

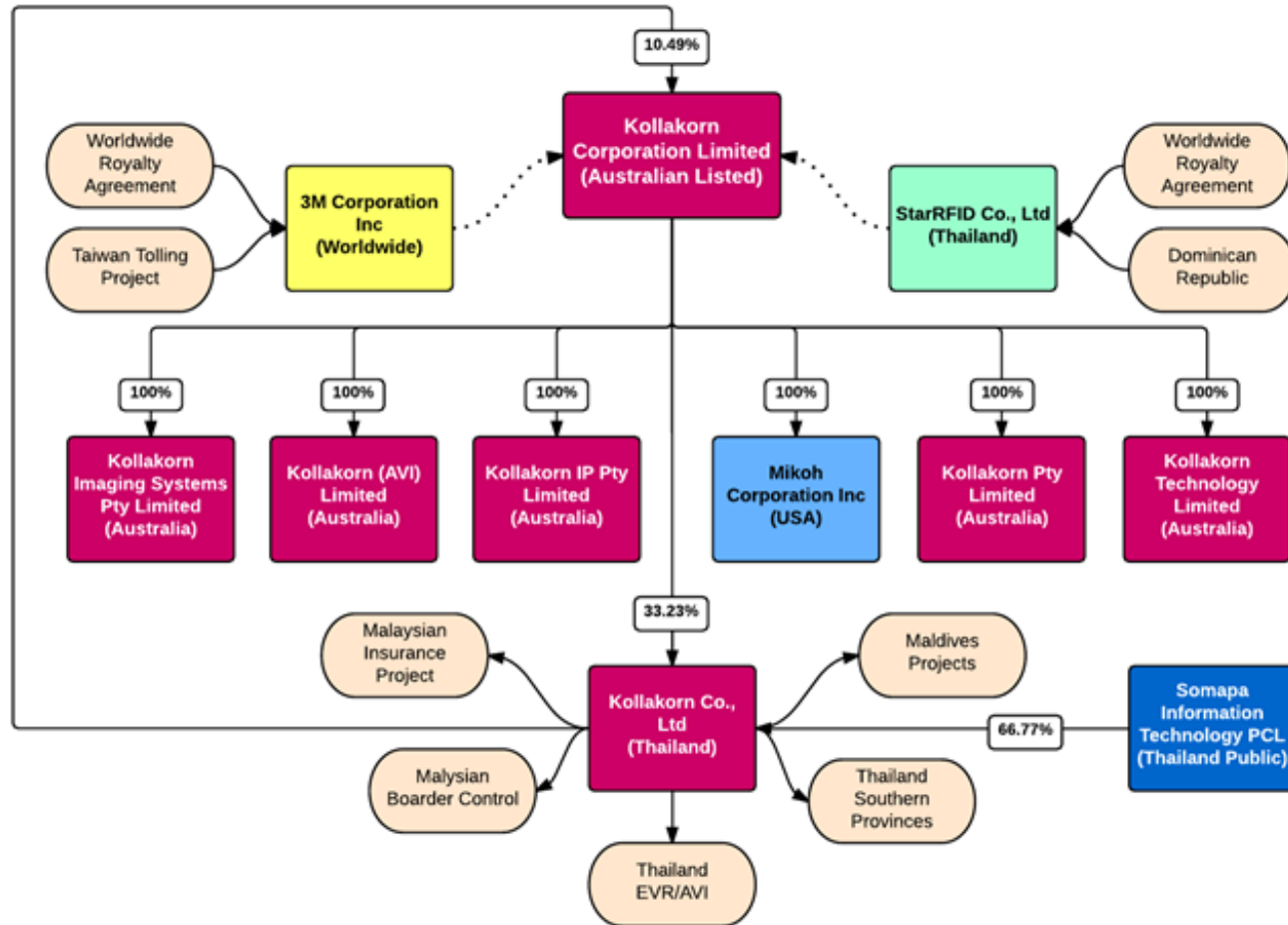
# Review of RFID Business



*“One Platform - Many Solutions”*

# Kollakorn Key Relationships & Background

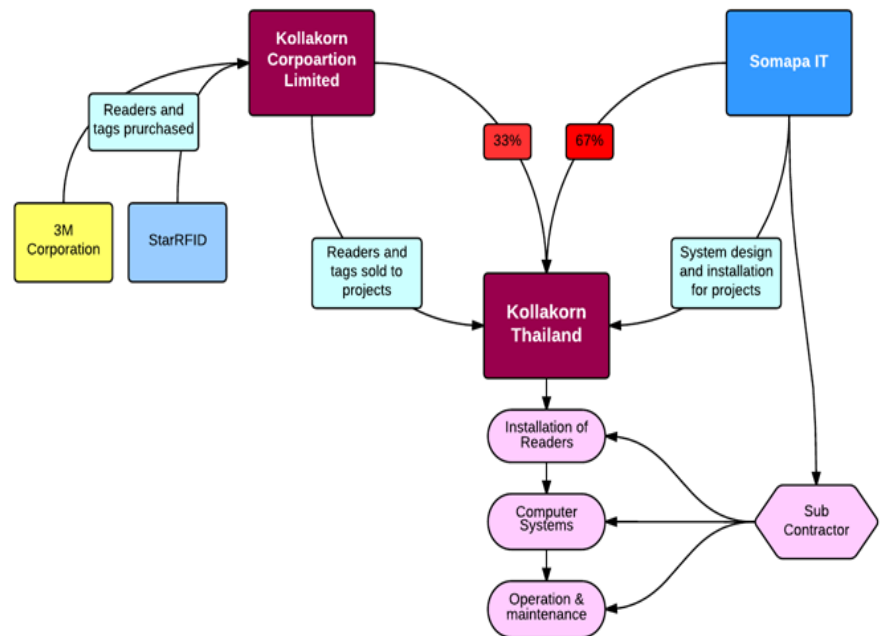
# Kollakorn Corporate Relationships



# Kollakorn Thailand

- Most RFID business is through Kollakorn Thailand
- We own 33% of Kollakorn Thailand
- We sell equipment and tags to Kollakorn Thailand at a markup
- Kollakorn Thailand has concession to provide Vehicle AVI & EVR to Thailand
- Kollakorn Thailand provides systems design & integration

## Structure of the RFID Business



# Status of the Thailand RFID Concession

# Background to Thailand EVR/AVI Concession

---

- Concession is in its 4<sup>th</sup> year of 10 Years
- AVI & EVR proposal reviewed favourably by 3 consecutive Governments
- Just prior to point of final approval by each Government, there was a change of Government, requiring re-submission to new Government representatives
- In April 2012, Department of Land Transport (**DLT**) made it mandatory for approximately 40,000 public & private buses to be tagged with a SmartRFID™ tag
- This became a proof of concept trial for DLT

## Why Use EVR & AVI in Thailand?

---

- Goal of DLT is to have a SmartRFID™ tag on every vehicle in Thailand to ensure that all vehicles:
  - Ø Up-to-date with road taxes
  - Ø Up-to-date with insurance
  - Ø Up-to-date with roadworthiness inspections
  - Ø Can be monitored for speeding
- Every hour more than one person dies on Thailand roads **(35 deaths per day)**
- Estimated 8m of 34m registered vehicles have not paid third party insurance premiums
- Estimated 2m to 3m vehicles are on roads unregistered

# Proof of Concept Successful - SmartRFID™ Lowers Bus Road Toll

	2011				2012			
	April	May	June	Total	April	May	June	Total
Number of Accidents	35	23	34	<b>92</b>	3	2	2	<b>7</b>

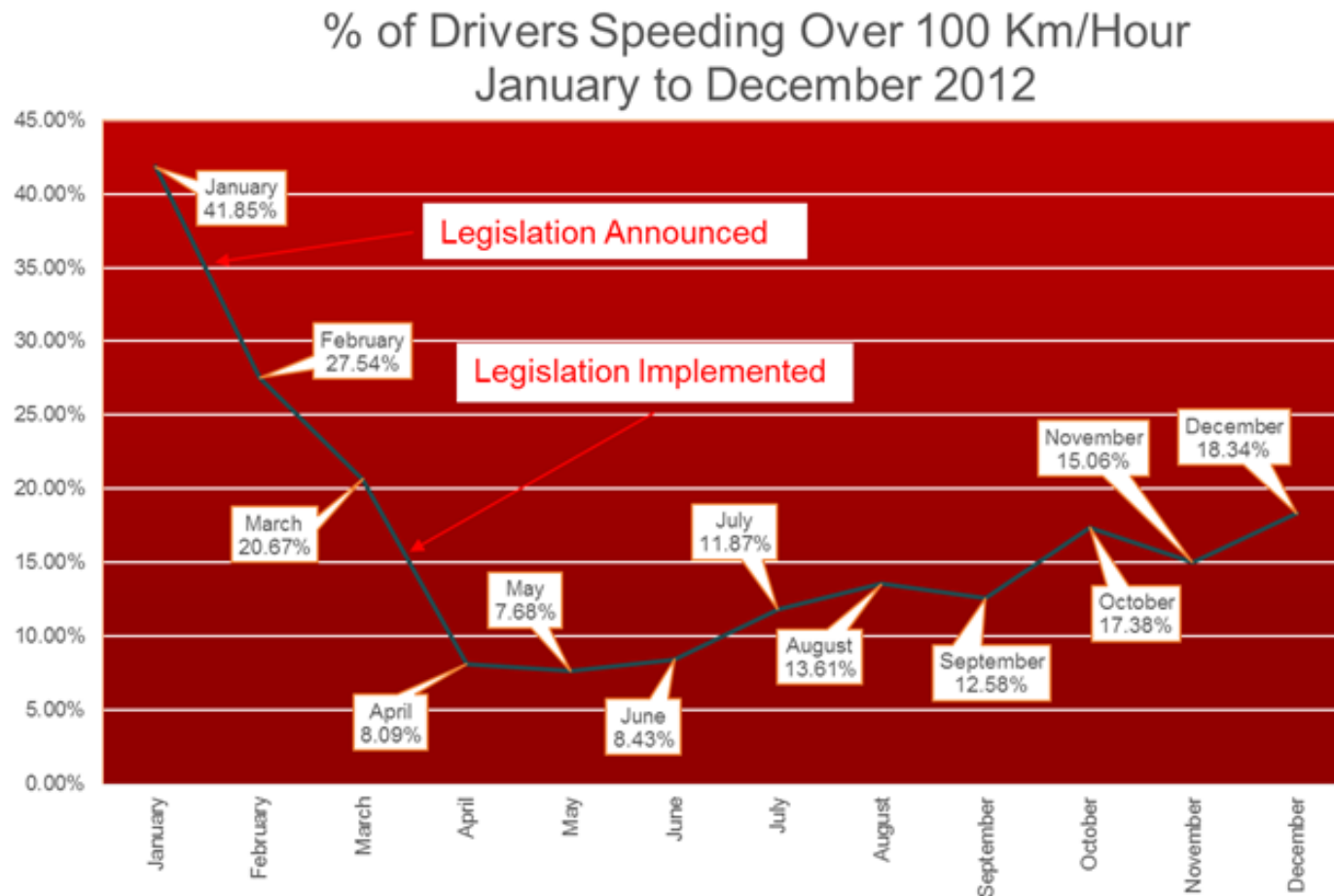
Source of 2011: [http://apps.dlt.go.th/statistics\\_web/statistics.html](http://apps.dlt.go.th/statistics_web/statistics.html) on 18 July 2012

Source of 2012: Publishing News on April – June 2012

- DailyNews
- Kom Chad Luek News
- Thai Rath News
- Khaosod News



# Evidence SmartRFID™ Changes Driving Habits



## Next Steps for EVR Implementation

---

- Military Government understands the strong security benefit of SmartRFID™
- Government is fast tracking installation of RFID in the Southern Provinces of Thailand in 2015
- Tagging will include approximately 2m vehicles in the 5 Southern Provinces and all those entering including from Malaysia
- Being openly discussed to tag every one of the 34m vehicles in the Thailand to:
  - Ø Insure collection of road taxes and insurance
  - Ø Eliminate criminal activities such as the sale of drugs
  - Ø Guard against terrorist activities

# Electronic Vehicle Registration (EVR) and Automated Vehicle Identification (AVI)

## SMARTRFID™ – “Patented” Break On Removal (BOR) Technology

The SmartRFID™  
tamper-evident RFID  
tags **guarantee:**

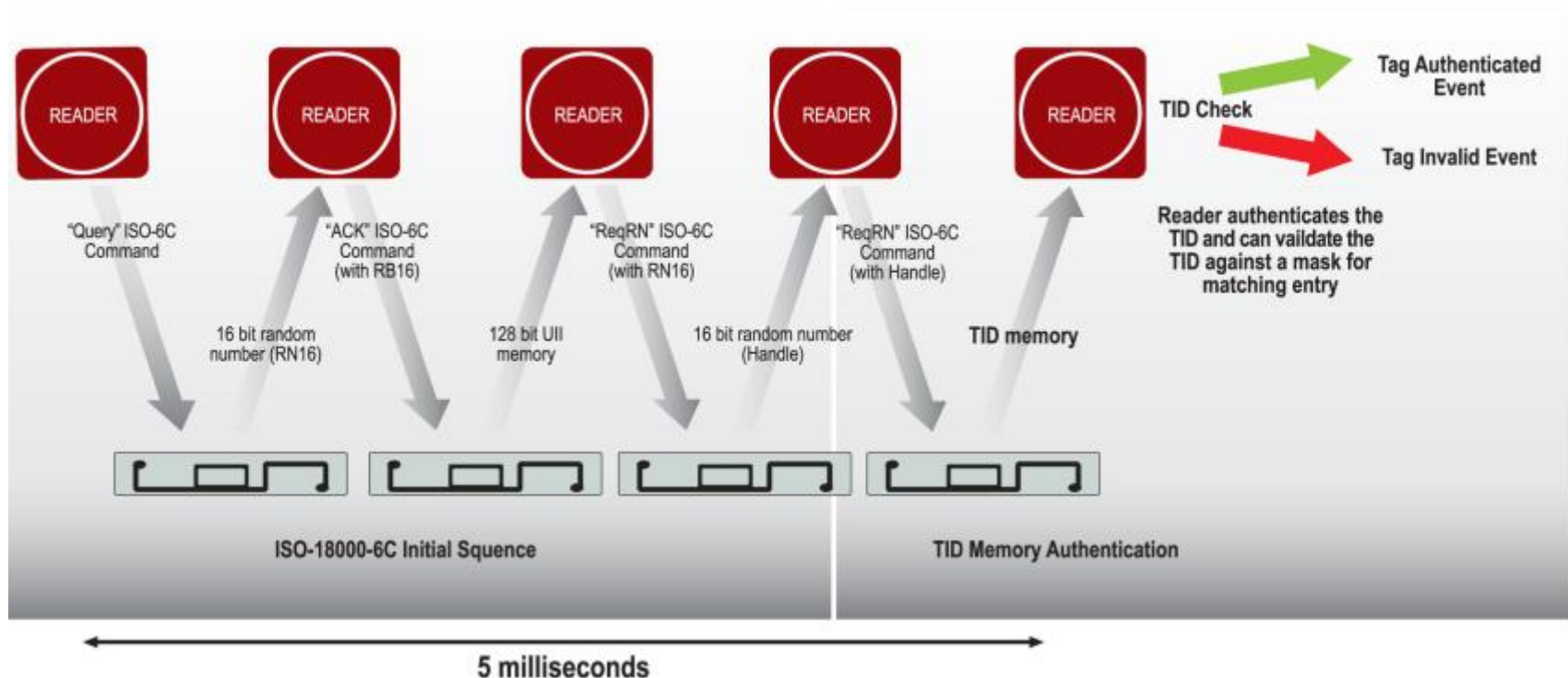
- A **One-to-one relationship** between vehicle and tag; and
- **Security** of information



# SMARTRFID™ – Fast, Reliable & Smart

## Ultra-High Speed Write/Read Response

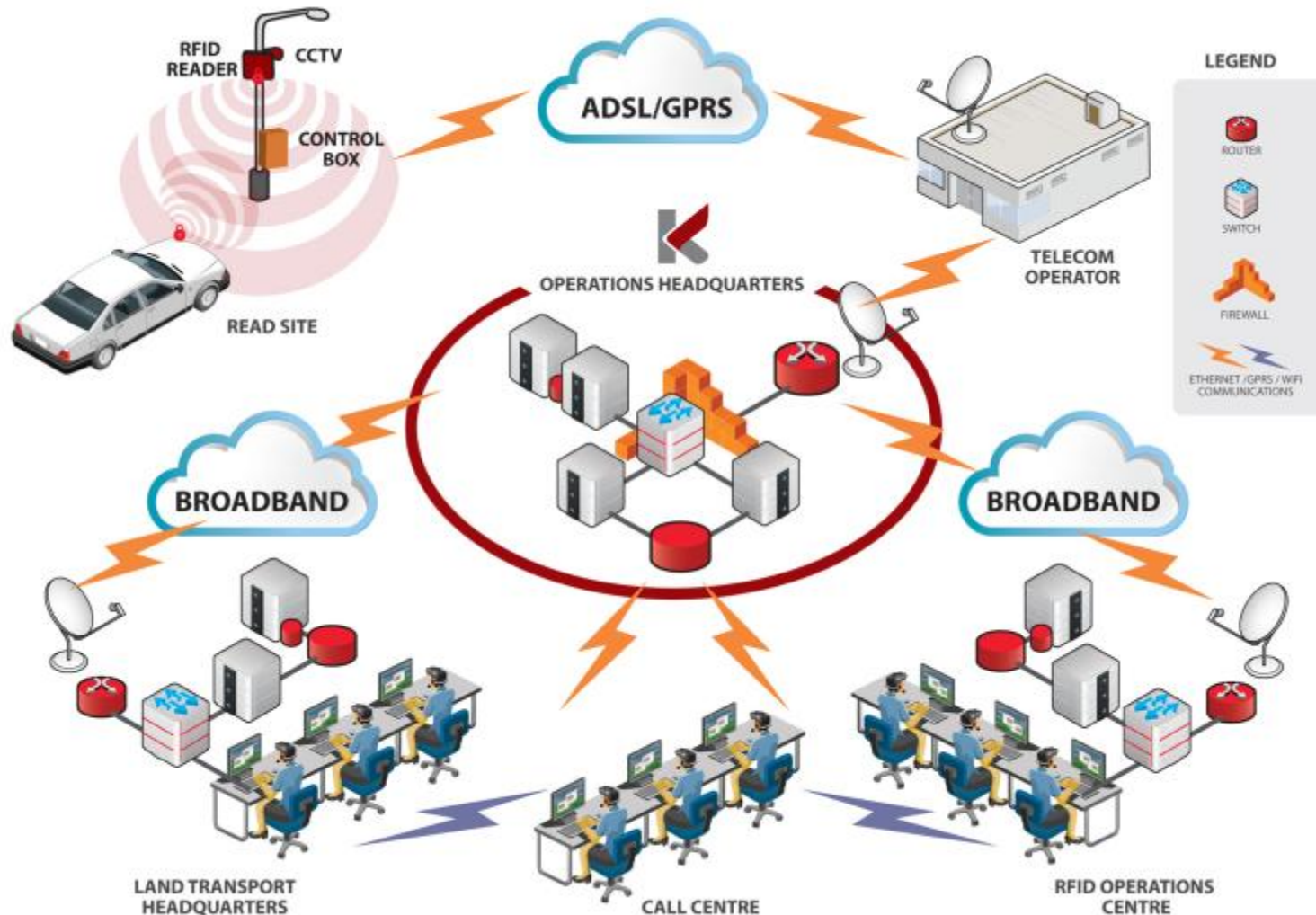
- Ability to read and write multiple tags at speeds in excess of 170 km/hour



# EVR and AVI Now Operational in Thailand

# SMARTRFID™ - System Overview

## Operating In Thailand





# Server System & RFID Control Room



Computer Server at Kollakorn



Computer server at DLT



RFID Control Room at DLT



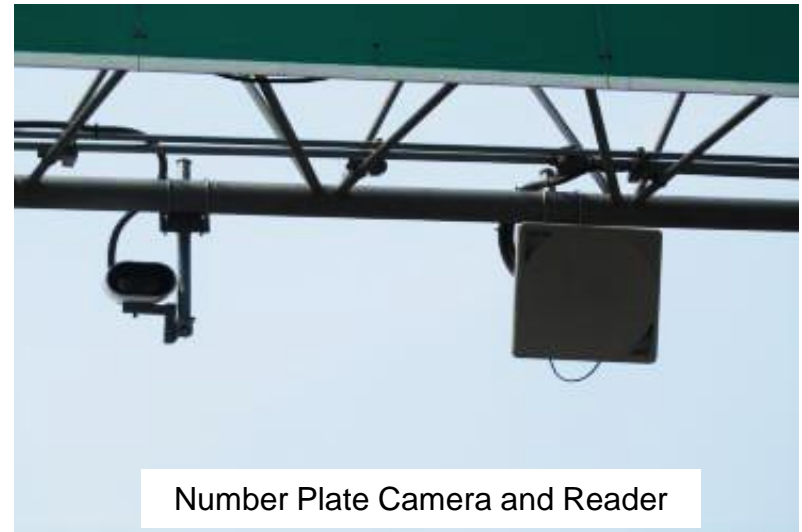
## 450 Reader & Camera Sites in Thailand



Freeway site in Bangkok

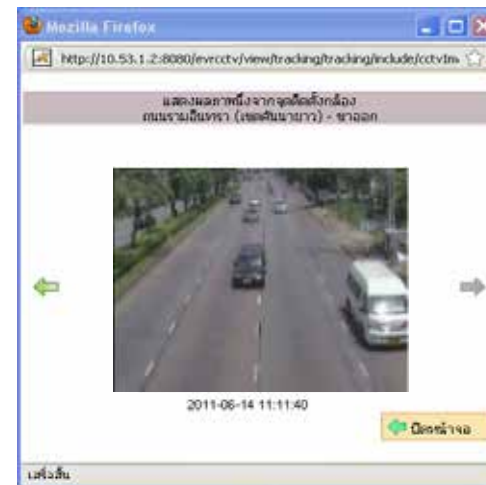


Control Box at Site Location



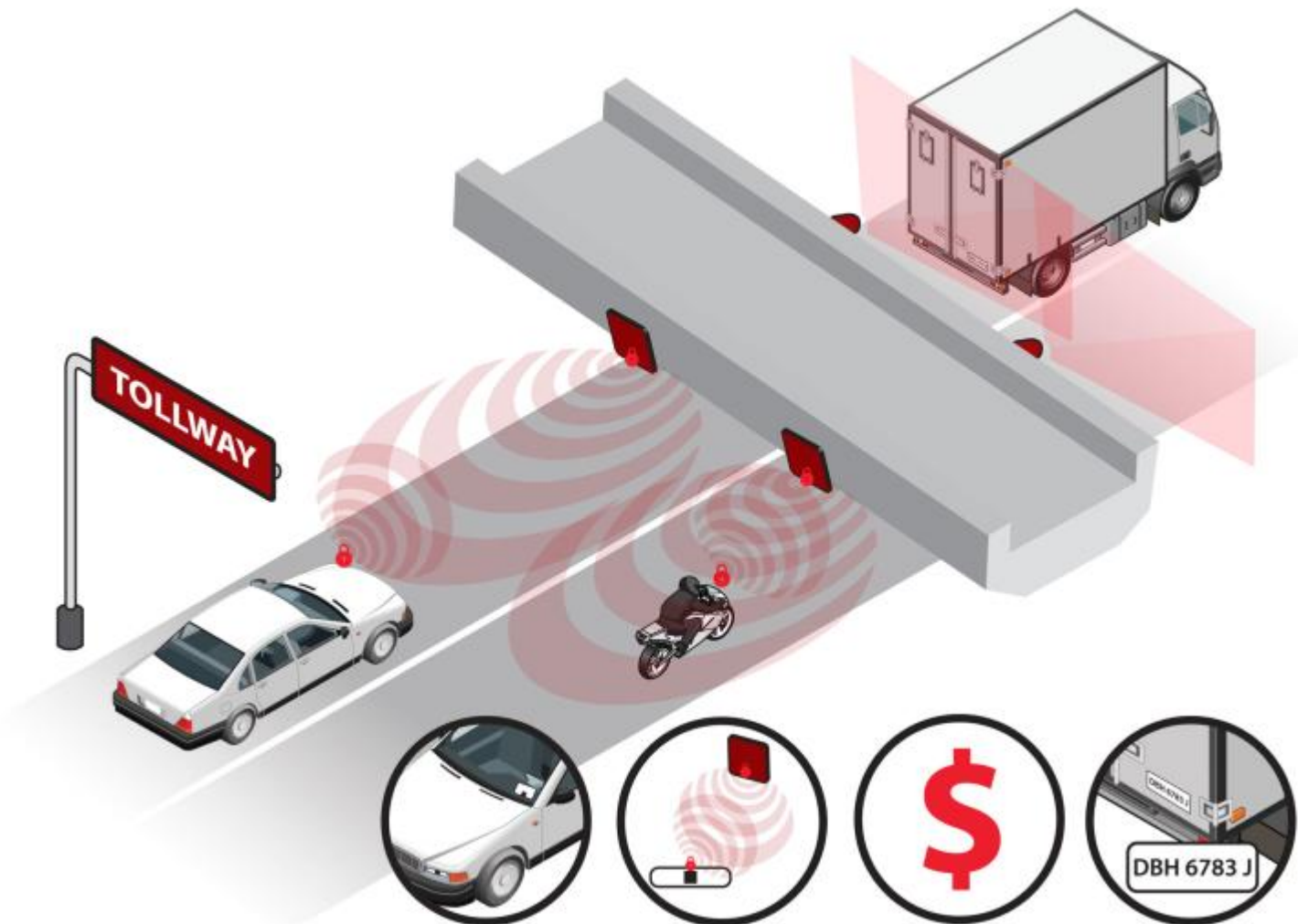
Number Plate Camera and Reader

# SMARTRFID™ Traffic Monitoring

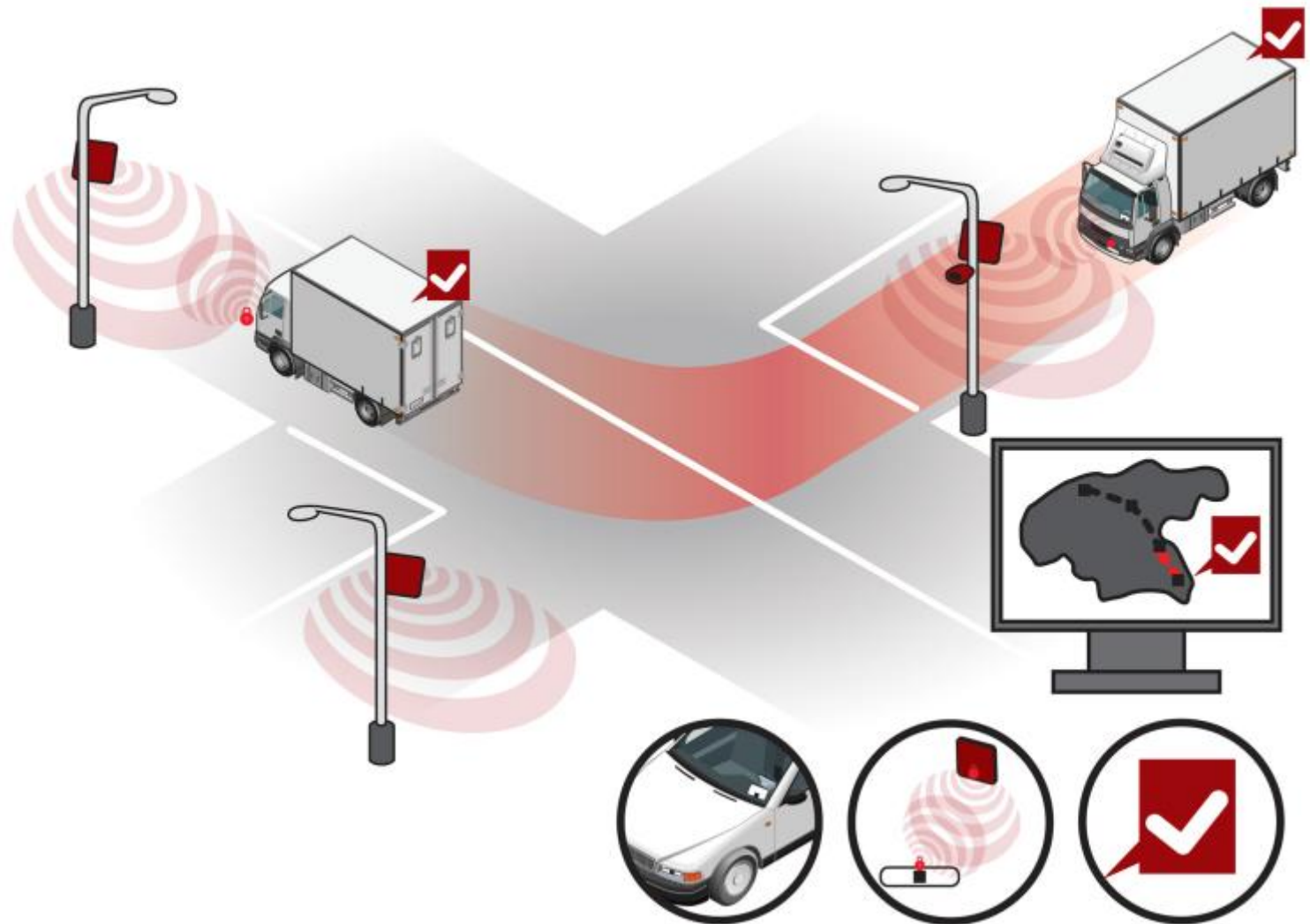


# EVR & AVI Applications Available Using the SMARTRFID™ Platform

# Free Flow & Peak Hour Tolling – Eliminates Barrier Gates

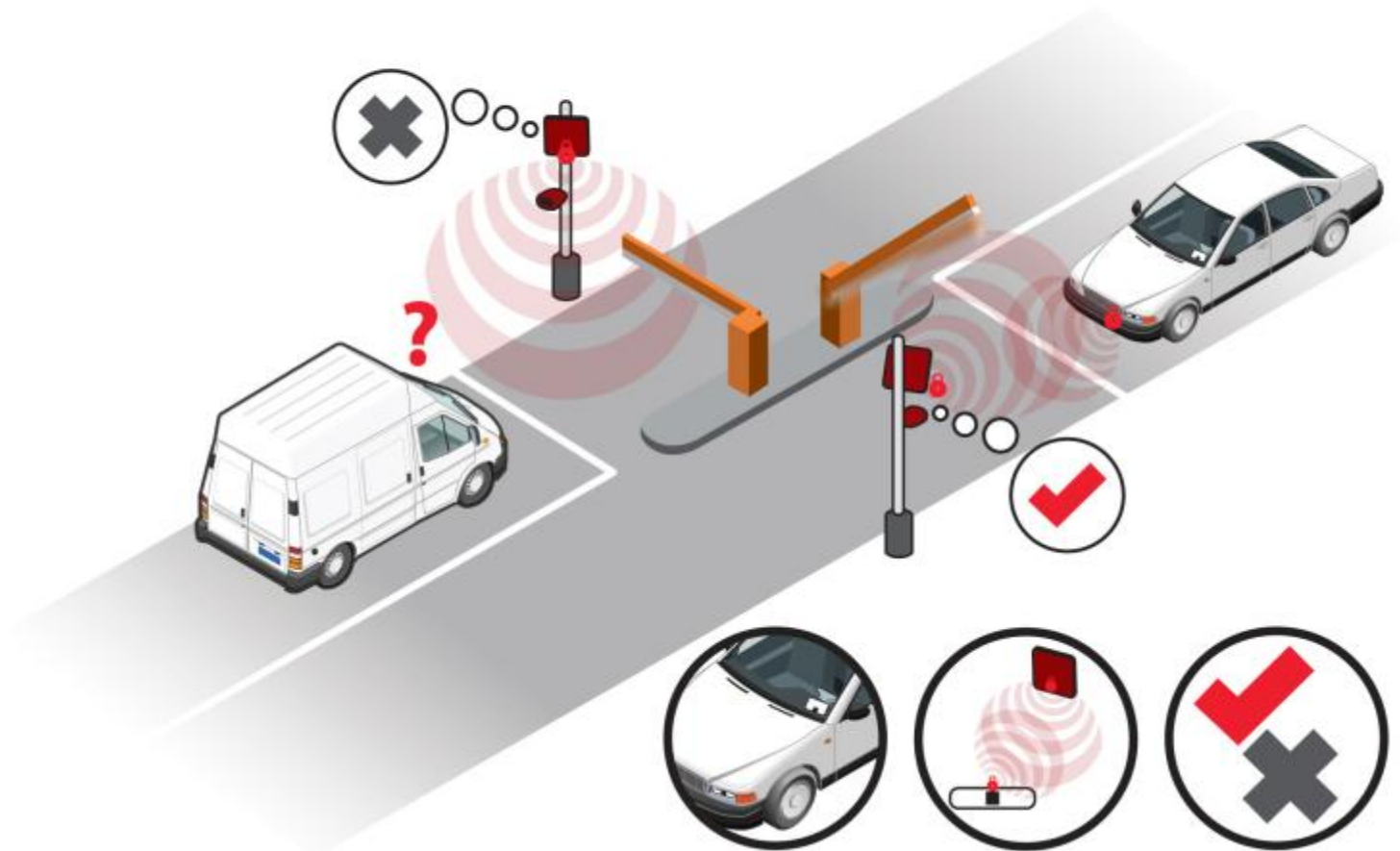


# Vehicle Routing & Tracking

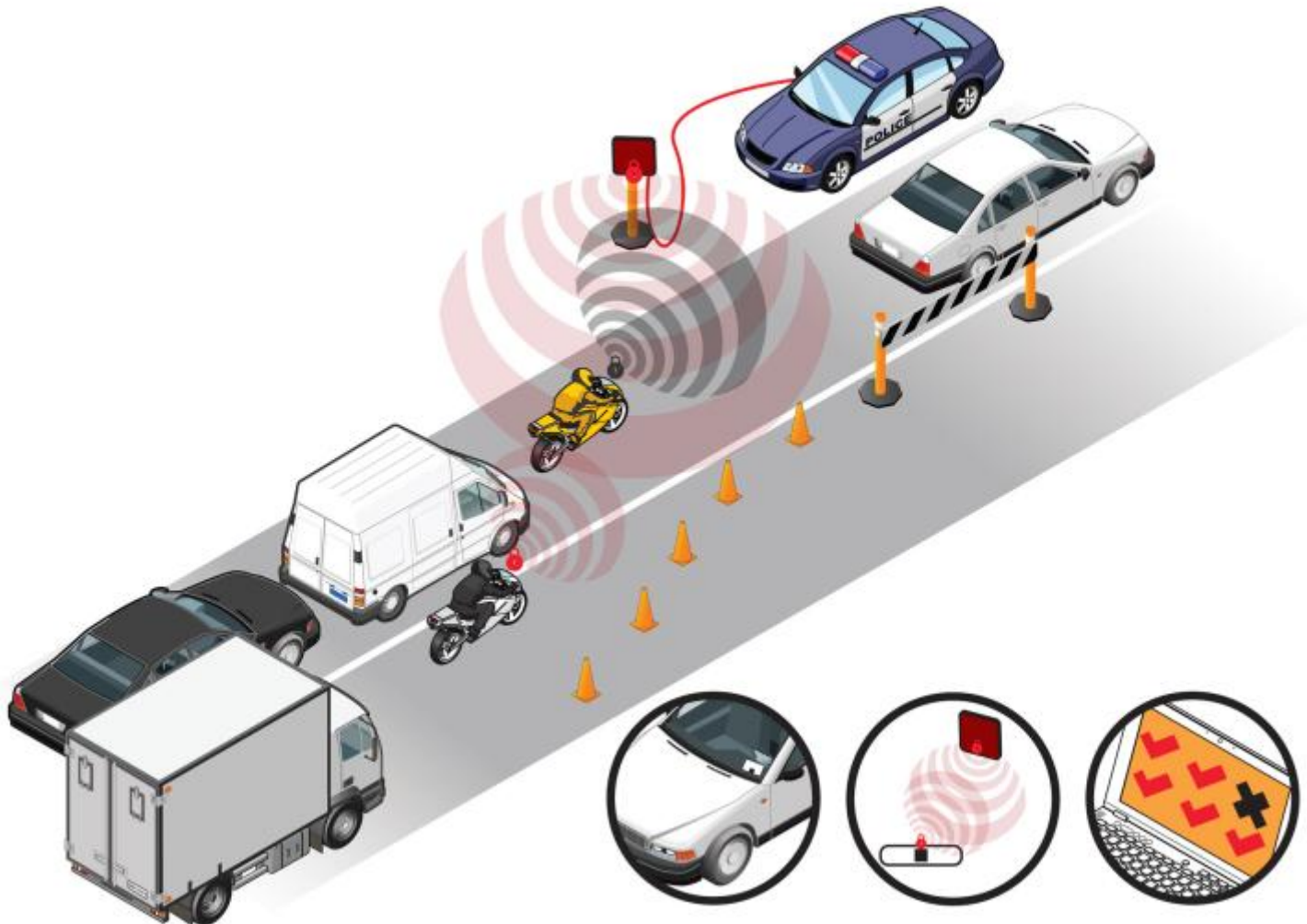




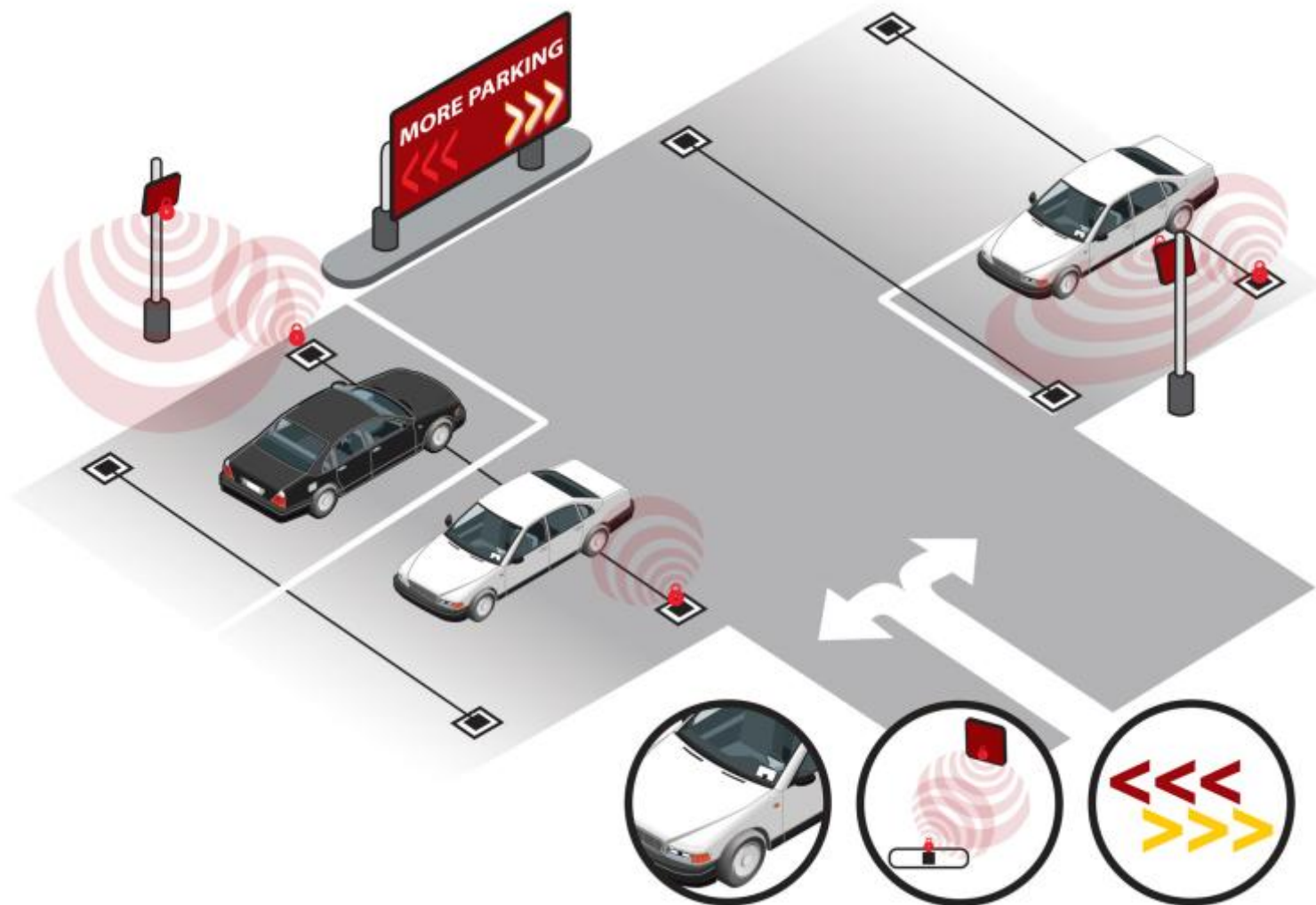
# Access Control & Border Control



# Security & Mobile Police Check Points

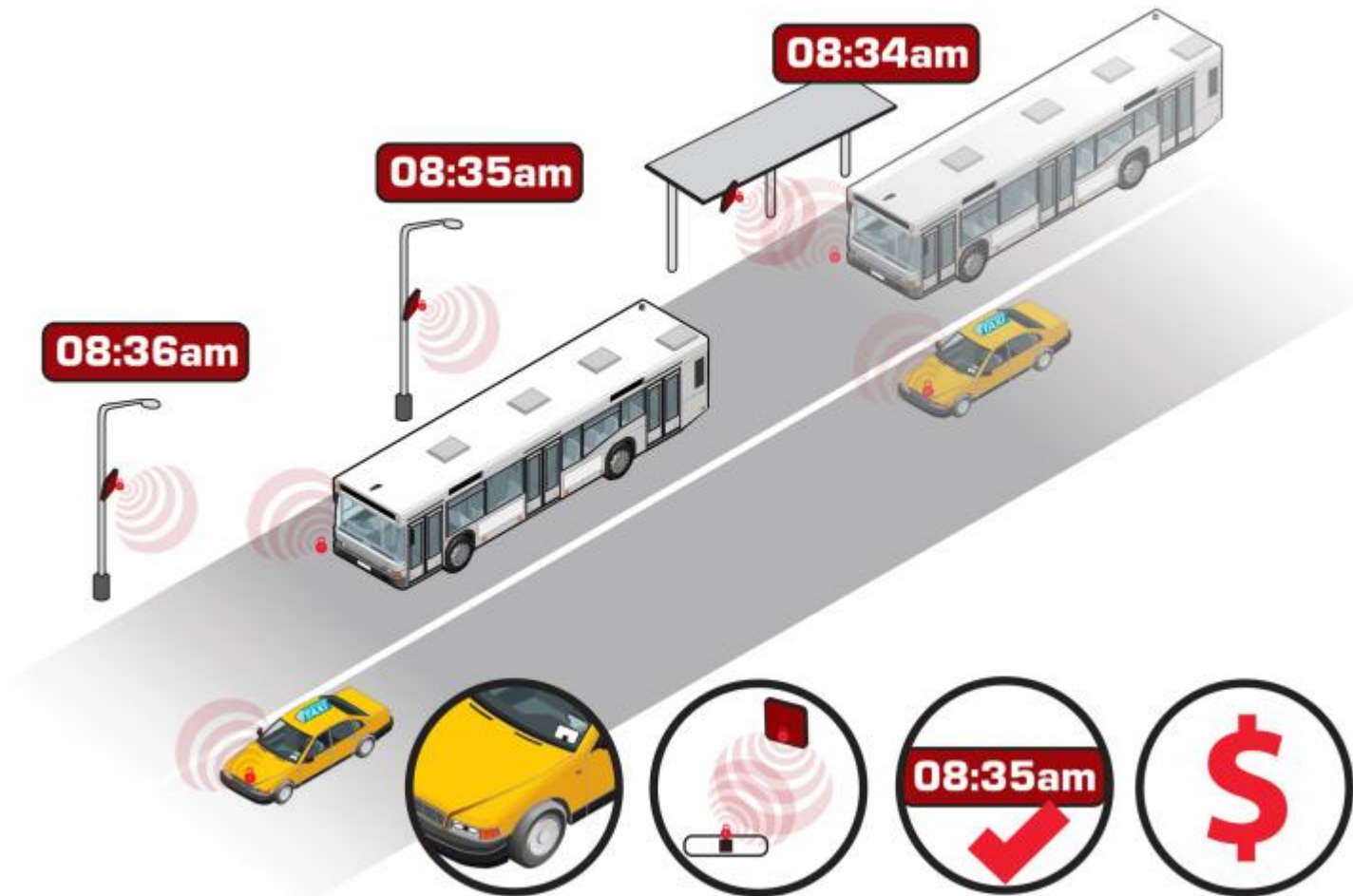


# Parking Applications





# Bus Journey Time Management System



# Speed Monitoring Application



# Other RFID Markets

## Channels to Market

---

- 2 channel resellers for sales of tags - 3M Corporation & StarRFID both have worldwide royalty agreements
- 3M Corporation & StarRFID are selling significant numbers of RFID tags equipped with the Patented BOR technology
- Volume sales are on the increase as the requirement for secure RFID tags for vehicle applications expands across the world
- Kollakorn Thailand, together with SomapaIT actively pursue projects that have as a central feature SmartRFID™ tags with BOR technology

# Malaysia

---

- Kollakorn Thailand is working on 2 projects with our local integrator as our partner
- These projects will require significant numbers of vehicles to be tagged with a passive SmartRFID™ tag using our patented BOR technology
- Projects are in final approval stages and have been presented to the Government using a specially developed presentation system built by Kollakorn Thailand
- We have submitted a quote for 100 readers and 12 million tags

# Taiwan, Dominican Republic & Israel

---

- Taiwan
  - Ø 3M Corporation secured contract with Far Eastern Electronic Toll Co to supply SmartRFID™ tags with BOR technology to for use on tollways
  - Ø 3M Corporation delivered 6m SmartRFID™ tags
  - Ø Project continues in maintenance mode
- Dominican Republic
  - Ø 1.2m RFID tags with BOR technology for tagging motor cycles
  - Ø Order won against competitors by defending our BOR technology patent rights
- Israel
  - Ø Supplied 3,000 tags for phase 1 of a pilot project with biggest bus company
  - Ø Subsidiaries throughout Israel and Europe
  - Ø Install our tags for tracking buses and cars in their car washes
  - Ø Supplied in March a further 3,000 tags for phase 2 of pilot

## Potential of Our Passive RFID Business

---

- RFID driven by one application - retail apparel tags
- Next is RFID tags deployed for asset tracking and transport applications
- Future profits will be made out of designing, implementing & leasing RFID applications
- Design & implementation of RFID Systems is a strength of Kollakorn because of its relationship with SomapaIT and Kollakorn Thailand

# Kollakorn is focused on the ASEAN Nations

- Brunei, Cambodia, Indonesia, Lao, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam
- Thailand borders most of the ASEAN nations:
  - Ø Vehicular traffic (including from China), passes through Thailand
  - Ø Thailand will make it compulsory for alien vehicles entering to be tagged at border crossings
  - Ø Thailand SmartRFID™ vehicular tags could become the standard for the countries that border Thailand





# ASEAN Nations - Solid Vehicle Base that is Expanding

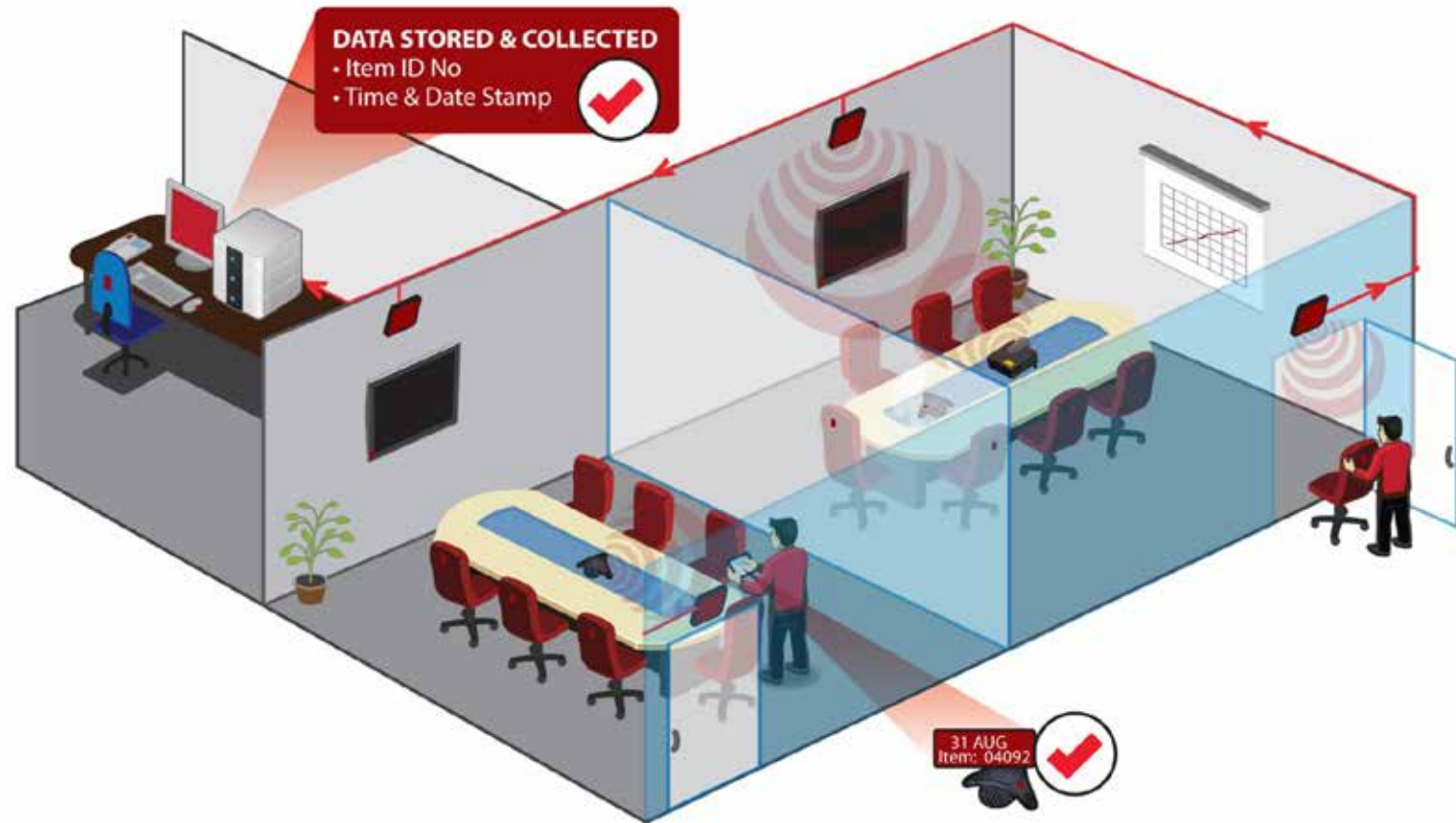
No.	Country	2010	2011	2012	2013	2014
1	Thailand	28,484,829	30,194,937	32,476,977	33,520,175	34,681,811
2	Myanmar	2,240,983	2,354,275	3,614,256	4,874,237	4,908,018
3	Vietnam	36,274,000	38,594,824	40,115,000	42,881,000	45,647,000
4	Cambodia	1,652,534	2,190,000	2,378,600	2,571,500	2,780,000
5	Laos	1,008,788	1,741,585	2,366,000	2,990,415	3,614,830
6	Singapore	945,829	956,704	1,943,210	1,948,340	1,944,074
7	Indonesia	68,839,641	85,601,351	94,373,000	103,144,649	111,916,298
8	Philippines	6,634,855	7,138,942	7,463,393	7,690,038	7,916,683
9	Malaysia	13,100,000	14,300,000	15,100,000	16,400,000	17,500,000
10	Brunei	114,000	148,000	160,000	216,000	272,000
	<b>Total ASEAN</b>	<b>159,295,459</b>	<b>183,220,618</b>	<b>199,990,436</b>	<b>216,236,354</b>	<b>231,180,714</b>
	<b>% Growth</b>		<b>13.06%</b>	<b>8.39%</b>	<b>7.51%</b>	<b>6.46%</b>

# Asset Management Solutions – Another Business Application for RFID

# Asset Management – Open Plan Office



# Asset Management – Conference Rooms

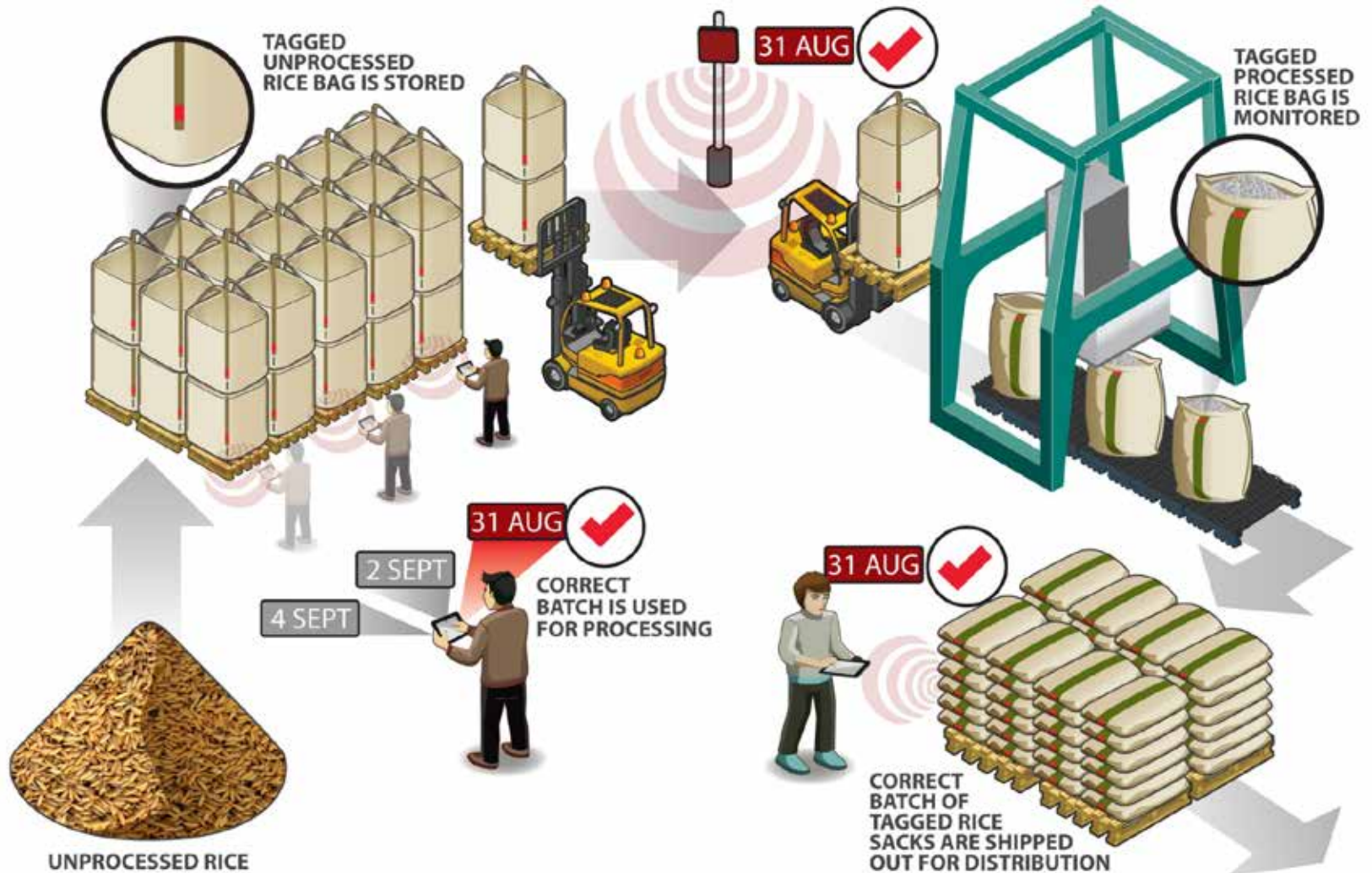


# Asset Management – Retail





# Inventory Management - Warehousing



**For More Information:**

**[www.Kollakorn.com](http://www.Kollakorn.com)**

**Richard Sealy +66820602117**