



# CivicSmart



**SMART PARKING SPACES, SMART ENFORCEMENT,  
SMART PERMITS, SMART PAYMENTS, AND EASY  
GUIDANCE POWER SMART CITIES**

# Our Heritage



CivicSmart

*We are the city-wide, on-street parking experts and can help unlock the value of city's parking assets*

- A pioneer in parking technology – leader in smart city technologies
  - Built upon 80 years of city-wide parking systems and enforcement experience
  - Delivered meters, smart meters, credit card, wireless
  - Enforcement platform and wireless handled used by over 500 cities
  - Delivered world's best radar parking space sensor with over 99.5% accuracy
- A parking industry pioneer since 1936
  - Parking equipment supplier to 2000 cities
  - Mobile enforcement platform used by over 500 cities in USA and Australia
  - Patented sensors used in USA, Australia, Africa
  - Clients include cities of Chicago, Los Angeles, Miami, New Orleans, Raleigh, North Sydney, Harare, Accra, etc.
  - Bengaluru based center of expertise quietly supporting a global client base of leading cities for many years.
  - Industry wide partnerships including with leading Fortune 100 firms to enable the best solution for cities



# CivicSmart – the UAE connection

- Bangalore based center of expertise supporting global city-wide parking in leading cities since 2008 including Los Angeles, Sydney, Perth, Chicago, Miami, and many others!
- Leaders in technology – we invented radar sensors for parking for high accuracy, all weather operation. Globally patented. Industry's best performance.
- We combine the best of global expertise (combined 125 years of city parking experience at leading cities) with India capabilities and knowledge. Built on 80 years and 2000 cities parking experience!
- We are leaders in payment technology and city-wide parking enforcement and management with comprehensive solutions and services.
- With regional offices in India (Bengaluru & Mumbai) and recently established office in UAE we bring you the connectivity that's primary to the smart parking managements. Our Global Support center is establishing a node for support in the UAE to support the local and regional installed base.

*We are the premier Smart Parking company in Middle East and the world!*

# Smart City Products & Solutions

## Civic Smart Products



Vehicle Identification and Management



Guidance Systems



Mobile Enforcement and Field Service



Parking Meter and Space Management



Vehicle Sensing  
Provide reliable, real-time data

*CivicSmart offers an integrated solution that helps build Smart Cities, eliminate inefficiencies, and deliver high-quality services to citizens.*

## Civic Smart Solutions



Comprehensive management system & smart data solutions



Mobile Guidance Apps

# Sensors

- CivicSmart sensors are radar based, directional sensors
- Sensors are built with life-time battery (8-10 years) hence no external power source is needed
- Can be mounted anywhere near the parking space and are available in a variety of mounting configurations
- Programmable detection area
  - Excludes all objects outside the detection area
- All weather, hermetically sealed, rugged enclosures with no lens or openings
  - Withstands direct automotive traffic; unaffected by automotive fluid spills and roadside debris
- Single, highly reliable technology (we do not combine multiple unreliable technologies)
- Vandal resistant – tolerates spray paint, hammer blows, etc.




































IN-GROUND SENSORS



POLE MOUNT SENSORS

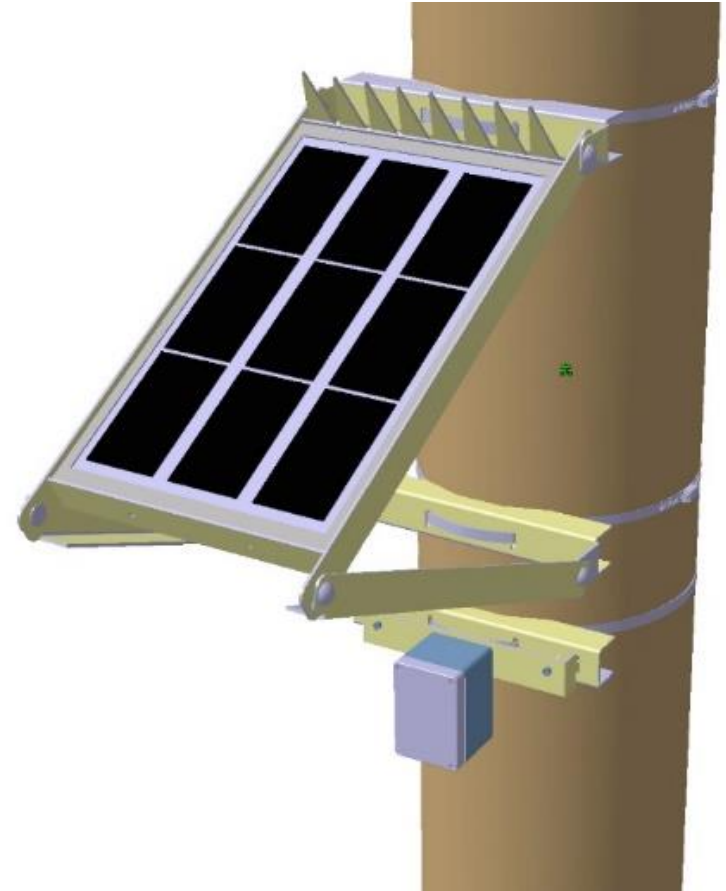
# How does accuracy matter?

Session accuracy required	<90%	<99%	>99%*
Wayfinding			
Courtesy free time upon arrival			
Violation detection and directed enforcement			
Meterless parking			
Remove unused time (pay-by-space)			
Anti-topup / Anti-meter feeding			
Clearance information for shared traffic lanes			
Turnover data for rate setting			
Time limited free parking enforcement			
Flexible / non-linear rates			
Dynamic / surge pricing			

\* The less than 1% error should always be in favor of the motorist

# Gateways

- Gateways are located within a few hundred feet of the sensor and are typically installed on light poles, parking signs, or traffic signal poles
- CivicSmart will analyze available gateway mounting locations and identify suitable options
- Gateways are dual powered with built in Battery and SolarPower thus eliminating the need for any external power source



# Permit parking management

- A powerful capability of the CivicSmart sensor is that it can read a unique signal transmitted by an in-vehicle wireless module
- Two-way low data rate (LDR) capability from sensors is used to maintain the permits remotely (change expiry dates, blacklist, link accounts, etc.)
- This wireless module converts any standard placard or permit into an intelligent device uniquely identifying the vehicle occupying the space
- When specific placards are detected, special rules/permissions for the permit holder can be applied:
  - Disabled motorists
  - Eco-friendly (EV) vehicles
  - Residential permits
  - Commercial/loading zones
  - Reserved spaces for shared-ride services
  - Staff/student/faculty parking
  - Visitor parking





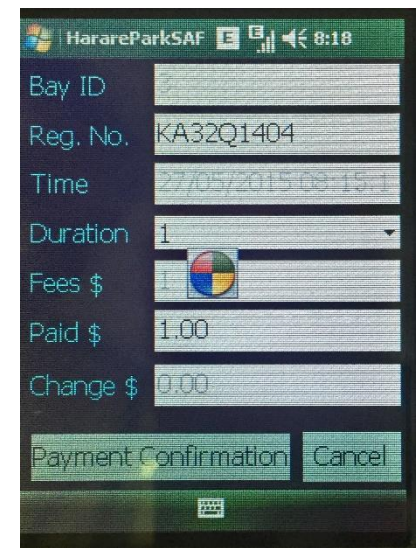
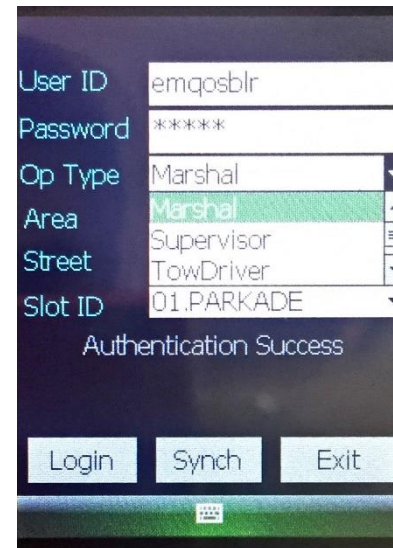
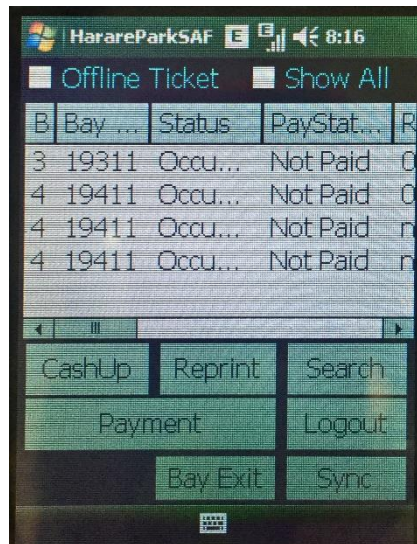
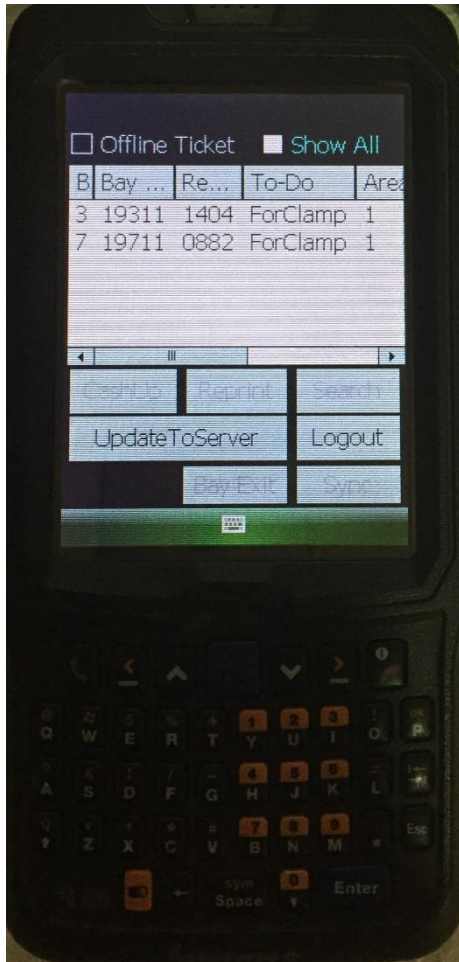
# Enforcement software

- AutoIssue wireless enforcement software is the leader in the industry
- Full enforcement workflows tailored to city requirements
- Full ANPR capability
- Supports contactless policing
- Works on Android, Windows Mobile and other platforms
- Integrated or separate printer



# Mobile Solutions

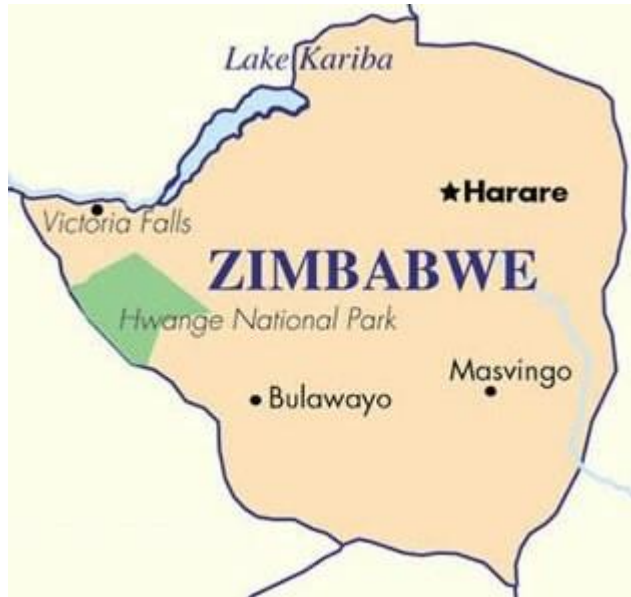
- Integrates cash collection, audit, clamping, and towing, tow release, fines, arrears, etc. functions
- Comprehensive server reports



# Management System & Smart Data Applications

- Bundled management system package customize based on your needs
  - flexible APIs can interface with internal and external systems
- PAMS
  - Parking Asset Management System – comprehensive GIS based sensor monitoring, space status, maintenance, reporting, and management
- PEMS
  - Parking Enterprise Management System – we have integrated into PEMS, which is a comprehensive GIS based enterprise system that integrates meter payments, sensors, enforcement officer location, and citation data
- Mobile Software
  - PDA software for cash collectors, towing and clamping personnel, and field supervisors. Supports entire workflows for field personnel.

# Case Study: Harare, Zimbabwe



## Harare, Zimbabwe

- Capital, financial and commercial center
- 2 million people
- Legendary traffic



# Case Study: Harare, Zimbabwe

## Challenge:

- **Sustainability & Livability**

- 7,000 parking spaces
- 160,000 cars entering the city daily

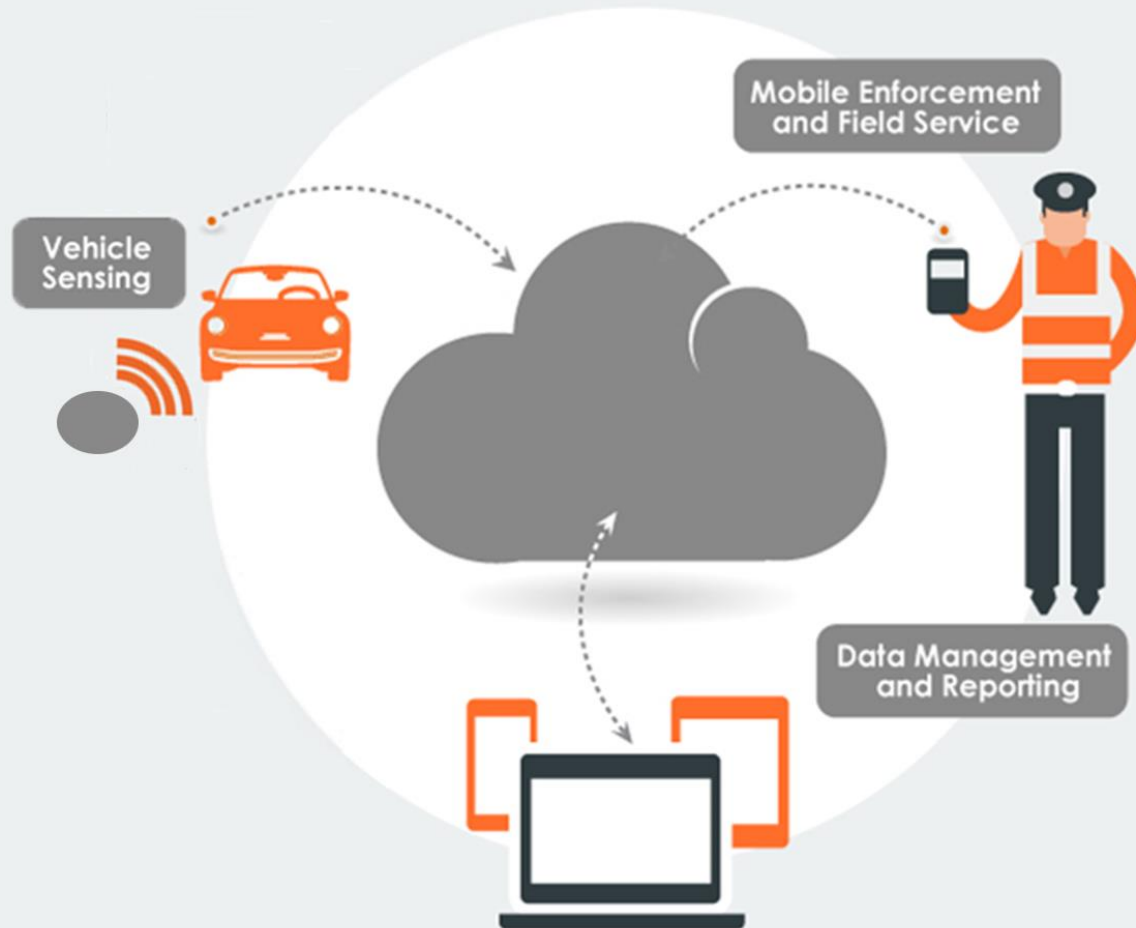
- **Economic Development**

- No centralized parking management system
- Parking attendant-based system: inadequate tracking
- Average revenue per parking bay: \$2.50/day



# Sensor-Driven Program

## OUR INTEGRATED SOLUTIONS



# Case Study: Harare

## Solution:

- **Sensors** installed in high traffic areas
- Occupancy **data** transmitted to central parking data management server
  - Parking marshals equipped with handheld POS devices
- **Payment**
  - Parking marshals accept in-person payments and issue electronic receipts
- **Enforcement**
  - Vehicles without a payment within a grace period result in tow truck dispatch



Sensor data is transmitted to **DATA MANAGEMENT SYSTEM** – if payment transaction is not received within grace period, **TOW TRUCK** is automatically dispatched

**SENSORS** detect when a vehicle enters or exits a parking space

Tow truck operators receive information on tow-eligible vehicles and report tow activity using **SUPERVISORY AND TOW MODULE SOFTWARE**

Parking Marshals accept motorist payments on-street using **POS HANDHELD SOFTWARE**



# Case Study: Harare

## Results:

- **Economic Development**


- Increase compliance
- Increase turnover
- Average revenue per parking bay: \$6+/day

- **Sustainability**

- Real-time data allows for proper enforcement
- Reduced congestion through swift removal of offending vehicles

- **Livability**

- More reliable and predictable parking experience
- Increased turnover = more opportunities to park and conduct business



**250%  
Increase**