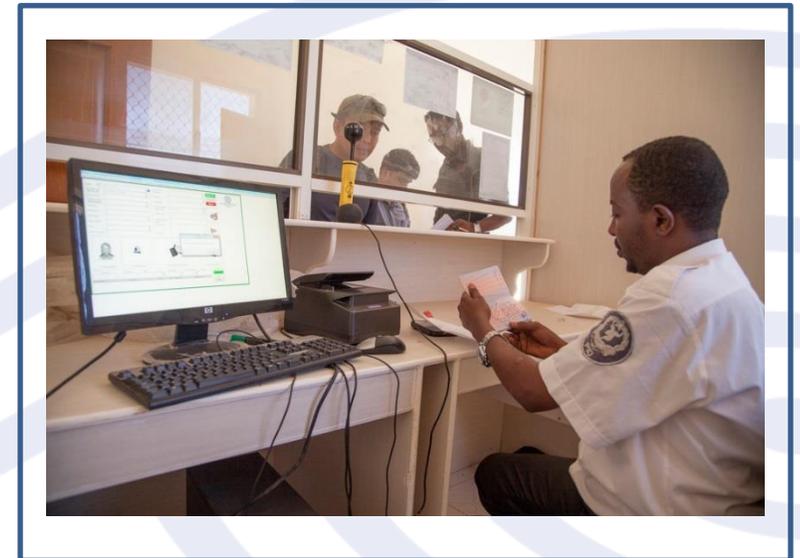
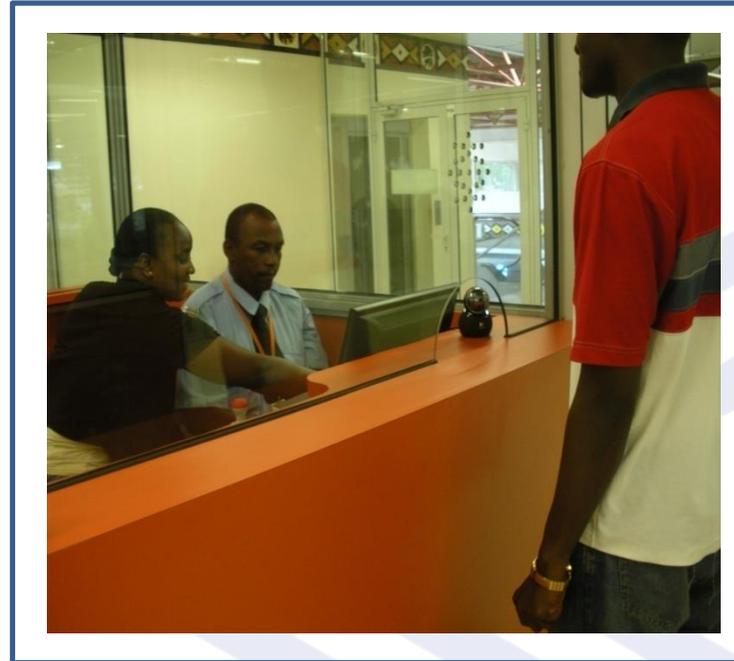
## IOM in-house developed Border Management Information System:

- I. Improves border facilitation and control for exit and entry.
- II. Collects, processes and stores traveller's information, including biometrics.
- III. Affordable system.
- IV. Suitable for remote areas.
- V. Customizable.
- VI. Governments have full and exclusive ownership of MIDAS' recorded traveler data.
- VII. Operational in **19 countries** (Africa, South and Central America), 125 border crossing points (land, air or sea).

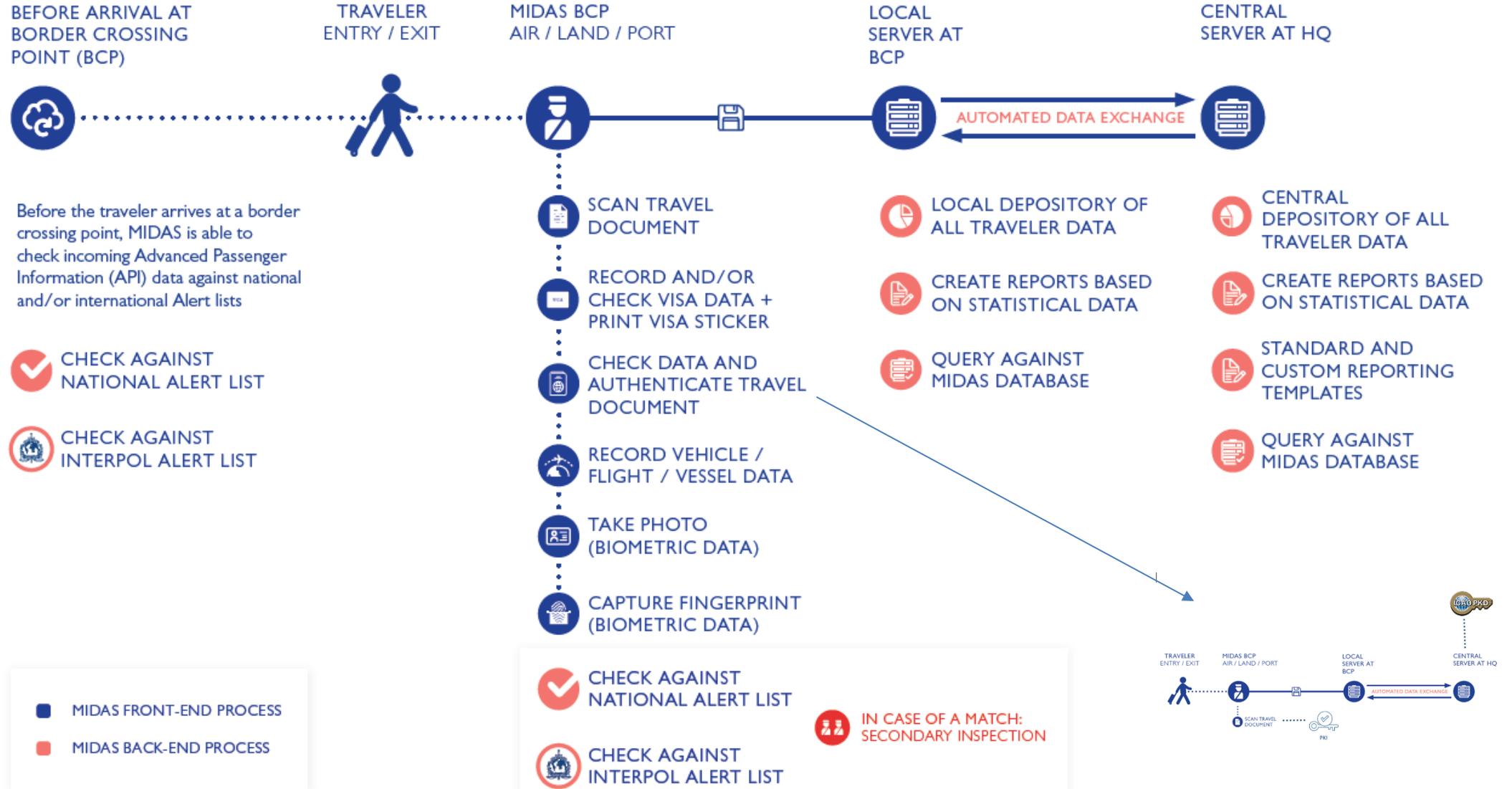


## A standard MIDAS workstation consists of:

- I. Personal Computer.
- II. Document Reader.
- III. Fingerprint scanner.
- IV. Webcam.



# MIDAS OPERATIONS AT THE BORDER CROSSING POINT



## 3 brands of Document Readers are currently compatible with MIDAS:

- I. ARH.
- II. 3M.
- III. Regula.



*ARH*



*3M*



*Regula*



# MIGRATION INFORMATION AND DATA ANALYSIS SYSTEM (MIDAS)



## MIDAS passport control screen.

Passport Control . User niko. PAX Registered - 1 and Children registered - 0 .

File | Capture Photo F2 | Scan Passport F3 | Register PAX F5 | Vehicle | Take FP F8 | Clear Fields F9 | Visa | Register Children | User Data | System | Window

Exit | Entry

Document Type\* Ordinary Passport

Country of Issue\* NETHERLANDS

Document Number\* NM3RH9C29

Surname\* DE BRESSER

Given name\* JULIA WILHELMINA VIRGINIA

Nationality\* Netherlands

Date of Birth\* 06/06/1987 Age 28

Sex\* Female

Date of Expiry\* 22/04/2026 Valid (months) 120

Country of Residence NETHERLANDS

Occupation

Purpose of Travel Resident

Address of Stay

Length of Stay(days)  w/o Visa Number of Children 0

Note

Type of Transport Pedestrian

Vehicle Reg.No

Model

Save F5

Clear F9

St/osp

MRZ

Birth Date Checksum OK

Document Number OK

Expiry Date Checksum OK

MRZ Checksum OK

RFID

BAC OK

MRZ-RFID Matched OK

Portraits matched OK

Chip Authentication n/a

Passive Authentication OK

Active Authentication OK

Terminal Authentication n/a

Passport Photo | Photo Webcam | Photo Passport DB | Scanned Document Page | Scanned Document Page (UV)

Travel History | Visa | Children

| Travel Date | Surname | Given name | Date Of Birth | Sex | Citizen | Direct | Duration | Inspector | PC Number |
|-------------|---------|------------|---------------|-----|---------|--------|----------|-----------|-----------|
|-------------|---------|------------|---------------|-----|---------|--------|----------|-----------|-----------|

## Examines security features of travel documents by using:

- I. White light.
- II. Infrared light.
- III. Ultra Violet light.



Personal data comparison

*White image*



IR visibility fill

IR B900

*Infrared image*



OCR Security text

UV dull paper in MRZ

False luminescence in personal data

*Ultra Violet image*

## Multiple types of Fingerprint Scanners are compatible with MIDAS:

- I. Futronic.
  - II. Crossmatch.
  - III. Digital Persona.
- **Can capture either 1,2 or 10 fingerprints**



*Futronic*



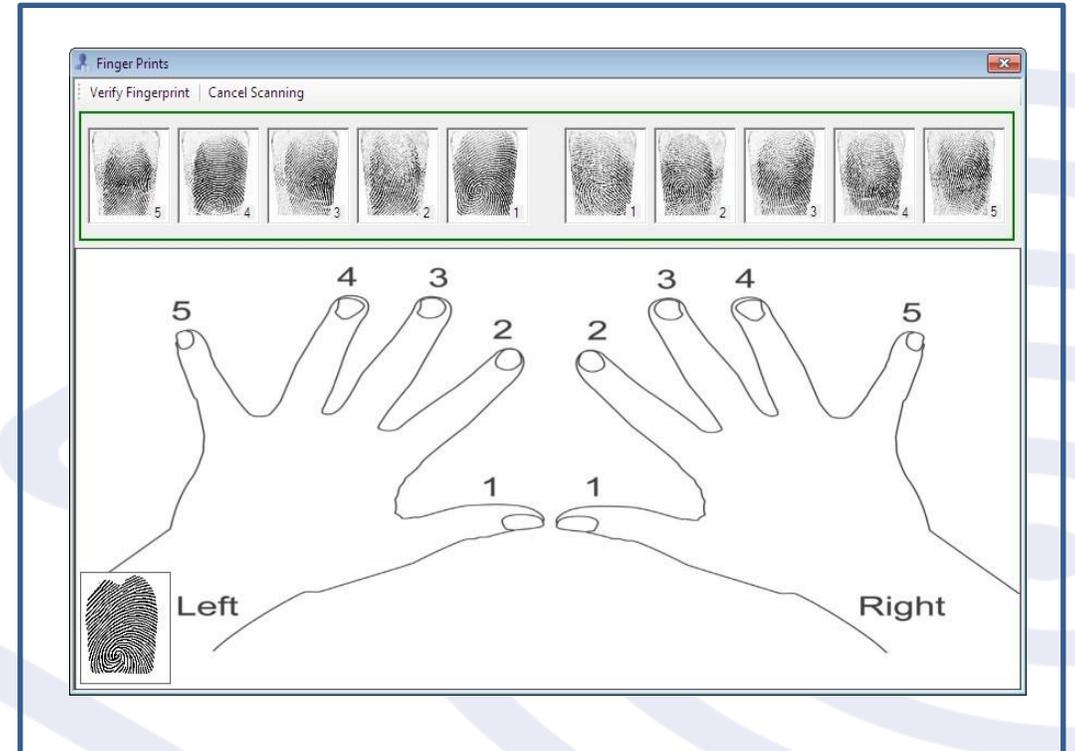
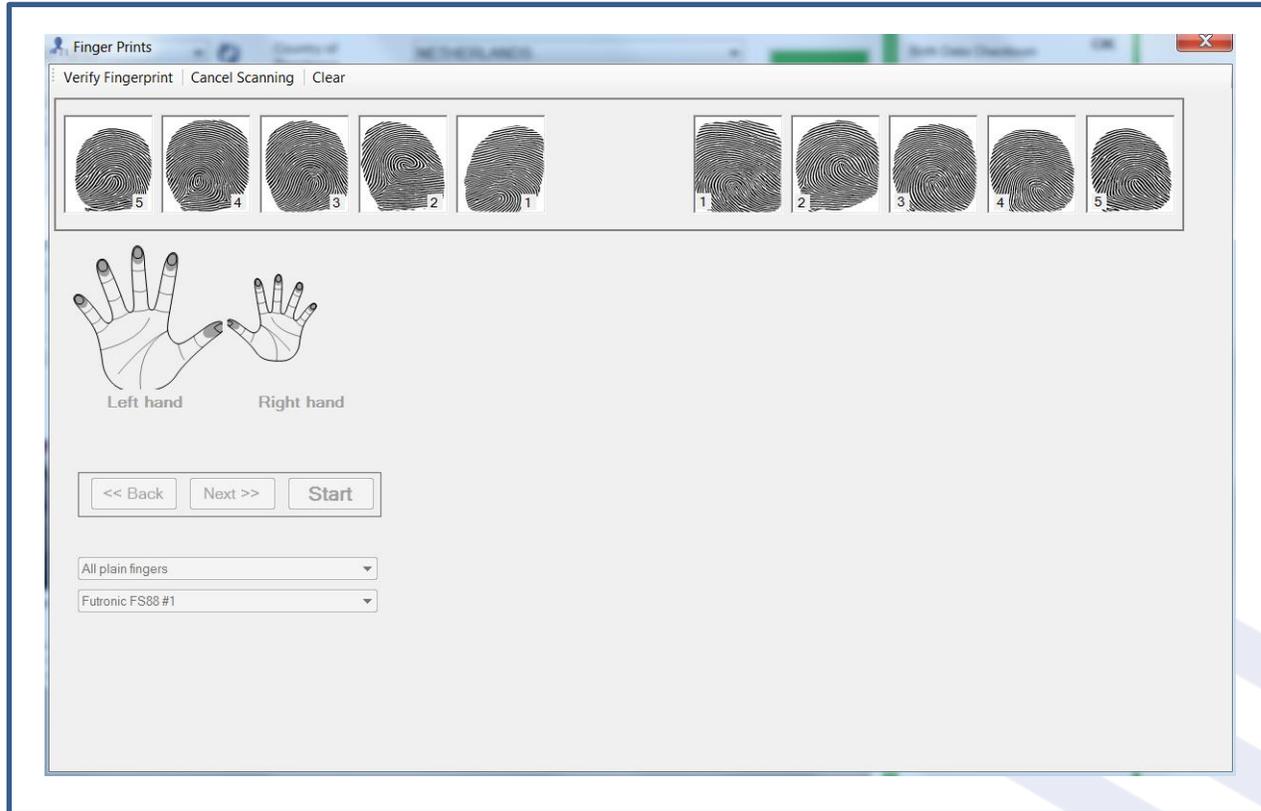
*Crossmatch*



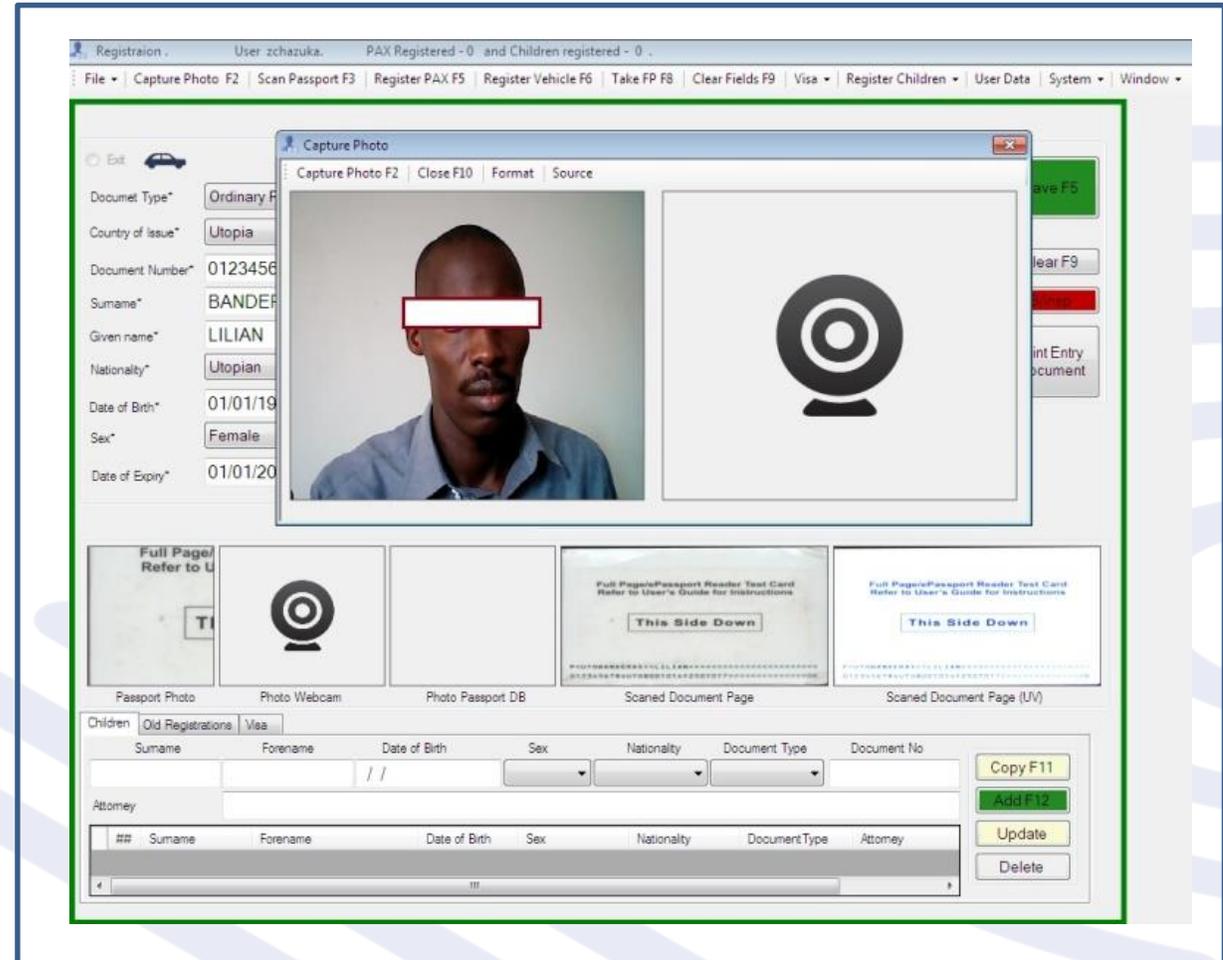
*Digital Persona*



# MIGRATION INFORMATION AND DATA ANALYSIS SYSTEM (MIDAS)



## Capture photo with webcam.





# MIGRATION INFORMATION AND DATA ANALYSIS SYSTEM (MIDAS)



## Reporting statistical data.

Reports

Report Settings

Border Point: Tanzania  
Immigration Office: Mwanza Airport

Shift: 25/05/2016

Daily: 25/05/2016

Monthly: ma

Start Date: 01/01/2015 End Date: 25/05/2016

Movement Statistics

| Country                     | ISO    | Business |          | Employment |          | Holiday |          | Resident |          | Sport   |          | Study   |          | Training |   | Total | Grand Total |    |
|-----------------------------|--------|----------|----------|------------|----------|---------|----------|----------|----------|---------|----------|---------|----------|----------|---|-------|-------------|----|
|                             |        | Arrived  | Departed | Arrived    | Departed | Arrived | Departed | Arrived  | Departed | Arrived | Departed | Arrived | Departed |          |   |       |             |    |
| <b>Total</b>                |        | 16       | 4        | 1          | 0        | 2       | 14       | 3        | 0        | 1       | 0        | 1       | 0        | 1        | 0 | 25    | 18          | 43 |
| <b>Citizens</b>             |        | 1        | 1        | 0          | 0        | 0       | 0        | 0        | 0        | 0       | 0        | 0       | 0        | 0        | 0 | 1     | 1           | 2  |
| <b>Foreigners</b>           |        | 15       | 3        | 1          | 0        | 2       | 14       | 3        | 0        | 1       | 0        | 1       | 0        | 1        | 0 | 24    | 17          | 41 |
| <b>Mwanza Airport</b>       |        |          |          |            |          |         |          |          |          |         |          |         |          |          |   |       |             |    |
| Antigua and Barbuda         | AG ATG |          |          |            |          |         |          |          |          | 1       | 0        |         |          |          |   | 1     | 0           | 1  |
| Australia                   | AU AUS |          |          |            |          | 0       | 1        |          |          |         |          |         |          |          |   | 0     | 1           | 1  |
| Austria                     | AT AUT |          |          |            |          |         |          | 1        | 0        |         |          |         |          |          |   | 1     | 0           | 1  |
| Belgium                     | BE BEL | 1        | 1        |            |          | 0       | 1        |          |          |         |          |         |          |          |   | 1     | 2           | 3  |
| Bolivia                     | BO BOL |          |          |            |          | 0       | 1        |          |          |         |          |         |          |          |   | 0     | 1           | 1  |
| Bulgaria                    | BG BGR |          |          |            |          |         |          |          |          |         | 1        | 0       |          |          |   | 1     | 0           | 1  |
| Burkina Faso                | BF BFA |          |          |            |          |         |          | 1        | 0        |         |          |         |          |          |   | 1     | 0           | 1  |
| France                      | FR FRA |          |          |            |          |         |          | 1        | 0        |         |          |         |          |          |   | 1     | 0           | 1  |
| Georgia                     | GE GEO | 5        | 1        |            |          | 2       | 2        |          |          |         |          |         |          |          |   | 7     | 3           | 10 |
| Greece                      | GR GRC |          |          |            |          |         |          |          |          |         |          | 1       | 0        |          |   | 1     | 0           | 1  |
| Japan                       | JP JPN | 2        | 0        |            |          |         |          |          |          |         |          |         |          |          |   | 2     | 0           | 2  |
| Kyrgyzstan                  | KG KYZ | 1        | 1        |            |          |         |          |          |          |         |          |         |          |          |   | 1     | 1           | 2  |
| Netherlands                 | NL NLD |          |          |            |          | 0       | 7        |          |          |         |          |         |          |          |   | 0     | 7           | 7  |
| Portugal                    | PT PRY | 2        | 0        |            |          |         |          |          |          |         |          |         |          |          |   | 2     | 0           | 2  |
| Trinidad and Tobago         | TT TTO |          |          | 1          | 0        |         |          |          |          |         |          |         |          |          |   | 1     | 0           | 1  |
| Turkey                      | TR TUR | 1        | 0        |            |          | 0       | 2        |          |          |         |          |         |          |          |   | 1     | 2           | 3  |
| <b>Citizens</b>             |        | 0        | 0        | 0          | 0        | 0       | 0        | 0        | 0        | 0       | 0        | 0       | 0        | 0        | 0 | 0     | 0           | 0  |
| <b>Foreigners</b>           |        | 0        | 0        | 0          | 0        | 0       | 0        | 0        | 0        | 0       | 0        | 0       | 0        | 0        | 0 | 0     | 0           | 17 |
| <b>Total For The Period</b> |        | 12       | 3        | 1          | 0        | 2       | 14       | 3        | 0        | 1       | 0        | 1       | 0        | 1        | 0 | 21    | 17          | 38 |

Reports

Report Settings

Border Point: TANZANIA

Shift: 27/01/2016

Daily: 27/01/2016

Monthly: December

27/01/2016 09:09:47

IMMIGRATION service  
Mwanza Airport

**Monthly Statistics by Nationalities**  
December 2015

Number of PAX: 110  
Resident PAX: 8  
Alien PAX: 102  
Departed PAX: 79  
Arrived PAX: 31

| N  | Citizen                               | PAX Number | Departed | Arrived | Female | Male | 0-2 | 3-12 | 13-60 | >60 |
|----|---------------------------------------|------------|----------|---------|--------|------|-----|------|-------|-----|
| 1  | ALBANIA                               | 2          | 1        | 1       | 0      | 2    | 0   | 0    | 2     | 0   |
| 2  | BAHAMAS                               | 1          | 1        | 0       | 0      | 1    | 0   | 0    | 1     | 0   |
| 3  | CHAD                                  | 9          | 4        | 5       | 0      | 9    | 0   | 0    | 9     | 0   |
| 4  | CONGO, THE DEMOCRATIC REPUBLIC OF THE | 2          | 0        | 2       | 0      | 2    | 0   | 0    | 2     | 0   |
| 5  | CROATIA                               | 2          | 2        | 0       | 1      | 1    | 0   | 0    | 2     | 0   |
| 6  | EGYPT                                 | 3          | 0        | 3       | 0      | 3    | 0   | 0    | 3     | 0   |
| 7  | FRANCE                                | 15         | 12       | 3       | 0      | 15   | 0   | 0    | 15    | 0   |
| 8  | GEORGIA                               | 13         | 10       | 3       | 7      | 6    | 0   | 7    | 6     | 0   |
| 9  | GERMANY                               | 1          | 1        | 0       | 0      | 1    | 0   | 0    | 1     | 0   |
| 10 | GREENLAND                             | 1          | 1        | 0       | 0      | 1    | 0   | 0    | 1     | 0   |
| 11 | GUINEA                                | 4          | 4        | 0       | 0      | 4    | 0   | 0    | 4     | 0   |
| 12 | ISRAEL                                | 1          | 1        | 0       | 0      | 1    | 0   | 0    | 1     | 0   |
| 13 | ITALY                                 | 4          | 3        | 1       | 1      | 3    | 0   | 1    | 3     | 0   |
| 14 | KYRGYZSTAN                            | 2          | 1        | 1       | 2      | 0    | 0   | 0    | 2     | 0   |
| 15 | LEBANON                               | 2          | 1        | 1       | 0      | 2    | 0   | 0    | 2     | 0   |
| 16 | NETHERLANDS                           | 1          | 1        | 0       | 0      | 1    | 0   | 0    | 1     | 0   |
| 17 | NIGER                                 | 6          | 6        | 0       | 0      | 6    | 0   | 0    | 6     | 0   |
| 18 | NIGERIA                               | 4          | 2        | 2       | 0      | 4    | 0   | 0    | 4     | 0   |



# MIGRATION INFORMATION AND DATA ANALYSIS SYSTEM (MIDAS)



## Check traveller against National and International Alert Lists.

### I. INTERPOL MIND & FIND.

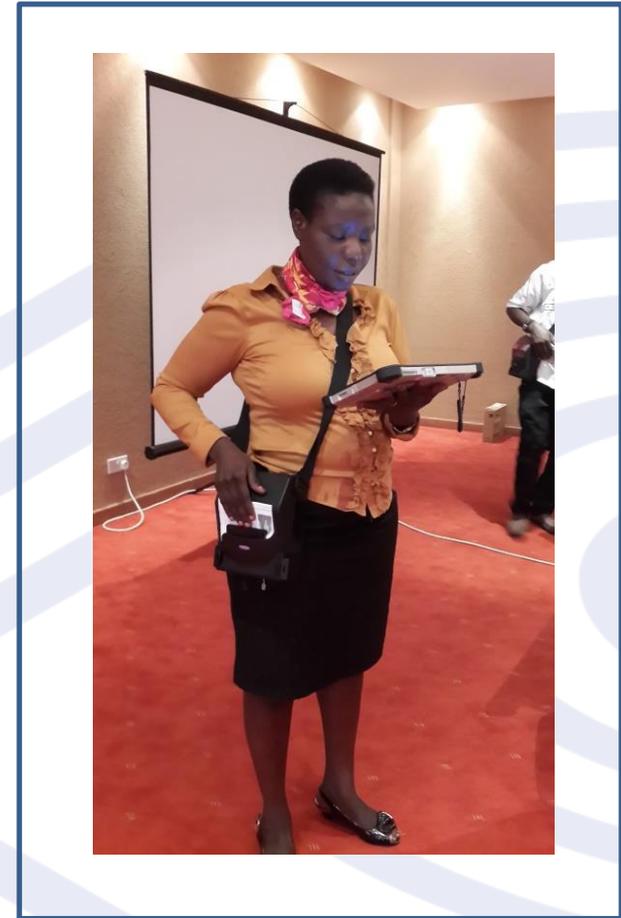




# MIGRATION INFORMATION AND DATA ANALYSIS SYSTEM (MIDAS)



## MIDAS Mobile Kit.



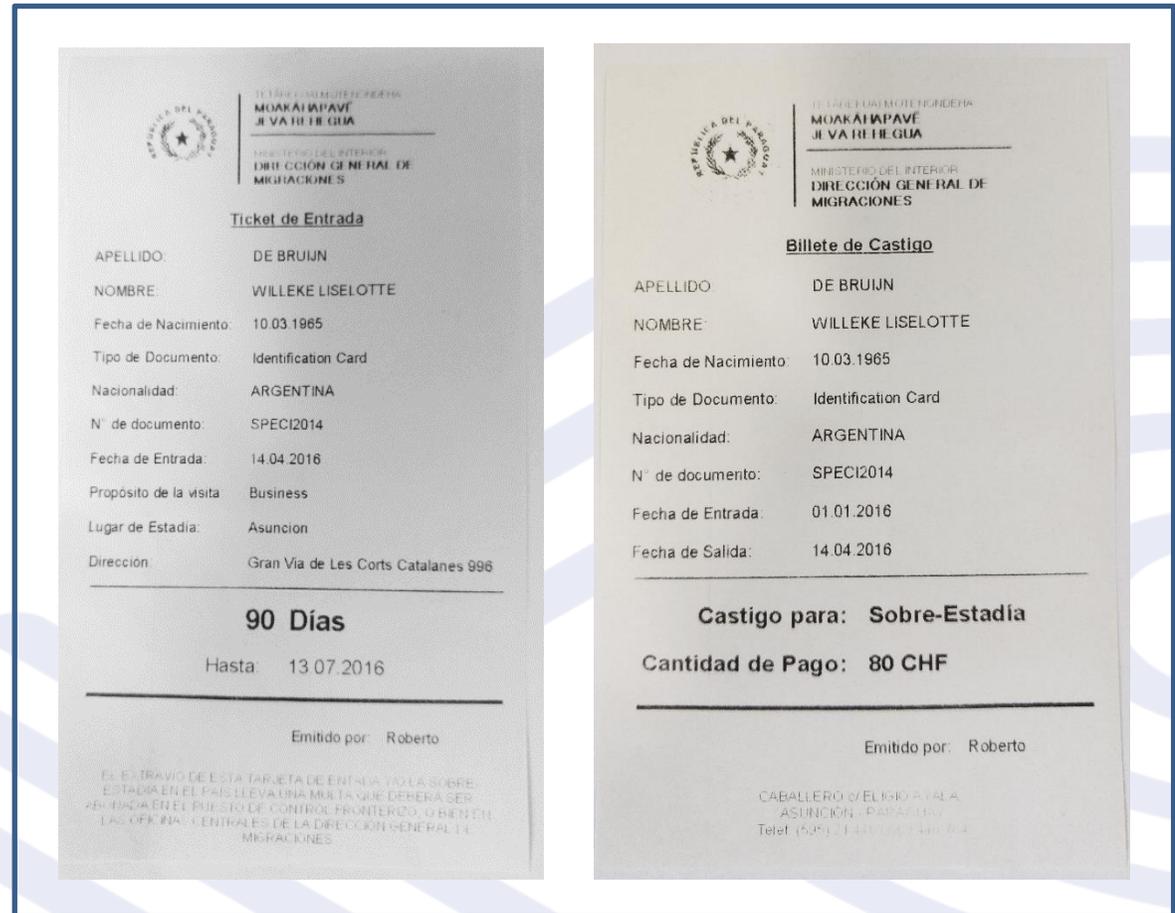
## Example of MIDAS installation: Belize

- Donor paid.
- 5 BCPs installed in 2012.
- Connected to INTERPOL (MIND).
- 80 Immigration Officers Trained
- September 2017: 10.5 million travelers inspected and processed by MIDAS since its implementation.
- Government requested and received:
  - a. Temporary travel card.
  - b. Interface for residence permit and visa extensions.
  - c. Generating list of over-stayers.
  - d. Verification against the national ID Card database



## Example of MIDAS installation: Paraguay

- Access to source code granted
- 2 BCPs installed in 2016.
- Connected to INTERPOL (MIND).
- Government requested:
  - a. Entry ticket.
  - b. Penalty ticket.



The image shows two official Paraguayan migration documents. The left document is an 'Ticket de Entrada' (Entry Ticket) for DE BRUIJN, WILLEKE LISELOTTE, an Argentine citizen, issued on 14.04.2016 for a business visit to Asuncion. The right document is a 'Billete de Castigo' (Penalty Ticket) for the same individual, issued on 01.01.2016, for 'Sobre-Estadia' (Overstay) with a fine of 80 CHF. Both documents are issued by the Paraguayan Ministry of the Interior, Directorate General of Migration.

| Field                  | Entry Ticket (Left)                 | Penalty Ticket (Right)                                  |
|------------------------|-------------------------------------|---|
| Document Title         | Ticket de Entrada                   | Billete de Castigo                                      |
| APELLIDO               | DE BRUIJN                           | DE BRUIJN   |
| NOMBRE                 | WILLEKE LISELOTTE                   | WILLEKE LISELOTTE                                       |
| Fecha de Nacimiento    | 10.03.1965                          | 10.03.1965  |
| Tipo de Documento      | Identification Card                 | Identification Card                                     |
| Nacionalidad           | ARGENTINA                           | ARGENTINA   |
| N° de documento        | SPECI2014                           | SPECI2014   |
| Fecha de Entrada       | 14.04.2016                          | 01.01.2016  |
| Propósito de la visita | Business                            |   |
| Lugar de Estadia       | Asuncion                            |   |
| Direccion              | Gran Via de Les Corts Catalanes 996 |   |
| Duration / Amount      | 90 Días<br>Hasta: 13.07.2016        | Castigo para: Sobre-Estadia<br>Cantidad de Pago: 80 CHF |
| Emitido por            | Roberto                             | Roberto   |

## Steps to operationalize MIDAS :

- I. Assessment.
- II. Prepare Hardware and Software List.
- III. Procurement and Shipping.
- IV. Installation and set-up.
- V. Training.
- VI. Roll-out
- VII. Evaluation.
- VIII. Post-project support



|                                 |   |
|---------------------------------|---|
| Computers                       | IntelCore / AMD 2006 / SD 12008 / 1P    |
| Printer Backup                  | 100 VA 220V                             |
|                                 | Border control equipment                |
| Document Reader                 | ADP / BM / Eagle                        |
| Visas and Stamp                 | Visas 1/2012                            |
| Fingerprint scanner             | Digital Persona / Futronix / Crossmatch |
| Magnifier                       | Telega                                  |
| UX Laptop                       | Telega                                  |
|                                 | Server, Printer, Data Backup, Network   |
| Border Crossing Point Server    |   |
| General Mail Server             |   |
| Printers and Faxers             | ipf                                     |
| Scanner                         | Canon                                   |
| Data Backup                     | Data Backup device for Server (NAS)     |
| Printer Backup                  | Backup UPS for server 2000 VA 220V      |
| Server Rack                     | Server Rack for MS Server               |
| Firewall for VPN                | VPN and Internet connectivity           |
| UPS Antenna                     | Cloud Backup Server 200 VA 220V         |
|                                 | UPS Antenna                             |
|                                 | Mobile Kit                              |
| Document reader                 | Telega 720                              |
| Printer                         | Canon 3042                              |
| Fingerprint scanner             | Crossmatch                              |
|                                 | Other equipment                         |
| Dust Binzer                     |   |
| Antenna                         |   |
| UPS Antenna                     |   |
|                                 | Licenses                                |
| Verifinger Master License       |   |
| Verifinger Client License       |   |
| Verifinger Storage              |   |
| MIDAS License Fee               | Software                                |
| Server Antenna                  |   |
| Windows Server 2012             |   |
| Windows Server 2012 CAL         |   |
| MS SQL Server 2014              |   |
| MS SQL Server 2014 Standard CAL |   |
| MS Office                       |   |



# Thank you for your attention

**Cy F. Winter**

Senior Immigration and Border Management Specialist  
for the Americas

T. +506 2212-5333 | M. +506 8719-3794

[cwinter@iom.int](mailto:cwinter@iom.int) | Skype: Cy\_Winter | Twitter: @Cy\_Winter