



Smart Cities : mythe of realiteit ?

Alexis Malchair
IOT & Digitisation Lead, Cisco Belgium & Luxemburg

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Digitisation Trends Across Major Industries



Smart Manufacturing



Grid Modernization



Shopper Insights



Smart Cities



Connected Transit



Smart Space

IoT Enabling Transformation

TRANSFORM BUSINESS PROCESSES

Higher productivity by predictive maintenance and better asset utilization

ENABLE NEW BUSINESS MODELS

Create recurring revenue models with increased customer intimacy

Where is the value

Connect the Unconnected



50 Billion

Smart Connected Devices by 2025

Hyper-connectivity, **IT and OT convergence**

Over 60% of the IOT value will be generated in Enterprise deployments

<1% of data currently used, more can be used for **optimization and prediction**

Interoperability across silo'ed systems required to capture **40% of IOT value**

Why smart cities?



Lighting

Up to **38%**

of overall municipal utility bill



Parking

30%

of traffic congestion is caused by drivers circling to find a space



Environment

\$1.7T

economic impact due to air pollution



Urban Mobility

\$300B

Annual cost of congestion for US drivers.
\$1400 per driver



Safety and Security

\$3.2T

annual cost of crime in the US, including both direct and indirect costs



Waste Management

60%

inefficiency in waste bin collection

City Digitisation Use Cases



Water Management

Infrastructure & Mobility

Public Safety / Emergency

Buildings

Education

Judicial

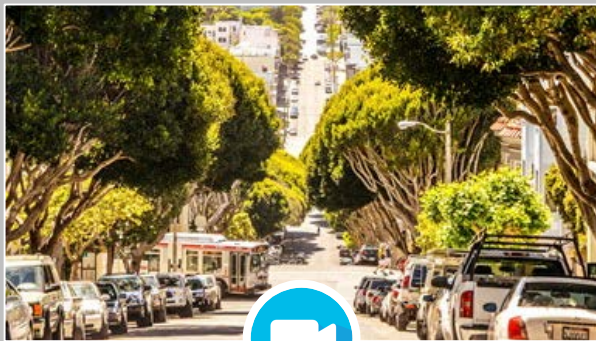
eGovernment

Healthcare

Smart Grid

- Water Distribution
- Water Metering
- Waste Water Management
- Parking Management
- Traffic / Incident Management
- Street light
- Trash pick-up
- Traffic light management
- Snow Removal
- Bridge and viaduct health assessment
- Public and intercity transport
- Video Surveillance
- Environment sensors
- Smart Work Centers
- Fire Hydrant Water pressure
- Smart Bus / public transport
- Smart Bus Stops
- Road pricing
- Kiosks
- Smart Metering
- Physical security
- Asset tracing
- Home monitoring of patients
- Building Energy Management
- Physical Access Management
- Building (systems) management
- Payments
- Open Public Space Management
- Smart court room
- Smart City Hall Services
- Tourist apps & services

Challenges in smart cities



Vertically integrated sensors

No standardization across sensors

Lack of cross-domain data and information sharing

Fragmented application ecosystem

By harnessing the power of data...



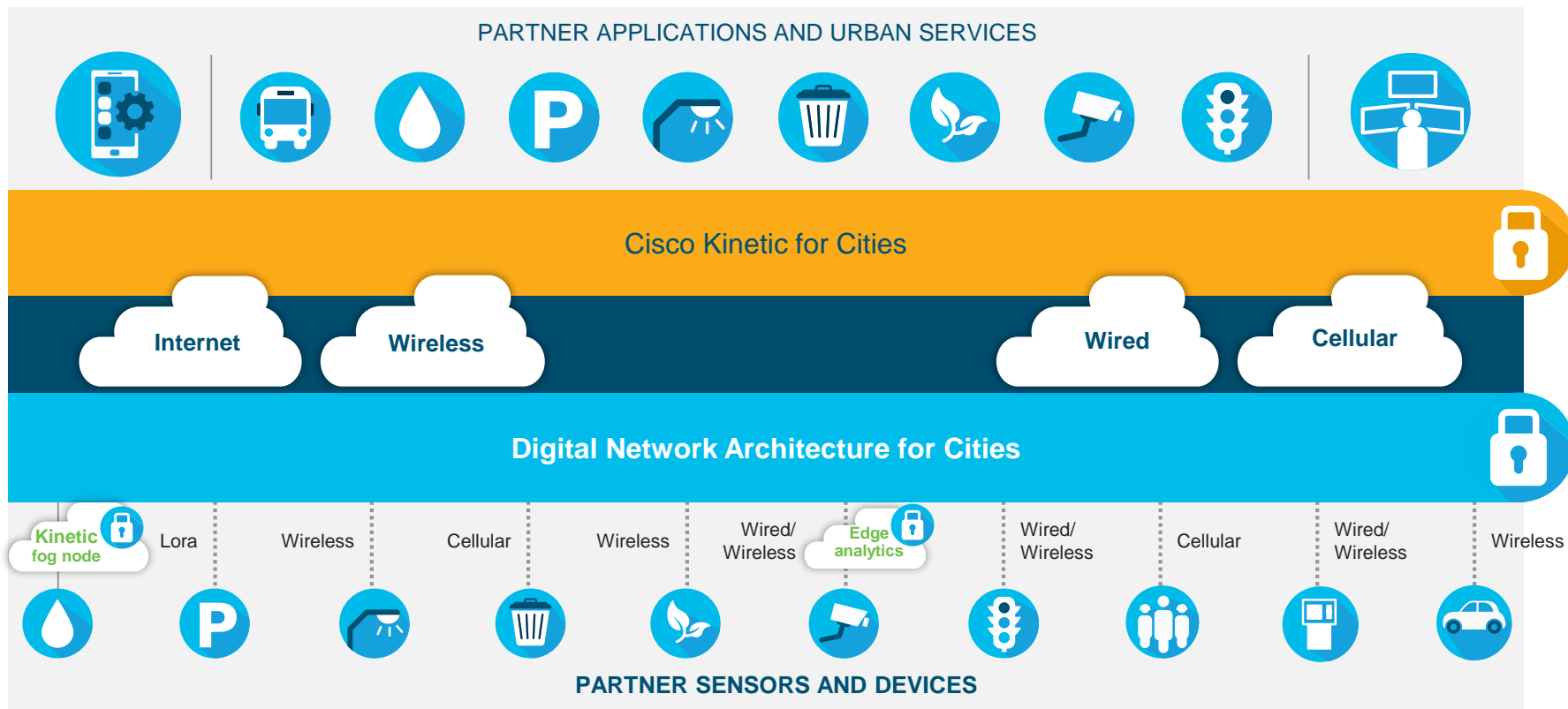
By harnessing the power of data...



Cities can create a...



Cisco solution architecture for smart cities



Cisco Kinetic for Cities partner ecosystem

Cisco DevNet provides access to API's, sandbox and documentation



Parking



Lighting



Urban Mobility
Traffic, Transit,
Crowd



Environment



Safety and
Security



Waste



More...

Certified Urban Services

Certified Applications

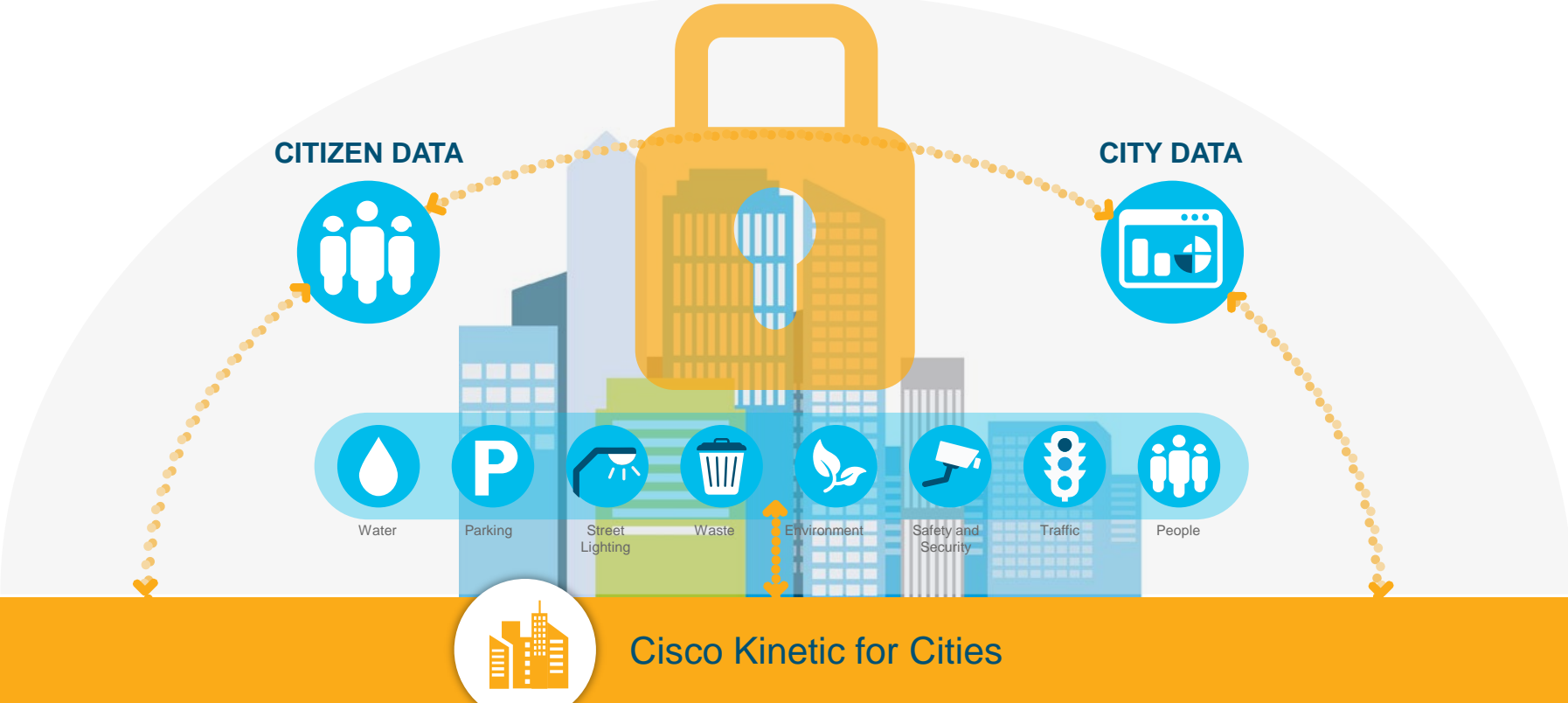
Certified Sensors



Over 70 Partners integrated



Securing your data





Customer deployments

Cisco Kinetic for Cities Market Leadership



**Success around the world...
with more each day!**

**Cisco Kinetic for Cities
Ranks #1
among Smart Cities Suppliers!**



Kansas City, Missouri

Improving production with communications and Insights

Business Objectives

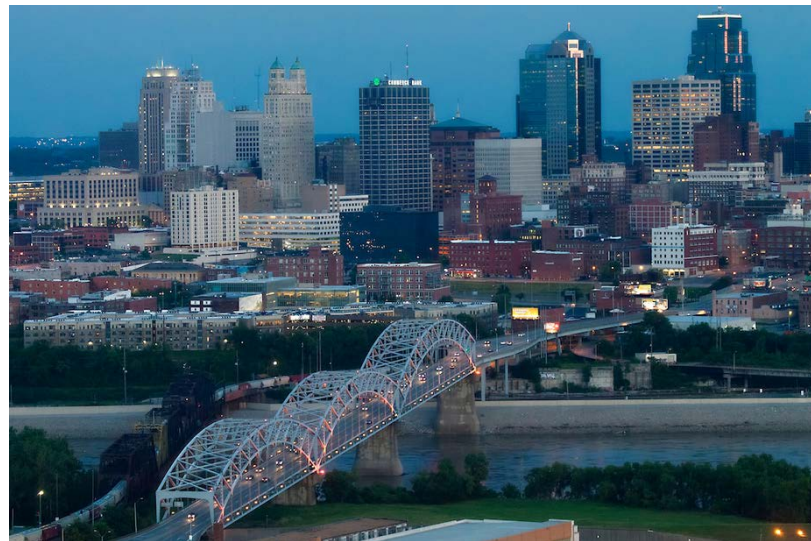
- Deliver a new generation of urban services for city agencies, citizens, and businesses
- Create scalable, repeatable, and self-sustainable framework

Solutions

- **Cisco Digital Network Architecture for Cities, Cisco Kinetic for Cities, Cisco Kinetic for Cities Lighting** with Cisco Kinetic for Cities Nodes, interactive digital kiosks, smart water initiatives
- An open data portal that gathers and shares information across a network of sensors and services.
- Partners: Sprint, Sensity, Mark One, Black and Veatch

Business Outcomes

- Thought leadership position as a smart city - Shortlisted for USDOT's Smart City challenge
- Target energy savings of 50% in lighting



“The Cisco Kinetic for Cities Lighting will improve the livability, connectivity, efficiency and economic vitality of Kansas City in ways we cannot yet even imagine, and for generations to come”

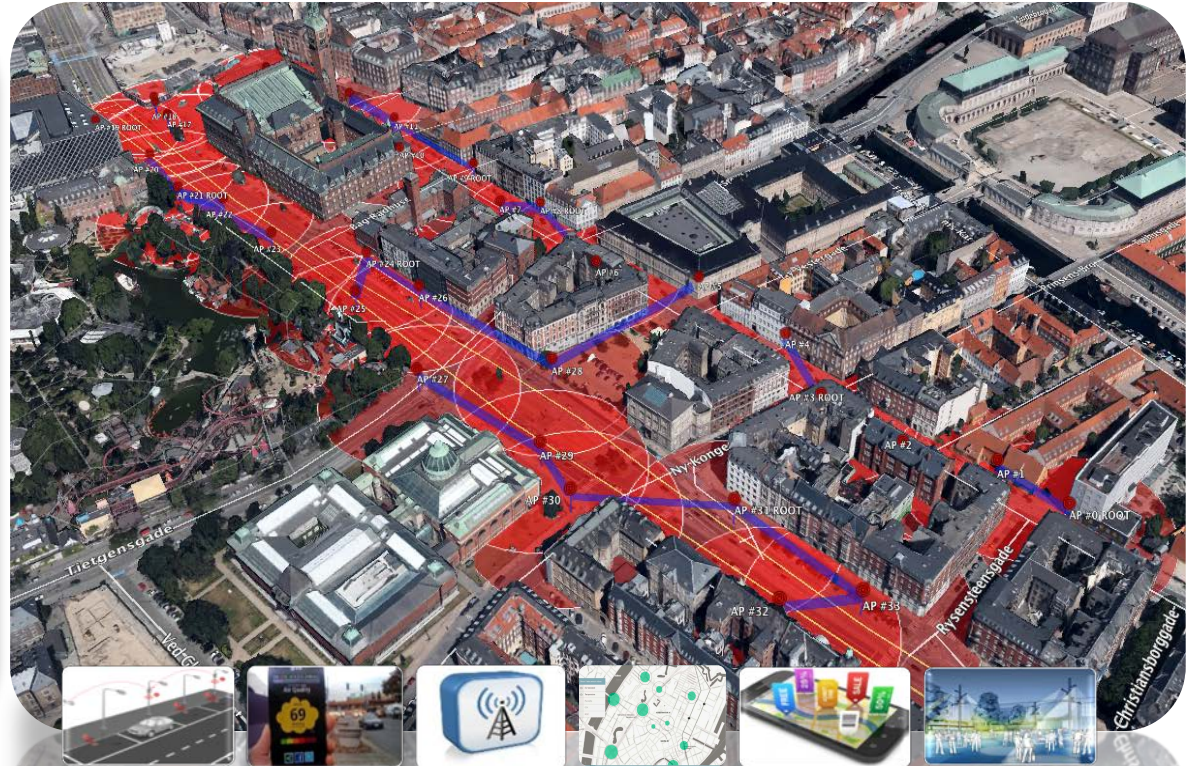
Sly James, Mayor
Kansas City, MO

Streetlab – Downtown Copenhagen

a Public Private Partnership – City, Cisco, TDC, Citelum

COPENHAGEN Inercity IoT Demonstrator Project

- Inercity Zone earmarked for IoT solutions
- City WiFi, Tourism Services, Mobility Monitoring, Parking, Waste, Air Quality Sensing, Water Quality Analytics,
- Live June 2016
- Deployment is part of Smart City lighthouse commitment signed by three capital region mayors and Cisco





And more locally ?

PREVENTION
SUGGEST MEASURES
MAIN FOCUS ON
NEIGHBORHOODS AT
RISK

CITY OF THINGS



PREPARE FOR FLOODING

REDUCES WATER DAMAGE TO BUILDINGS
REDUCES LOAD ON THE FIRE DEPARTMENT
REDUCES LOAD ON EMERGENCY LINE 112



RISK OF FLOODING



REAL-TIME MEASUREMENT
OF WATER LEVELS

APPROPRIATE MEASURES



Smart Light Pole Initiative

Leveraging street infrastructure :

- Intelligent Street Light
- WiFi Hotspot Access
- VideoSurveillance (omnidirectional camera)
- PTZ incident camera





In summary...

Towards a city digitisation strategy

- What vision does the city have?
- Executive sponsorship
- Internal governance
- What are the challenges, comparative advantages, care-about?
- Determining the use-cases
- Digital Asset assessment – what do you already have?
- Partner ecosystem
- Security
- Business models, Delivery Models, Budget
- Execution plan

Opportunity is huge

However

There will be casualties

“Vision without action is a day dream.
Action without vision is a nightmare.”

“Digital Darwinism is unkind to those that wait.”

