



Rwanda's Directorate General of
Immigration and Emigration

Rwanda's Experience with Enhancing Facilitation and Security at its Borders:

A Case Study on use of eGates at Poids lourds Border

June, 2019

Scope

- 1. Brief on Poids Lourd (PL) Border Post.**
- 2. Factors that led to the need for “an automated passenger clearance system” (APCS)**
- 3. Use of APCS in facilitation and security.**
- 4. How APCS works at PL.**
- 5. Current Challenges**
- 6. Future Plans**
- 7. Recap**

Brief on Poids Lourd Border Post.



- Numbers in red circles signifies BORDERS.
- Poids Lourd Border post is No 7

Located in the western province and borders with RDC

Registers 45,000 Entry/Exit movements per day.

Frequent travel reasons are;

- Visits
- Business
- Studies

Cross-border movements at PL border post



Factors that led to the need of “an automated passenger clearance system” (APCS)

In-efficient Service Delivery due to long traveller queues.

Manual screening processes that took much unnecessary time.



Border Community business-women utilizing APCS

Tendencies of forgery of manual coupons

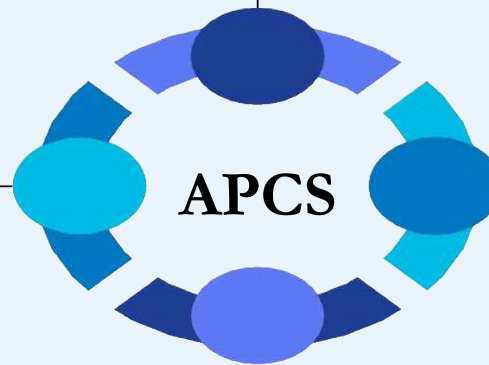
Deficiencies in statistical data of cross-border movement, due to manual process

Promotion of cross-border trade

Use of APCS at Poids lourd (10 Gates) for facilitation and security

FACILITATION

- In use since 2013.
- Ability for 10 Gates to facilitate travelers: 40 in 1 min (4 per Gate) - 2400 in 1 hr – 28,800 in 12 working hrs.
- An efficient self-clearance process.



SECURITY

- Travelers identification through use of Biometric data
- Gates issue an electronic coupon that can be verified.
- APCS is integrated with a watch (alert) list, to stop passage of any person of concern.

How does APCS work at PL border?

ENROLLMENT

1. Entering traveler National ID Number on the Enrolment Unit

2. Finger prints captured and verified against NIDA, then an RFID Card for use on APCS, is issued.

Note: No more enrollment required in the future after its done. Only re-issuance of RFID Cards can be done.

APCS Clearance Process (Departure)

1. RFID Card is placed on the APCS Card reader

2. System entry doors open

3. Traveller places thumb on the finger print reader, and is verified against the APCS Database.

4. Upon successful matching, a coupon is printed (For 24hr use), then last set of doors open for passenger to exit.

5. The Coupon is presented to DRC side, and is a proof for formal immigration clearance.

Note: Same process is done at arrival (for traveler returning from DCR to Rwanda), however, coupons are not printed.

Some key improvements done on APCS in Rwanda since 2018.

Use of eGates on entry at Kigali international Airport (KIA) by non-nationals: Using Foreign IDs (system reads their Bar code)

Ability to carry out Data synchronization

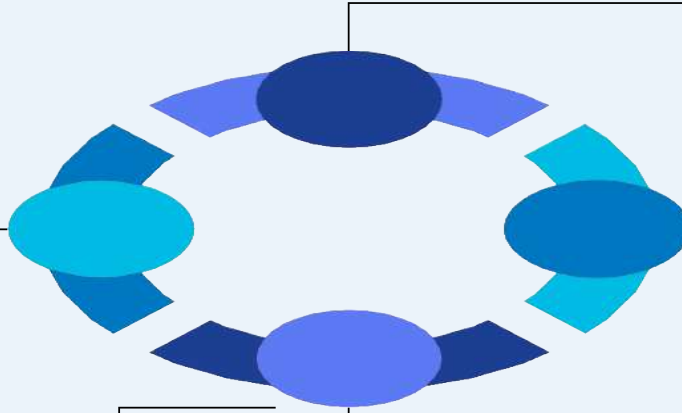
Short Video Illustration of the Self-Clearance process at Poids lourds border post



Current Challenges

Gates installed in an open roofed outside environment: i.e.: dust, heavy rains that affects the gates sensors, or durability of the Gates

Limited knowledge on latest technologies such as: Choice on Biometric Matching (Finger print or Facial recognition)



Limited financial resources for further system extension.

Need for bilateral cooperation to allow use of APCS by mainly border communities of neighboring countries, for further facilitation and service delivery: **For example:** Travelers from DRC are currently processed manually. There could be mechanisms to use APCS for such DRC community.

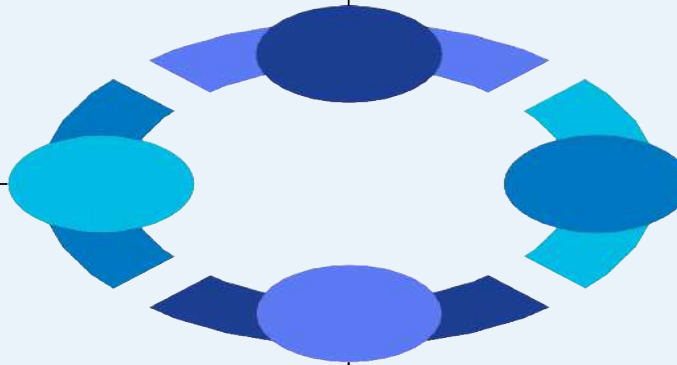
Future Plans

Removal of the Enrollment phase: Ability to integrate with National ID Database for usage of Citizens IDs. (Barcode reading)

Extending the APCS system to more Land borders with high traffic, such as: Gatuna (Bordering Uganda), Rusizi I (Bordering DRC), etc

Assessing possibility of using Facial recognition as a primary biometric matching mechanism.

Update of the current APCS infrastructure, based on system challenges experienced in the past.



Recap

APCS at Poids lourds allows balance between efficient facilitation and border control.

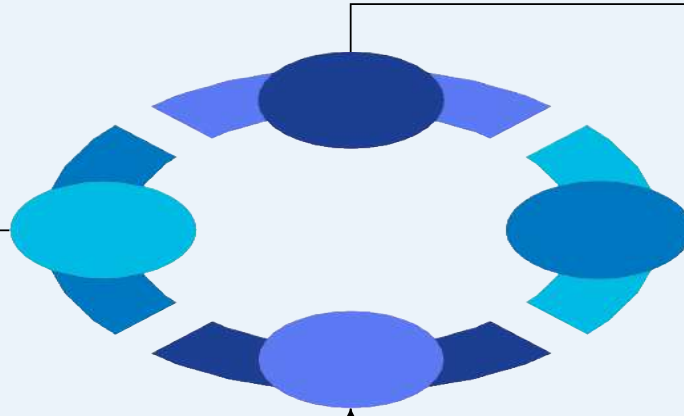
Open to adopting new biometric matching methodologies such as facial recognition.

Contributes to increased cross-border trade.

Increased worker's productivity: Currently, 10 travelers are cleared in 15 secs at PL border.

Increased satisfaction by border community at PL border post, and national & non-national users of APCS at the Airport.

Planning to leverage on ability to integrate with National ID, to enhance service delivery by removal of the enrolment process.



What could be the future of electronic Gates?

Could there be high performance passenger authentication methods to allow travelers to use E-Gates in not more than 5 to 7 Secs?

Can there be development of tailor-made E-Gates to operate in African borders with harsh environmental conditions such as: Heavy rains, Dust etc.?

THANK YOU

Rwanda Directorate General of Immigration and Emigration.

P. O. BOX 6229, KIGALI

Tel. +250 78 815 2222

Email: info@migration.gov.rw

ict@migration.gov.rw

<http://facebook.com/rwandamigration>

<https://twitter.com/Rwandamigration>