



Taking Control of the Curb

TRANSPORTATION AND MOBILITY LOOK VERY DIFFERENT than they did a decade ago. There used to be a handful of ways to travel throughout a city: single-occupancy vehicles, public transit buses, trains, taxi cabs, and the occasional bicycle. Today, the number of options has increased with the introduction of shared ride-hailing vehicles such as Uber and Lyft, subscription-based car-share services, and docked and dockless bikes and electric scooters.

Each of these new modes, along with growing fleets of parcel and on-demand delivery services and other vehicles, requires access to the curb, which is allocated primarily to car parking. This mismatch between the needs of a modern mobility ecosystem and the traditional curb governance rules has created chaotic curbs that reduce the efficiency of urban mobility by encouraging double-parking, obstructions in the right-of-way, and cruising for parking.

At any given time, a city block could have dozens of vehicles competing for a spot: a truck temporarily parked to make deliveries, ride-hailing vehicles pulled over to pick up or drop off passengers, cars parallel-parked on the street, a city bus at a bus stop, or electric scooters stored on the street or sidewalk. With all of these vehicles requiring access to the curb, cities

need better and more flexible tools to coordinate, manage, and optimize curbside use.

The first step in successfully managing access to the curb is with a parking enforcement system that can measure, incentivize, and enforce which vehicles are allowed to take up space on the curbside and under what conditions. A real-time enforcement system can be part of the backbone of a city's mobility operation because that single piece of technology can be used to monitor and incentivize compliant curb use across all vehicle types.

Curb Management

Currently, most cities, universities, private operators, and agencies have a parking enforcement system to manage on- and off-street parking for cars. There are

The next generation of parking enforcement will see plenty of change.

By David Singletary



VIOLATION #: 15712169
FINE : \$15.55
PLATE # : 187KOH
VIOLATION : Non Payment
ISSUE DATE : 05/13/19 11:41 AM Mon
PLATE STATE : North Carolina
PLATE TYPE : Passenger
ZONE : 100 - Pleasantville Space
Parking
VEH MAKE : BMW
VEH MODEL : 4 Series
VEH COLOR : White
OFFICER : sgt
FEE SCHEDULE
PAY BY : 06/02/19 \$15.55
PAY BY : 06/22/19 \$25.55
THEREAFTER : \$35.55
High-Res Image Available Online

plenty of capable systems and companies that can help you write parking tickets, accept payments, manage appeals, integrate license plate recognition (LPR), and manage citations in a traditional parking world view. The important question is “how will your current or future technology partners help you ensure compliance across your evolving ecosystem—which now includes transportation network companies, scooters, commercial vehicles, and whatever comes next?”

Curbside management is best thought of as an extension of parking: The curb is a scarce resource, there should be costs and other rules (such as time limits) regulating its use, and non-optimal behavior should incur a penalty (currently, a parking ticket, boot, or similar). With this in mind, the future of curbside

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management will necessitate an evolved version of parking enforcement that combines a mix of traditional boots-on-the-ground enforcement, automated enforcement techniques such as LPR, and programmatic enforcement for the growing number and types of connected vehicles. At present, single-occupancy, privately owned vehicles require traditional parking enforcement techniques,

which are resource-intensive and challenging to scale. However, the advent of the internet of things and proliferation of connected vehicles mean that the rates to access the curb and the rules that apply can be delivered and enforced in real time to an unlimited number of vehicles citywide.

In the short term, one opportunity for better enforcement is with delivery vehicles, which are increasingly contributing to congestion as online shopping and food delivery grow in popularity. According to UPS, the company pays a significant amount in fines every year for vehicles that receive citations for parking illegally—and these are just for observed events. Delivery drivers don’t have the directive to take the time to pay the meter or use their smartphones to start a parking session for a delivery that may only take a few minutes.

Limited coverage of enforcement throughout the day means that temporary parking, such as that from delivery companies, happens without effective enforcement. As a result, the companies know drivers will receive tickets on only a small percentage of

non-compliant parking sessions, which reduces their incentive to pay for parking. Said another way, their access to the curb is underpriced because enforcement of the rules is inefficient and hard to scale. That drives low compliance, which compounds negative effects on traffic and congestion.

To solve this complex problem, cities must consider the way they want delivery vehicles to fit into their curbside ecosystem and deploy systems that align their interests with the owners of these fleets. To align incentives among these groups in the near-term, cities must increase the aggregate cost of non-compliance by issuing citations on a higher percentage of non-compliant delivery sessions and/or increasing the fee per citation. This holds true for virtually every type of vehicle that requires access to the curb.

Because the ability to detect non-compliance and issue fines is a function of a city’s parking enforcement system, the flexibility and responsiveness of its chosen technology will have a disproportionate impact on the city’s ability to control access to the curb and, consequently, build a mobility system that meets the needs of its citizens and visitors. The job of parking enforcement software has evolved, and delivery vehicles illustrate that the techniques and technology that were necessary to perform the old job won’t be sufficient as the industry transitions from parking management to curbside management.

Implementation

With the myriad changes in the past decade, we can hardly imagine what the next 10 years will have in store for the parking and mobility space. But leaders need to start thinking today about the future state of their operations and how to apply existing and effective methodologies, such as paid parking for single-occupancy vehicles, to emerging modes.

To effectively manage the curb, it is important to find the right solutions that can provide the right combination of expertise and technology to futureproof your operation. In a world where everything happens at lightning speed and is highly dynamic, an enforcement system and strategy that allow you to standardize integrations and centralize data governance will be the lynchpin in enabling you to manage your operation in real time. ♦



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