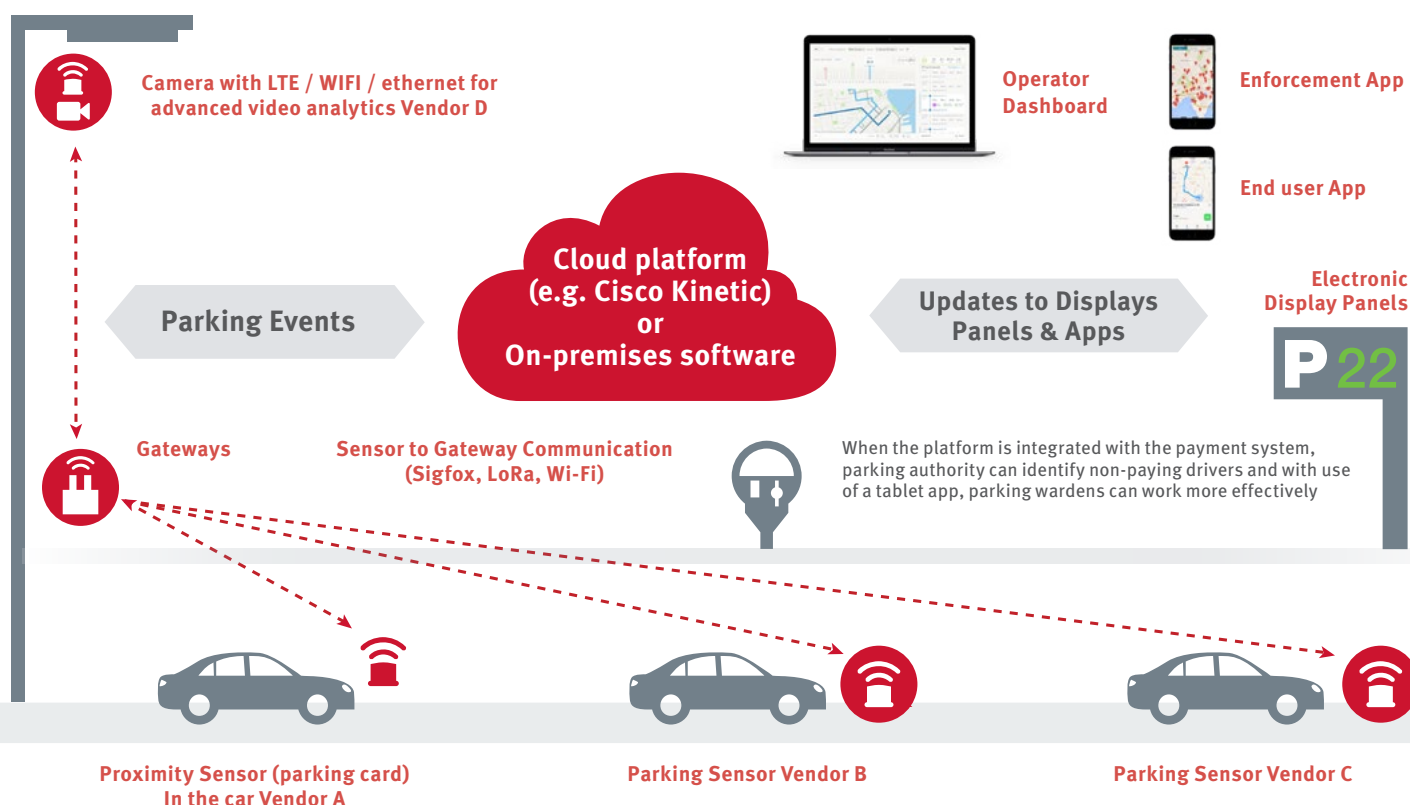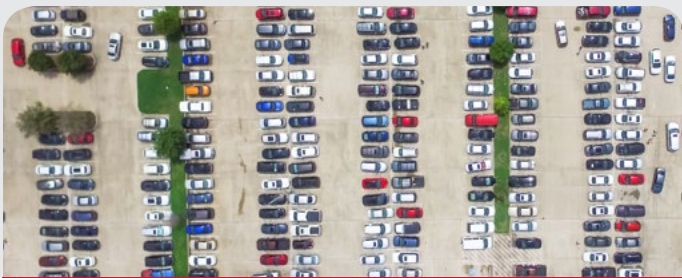# PARKING SMART

with SIMAC solutions

An estimated 30% of cars in congested downtown traffic are typically searching for parking spaces. Parking in urban areas is a constant struggle, wasting driver time and patience, with tons of extra carbon dioxide released into the city environment. In addition, cities often lose revenue through inadequate meter enforcement and no-parking, standing, and loading-zone violations. Parking availability also affects income of local shops and businesses.

Simac integrates progressive technologies from several vendors and creates solutions meeting specific customers' needs by:

- Combining parking sensors, proximity sensors, video cameras, smartphone applications and Wi-Fi/LoRa/Sigfox infrastructure to provide parking availability to citizens in real time
- Offering a central platform for data collection, visualization and solution management
- Integrating network infrastructure and sensors from different vendors with enforcement applications and pushing violation notices to parking officers
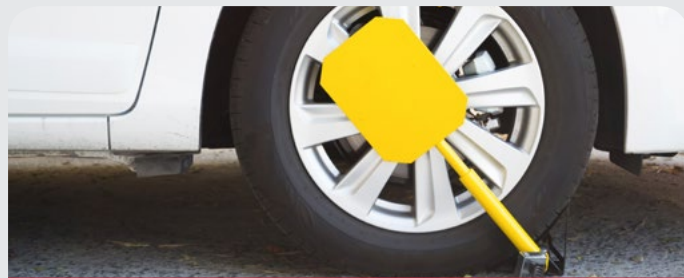- Providing greater visibility into parking analytics, such as usage and vacancy periods

Camera with LTE / WIFI / ethernet for advanced video analytics Vendor D

Operator Dashboard

Enforcement App

End user App

Parking Events

Cloud platform (e.g. Cisco Kinetic) or On-premises software

Updates to Displays Panels & Apps

Electronic Display Panels

Gateways

Sensor to Gateway Communication (Sigfox, LoRa, Wi-Fi)

When the platform is integrated with the payment system, parking authority can identify non-paying drivers and with use of a tablet app, parking wardens can work more effectively

Proximity Sensor (parking card) In the car Vendor A

Parking Sensor Vendor B

Parking Sensor Vendor C

TYPICAL USE CASES

Parking Administration

- Viewing maps of parking occupancy, notifications, policies, and health of sensors and advanced nodes
- Configuration and management of sensors, advanced nodes, grouping of sensors
- Policy management for all parking slots
- Events and actions management for utilization and violations
- Monitoring tools to provide information on health of nodes, sensors, and gateways for a specific period of time

Parking Enforcement

- Detection and reporting payment and overstay violations using sensors and meter integration
- Detection and reporting no-parking zone and violations in zones for residents using video analytics and proximity sensors
- Creating optimum routes for enforcement officers to maximize effectiveness
- Issuing tickets to citizens and saving the evidence

Parking Guidance

- Integration with real-time parking availability, providing visualization on mobile phones or digital signs
- Searching for parking spaces based on point of interest and preferences
- Parking rates and policy information
- Payment using smartphones

Parking Analytics

- Parking occupancy, revenue, enforcement reports
- Parking space usage on time of day or day of week to assist pricing decisions

SOLUTION BENEFITS

Cities generate **additional revenue** through demand based parking pricing and more accurate ticketing of parking violations.

Administrators **easily configure and manage** the sensors and video infrastructure, monitor the enforcement of policies for parking violations.

Parking agencies gain **insight** into parking space use, so they can **optimize** the use of parking slots throughout the city.

Enforcement officers see improved **success rates** in parking-ticket disputes.

Parking occupancy, revenue, and enforcement reports provide detailed information that help urban planners make better **pricing decisions**.

Local shops and businesses get **more clients and higher income** because their clients can find close parking slots easily.

Motorists spend less time circling in search of parking by using real-time parking information through mobile applications, lowering stress and reducing fuel costs and emissions.