Open Parking Data To Help Drivers and Managers
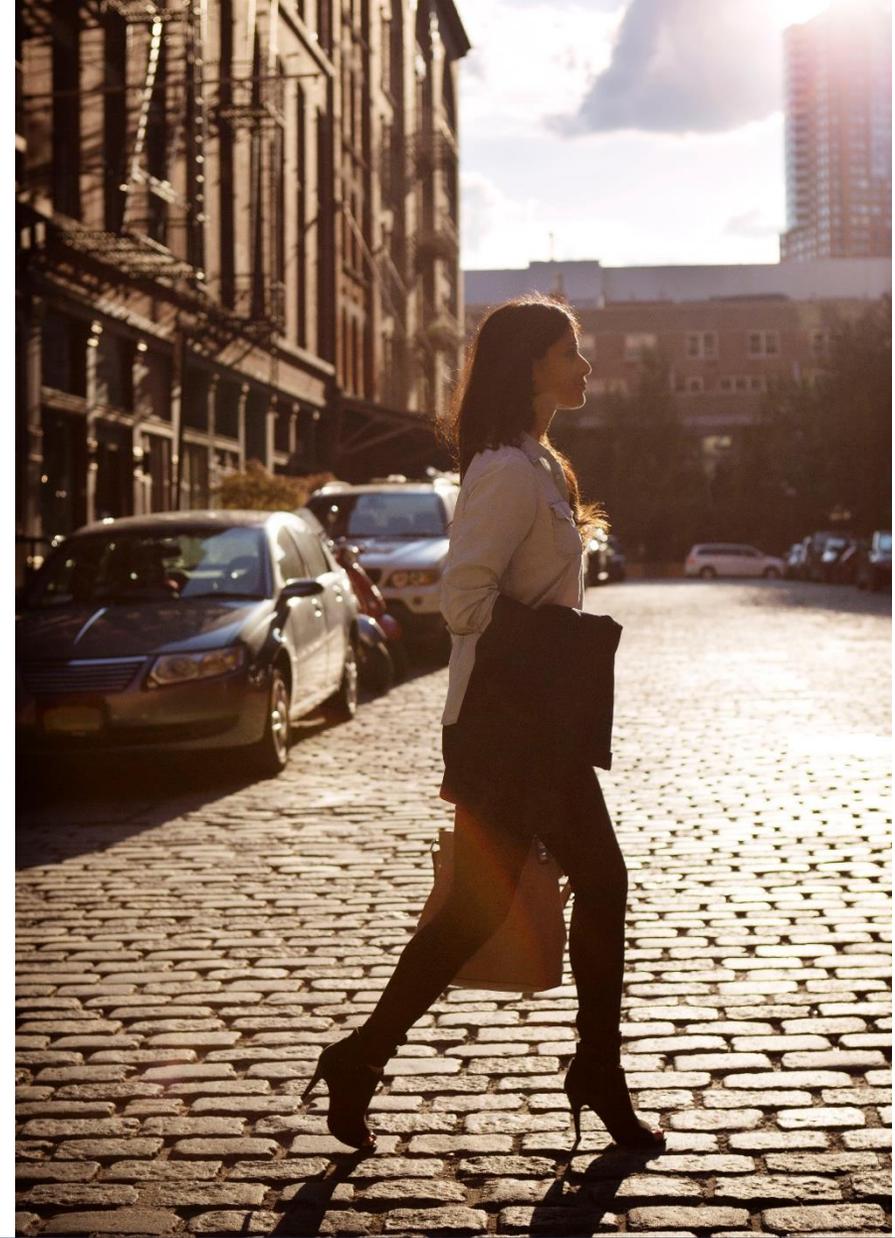
Sam Friedman
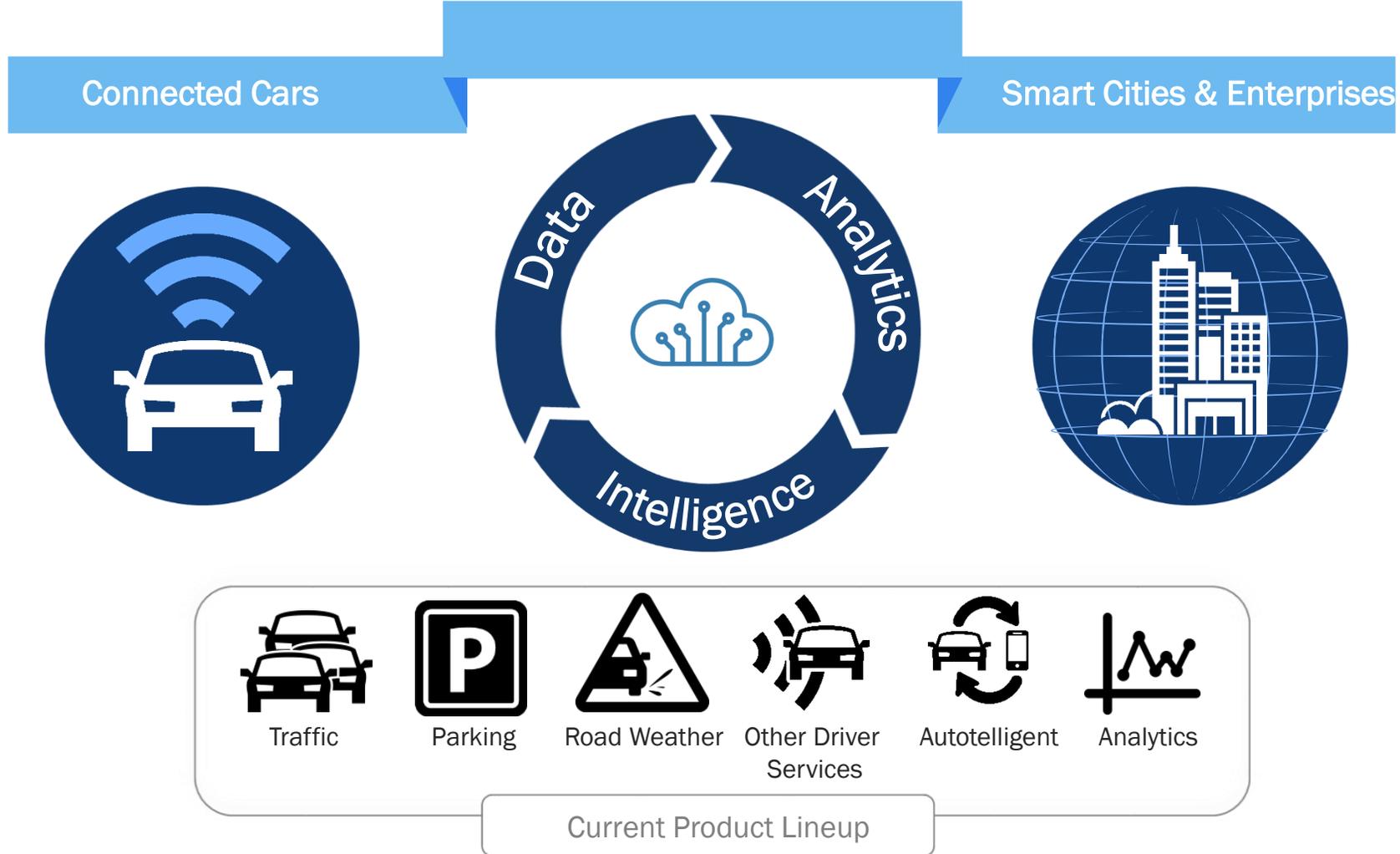
VP and GM Parking

15.09.2016

INRIX

Who is INRIX?

Leading Global Provider of Connected Car Services
& Transportation Analytics

Our mission is to make it easier, safer and more enjoyable for people in motion by improving transportation worldwide.

INRIX Mission: Improving transportation worldwide by connecting cars to smarter cities

Connected Cars

Smart Cities & Enterprises

Data

Analytics

Intelligence

Traffic

Parking

Road Weather

Other Driver Services

Autotelligent

Analytics

Current Product Lineup

INRIX

Vision for Smarter Parking

A Seamless Parking Experience

FIND all parking options and get directions (regardless of type)

Quickly **COMPARE** prices, availability and other criteria like hours and accessibility

Conveniently **PAY** parking within your car or on your mobile phone

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Today's Parking Reality for Drivers

20 mins
Average time spent looking for a parking spot

60%
Number of drivers who abandon their search for parking at least once

55 hours
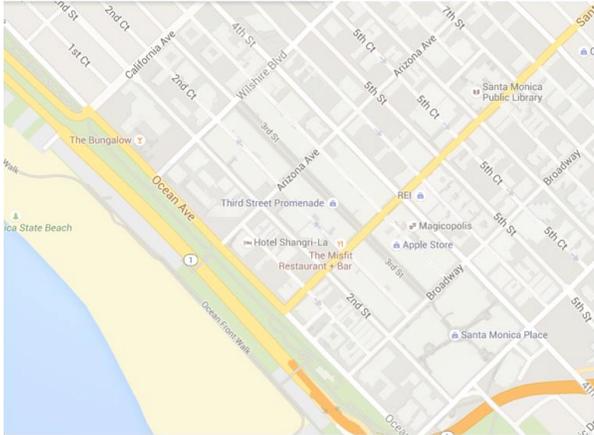Time the average driver wastes each year looking for parking

30%
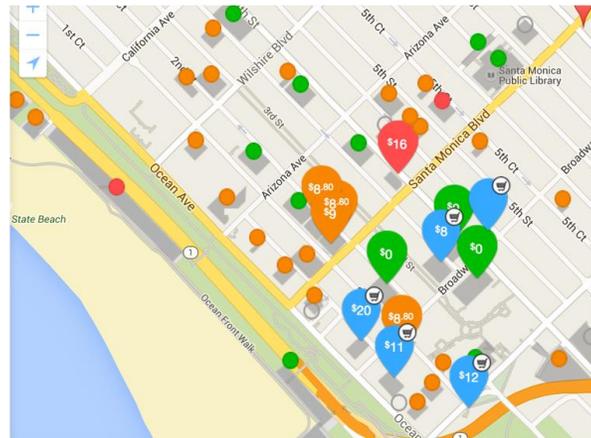Amount of urban traffic is caused by drivers searching for parking

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Product Overview

Parking data dissemination

Turning this...

Into this!

INRIX

Parking Data Overview

Two types of parking

- Off-Street: parking lots, garages, underground, etc.
- On-Street: parking meters, street parking, etc.

Rates | Operational Hours | Entrance Points | Photographs | Real-Time Occupancy* | Facility Types | Payment Types | Phone Numbers
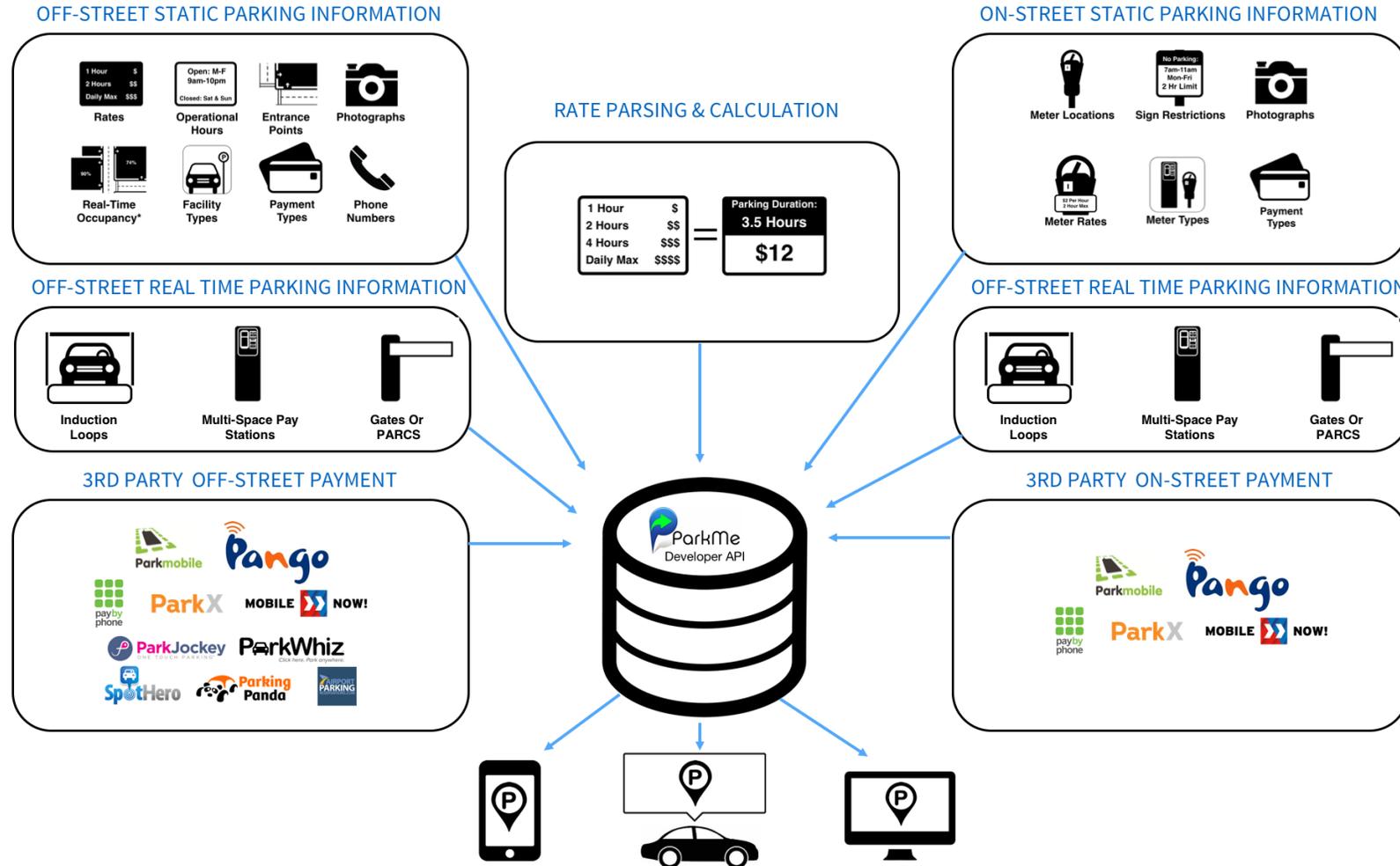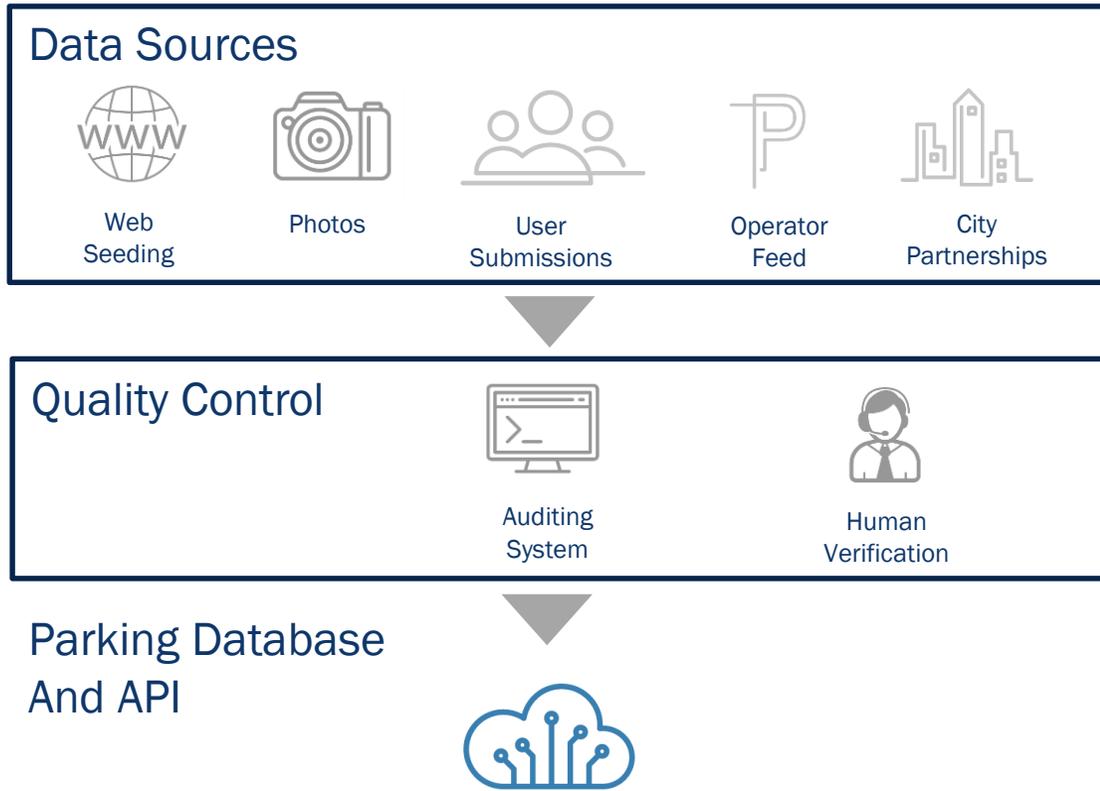
Two classifications of data

- Dynamic: real-time occupancy
- Static: lot details, rates, hour, location, etc.

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Parking API: The World of Parking in a Single API

Approach For Open Data

Data Sources

Web Seeding · Photos · User Submissions · Operator Feed · City Partnerships

Quality Control

Auditing System · Human Verification

Parking Database And API

OPERATORS

APCOA PARKING · City Park · ABM Parking Services · InterPark · ATLANTIC PARKING

MultiParK · COLONIAL PARKING · impark · VINCI PARK

EQUIPMENT MAKERS

PARKEON · IPS GROUP Parking & Telecommunications · WPS WORLDWIDE PARKING SOLUTIONS · SB SCHEIDT & BACHMANN · T2 SYSTEMS

DIGITAL · CALE · CASE PARKING · ZEAG

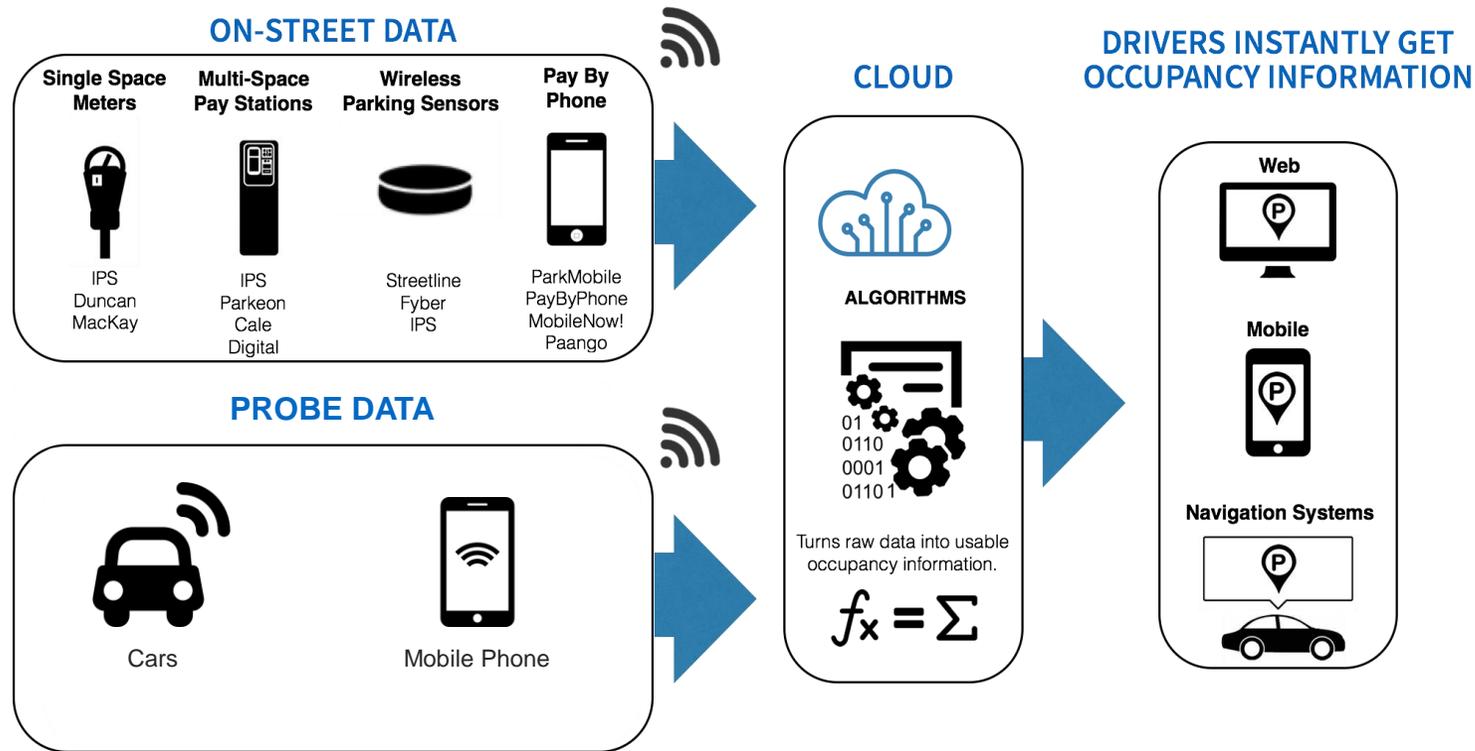SKIDATA · AMANO · FEDERAL APD Federal Signal Corporation · DATAPARK

CITIES

City of Santa Monica California · Miami Beach · City of Coral Gables Florida · City of Austin · City of Long Beach

City of Walnut Creek · City of Dallas · City of Las Vegas Nevada · City of Orlando Florida · City of Los Angeles

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Off-Street Parking: How It Works

Combines data from multiple sources

ON-STREET DATA

Single Space Meters	Multi-Space Pay Stations	Wireless Parking Sensors	Pay By Phone
IPS Duncan MacKay	IPS Parkeon Cale Digital	Streetline Fyber IPS	ParkMobile PayByPhone MobileNow! Paango

PROBE DATA

Cars

Mobile Phone

CLOUD

ALGORITHMS

01
0110
0001
0110 1

Turns raw data into usable occupancy information.

$$f_x = \Sigma$$

DRIVERS INSTANTLY GET OCCUPANCY INFORMATION

Web

Mobile
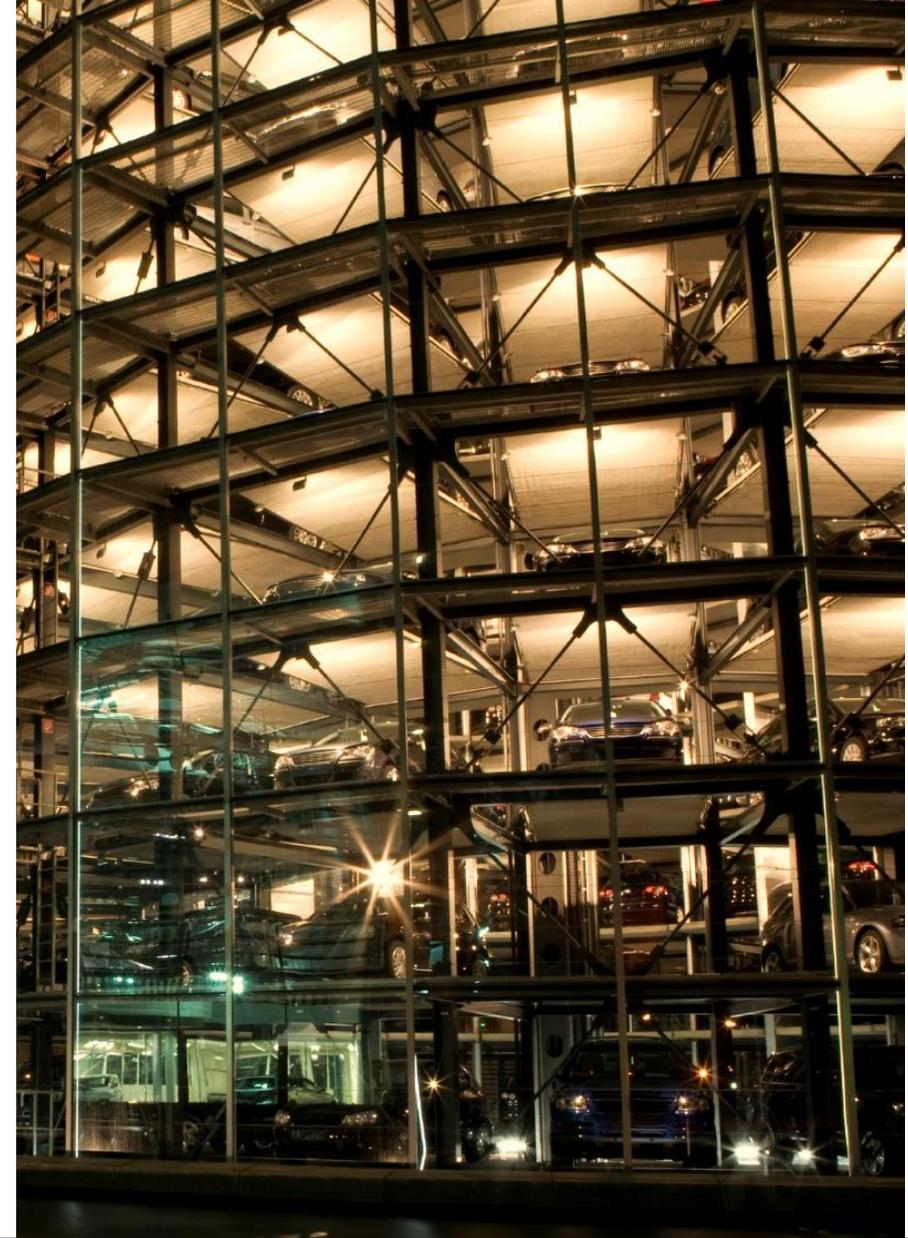
Navigation Systems

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Off-Street Parking Data

Static Data Set

- Address & contact info
- Geo location (of entrance)
- Hours of operation
- Capacity (number of spaces)
- Lot polygons
- Lot rates (1, 2, 8 & 12 hour stays)
- Payment types accepted
- Reservations accepted
- Height/lot restrictions
- Type of parking lot
- Access restrictions
- Photos of parking lot

Dynamic Data Set

- Parking lot availability
- Timestamp of last update
- Availability trend data (coming)
- Reservations (coming)
- Payments (coming)

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On-Street Parking Data
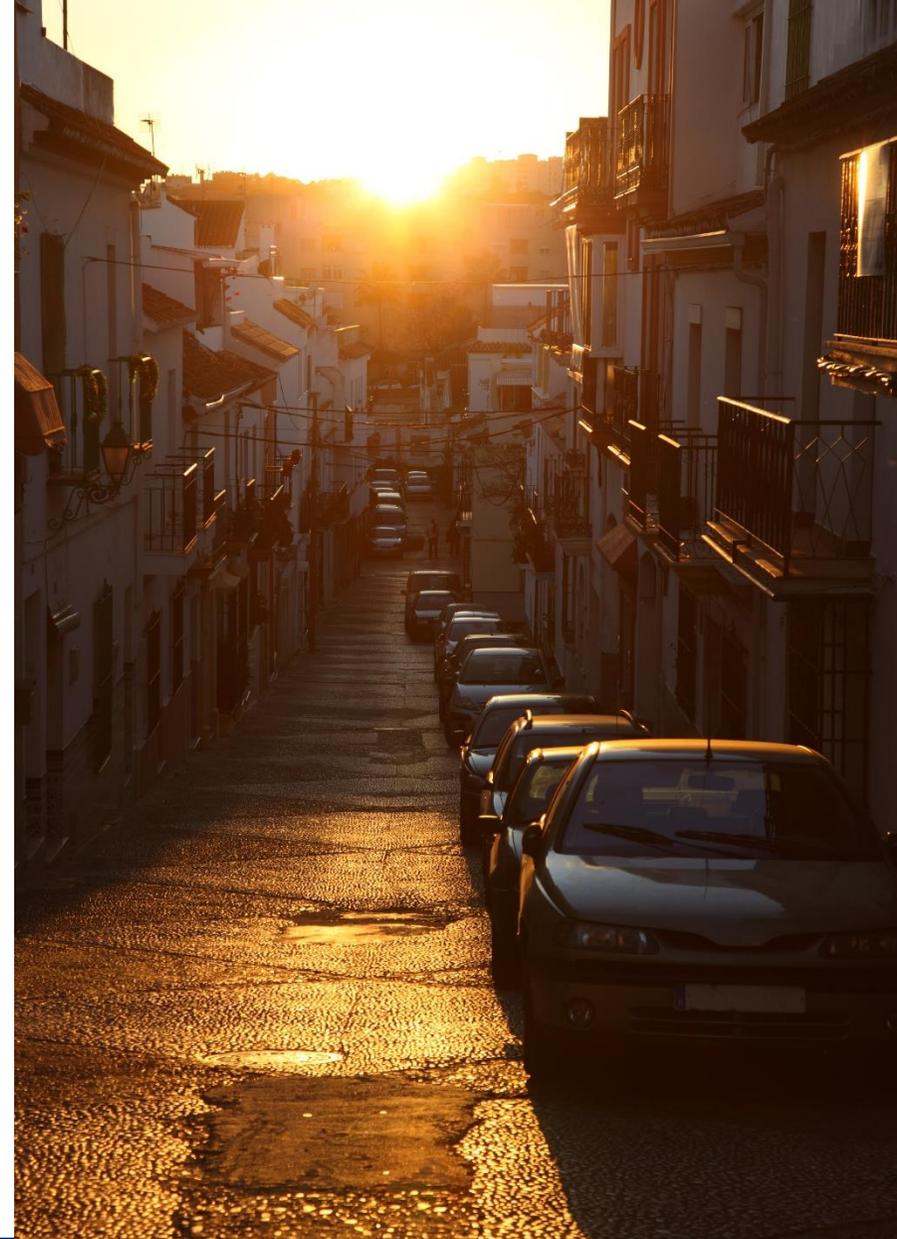
Static Data Set

Includes key attributes by block or zone

- GPS coordinates

- Street name

- Pricing rates

- Current parking restrictions and policy rules

Dynamic Data Set

(Updated at least every 5 mins)

- Availability trend data (coming)

- Real time occupancy level (red/yellow/green)

- Predicted occupancy level at specific Time (later functionality)

- Data available in several formats

- Updated at least every five minutes

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Thank You.