



Cisco Kinetic for Cities

Manage your city in the palm of your hand

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Agenda

- 1 Why smart cities?
- 2 Cisco's approach
- 3 How it works
- 4 Partner ecosystem
- 5 Global deployments

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

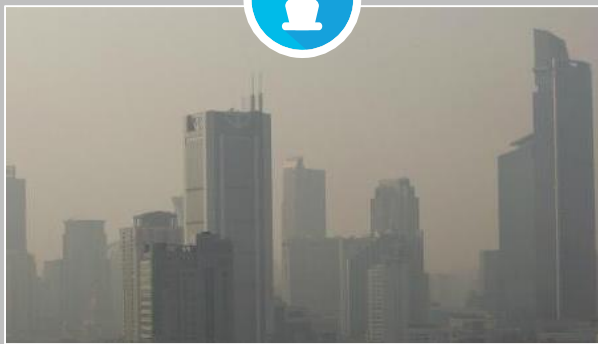
Global trends changing the urban landscape



By harnessing the power of data...



Challenges in smart cities



Vertically integrated
sensors

No standardization
across sensors

Lack of cross-
domain data and
information sharing

Fragmented application
ecosystem

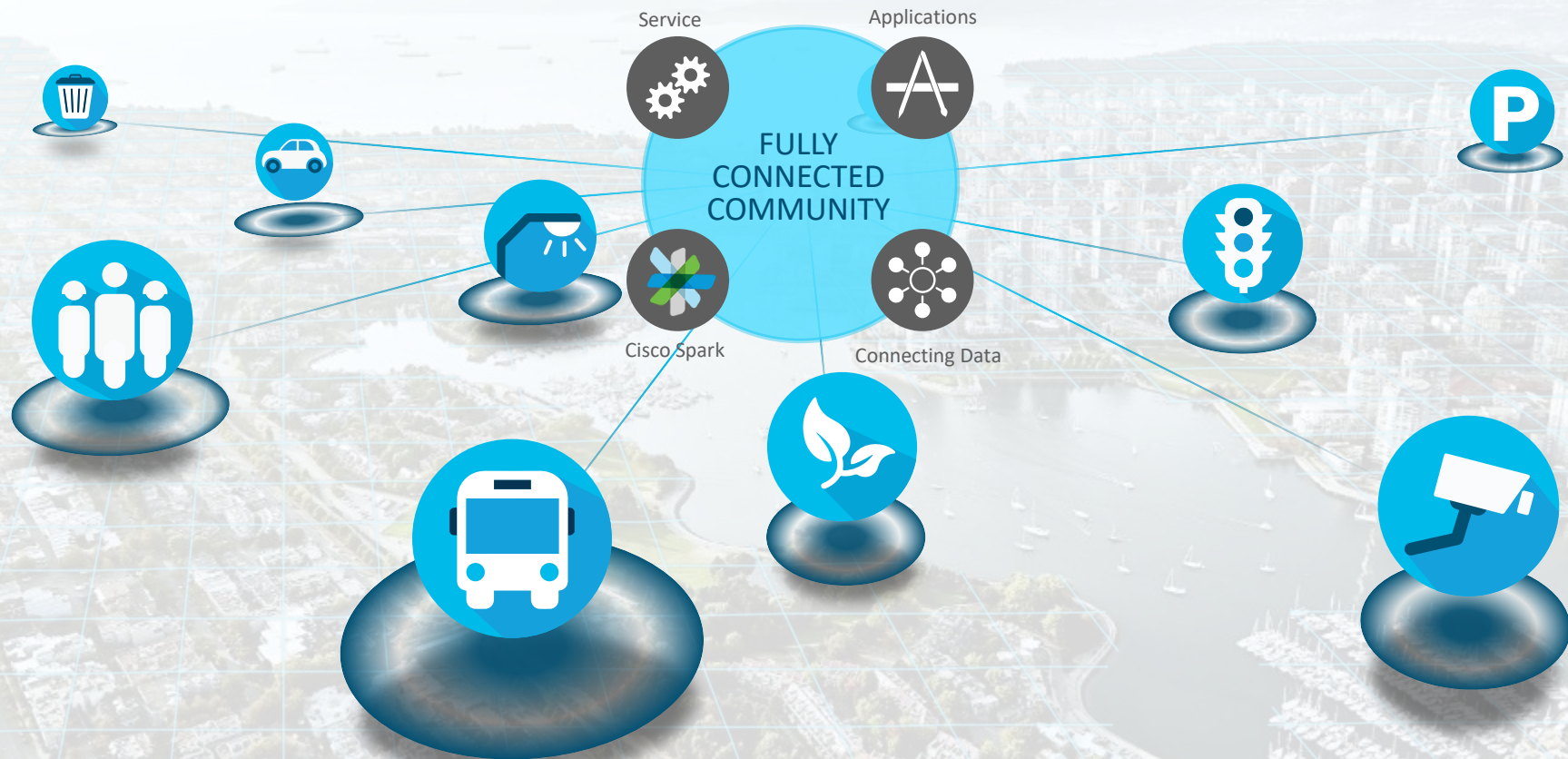


The Cisco approach

By harnessing the power of data...



Cities can create a...



A platform approach addresses these challenges and drives value for cities, citizens and business



Cisco Kinetic for Cities

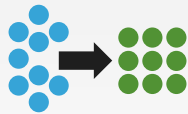
Data from any device



- Aggregate and normalize data across multiple sensors
- Digital Model for the City



Cross-domain information



- Enable cross-domain contextual control (ie. With outdoor lighting & crime)
- Process automation through policies

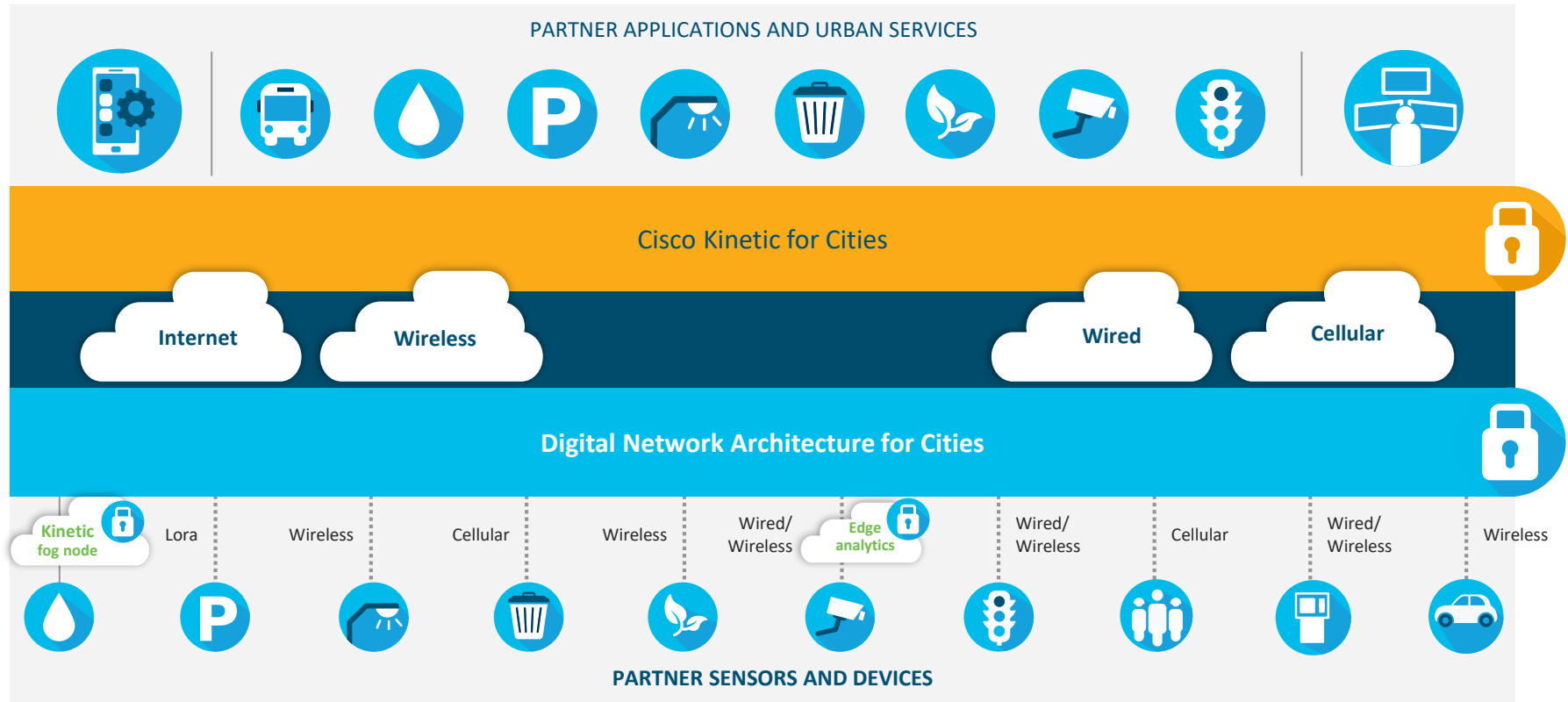


Open ecosystem



- Expose APIs for local and global ISVs Applications
- Secure Key Management and Role based access control

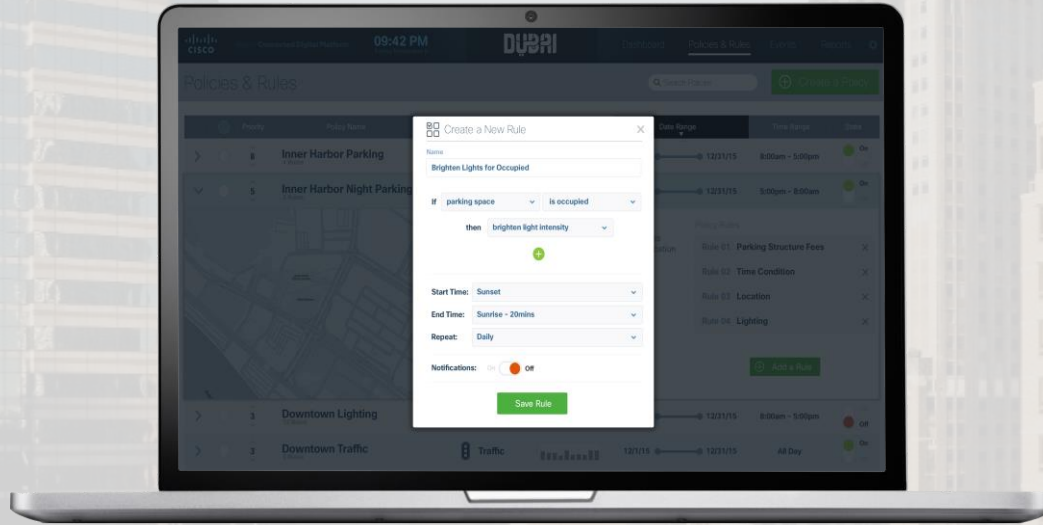
Cisco solution architecture for smart cities





Cisco Kinetic for Cities Dashboard

Reference Dashboard for Operators



Dashboard

Map View

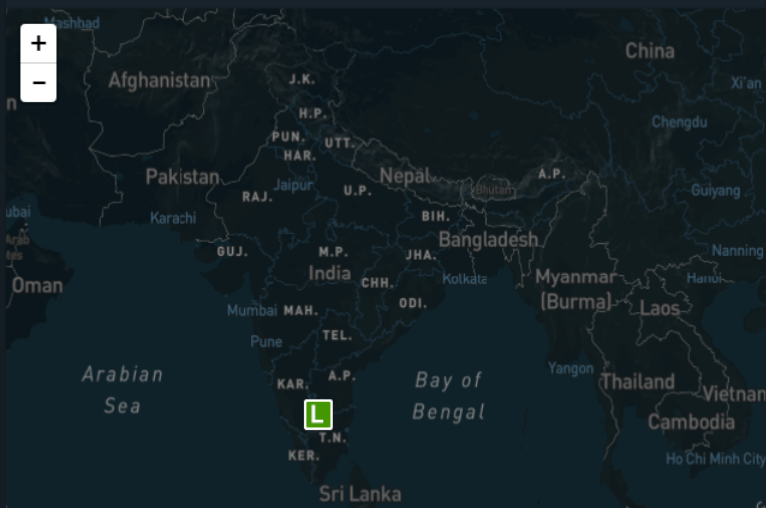
Alerts

Policies

Events

Reports

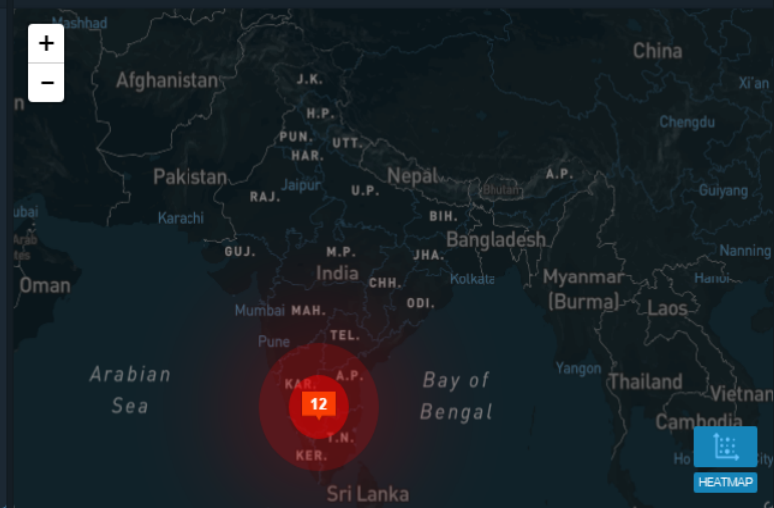
Lighting Map



Parking



Environment Map



Mobility



All systems running optimally

Waste



All systems running optimally

Traffic



All systems running optimally

Environment



All systems running optimally

Parking



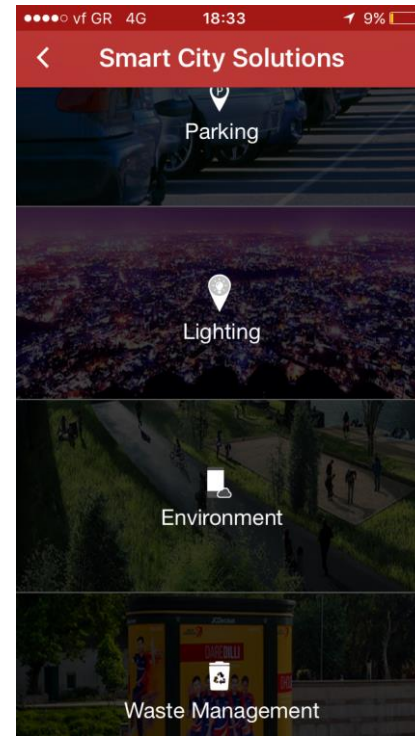
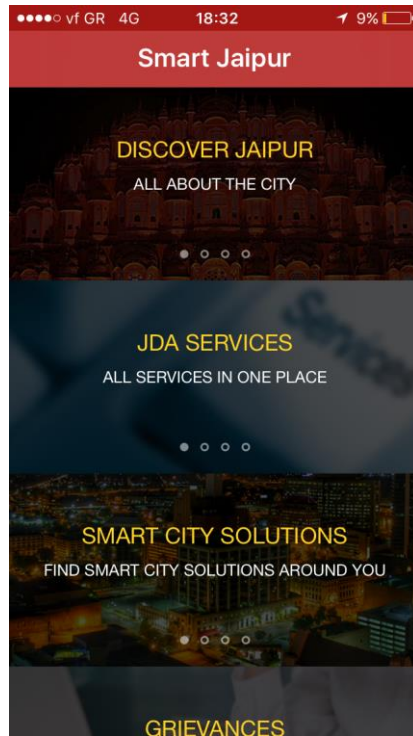
All Lots Active

Various Domains

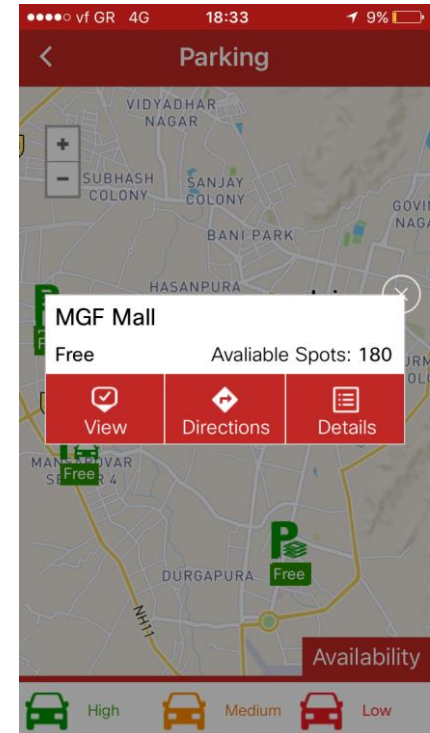
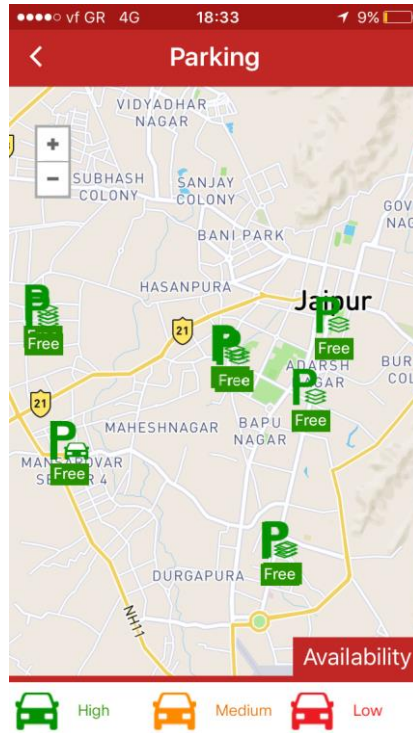
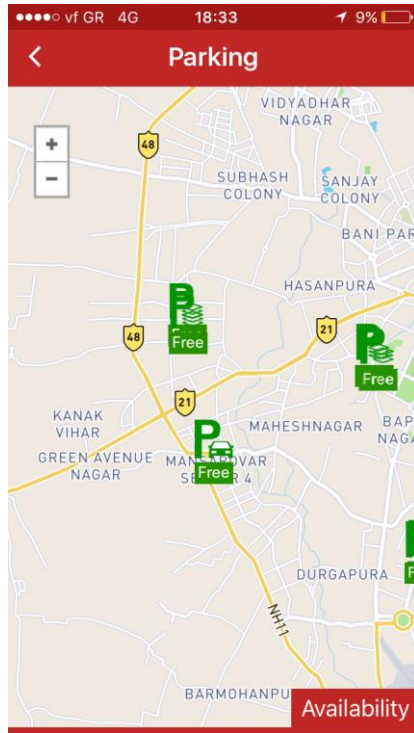




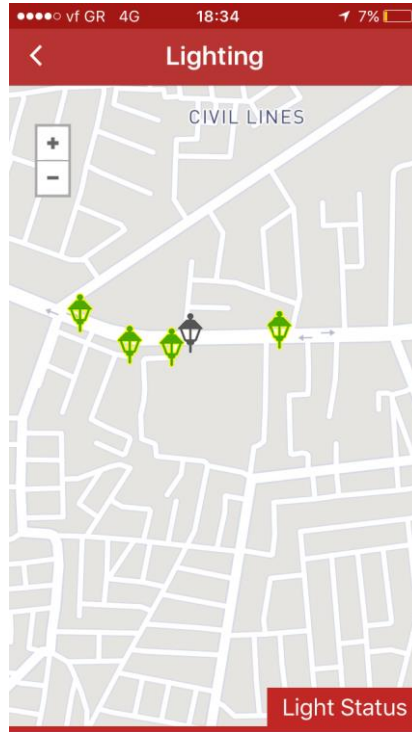
Mobile app



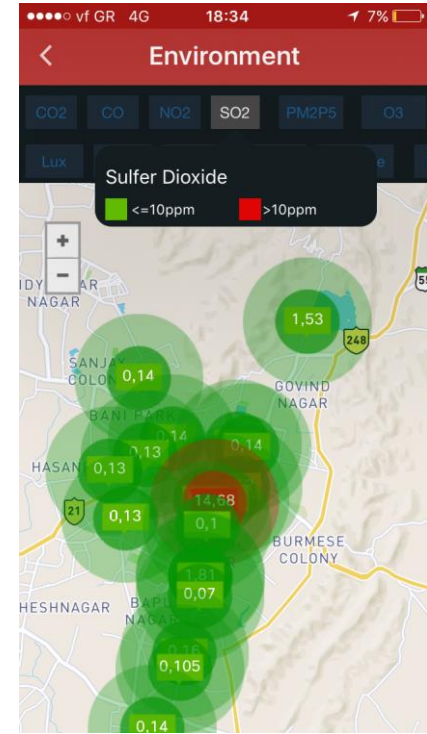
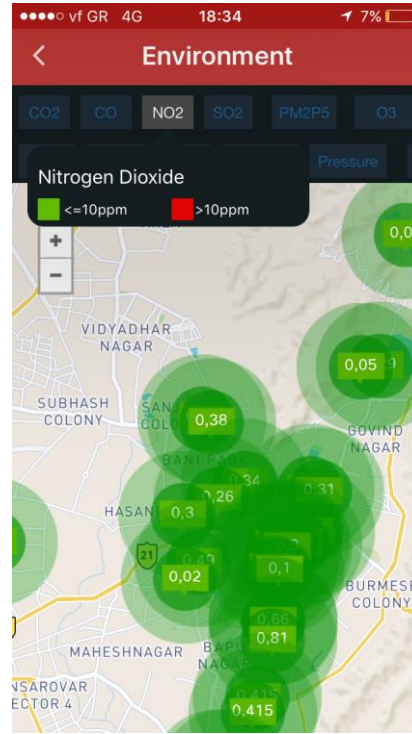
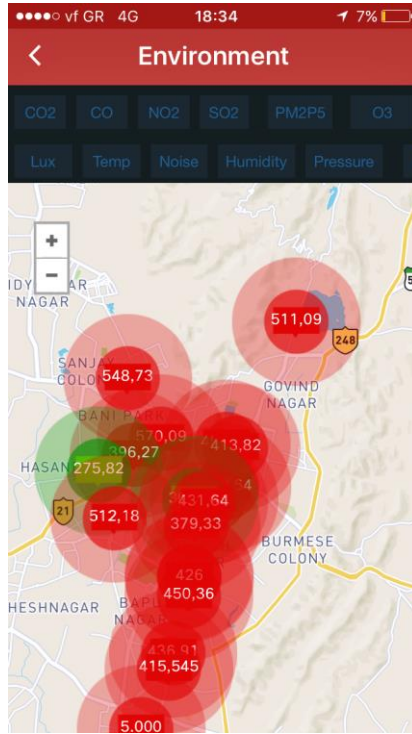
Intro Page Smart City



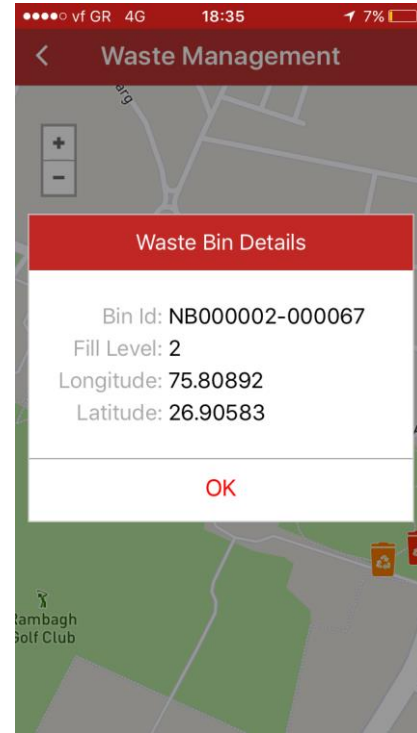
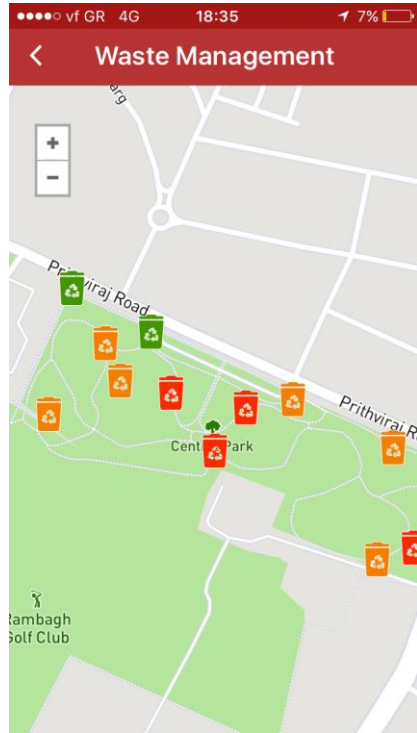
Smart Parking



Smart Lighting



Smart Environment



Smart Waste



Partner ecosystem

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





Customer deployments

Cisco Kinetic for Cities Market Leadership



Trikala

Implementing the Smart Open Mall

Business Objectives

- Stimulate local economy by attracting people to City Center businesses
- Lower connectivity costs for citizens and visitors
- Improve government efficiency; provide a foundation for smart city solution; City Digitization

Solutions

- **Cisco Digital Network Architecture for Cities, Cisco Kinetic for Cities, Smart Parking, Smart Lighting, Environmental Monitoring**
- Partners: Space Hellas, Kafkas S.A., Sieben, Viva, Parkguru

Business Outcomes

- Smart parking operations with a citizen mobile app
- city center-wide free Wi-Fi
- energy savings of 80% in lighting thanks to advanced dimming
- Environmental Monitoring
- Foundational network and Cisco Kinetic for Cities in place



Located in central Greece, 330 km north of Athens, Trikala is a gateway into the mountainous region of northwestern Greece, very near to Meteora, UNESCO's famous world heritage site. It is one of the oldest cities in Europe (the ancient Trikki), with a long history that goes back in 3,000 BC and is the birthplace of Asclepius, the first ancient doctor. Today, a lively city of 50.000 inhabitants, combines innovation and culture, while it is considered one of the cities with outstanding quality of life.

For many people in Greece, the city of Trikala is a synonym of technological advancement. With strong leadership and commitment at the highest level and with highly motivated technical personnel, the municipality is continuously transforming the city, through the deployment of thousand smaller and larger ICT projects.

Chalkida

Facilitating Accessibility while enhancing operational efficiency

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
- Partners: Cosmote, Kafkas S.A., OTS

Business Outcomes

- Smart parking operations with a citizen mobile app
- city center-wide free Wi-Fi
- energy savings of 70% in lighting
- Environmental Monitoring
- Foundational network and Cisco Kinetic for Cities in place
- Smart Waste Management Solution in place



**City of
Chalkida**

Only 80 km away from Athens, the city of the sacred fountain of Arethousa is the main gate to the island of Evia. Thanks to its strategic geographic position, the city has remained a crossroad of cultures and ideas over the centuries, an apple of discord for many foreign conquerors. Today the cosmopolitan city of Chalkida, with about 90,000 inhabitants, is built on both sides of Evripos straits, it is the administrative and commercial centre of the island and a popular destination among Athenians for short breaks away from the hustle and bustle of the capital city.



Realizing the benefits

Driving sustainable economic growth



Creating shared value



CITY AGENCIES

Optimizes operations through real-time data intelligence and intra-agency collaboration; more citizen engagement.



CITIZENS

Provides city services through visibility into real-time city data, including mobility, connectivity, safety and other key services for improving elements of daily life



BUSINESS

Drives new revenue streams and economic development by enhancing awareness of customer activity and behavior



DEVELOPERS AND VENDORS

Fuels application development of city data to help cities improve operational efficiencies, engage citizens and boost economic viability

