Smart City Solutions and Best Practices

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Logicom Solutions

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Logicom Solutions

Logicom Solutions

Our vision:
International ICT provider, offering innovative products & versatile services to clients

Our Strategy:
Build intelligent integrated solutions that address our clients' challenges

Revenue:
€ 32+M
Continuous Growth

Member of LOGICOM Group
€ 800M Rev
700 employees

CISCO GOLD PARTNER
Technology Focus

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What is Smart City

*A **smart city** is an urban development vision to integrate multiple information and communication technology (ICT) and Internet of Things (IoT) solutions in a secure fashion to manage a city's assets – the city's assets include, but are not limited to, local departments' information systems, schools, libraries, transportation systems, hospitals, power plants, water supply networks, waste management, law enforcement, and other community services . . .*

https://en.wikipedia.org/wiki/Smart_city

. . . there is no universally accepted definition of a smart city. It means different things to different people. The conceptualization of Smart City, therefore, varies from city to city and country to country, depending on the level of development, willingness to change and reform, resources and aspirations of the city residents.

Smart Cities Mission - http://smartcities.gov.in

Open data, Environment, People centric, Citizen engagement, Participation

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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

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Challenges in smart cities

- Vertically integrated sensors
- No standardization across sensors
- Lack of cross-domain data and information sharing
- Fragmented application ecosystem

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The Cisco approach

Cisco’s Approach for Smart Cities

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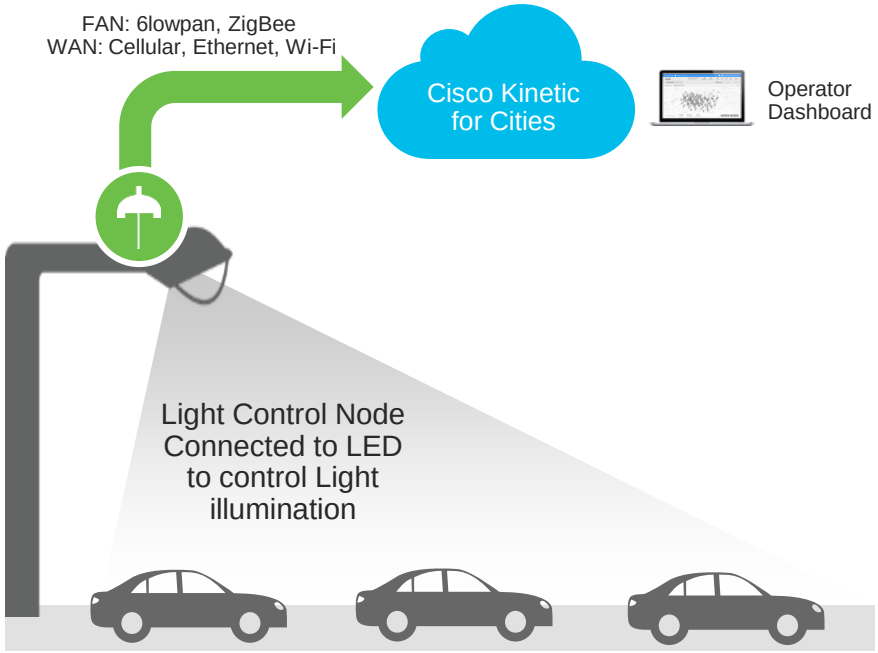
CKC Lighting - Use Cases



Customers

- City Lighting Department
- Urban Service Providers
- LED Manufacturers
- Utility/Power distribution companies

Customer Goals

- Reduce energy consumption (80%)and maintenance
- Improve citizen experience and safety through enhanced illumination
- Leverage existing network investment and infrastructure for future solutions

Use Cases

- Real Time Monitoring & Control
- Scheduling
- Cross-domain policies with environment, traffic, crowd, parking, safety and security

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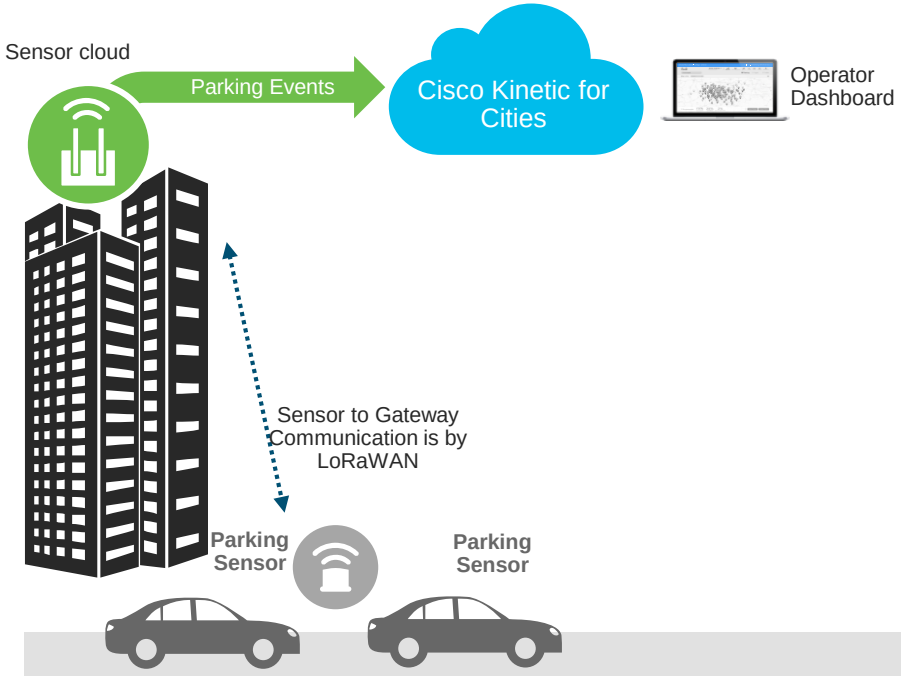
CKC Parking – Use Cases



Customers

- City Parking Dept. / Parking Agencies
- Parking based Urban Operators
- Parking garages/Malls

Customer Goals

- Maximize revenue from parking space and slots
- Generate additional revenue through demand-based parking pricing and more accurate ticketing of parking violations
- Enable citizens find parking more quickly -> reduce traffic congestion -> Environment

Use Cases

- Parking occupancy and availability
- Utilization reports and analytics
- Cross-domain linkage : Traffic, Crowd, Events, Weather

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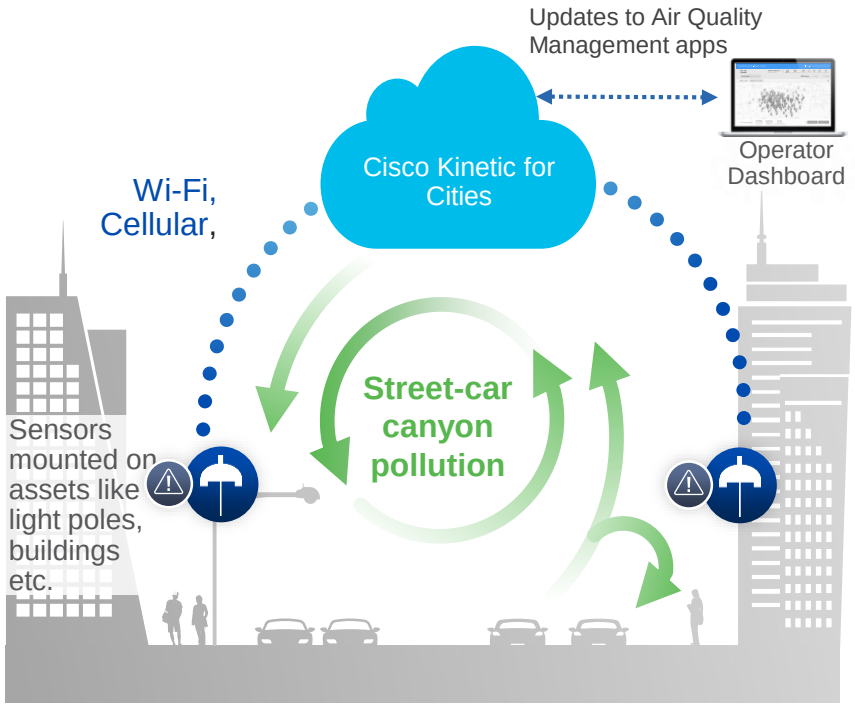
CKC Environment – Use Cases



Customers

- Local Air Quality Agency
- Dept. of Transportation
- Dept. of Sustainability

Customer Goals

- Identify problematic pollution areas that would benefit from air quality sensors
- Deploy sensors in different locations to collect Air Quality Index and create awareness
- Test Urban Planning actions to mitigate poor air quality.

Use Cases

- Sensor based Air Quality
- Software modeling of Air Quality

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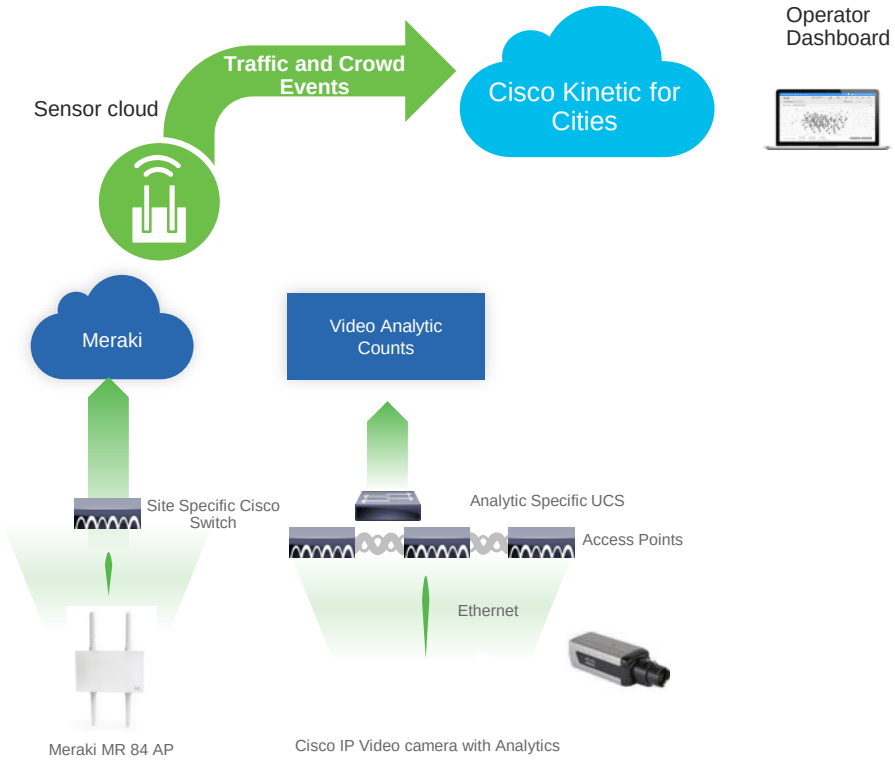
CKC Urban Mobility - Use Cases



Customers

- Department of Transportation
- Chief Innovation Officers
- Departments of Economic Development

Customer Goals

- Holistic view into city traffic and crowd patterns helps in improving planning
- Greatly increases KPI for city planners while driving better ROI and savings

Use Cases

- Location Analytics
- Vehicle count, Classification, Direction
- Traffic violations, LPR
- Crowd counting, Overcrowding
- Cross domain: Environment, Safety & Security, Parking, Lighting

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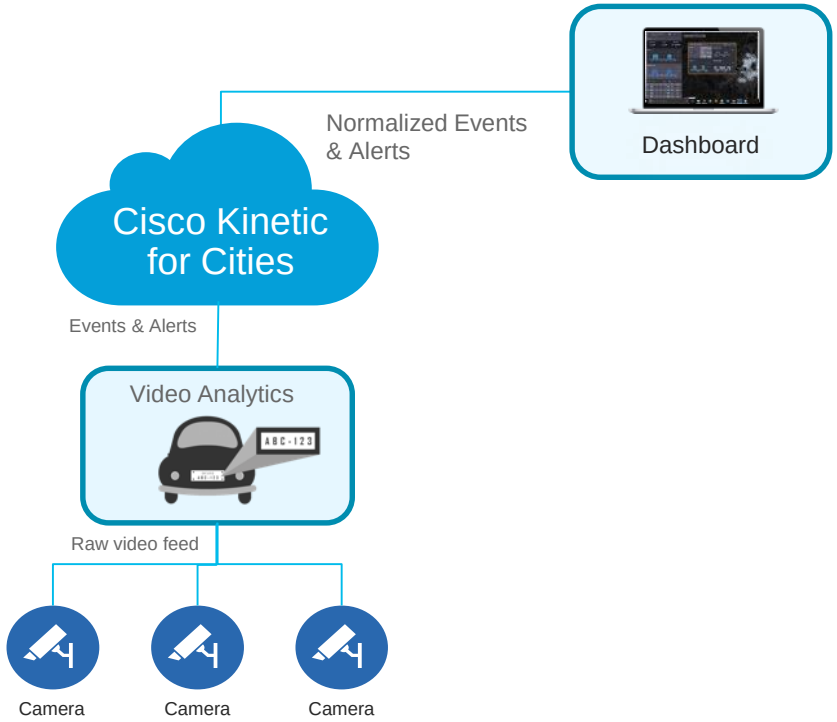
CKC Safety & Security - Use Cases



Customers

- Public Safety related agencies
- Critical Infrastructure (airports, hospitals, utility plants)
- Business (retail, hospitality)

Customer Goals

- Improve public & infrastructure safety, reduce crime
- Gain common view of incidents across agencies
- Encourage collaboration between citizens and agencies

Use cases

- Object & intrusion detection
- Perimeter protection
- Face recognition

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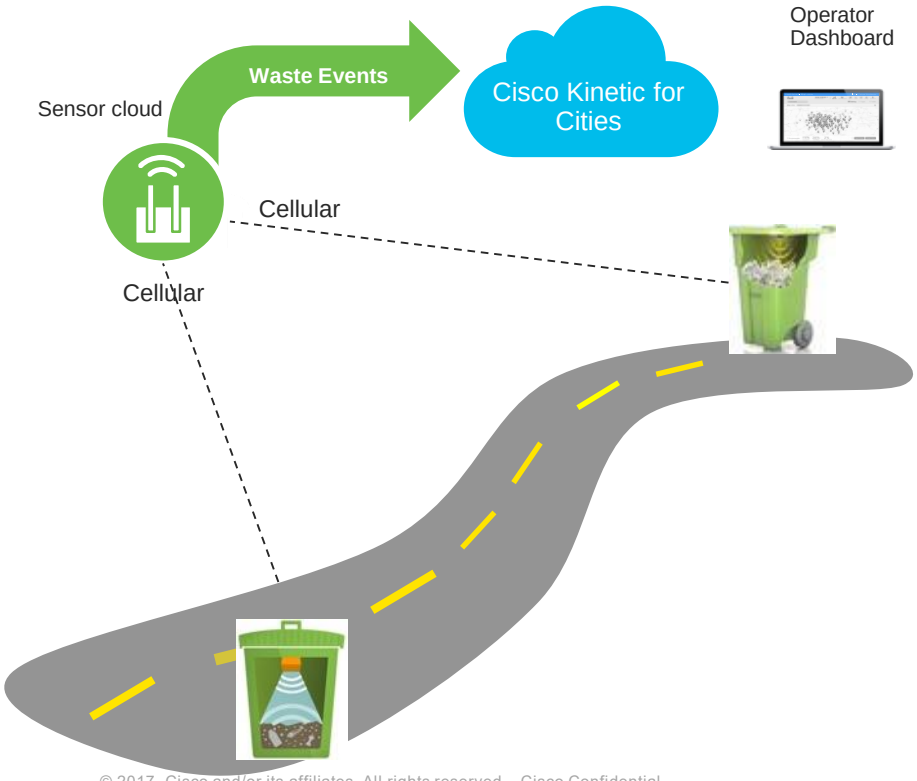
CKC Waste - Use Cases



Customers

- Urban Service Providers
- The Department of Waste Management
- City Council

Customer Goals

- Drive operational efficiencies by optimizing collection routes
- Improved efficiency in tracking generation and disposal of waste
- Track and meet SLAs as per contract

Use Cases

- Waste Bin Level Detection
- Waste Bin Temperature (inside)
- Waste Bin sensor battery level

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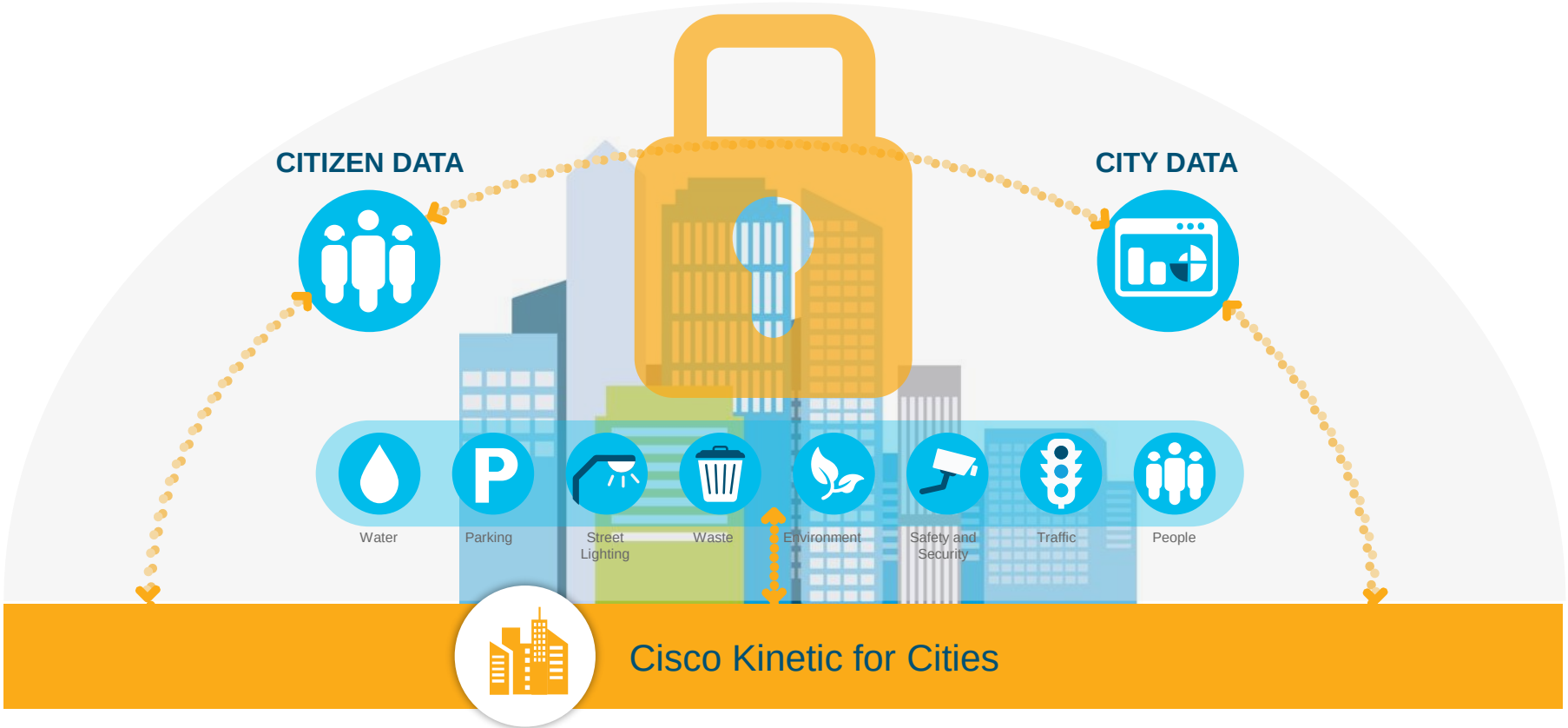
Securing your data



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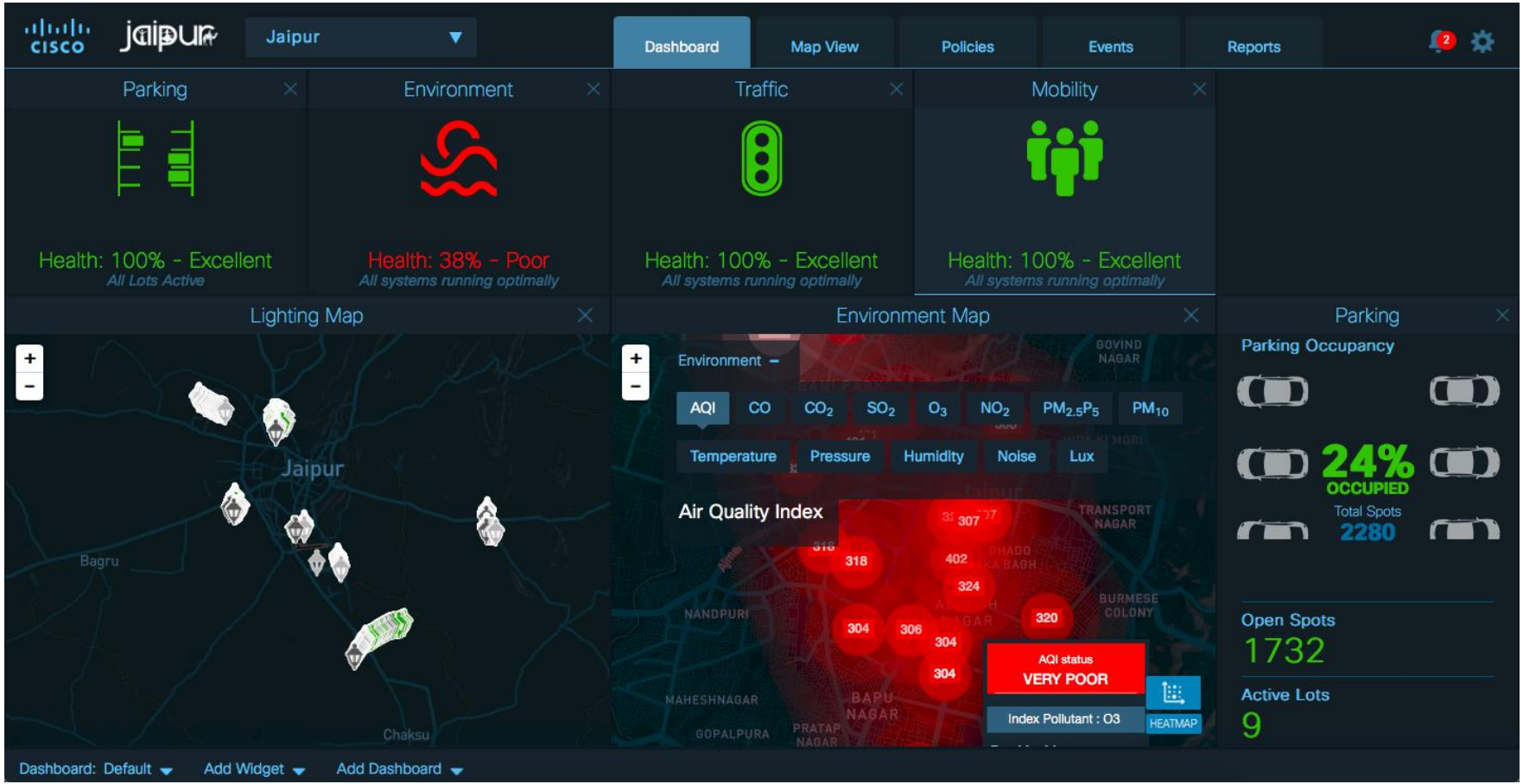

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Smart City Deployments

Cisco Kinetic for Cities Market Leadership

Success around the world…
with more each day!

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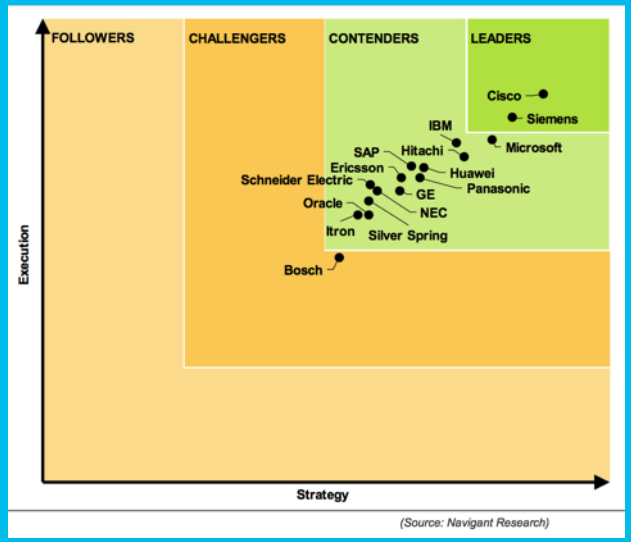
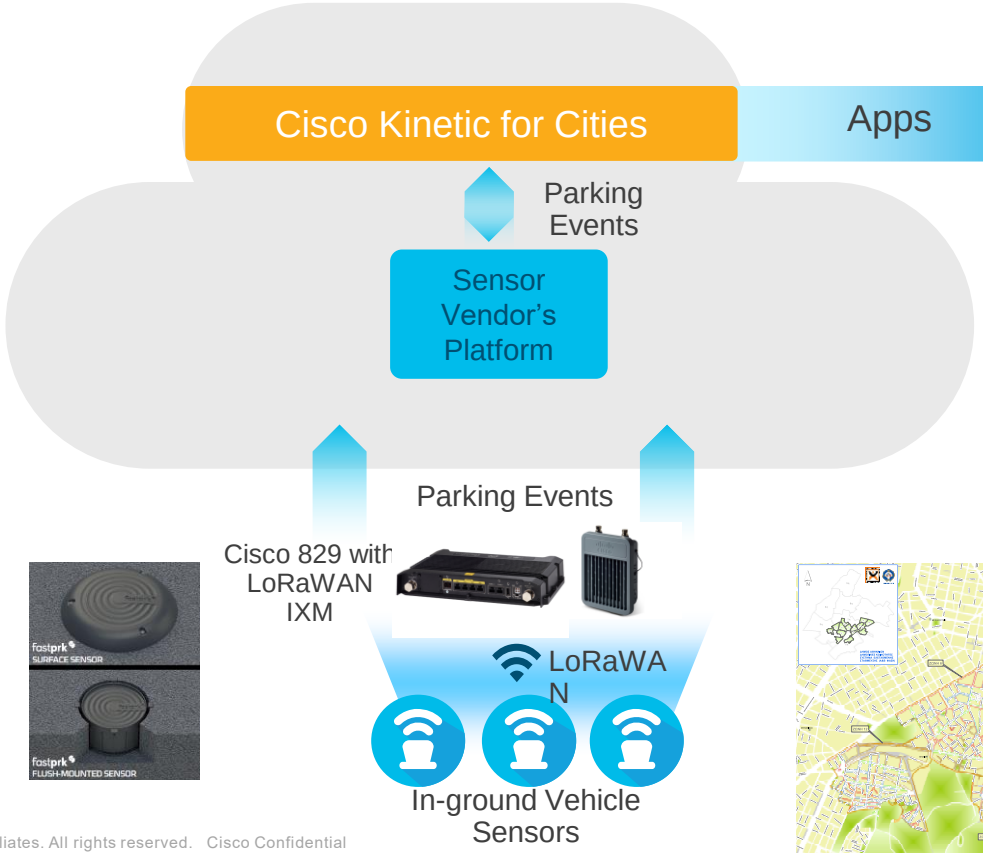
Cisco Kinetic for Cities

Ranks #1

among Smart Cities Suppliers !



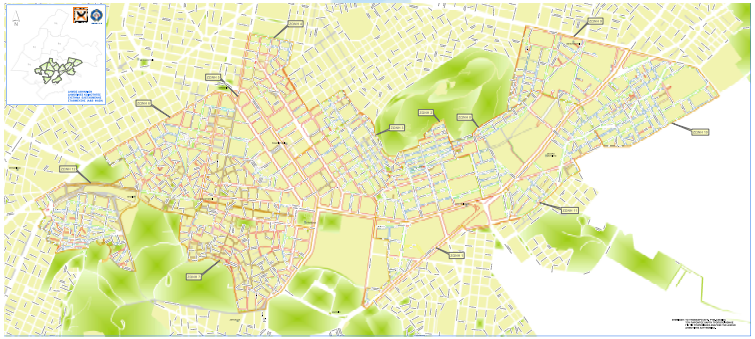
Athens Smart Parking



Operator Dashboard

myAthensPass

Guided Enforcement App



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Results – Parking

(evidence based decision making is added value for the customer)

- 17.074 sessions (Jul '17 - Feb '18)
- 83.3% avg occupancy (Approx. 90% 8:00am-8:00pm)
- 4.3h avg duration
- 1.190 parking violations

(at Othonos, only 1 sensor)

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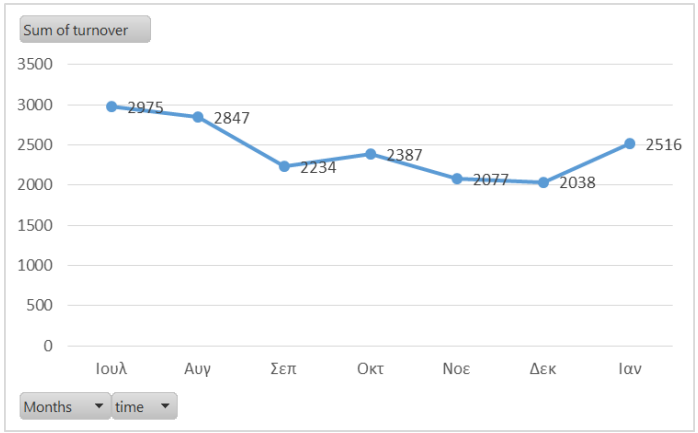
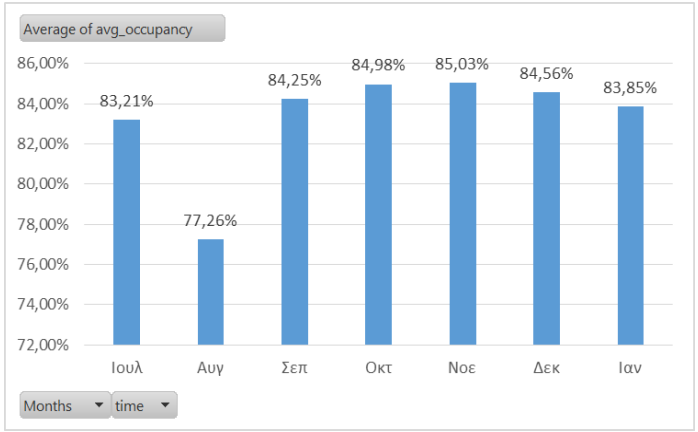
Parking Sessions per month



Occupancy per month



Larissa Pedestrian Control System

Results - Lighting

(evidence based decision making is added value for the business and customer)

Conventional Lighting

Nr of lights: 4.000

Installed Power (kW): 1.100

Consumption (Yearly): 4.015 MWh

Spending (Yearly): € 602.250

CO_2 (tones / KWh): 3.970,84

LED Lighting

Nr of lights: 4.000

Installed Power (kW): 344

Consumption (Yearly): 1.255 MWh (Approx. -70%)

Spending (Yearly): € 188.340

CO_2 (tones / KWh): 1.241,79

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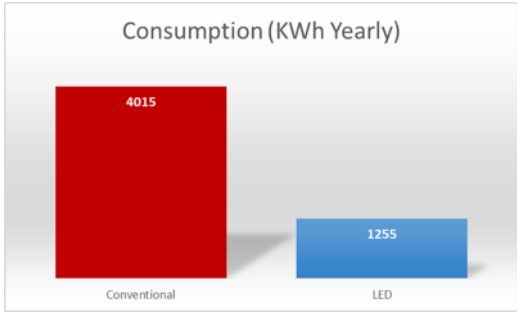

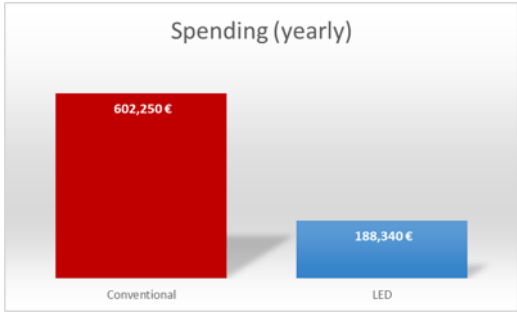

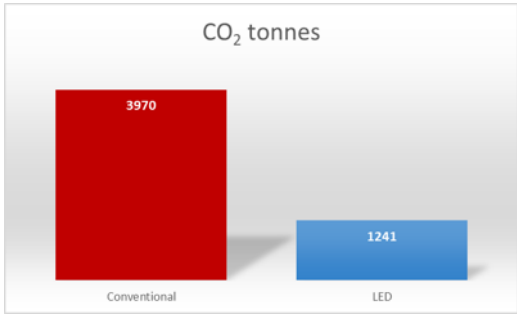

Cisco Kinetic for Cities partner ecosystem

150+ partners

3M
Aclima
Acuity
Airdata
Airly
Airosense
Altiuz
Aqamesh
Auriga
Bajaj Intelli
BH Technologies
Big Belly
Bosch
Breezometer
BruitParif
Cisco Kinetic for Cities Dashboard (NB)*
Cimcon
Cimcon (NB)*
Cisco CMX v10
Cisco Meraki CMX
Cisco VSOM v12
CivicSmart
Clarity
Cleverciti
CommuniThings
Cubic
Cybertech/Geoshield (NB)*
Davra Networks (NB)*
Drayson
Elevate Digital (NB)*
elichens
Enevo
Eparkomat
ESRI
ESRI (NB)*
Everimpact
Flashnet (inteliLIGHT)
Flashnet (NB)*
Frog
Graphmasters (NB)*
Havells
Ice-gateway
Imagus
Infinium (lighting)
Infinium (transport)
Infinium (waste)
Inrix
Inrix Phase II
iOmniscient
iSAP
IT EF
JC Decaux (NB)*
Kiunsys
Kiwi v10 Security/Traffic
Leapcraft (CPH Sense)
LED Roadways (NB)*
Libelium (Intrinsic)
M2M Telemetria
Map Unity*
MapmyIndia/MMI (NB)*
Metro Infrasys
Mindteck
Moba
Mobili
Mobilisis
Mobilisis (NB)*
Mobiquest
N3N (NB)*
Namoo
Nexpa
Nipun (transport)
Nipun Net Services Pvt. Ltd
Oizom
One Plus / Smart Bin
PAQS (AirData)
Paradox
Paradox (Lighting) / Minebea
Paradox (parking)
Park Assist
Parkam
Parkeon
Parkquery
Persistent Systems
Philips
Placemeter
PParkE (NB)*
PTV (NB)*
Sadeem
SAP (NB)*
Samtech
Sayme
Sensity*
Sensity Lighting
Sensity Undemarcated
Sensity Demarcated
Sensity Traffic
ShotSpotter
Sky Alert
Smart Media
Smart Parking
Snaptrend
SparkBit
TCS*
Telematics Wireless/STE
Trinity
Tvilight*
Tvilight (traffic)
Tvilight (lighting)
Urban Engines (NB)*
Urbiotica
Urbiotica Noise
V5
Victor Stanley
Videonetics Traffic
Welink
Wellness
WorldSensing Parking
WorldSensing Traffic*
WorldSensing Traffic /Bit Carrier

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