

WCO GLOBAL AEO CONFERENCE

SEAMLESS ELECTRONIC CARGO TRACKING SYSTEM (RECTS)

- THE OBJECTIVES
- THE CHALLENGES
- THE SEAMLESS ELECTRONIC CARGO TRACKING SYSTEM
- HOW RECTS WORKS
- THE BENEFITS

Our Slides Covered

Regional Electronic Cargo Tracking System (RECTS)

Seamlessly monitoring of the movement of cargo using electronic means

Revenue Authorities (RA) Requirements

- To facilitate seamless flow of transit cargo in single view of cargo tracking along the gazetted route.
- To enable real time visibility
- To detect transit violation
- To integrated with customs systems and intelligent video analytical surveillance system

How RECTS will benefit RA

Short Term

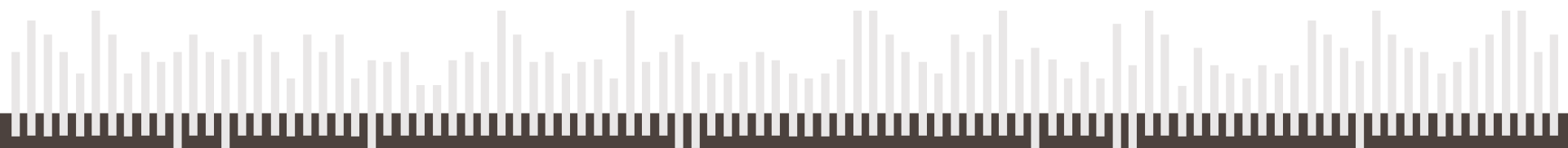
- Increase Government Revenue
 - *To curtail tax evasion, illegal dumping of goods*
- Improved Transit Compliance
 - *To monitor cargo and to provide cargo information on real and relevant time basis*
 - *To send real time alerts and the detail in the event of any breach of the system operations and components.*
 - *To prevent the loss of asset and human life due to incidents that often occur from the theft of goods/commodities.*
- Reduce Transit Times
 - *To prevent illegal stop*
 - *To prevent transit delay by driver*
- Improved Transparency
 - *To record events and playback of such event information for sharing with authorized stakeholders.*
 - *To provide reports/information on the status of trucks (tampered with or secure) on a real time basis.*

Long Term

- Better Policies Formulation
- Improve Operation Efficiency & Productivity
- Enhanced Services Integrity
- Big Data Availability
- Enhanced inter-government coordination



THE OBJECTIVES





Improve Support Operation



Improve Carrier Operation



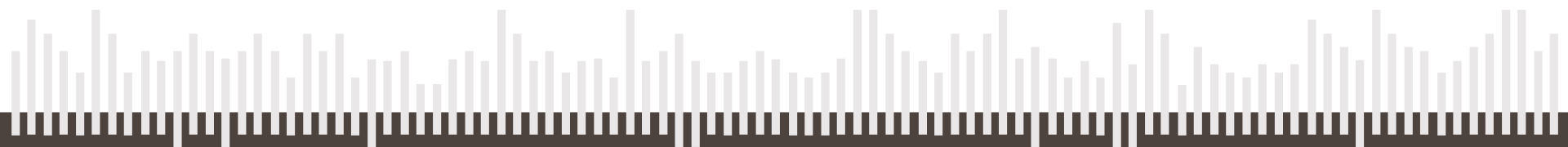
Improve Security Operation



Improve Cargo Operation



THE CHALLENGES



THE FACTS



Multiple Countries



Multiple Systems



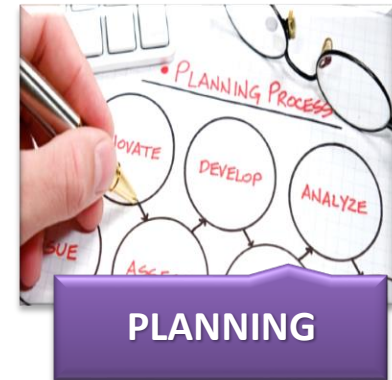
Lack of Holistic Visibility



Barrier to Cross Border Trade

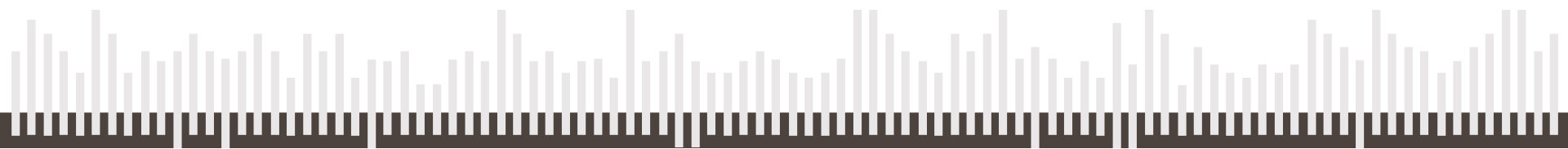
Inconsistent with the Regional Integration Agenda of trade facilitation and ease of doing business.

THE CHALLENGES

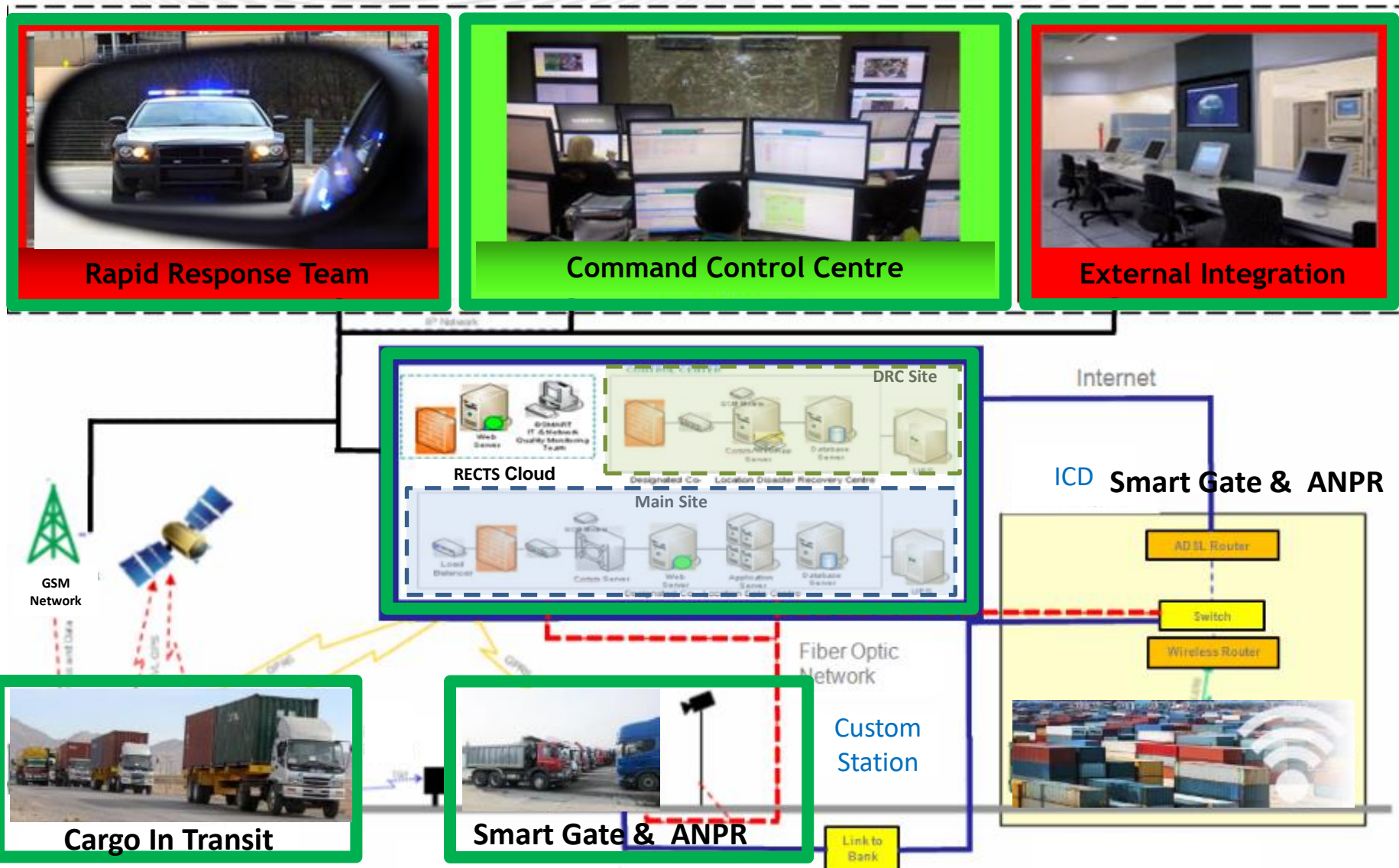




THE SEAMLESS REGIONAL ELECTREONIC CARGO TRACKING SYSTEM

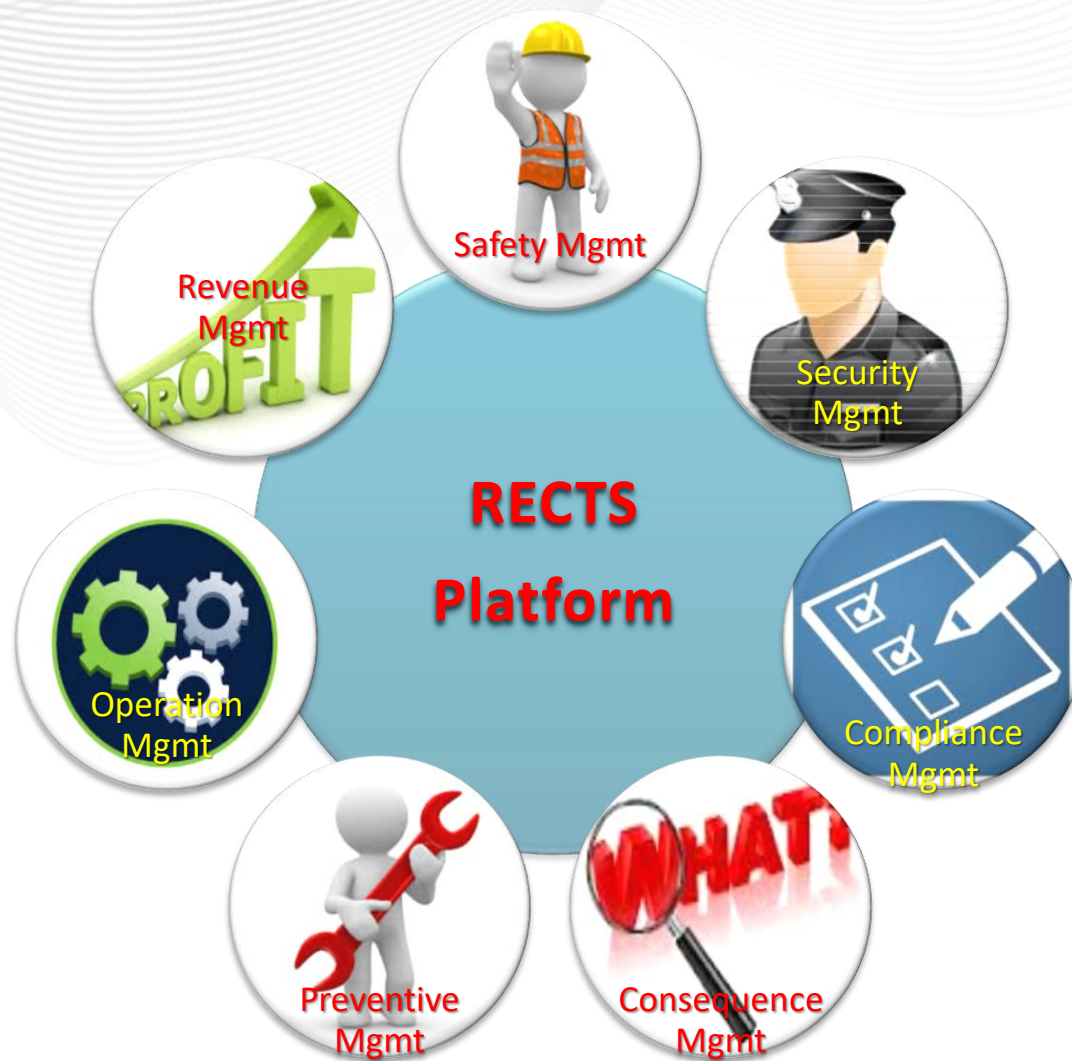


RECTS Overview

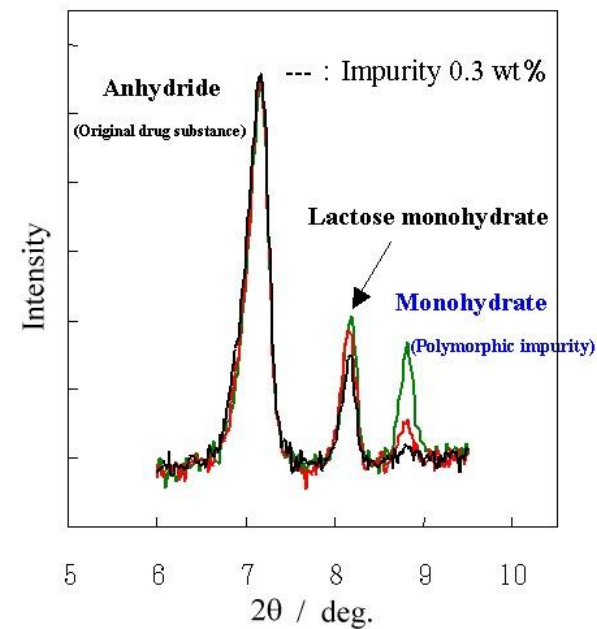


Cloud RECTS with Local Disaster Recovery











Intelligent Video Surveillance

ANPR
SOFTWARE
PROCESSING



Software
CONTAINER ID
RECOGNITION



Container's
characters location



Character
segmentation

H	D	M	U	2	1	9	6	7	3	8
K	R	2	2	1	0					

Character
recognition

Discard wrong results

HDMU 21 96 73 8
KR 2210



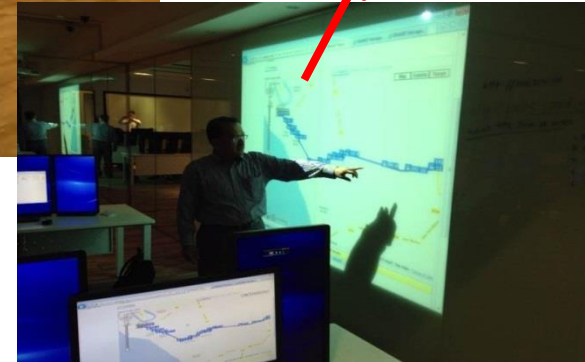
Centralized Monitoring Centre

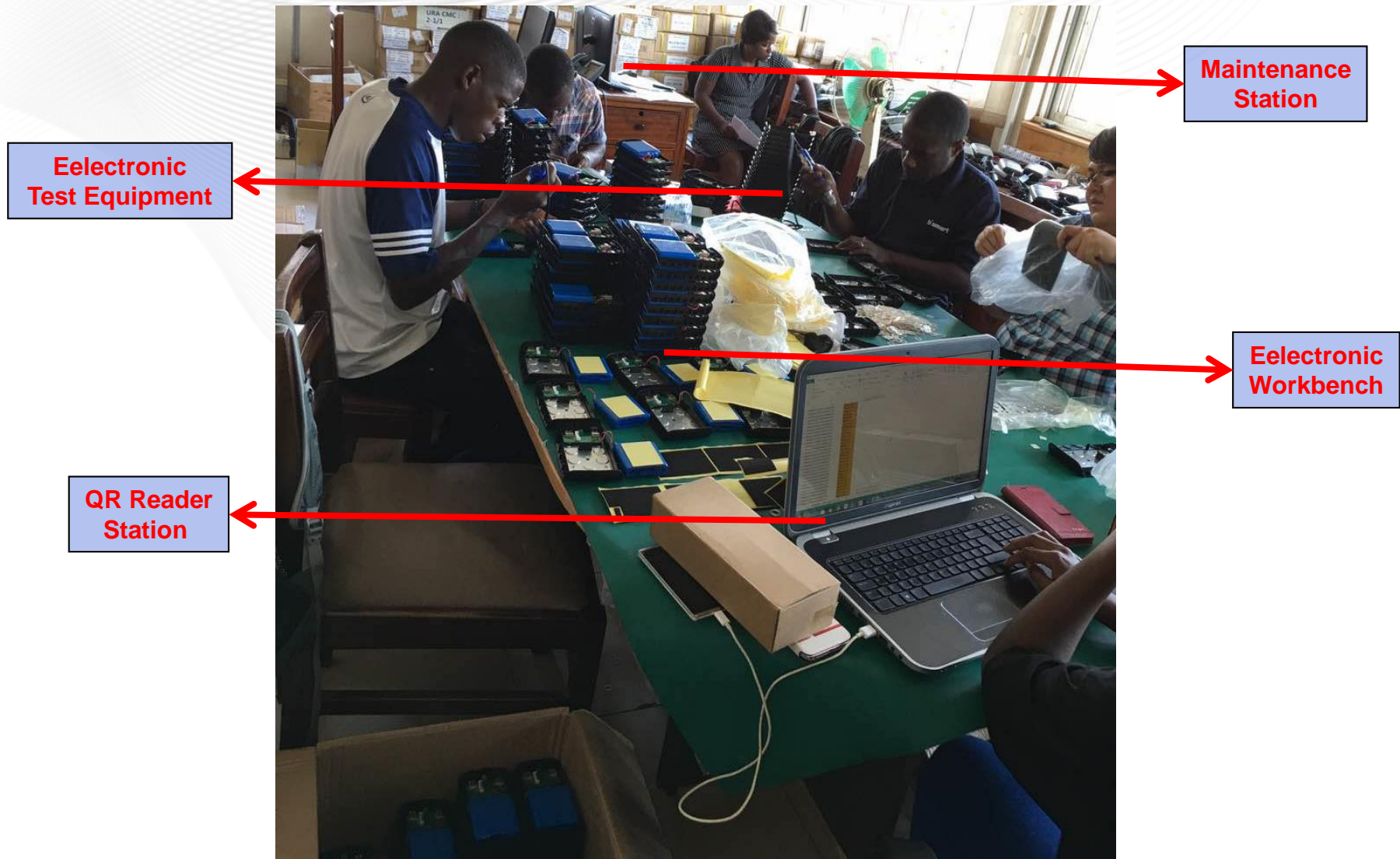
**Incident Level
Status
Display**

**Full HD
LED
Video Wall**

**4 X LED Monitors
Workstation
with IP Telephony**

**Extended Video Wall
LCD Projector
On Writeable Wall**





In car Camera

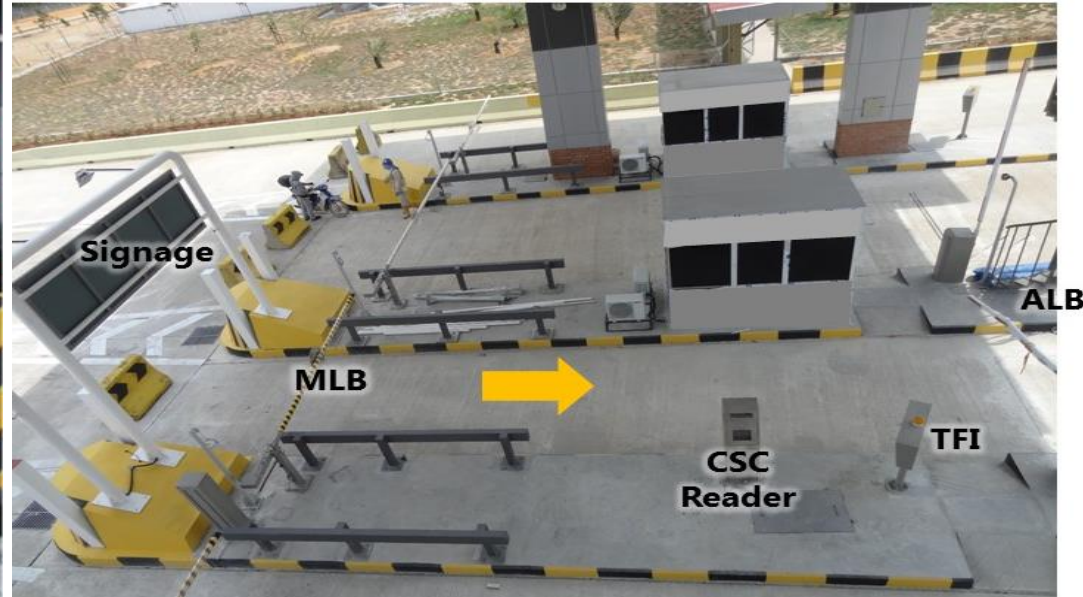
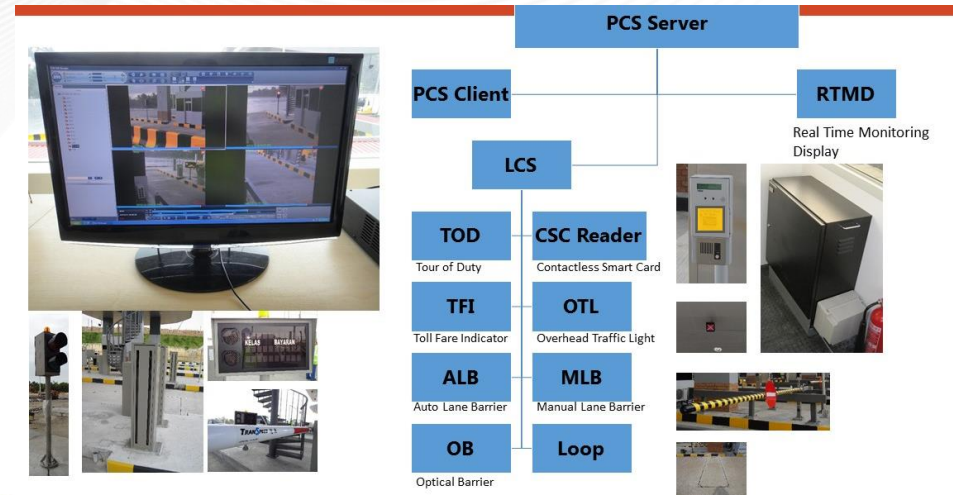


HD Body Camera



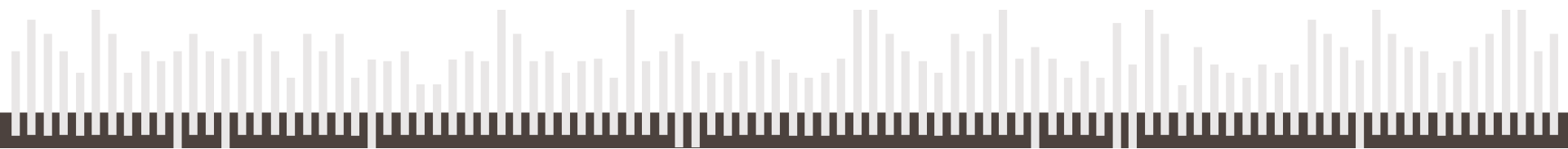
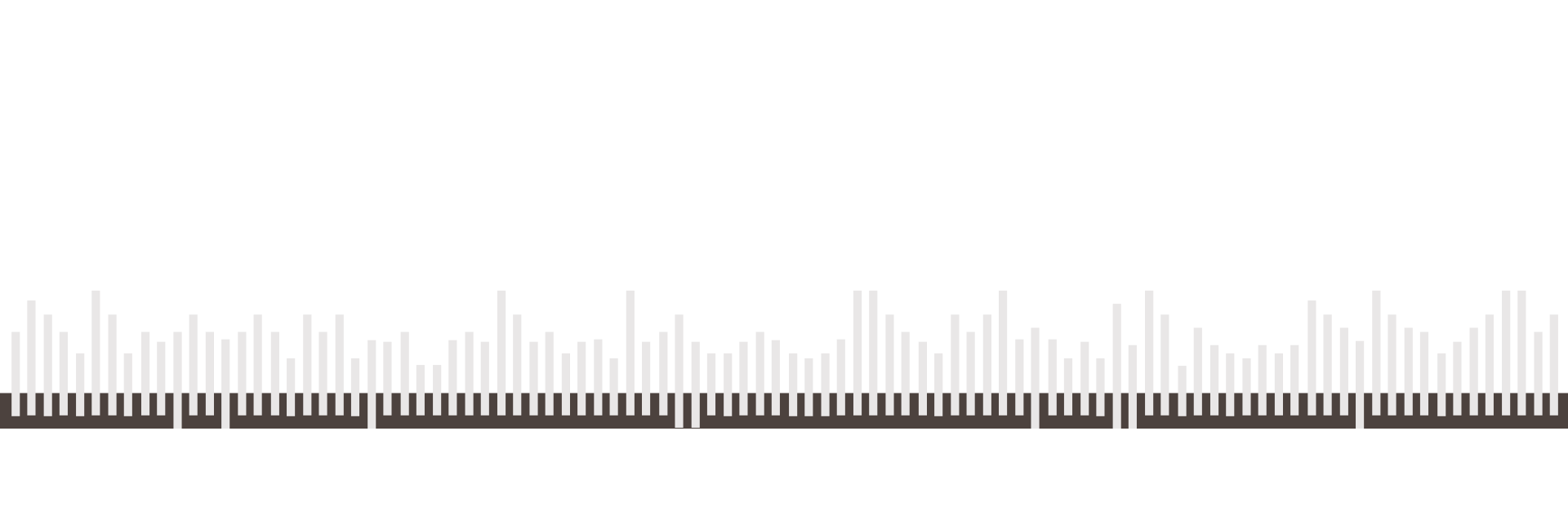


Dedicate RECTS Compliance Lane





HOW RECTS WORKS



At Departure

1. The Customs officer physically attaches an E-Seal and activates it in the system.



2. Customs controlled release points will have smart gates and will scan vehicle details automatically.



In Transit

3. A Centralized Monitoring Centre

There will be three interlinked Centralized Monitoring Centres in Nairobi, Kampala and Kigali to conduct real time electronic monitoring of transit cargo



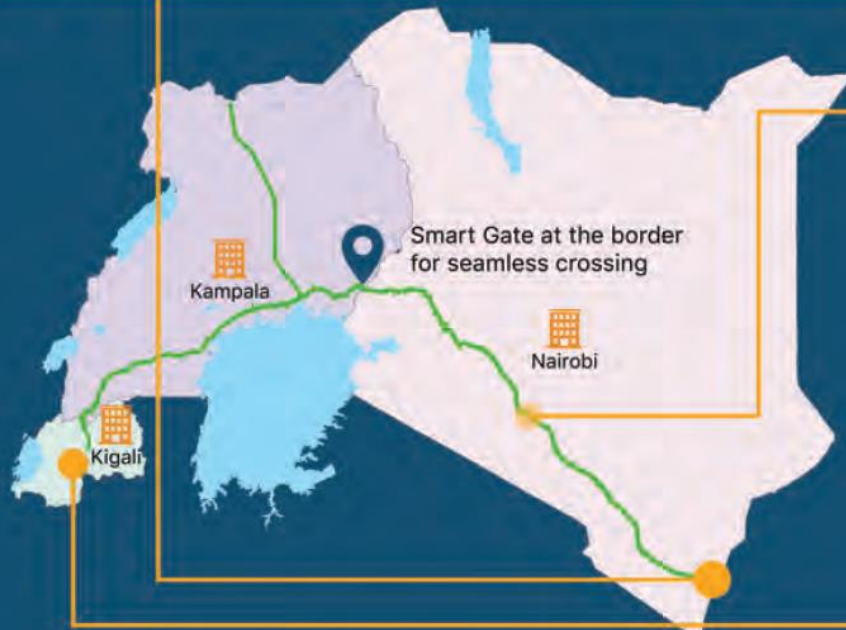
4. Rapid Response Units

In case of Transit violations, system alerts will be generated and the Centralized Monitoring Centres for staff to analyse and dispatch to the RRU's for further action.

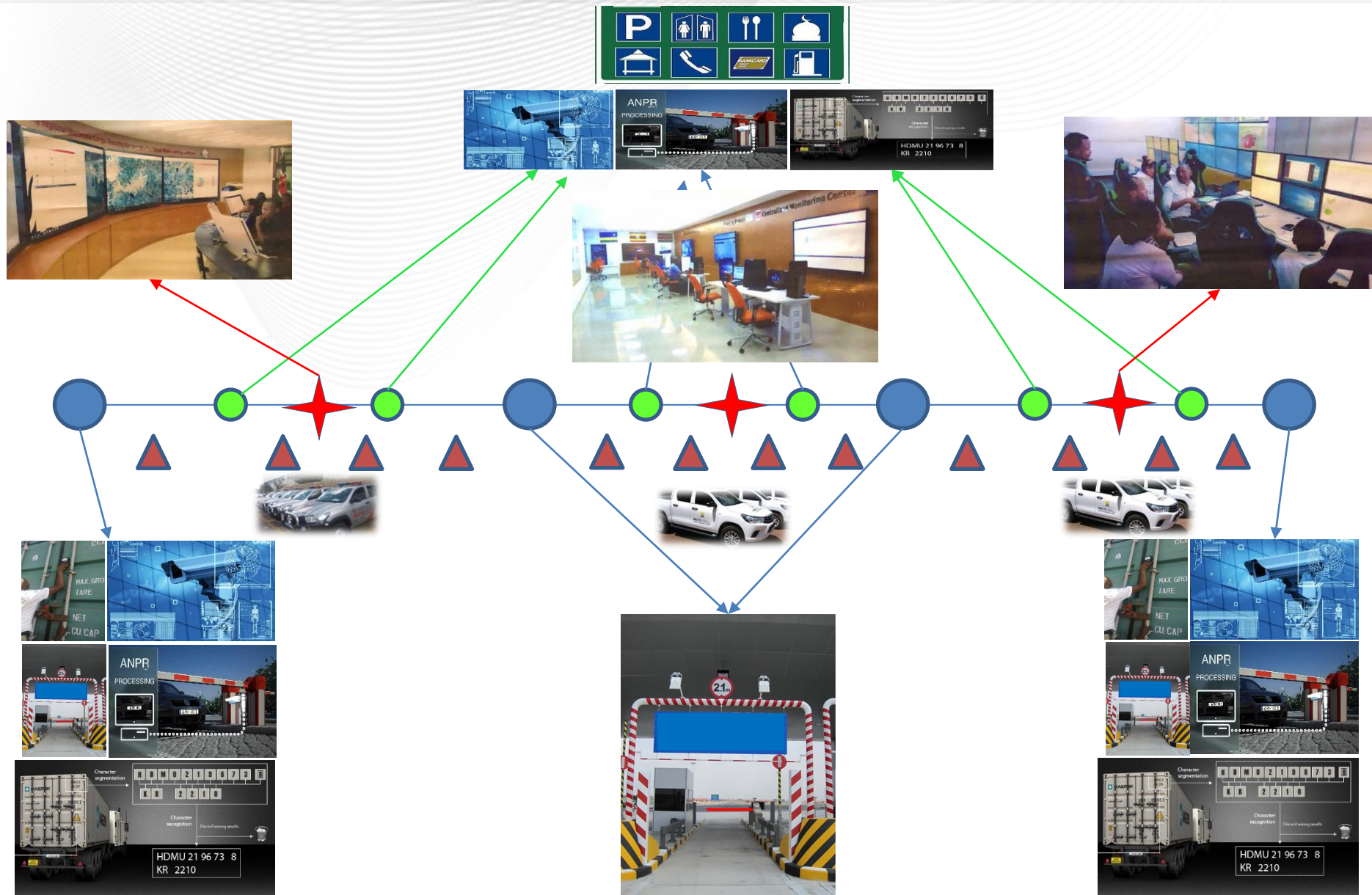


At Destination

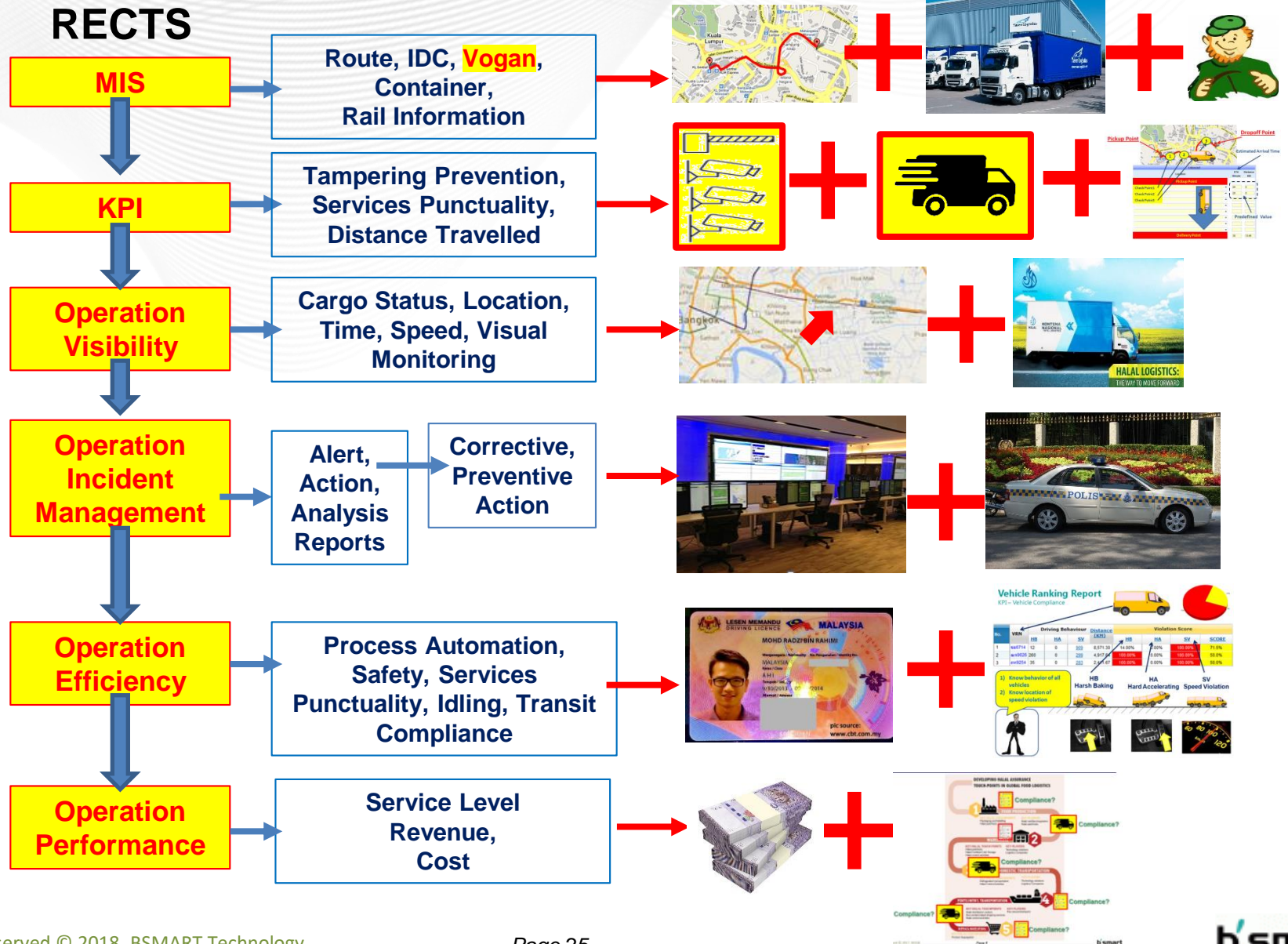
5. The RECTS process will terminate when the Customs officer deactivates the E-Seal in the system and then physically detaches the E-seal from the container or any other authorised means of carriage.



Transit Overview



Closer Look into Operation



Lack of real time integrated monitoring & coordination results in longer downtime & lost of revenue due to theft. RECTS emphasize on these localized yet integrated 4 steps (continue improvement approach) the issue:

4



Analyze

Incident report and feedback analysis with root cause analysis & Corrective as well as Preventive action

1



Monitoring

IT Infrastructure
24x7 Monitoring



Communicate

Authority



3



Response

Rapid Response Team

Early Intruder Detection via Video Surveillance : Rapid
Response Team Notified : 5 mins

Cable Vibration Detection due to Cable lifting : Rapid
Response Team Standby : 15 mins

Power Disconnection due to Cable Cutting : Rapid Response
Team Dispatched : 30 mins

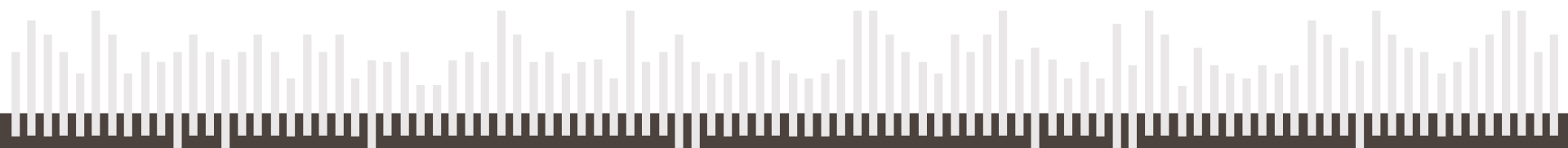
Stolen Asset Tracking due to Geo-Fencing triggered : Rapid
Response Team Tracking : 60mins

2





THE BENEFITS





RECTS case study : Enhanced Cargo Security



Incidents 2017	Uganda: Revenue protected		Kenya: Revenue Protected	
TOTALS	153	USD5,084,594	135	USD 2,036,808

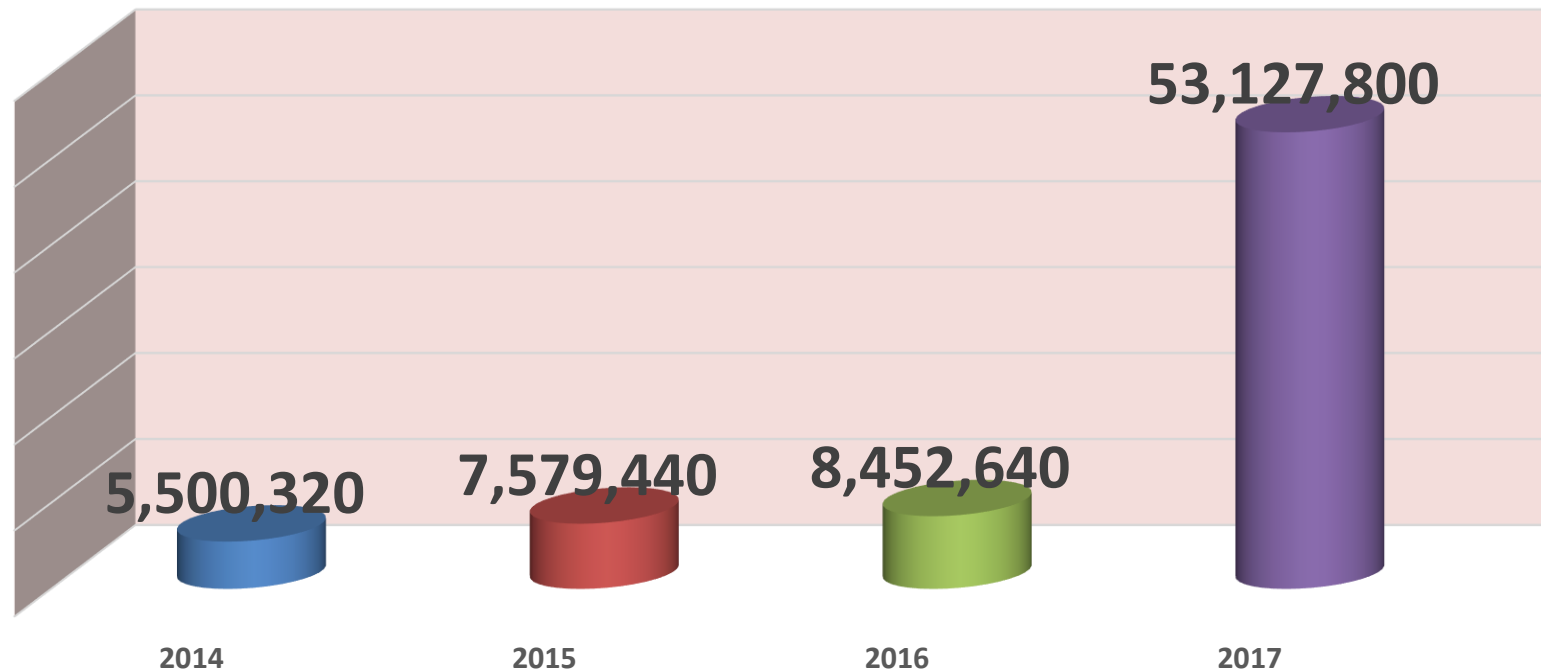
RECTS case study : Transit Time reduced by >50%

	Average Transit time in days	
	Before	Now
Mombasa - Malaba border	6 days	2 days, 5 hrs
Mombasa – Busia border	6 days	2 days, 1 hrs
Mombasa - Kampala	14 days	3 days, 14 hrs
Mombasa - Elegu	17 days	3 days, 13 hrs
Mombasa – Kigali	21 days	6 days, 1hrs

RECTS Case study : Reduced Cost of doing Business

For every e-monitored consignment, waiting & escort costs are saved:

Savings in Demurage/incidental Costs
(Difference in daysx USD 400x No. of e-monitored cargo)





THANK YOU FOR YOUR ATTENTION

