Sécurité urbaine de Mexico Vidéosurveillance
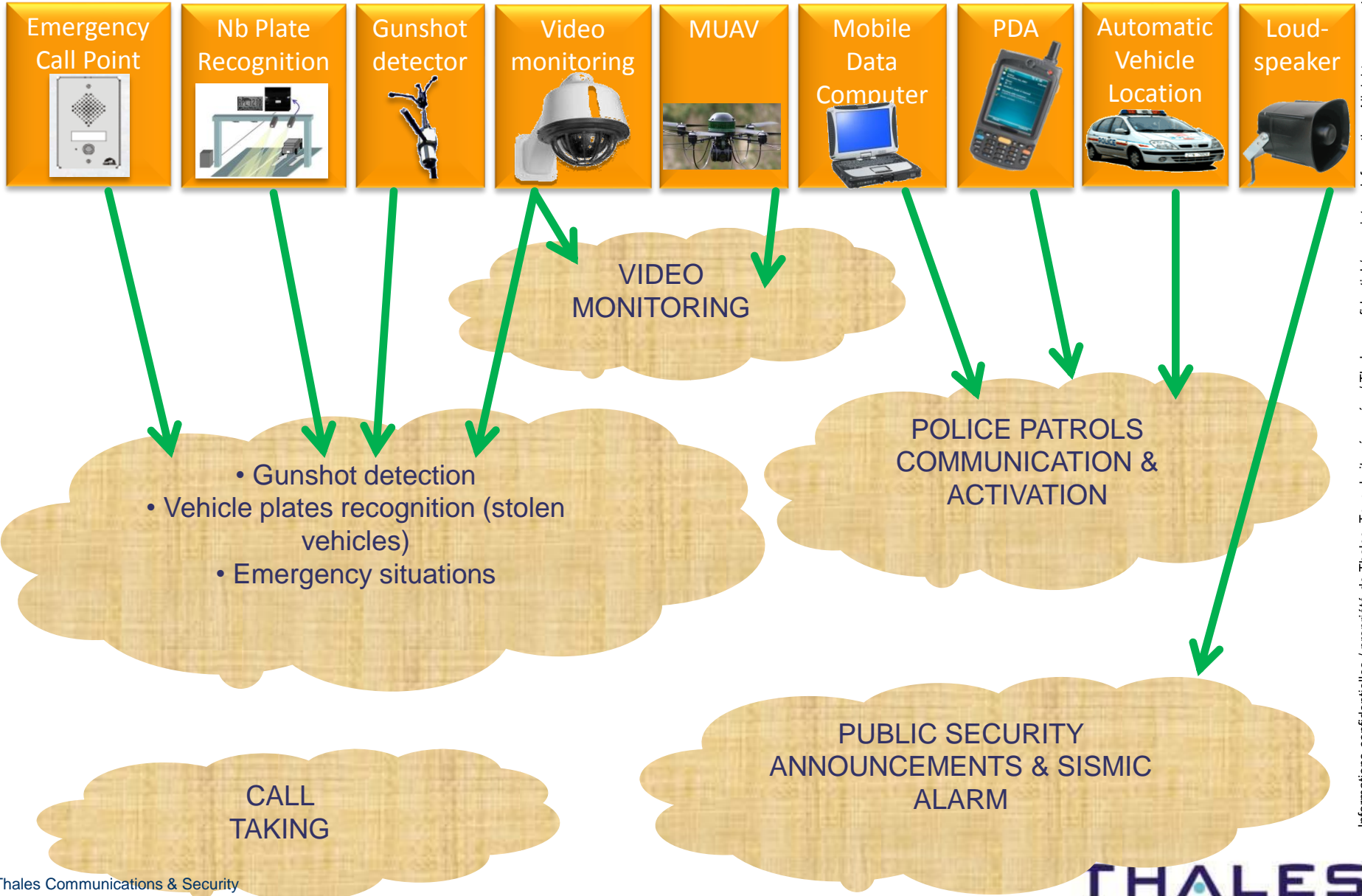
Eric Moncet – 22-01-2013

THALES

Main missions addressed by the system

- **Video surveillance (8080 cameras)**

- **Call taking (public, mobiles) (60 000 calls a day)**

- **Incident management, Events and Emergency actions analysis**

- **Police vehicles tracking & emergency dispatch management**

- **Interoperability with external systems (Stolen vehicles databases, researched people, etc.)**

- **Communications with Citizens (Public Alarms, Quality of Service feedback)**

- **agencies coordination (Police, Civil protection, Fire brigades, Mexico city transport, etc.)**
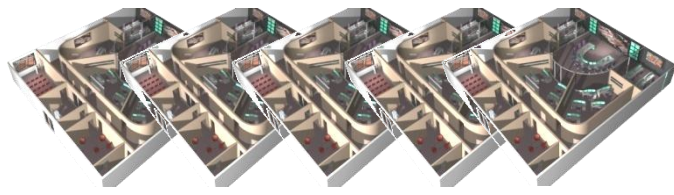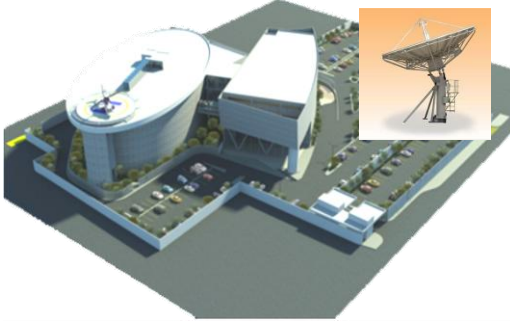
In Mexico City for the SSP (Public Security Office)

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The solution: functionalities

| Emergency Call Point | Nb Plate Recognition | Gunshot detector | Video monitoring | MUAV | Mobile Data Computer | PDA | Automatic Vehicle Location | Loud-speaker |

VIDEO MONITORING

- Gunshot detection
- Vehicle plates recognition (stolen vehicles)
- Emergency situations

POLICE PATROLS COMMUNICATION & ACTIVATION

CALL TAKING

PUBLIC SECURITY ANNOUNCEMENTS & SISMIC ALARM

THALES

The solution: "Mexico Ciudad Segura" network architecture

(C4I)

(C2) (x5)

(C2M) (x2)

Servic e adio

Secured City Network

Video monitoring	Nb Plate Recognition	Gunshot detector	Emergency Call Point	Automatic Vehicle Location	Mobile Data Computer	PDA	MUAV	Loud-speaker
x8081	x350	x36	x5600	x25000	x79	x128	x4	x5600

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← **C2M: deployed wherever in the DF**

Working positions for 3000 specialized agents

C2: Norte
Gustavo A. Madero

C2: Poniente
Álvaro Obregón

C2: Centro
Centro Histórico

C2: Sur
Benito Juárez

C4: Venustiano Carranza

C2: Oriente
Iztapalapa

Thales Communications & Security

THALES

camera

Speakers

Router
Amplifier
….

Emergency
Button
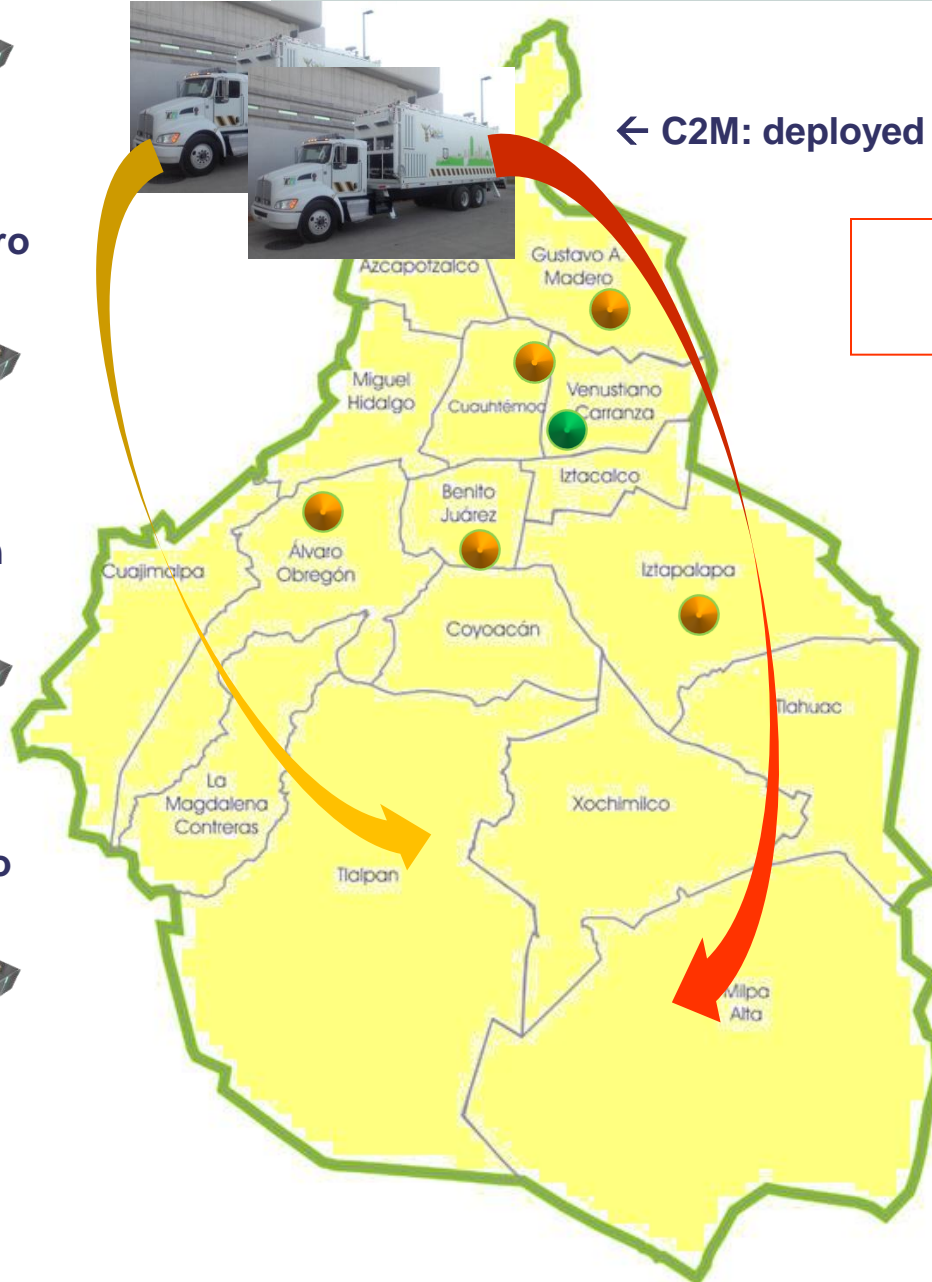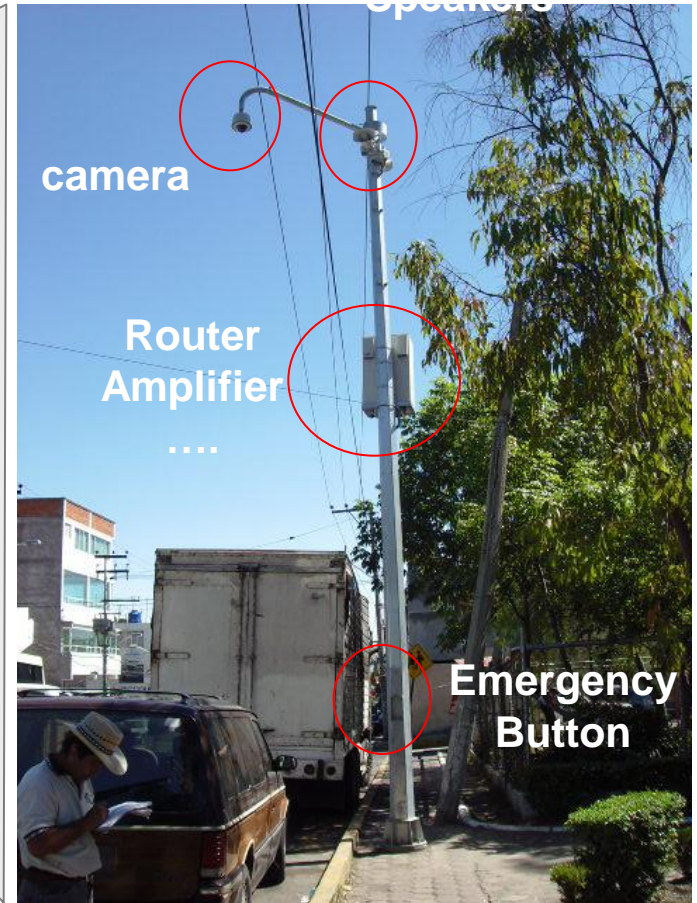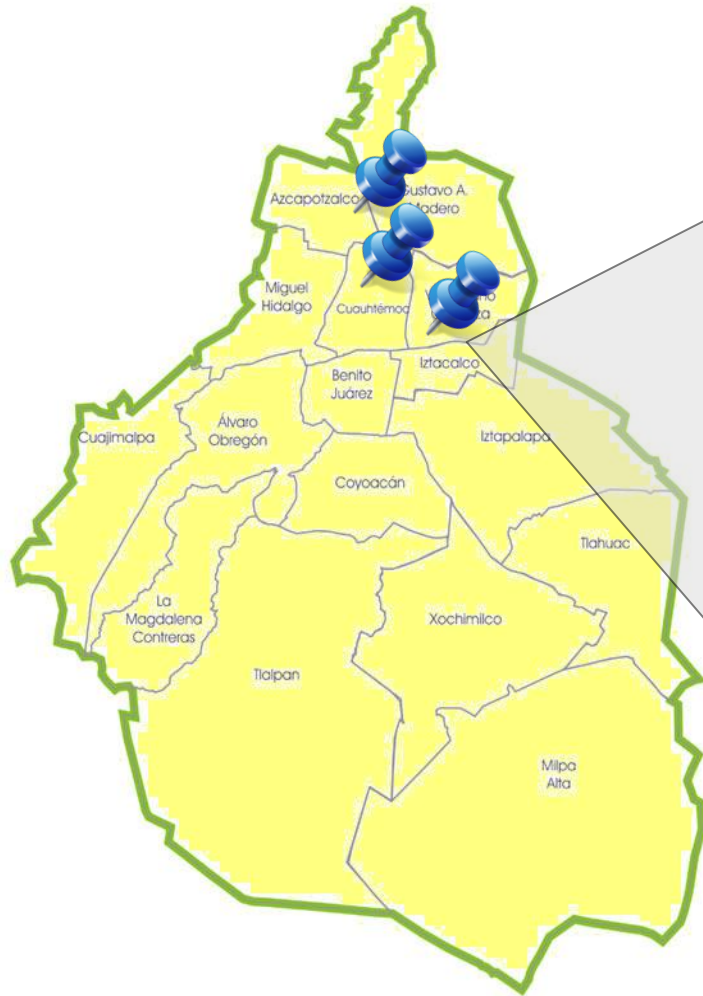
Early 2009: No active cameras. 3 isolated cameras installed in Mexico City streets

History – Video masts roll-out (2/2)

= 100 cameras

Current map at beginning of 2012

La Magdalena Contreras

Tlalpan

Milpa Alta

● Cámaras urbanas
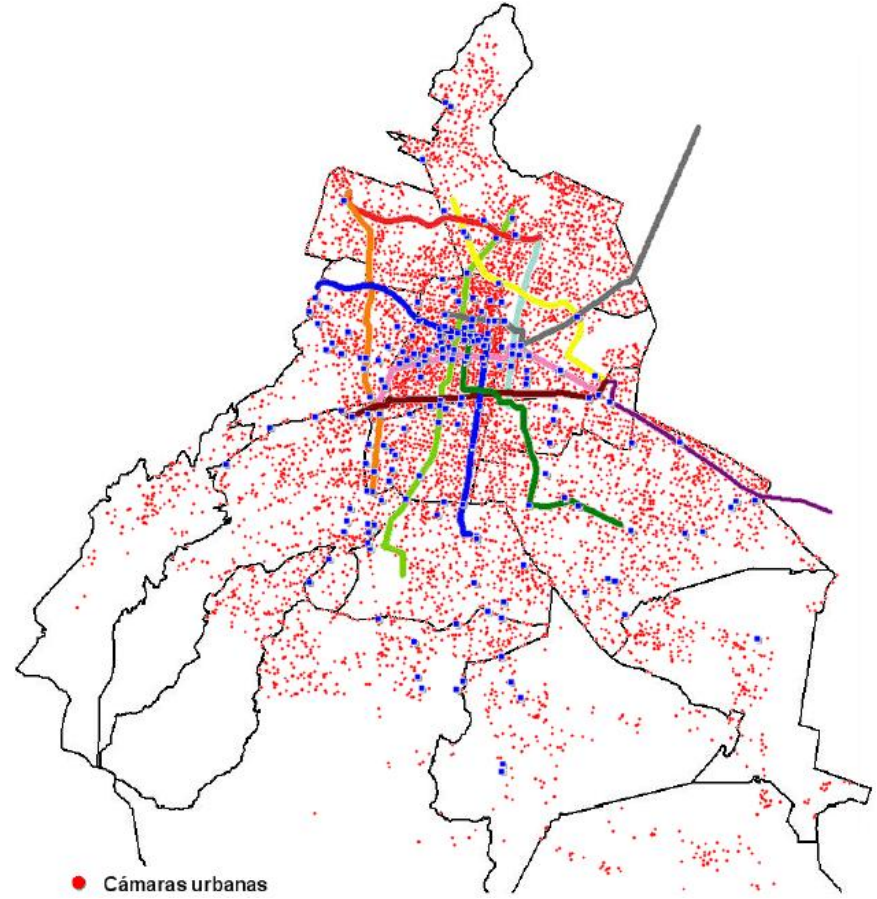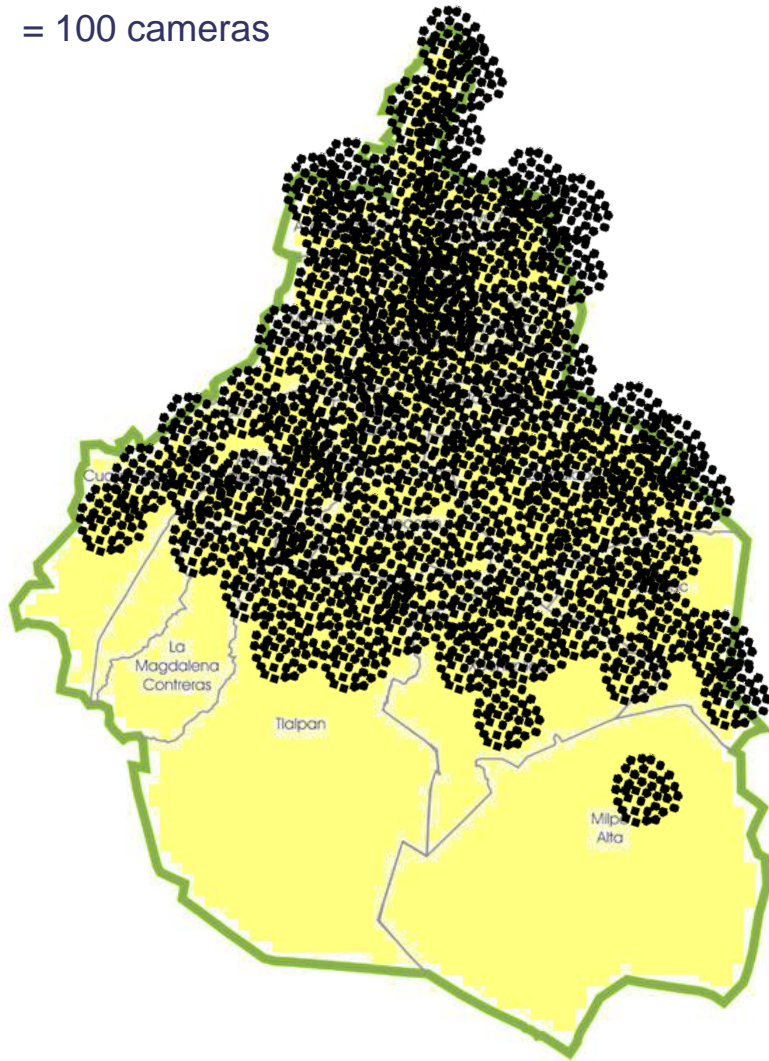
March

October

2 0 0 9	2 0 1 0	2 0 1 1

Total = 8,088 cameras

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"Mexico Ciudad Segura" in volumes

- **50 000 m2 of equipped buildings (C4: 34 000 m2)**

- **8,081 operational cameras installed in the city**
  - 5,600 panic buttons (intercom)
  - 5,600 loudspeakers

- **More than 3,000 IT equipments deployed including:**
  - 448 servers
  - 15 video walls,
  - 1,234 TByte storage,
  - 462 dispatching, call takers and video monitoring positions with 310 telecom touch screen devices
  - 20 NOC and SOC Monitoring Stations
  - 86 LAN switches and 41 Security Devices (Firewalls and IPS)
  - 2 Tetra base station in the C2M integrated within the existing Tetra network
  - 24 telecom integration matrices (ICCS) + 20 voice recorders
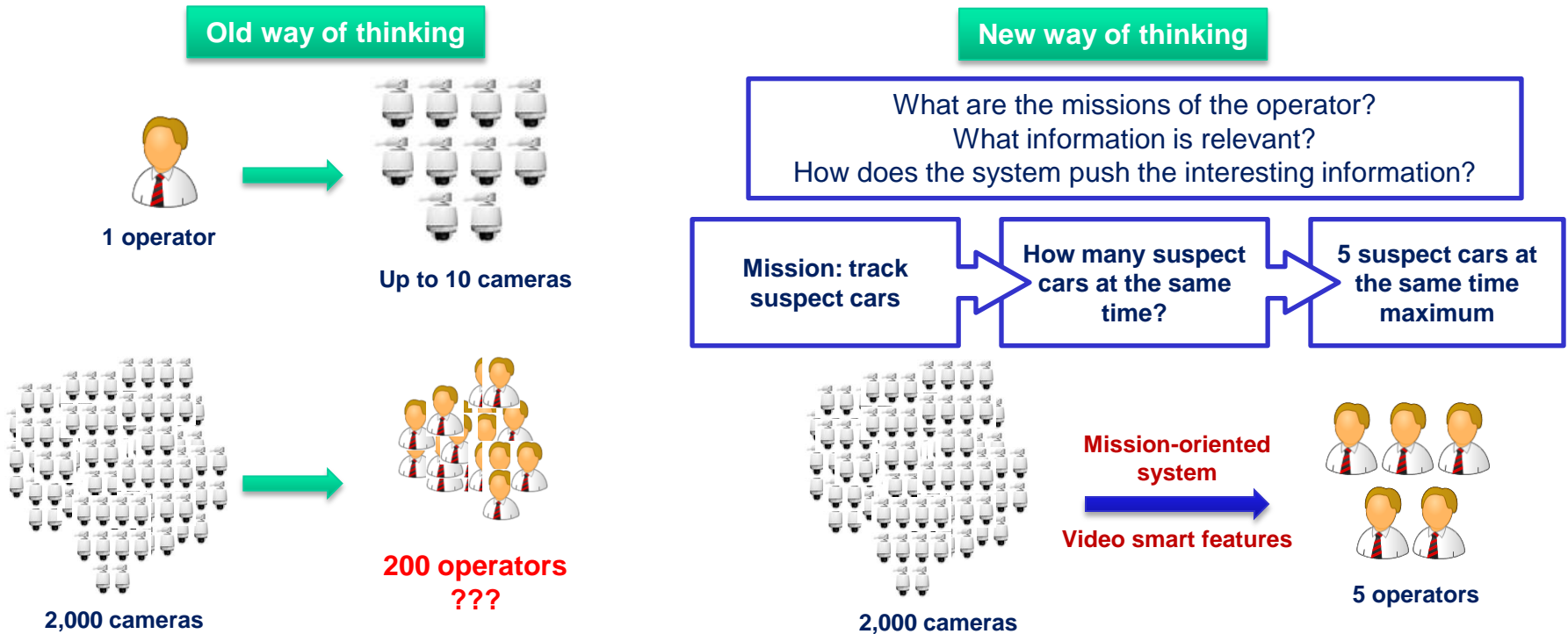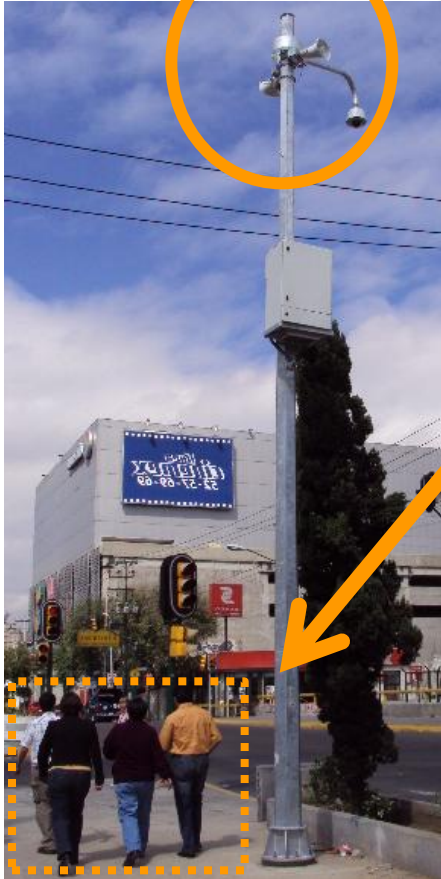
- **1,543 trained dispatchers : 200,000 training hours**

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More and more connected equipments in the city

◆ **Existing and future: cameras, pollution sensors, seismic sensors, people locations…**

◆ **How to cope with all this information?**

Old way of thinking

1 operator

Up to 10 cameras

2,000 cameras

200 operators ???

New way of thinking

What are the missions of the operator?
What information is relevant?
How does the system push the interesting information?

Mission: track suspect cars

How many suspect cars at the same time?

5 suspect cars at the same time maximum

2,000 cameras

Mission-oriented system

Video smart features

5 operators

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Scenario #1 – Suspicious activity & Citizen behavior

1 A group of people is having a suspicious activity (pick-pocketing, car theft).
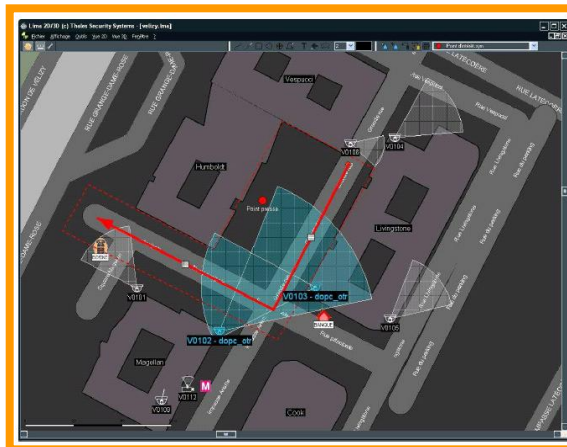
2 A citizen presses the local Emergency Call Button to alert the Command Center.

3 The operator locates the call on a GIS, reviews past videos, and tracks the group of people using cameras.

4 The operator uses the loudspeaker mounted on the mast to command the people to stop their activities.

5 Based on real-time tracking of Police cars, the closest patrol receives an alarm and is sent to intercept the group.
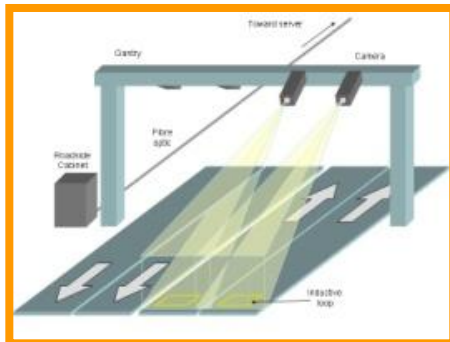
Urban incidents can be easily reported by citizens and managed using smart integrated urban mast.

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Scenario example #2 – Most wanted cars interception

1 Most wanted cars are targeted by the Police forces.

2 Mounted on key locations, ANPR camera reads a suspicious car's number plate.

3 From a government database, an operator in the Command Center identifies the plate number as a wanted car.

4 The Police officers are authorized to stop the vehicle. The operation is controlled and recorded by the Command Center.

The system can perform automatic and real-time number plate identification.

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1 A major incident (like a terrorist attack or a kidnapping) requires the cooperation and coordination of multiple security and safety resources.

2 From the Crisis Room, it is decided to deploy a local command post.

3 The operator dispatches a Mobile Command Unit (MCU) with an unmanned aerial vehicle (UAV).

4 The MCU commands and controls all the security and safety forces and resources closed to the critical area keeping real time communications and video streams with the Crisis Room.

Mobile Command Unit can be deployed to improve local operations management.

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- **30 Nov. 2010**
  - **5 C2 and 5300 cameras in operation**
- **End March 2011**
  - **Reduction of criminality in Mexico thanks to the system (-7.5% of car theft, -9.2 % of major criminal events)**
- **End June 2011**
  - **Time of police intervention in incidents reduced from 12 to 5 min.**
- **30 Sept. 2011**
  - **C4 starts operating with 8000 cameras**
- **25 Oct. 2011**
  - **C4 Inauguration**
  - **Reduction of criminality : -12,5% of major criminal events**
- **Sept 2012**
  - **2 C2M delivery, 200 ANPRs, progressive update of SW**
  - **Marcelo Ebrard (project sponsor) :presidente de Red Global de Ciudades Seguras en la ONU**

→ **Today Mexico City is considered as the safest city in Mexico, which has a high political impact.**

THALES