



City of Atlanta Parking

Analysis of Smart Parking Options

ULI CFL mTAP – May 19, 2015

Prepared for:



Table of Contents

- ULI / CFL Overview
- Client Objectives
- Current State of Parking
- Key Challenges & Issues
- Trends in Parking
- Case Studies – Major Metro Areas
- Best Practices
- Recommendations for Atlanta
- Q & A



ULI CFL / mTAP

- ULI CFL – Urban Land Institute – Center for Leadership
 - ULI’s Center For Leadership was created by the Atlanta district Council in 2009
 - **Mission:** To cultivate leadership and life-strategy skills by teaching emerging leaders in the real estate and land use industries how the Atlanta region gets built.
 - The Center For Leadership program has been emulated by ULI districts across the country from Washington DC to Seattle.
- mTAP – **Mini Technical Assistance Panel**
 - During the course of the nine-month program, participants have an opportunity to provide leadership on a critical Atlanta regional issue through a mini Technical Assistance Panel (mTAP).
 - Working in teams, participants are responsible for sharing their expertise and advice to develop recommendations for a sponsor organization, such as the City of Atlanta.



Client Objectives

- To determine the best enhancements to on-street parking management.
 - Identify smart parking solutions for on-street parking management
 - Maximize revenue opportunities for the city
 - Create a more positive customer service experience for patrons
 - Establish a more convenient system to pay
 - Making ticketing/fining more accountable and "fair"
 - Increase awareness of the availability of on-street parking.



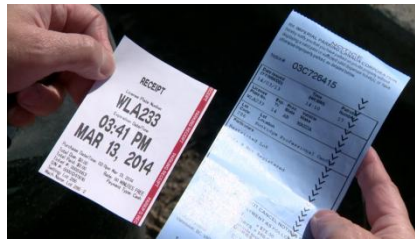
Current State of Parking: The Facts

- Contract with ParkAtlanta expires in Nov 2016
- ParkAtlanta currently pays the city an annual revenue of \$5.3 million
- Metered On-street Parking Spaces = 2,500+
- 600 Credit Card Metered Parking Spaces
- Approximately 200 Parking Pay Stations
- 42% average on street parking occupancy rates.
- Individual parking transactions in 2014 = 3,500,000+
- Citations issued in 2014= 199,000+
- Revenue from violations in 2014= approx. 66%



Current State of Parking: Public Opinion

- Overall poor public perception of onstreet parking in Atlanta
- Negative PR resulting, in part, by overzealous ticketing
- 2013 Central Atlanta Progress survey rated ParkAtlanta at 3.74 out of 10 by participants who were very familiar with ParkAtlanta
- Lack of marketing on parking app with payment options has led to underutilized use of app



Previous Atlanta Parking Studies

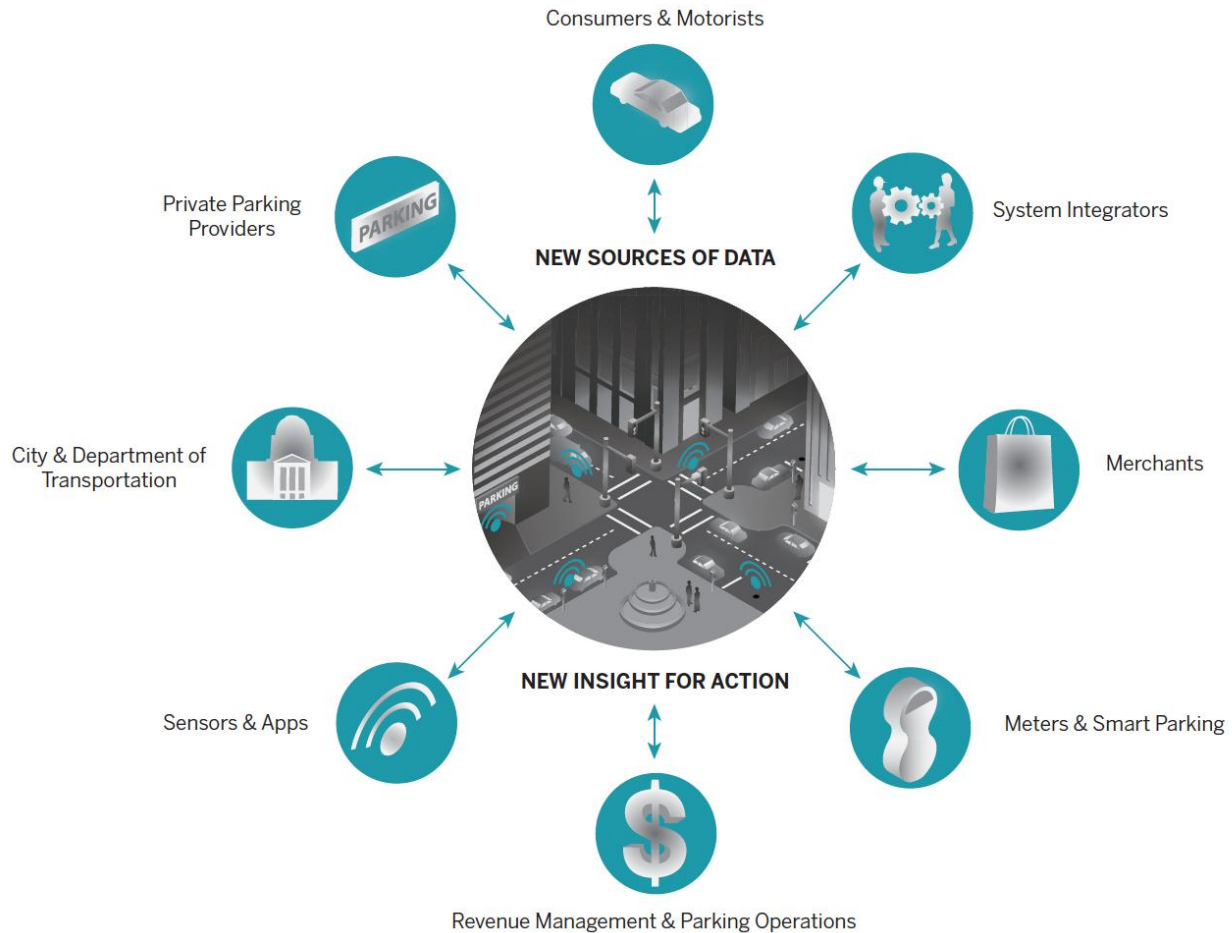
- Midtown Mile Parking Assessment,
Prepared by Midtown Alliance and JE Jacobs, June 2008
- Central Atlanta Progress Parking Survey
Prepared by The Schapiro Group, November 2013
- Downtown Atlanta Parking Assessment
Prepared by Central Atlanta Progress and Kimberly-Horn and Associates, Inc., June 2014
- Midtown Alliance Parking Survey
Prepared by Streetline, August 2014



Why does parking matter?



The Parking 'ecosystem'



Source: Streetline, "Becoming a Smart City" 2014



Key Issues – On Street Parking

- Lack of availability of on-street parking
 - Perception issue
 - Overall Capacity issue
 - Congestion in Downtown Core Areas
 - Impact on Residential
- Missed Opportunities
 - Existing unmetered spaces in growing markets
 - Spaces adjacent to Ponce City Market are unmetered
- Juggling multiple interests – different users have different willingness to pay and willingness to walk
 - Retailers/Consumers
 - Tourists
 - Residents
 - Commuters/Employees



Key Issues – On Street Parking

- Underutilization of Technology
 - Comes with financial and political hurdles that must be overcome.
 - Technologies have the potential to change rapidly
- Inadequate information for motorists on parking availability and price
 - Difficulty/confusion in paying for on-street parking
- Expand Opportunities to maximize revenue (particularly from meter receipts as opposed to enforcement)
- Balancing parking enforcement with fairness/public perception

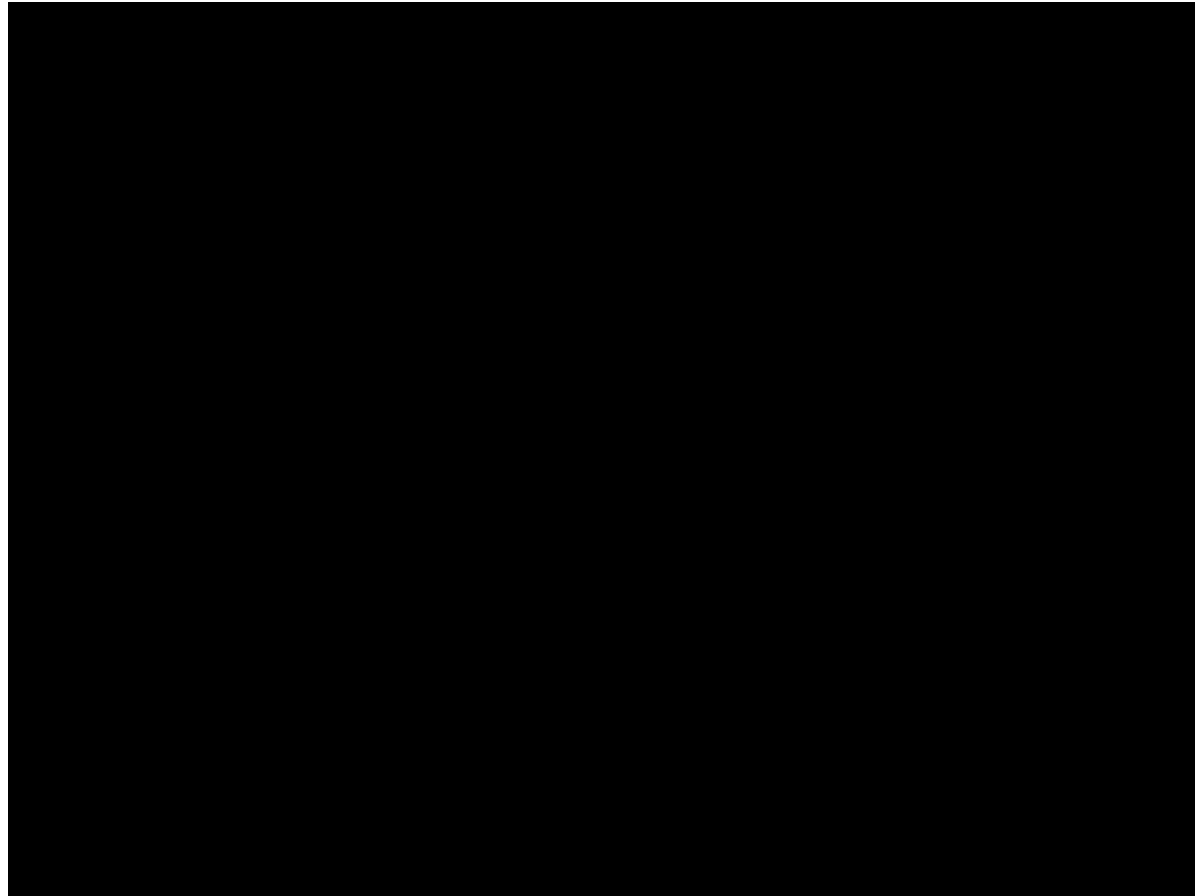


Common Trends

- Cameras
- Sensors
- Algorithms/Analysis of Parking Trends
- Mobile Apps
- Variable Rate
- Way finding
- 24/7

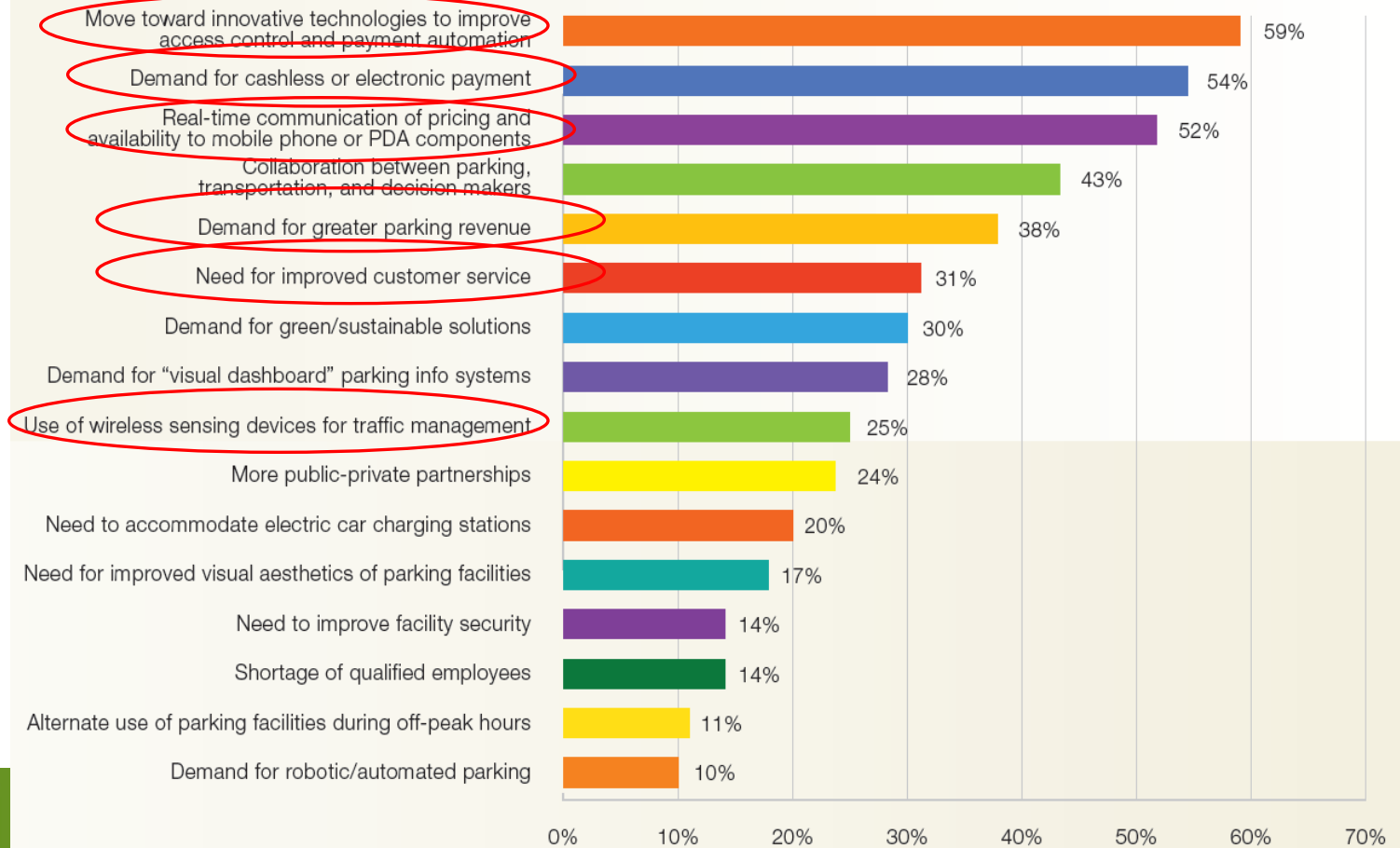


Setting the Trend...



Emerging Trends in Parking

What trends are having the greatest effect on the parking industry or profession?



Source: International Parking Institute, 2013 Emerging Trends in Parking



**INNOVATION
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PERFORMANCE**

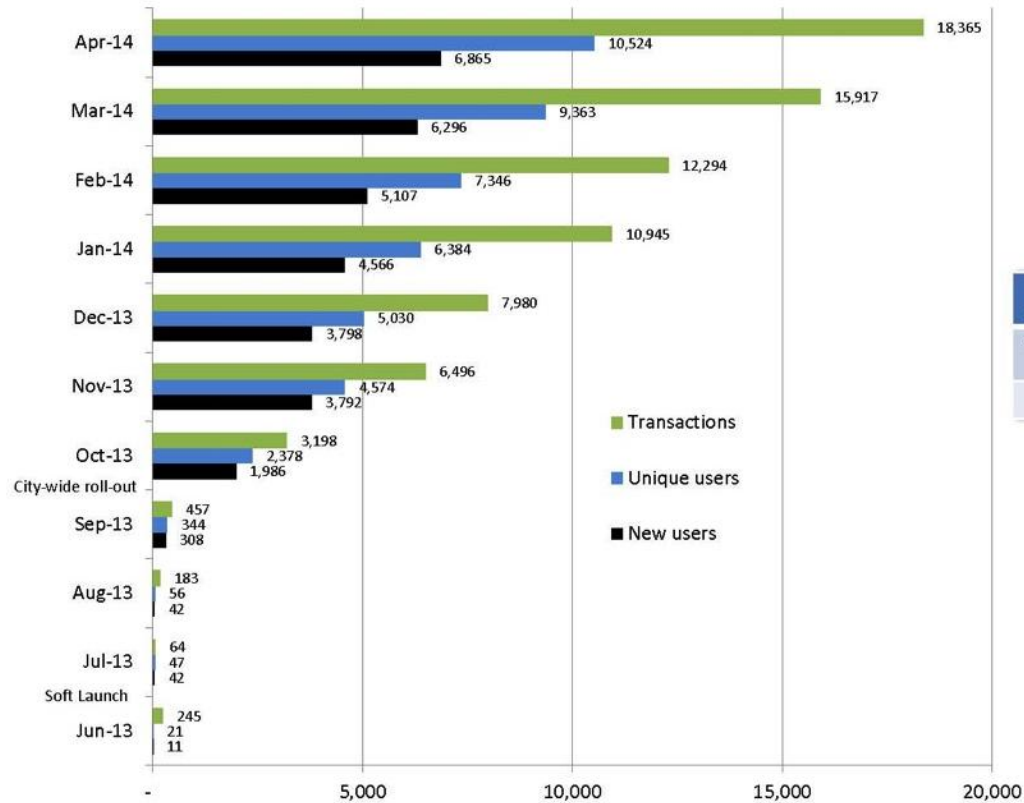
Smart Parking Trends

- Utilization of Smart Phone
 - Way Finding Application
 - Reduces circling and congestion
 - Automated Payment Options
 - Washington DC – 40% of revenue via ParkMobile
 - Increases revenue by increasing usage of on street parking versus other options (valet, garage)



Smart Parking Trends

Dallas – June 2013 through August 2014



Total June 2013 thru April 2014	
Transactions	New users
76,144	32,813



Source: On-Street Parking Modernization Transportation and Trinity River Corridor Committee, May 2014



**INNOVATION
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PERFORMANCE**

Smart Parking Trends

- In Ground Sensors
 - Provide real time feedback regarding occupancy
 - Allows for variable rate pricing
 - Allows space to zero out after it is vacated.



Smart Parking Benefits - City

- Ability to collect data for analysis to implement variable rate pricing
- Variable rate pricing keep occupancy at 70-90%
 - Increase retail patronage → increase sales tax
 - Decrease circling → traffic → emissions
 - Increase perception of availability
- Utilizing in ground sensors - Zero Out Pricing
 - Anywhere from 20%-100% increase immediately



Smart Parking Benefits - Customer

- Mobile Application
 - Guiding people to available parking (reduces traffic, emissions, uncertainty and visitor frustration)
 - Real Time Parking Availability information
 - Pricing Information in Advance
 - Text Messaging options to alert time
 - More options to pay (via app, phone call, meter)
- Reduce Traffic Congestion
- Variable rate pricing can lower rates in some areas that are underutilized



Case Study – Orlando

Implemented smart parking in December 2014

- Put out an RFP for a one-stop shop for:
 - Single spot meters that take coin/credit/debit cards
 - Coin for Sr. Citizens and others who wish not to use CC or mobile app
 - People without Credit/Debit can use prepaid debit card.
 - Single meters eliminate all need for paper, which is necessary in a rain-heavy climate
 - Pay-by-phone
 - Real-time way finding application



Case Study – Orlando

IPS (Integrated Parking Solutions) won RFP (POM, McKay, and Duncan also bid). Includes

- 1,000 single space meters and
- 500 in-ground sensors
- ParkMobile enabled
- Park Me App (way finding application utilized with sensors)
- Cost - \$670,000



Case Study – Orlando

Sensors – Why only 500?

- Used in the busiest half of the spots on the main corridors of downtown.
 - Initially will just be used for the ParkMe app to find spots in the congested downtown and around Orlando Health
 - Further down the road will be used for variable rate pricing
 - Currently utilized to zero out parking fees after a spot is vacated. Eliminating “piggybacking”
 - This practice increases revenue per meter anywhere from 20-50% instantaneously



Case Study – Orlando

Enforcement – done in house

- Spots that are occupied but unpaid show a red light while paid meters have a green light allowing enforcement to be done in an expeditious manner
 - The City provides a 5 minute grace period for infractions before the light turns red
 - Enforcement officers take a picture of the meter and the car.



Case Study – Orlando

Costs

- Upfront \$670,000 for RFP package
- Recurring - \$130,000/year
 - Gateway Fee
 - Sensor Reporting Fee
 - Management Fee
 - Software license Fee
- Maintenance - \$25,000/year



Case Study – San Francisco

- Starting in 2008, Sfpark implemented smart technologies in seven pilot districts. Technologies implemented include:
 - Smart Meters
 - In Ground Sensors
 - Variable rate pricing
- It includes 6,000 parking spaces and has received over \$19 million in Federal funds to implement.
- Sensors at each of the 6,000 parking spaces collect real-time occupancy information that is used to make future pricing decisions that are data-driven and easily understood by the traveling public.
- Parking rates are set to achieve occupancy goals of 60 to 80 percent and can range between \$0.25 and \$6.00 per hour. Rates vary both geographically and by time of day.



Case Study – San Francisco

Sensors and Variable Rate Pricing

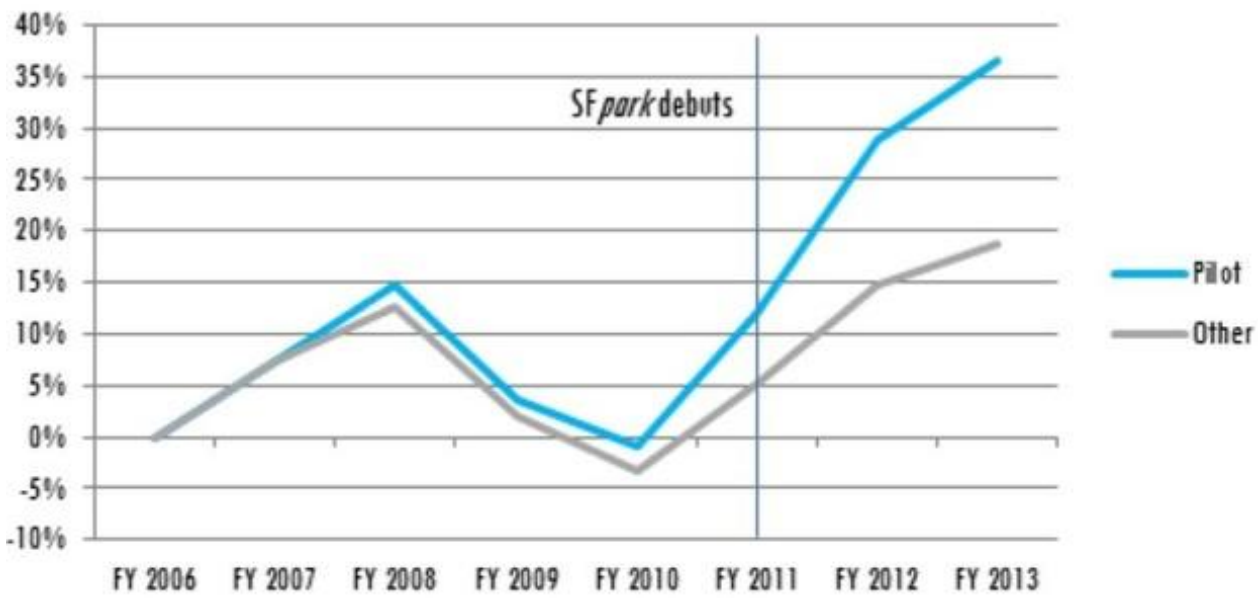
- Create demand responsive pricing in order to achieve 60-80% occupancy for on-street parking on every block
- Reduces traffic
- Increases patronage at retail → increasing sales tax



Case Study – San Francisco

Change in sales tax revenue, FY2006-2013

Food product, general retail and miscellaneous; chain stores excluded



Case Study – San Francisco

Sensors and Variable Rate Pricing

- Reduce congestion
 - Reduces circling
 - Most drivers can now find parking within 6.5 minutes in pilot areas, which is a 43% reduction.
 - Parking related vehicle miles traveled and associated greenhouse gases decreased by 30%.
 - Traffic volume decreased by nearly 8% in areas with improved parking availability.



Case Study – San Francisco

Smart Meters

- Makes Payment Easier for Consumer
 - Increases use of on-street parking
 - Decreases violations
- ReEnforce –allows enforcement to see spots that are unpaid and occupied. Limits the cost of enforcement.
- Allows for variable rate pricing and Event Pricing
- Credit card enabled meters – increase 20% revenue



Case Study – San Francisco

Expansion of meter as management tool

- Sunday/Weekend– expanded enforcement to Sunday. Historically excluded b/c no retailers were open. Today 70% of retailers are open on Sunday. Expanded to 12 – 6 on Sunday.
- Expanded minimums
- Expanded hours
- Expanded number of meters – to those streets that are typically over 80% full to mixed-use/commercial parking
- Extended time limits – increase revenue 18%



Recommendations for Atlanta: Rebrand

- Re-brand the City's on-street parking assets
 - Develop a new on-street parking "brand," which should include uniform colors, logo, signage, payment options, and parking instructions for all of Atlanta's parking assets.
 - To the extent feasible and cost effective, provide uniform parking hardware and software throughout Atlanta (or at a minimum, within each distinct area of the City. (E.g., Downtown, Midtown, Buckhead)



Recommendations for Atlanta: Expand

Expand the number of on-street parking spaces

- Develop and continually update a comprehensive inventory of all parking resources in Atlanta (on-street and both public and private off-street), particularly in main activity centers and high-growth areas.
- Conduct a focused study of specific areas around Atlanta (particularly in high-growth areas such as the Old Fourth Ward or Midtown) where on-street parking could be expanded.
- Install on-street parking on 4 lane roads that are targeted for road diets.



Recommendations for Atlanta: Technology

- ◆ Mobile App with Payment and Other Technologies
 - ◆ Third-party vendor to develop a customer-friendly mobile app, which provides the ability to make payments, add time to the meter, pay parking fines, locate parking space after paying, and find an open space (for those spaces equipped with in-ground sensors).
 - ◆ A robust marketing campaign and significant public outreach/education should be part of the development of the mobile app.
 - ◆ Install in-ground sensors (initially in Midtown or Downtown) to provide the City of Atlanta and customers' real-time information regarding availability.



In targeted areas where in-ground sensors are installed (Midtown and/or Downtown), conduct a pilot study to test demand-based pricing and/or “zeroing-out” meters once cars leave parking space.



Recommendation: Mobile App

Benefit	Potential Drawbacks
Improved Customer Experience and public perception of parking	Cost
Simplicity in paying for and adding time remotely for on-street parking	Implementation
Ease in paying parking tickets	Marketing
Increased Revenue	Public Outreach/Education
Reduced 'block circling'	



Recommendation: Sensors

Benefit	Potential Drawbacks
Ease in locating available parking	Upfront Costs & Ongoing maintenance costs
Reduced 'block circling'	Example: Fybr -- ~\$237/space + \$9/month IPS -- ~\$295/space + \$5.75/month
Accurate Enforcement	
Easy Installation	
Ability to track parking trends which will allow City to use analytics to develop future parking strategies	

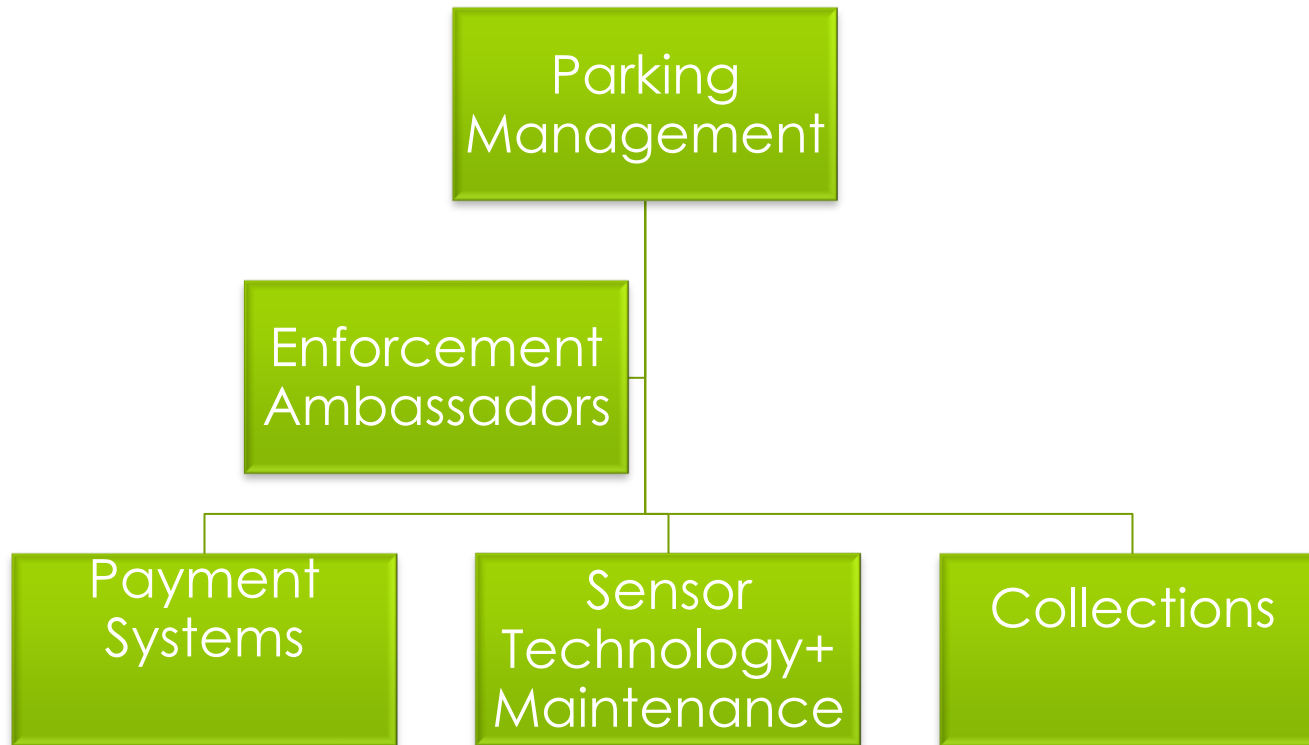


Recommendations for Atlanta: Partners

- Management Companies:
 - LAZ
 - Lanier
 - SP +
- Technology Vendors:
 - StreetSmart
 - Fybr
 - IPS



Proposed Parking Management Structure





Q&A

