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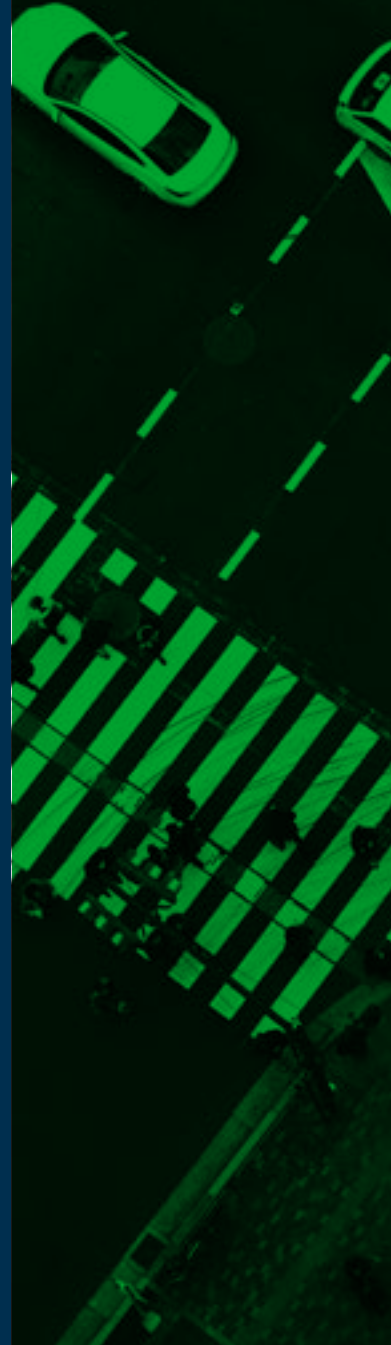# GETTING TO 99% ACCURACY: WHY PLATFORM REALLY MATTERS IN YOUR PARKING SOLUTION

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CONTENTS

INTRODUCTION

Regardless of whether you're buying one component of a parking availability and guidance solution, outfitting one lot or garage, or crafting a system for your entire parking environment, your goal is to solve your parking challenges, both today and into the future. You need something that is flexible enough to cost effectively instrument and disseminate information throughout your diverse infrastructure—lots, garages, street parking—with the right solution to meet your accuracy needs, at the price that will drive value, that doesn't require an engineering degree to implement, and that has an easy-to-demonstrate impact on your organization.

Nobody thinks about platform when picking a parking availability and guidance solution. In fact, buyers rarely think about platform at all when they're buying any parking solution. But, it could be the most important part of any technology decision you make.

WHAT IS AN "OPEN PLATFORM"?

You hear about platform in many industries today, but what does it mean really? When we talk about platform, we're talking about a solution that allows you to integrate with many different components, such as sensors, signs, data sets, and external systems, without extensive custom coding or other IT or engineering work. The key difference between an open platform and a closed system is the ability to connect to different data sources and outputs without having to pay for a custom coding effort to get it to integrate with your existing systems, new technologies or a specific component from another manufacturer. The open platform has pre-built integrations or toolkits that make this a simple, turnkey process that the supplier has to worry about, not you.

So what does an open platform give you that a closed or proprietary solution doesn't? We'll give you five reasons why selecting a turnkey parking availability solution based on an open platform that's device agnostic is the best decision you'll make about your parking technology stack.

#1 You want the most accurate counting solution for each separate component of your parking operation

Most parking operations have a number of different environments in which tracking availability is necessary—garages, lots and street parking, to name the most common—and a variety of applications they want to deploy. Most frequently these include availability and guidance, access control, safety, and reservations, but messaging, mass notifications, custom analytics, and integrations with other systems are also on many parking professionals' radars too. Deploying the best solution to fit the problem is the way to get the results you're looking for. The challenge is that there isn't typically one technology that fits every environment or configuration, and there aren't any suppliers who cover every possible scenario.

For example, at a large university, you may have:

- Surface lots, some with clear access points and some with no defined entries or exits, some with controlled access, some with design standards that restrict the use of poles or delimiters, some with very low light levels, some with power and some without, some with occlusions, some unsurfaced or some set aside for specific events or venues

- Garages, which may or may not be access controlled, may include meters, may have multiple exits and entries, may have premium spaces (reserved, handicapped or expectant mother) or rooftops that need space level availability and guidance

- Street parking that may be metered or open, may have time restrictions, may be reserved for specific events or times or may have design constraints that restrict accurate counting

The last thing you want is for each structure to have a varying rate of accuracy in the number of spaces occupied. If your garage availability solution is 99% but your surface lot solution is at 80% and your street parking solution even lower, your aggregate accuracy rate is very low. And that's not a daily accuracy rate if you have multiple turns on each space. Even if you have an accuracy rate of 90% across all your environments, if you have four turns a day, you are producing directionally accurate data, at best.

You may also have a number of different needs or applications, for example:

- To provide parking availability information, both on signage and directly in your campus app, to provide a one-stop shop for students

- To integrate with your permitting system to control access to specific lots using ALPR or Bluetooth

- To leverage your mass notification system to alert those on campus during events via signage or direct app integration

- To integrate with multiple parking management systems to provide a campus-wide view into available spaces

- To include reservation services for pay-to-park events or feed availability to an aggregator

Across everything, though, for every kind of operation, you likely want one source of truth: one system to reference where you can see the availability, utilization, occupancy time, duration of stay, and type of parking stay for every lot, garage or street parking space under your management. You want to have one place where you can gather your data to make the best decisions in real time and on the fly, provide guidance for parkers in real time, and understand your environment based on true data, not opinion or anecdote.

This can only happen when you have very high accuracy rates. Without that, you're still working from supposition, making it difficult to solve the problem, whether it's getting students to the closest available parking spaces and to class as quickly as possible (helping increase student retention), shoppers into spaces and shops without frustration (so they can spend money), employees into their seats (so they're productive and ready to work), or visitors into and out of their event venue without backups (to reduce traffic, congestion and emissions).

For each of these considerations, there is a "best fit" technology, one sensor type or technical solution that provides the most appropriate accuracy level at the right cost. Finding one manufacturer who offers each of the different sensor types or integrations can be challenging if not impossible.

#2 You want the most cost-effective availability and guidance solution across your parking operation

Continuing with Number 1, while understanding your parking operation has a variety of needs and environments, you also have a budget to meet. The dizzying variety of options can quickly result in a technology solution that can over-equip you with the wrong sensors or below desired accuracy levels simply because the manufacturer you're working with is only able to offer a limited technology choice. The desire to have one system of record housing all of your availability data means that you must make tradeoffs in terms of cost and accuracy, unless you invest in open platform instead.

An open platform allows you to not only integrate the most accurate technology, it also allows you to manage the cost to the level of accuracy you require. If you want to provide lot availability information, for example, instead of counting each space using individual sensors (ultrasound or magentometer, video or camera), you might be able to count "ins and outs" to a zone, using one laser or thermal camera at an entrance and exit, if you don't need space indicators above every spot. You can use those for your highest value spaces and instead use a bollard or zone guidance sign to optimize costs while at the same time achieving your parking goal.

ALPR

ParkTrak Parking Counting System

#3   You need to future-proof yourself

We all know the scenario: you invest in a great new system with all the latest technology, only to have it leapfrogged the next year by a more accurate, cost effective component that would solve your problems even better and at a more attractive price point. But you can't add it onto your system because it doesn't integrate with your technology.

In many areas of business, this has been overcome with the widespread adoption of open or interoperable systems, but in parking availability and guidance, there are few that have the ability to seamlessly add new technology when that "killer app" comes out.

By leveraging an open platform, you future-proof yourself against obsolescence and keep your options open as new, more accurate, more functional and oftentimes less expensive options are introduced.

#4   It's best to leverage your current technology

Not only do you need to be able to adopt future technology improvements as needed,

you want to retain your ability to leverage the investments you've already made.

Parking hardware can be expensive, and being able to re-tool it into the next generation of parking technology is a benefit when you are looking to upgrade.

Pulling data from your on-premises PARCS or ALPR system to provide availability, integrating new devices into your technology stack that supplement your existing configurations of loops or cameras, and leveraging your signage, apps or website for guidance can all reduce the cost to upgrade and provide you with the most flexible path to introducing new technologies on an ongoing basis.

#5   It's important not to get locked into one vendor

A corollary to Numbers 3 and 4, getting locked into one vendor has many negatives. End of life issues, price increases, and maintenance and other cost issues as equipment ages all add together to create ongoing challenges with a closed system. In the event that the vendor doesn't progress at the pace you need as you grow and expand or go in the direction, from a technical perspective, that you were expecting (or that the industry is), it can be difficult to switch.

The lifetime of parking equipment can be a number of years, and the investment is not insignificant, so switching can incur major costs, both hard and soft. Hardware purchase and installation, software configuration, custom integration with other systems, and the learning curve for your staff (including IT and maintenance) all compile to create a barrier to switching that can be insurmountable.

By selecting an open and interoperable solution, you provide the flexibility to select the technology you want with the peace of mind that your investment is protected.

Bonus: An open platform can extend beyond parking availability to integrate with any device or data set

On an ongoing basis, new data sets are introduced that have the potential to improve your parking operation—traffic and congestion feeds, city-wide parking availability apps, campus apps, HR systems, mass notification solutions, and yield management applications that leverage broader data sets, for just a few examples. With an open platform your options become endless. You can either ingest data from these sources or push your availability data to them to increase the impact of your efforts.

By integrating your availability data or information about individual vehicle locations, the reach of your parking system can extend throughout the organization or community in a way that you may not have anticipated.

CONCLUSION

Regardless of the sensors or signs required for your parking availability and guidance solutions, integrating new, more cost-effective or more functional technologies will always be a need.

By creating open solutions for your technology stack, you can better meet your needs for today as well as establish the infrastructure that will take you into the future, regardless of your next generation needs or technology advancements. This is a win for you, your stakeholders and customers, and for parkers everywhere.

Call 866.366.6602 or
email us at sales@alltrafficsolutions.com

All Traffic Solutions is a leader in innovative connected parking technologies that leverage the Cloud, platform and the Internet of Things to provide the most accurate, cost effective and turnkey solutions to meet your parking availability and guidance solutions. By providing an open and interoperable platform to colleges and universities, private companies, commercial operators, municipalities and others needing to understand their parking occupancy and availability and route parkers to spaces quickly and effectively, our mission is to provide a seamless flow for vehicles, helping to create an easier, faster, less complex parking ecosystem. For more information, visit AllTrafficSolutions.com.

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