

Leveraging guidance-and-beyond technology to revitalize airport profitability.

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Introduction

Today's on-airport parking facilities are dealing with an unprecedented set of pressures and challenges that are eroding parking revenues, straining resources and driving up operational costs. Until recently, efforts to solve these problems via new technology have been largely ineffective at best, and a dismal failure at worst.

With powerful data mining capabilities and innovative customer-centric features, today's camera-based parking guidance systems have emerged as a viable single-source solution to help combat the disparate issues of stagnant or declining revenues, operational inefficiencies, and the relentless onslaught of off-site competition.

This white paper looks at the multiple benefits of investing in an advanced camera-based parking guidance system (PGS), a smart-infrastructure solution that is growing exponentially in terms of real-world deployment.

Elevating The CX: *Reclaiming the premium position for preferred parking.*

The proliferation of present-day transportation options for air travelers is continuing to erode revenues for airport authorities and parking operators. For starters, off-airport operators have continued to step up their game in the area of customer experience (CX) – offering amenities and convenience levels not offered by on-airport facilities. The rise of Uber, Lyft and other rideshare services is only making matters worse.

Using a consultative and collaborative approach, an experienced parking guidance system provider can help to strategize a customized camera based PGS that addresses the unique physical and usage idiosyncrasies of a specific facility. The overarching goal is to heighten CX – along with customer satisfaction, repeat business and brand loyalty – on a number of levels. Key areas of focus include:

Next-generation wayfinding. The introduction of intelligent smart-sensors within the past decade has revolutionized the process of tracking vacancies across a parking facility or a set of facilities. As a result, current occupancy data fed into the core system is continually transmitted to a network of exterior and interior digital wayfinding signage. This information can also be broadcast using sophisticated application programming interfaces (APIs) that connect with an airport's website and mobile apps. This enables the enticement of visitors to use on-premises facilities before they even leave for the airport – while opening up even more value-added possibilities such as reserved and/or premium parking.

The major benefit for the airport itself is equally compelling. With a smart-sensor system, an airport can optimize its closest-proximity advantage versus off-airport competitors. The system makes the parking process quicker, easier and stress-free – while offering value-added services such as reserved parking, premium parking and car locator features. This empowers an airport to reclaim preferred-option status from off-airport competitors, who are further from the terminal and need to bridge the inconvenience gap using shuttle buses, etc.

Adding value to existing systems. The investment an airport has already made into its present systems – most notably its PARCS or other revenue control system – is an important factor for any PGS to leverage. For instance, the integration of an intelligent smart-sensor PGS with an existing PARCS system adds value across the board. By tapping into system-wide License Plate Recognition (LPR) capabilities, the PGS can link the identity of a specific vehicle to each ticket pulled. This tells the revenue control system which vehicle has parked where, helping to rectify scenarios where tickets are lost, while guarding against false claims of lost tickets.

Completing the wayfinding loop. One of the age-old issues in airport parking, especially in large facilities, is when returning parkers forget where they parked their vehicles in the garage. Leveraging the benefit of LPR technology in yet another way, a cutting-edge PGS can offer several ways to reunite a harried parker with his/her car. The insertion of the parking ticket into a finder-enabled pay station is one possibility. A parker can also type in a few letters of a license plate into a touchscreen finder kiosk onsite – or into a smartphone app that connects with the PGS. This is not only a comforting customer-centric benefit: it also helps with parking-bay turnover by eliminating these issues upon exit.



Operational Efficiencies: How a camera-based PGS becomes your eyes and ears.

Older, more primitive guidance technologies were limited to doing one thing: monitoring whether parking bays were either occupied or vacant. The introduction of the camera based smart-sensor – a microprocessor equipped sensor-with-a-brain that brings business intelligence to the parking-space level – has revolutionized what a parking guidance system can do.

As a result, an advanced smart-sensor system is able to provide a wealth of guidance-and-beyond advantages, while creating valuable customer-centric business opportunities. Examples of how this technological innovation is enhancing control, efficiency and performance for airport parking operators include:

Actionable data/insights for better decision-making. While the reporting features of a typical PARCS installation are limited to covering entry and exit transactions, an advanced PGS collects robust behavioral data that provides real insights into activity/usage trends across all levels and sections of a garage being monitored. This unprecedented body of data/insights enables operators to optimize the asset by analyzing real-time performance, to make adjustments that compensate for trends, and to forecast facility usage and needs into the future.



GROWING PASSENGER TRAFFIC AND EXPECTATIONS

- 3.7% growth in January 2017 in North America
- Strong gain for a mature market
- 1/3 of travelers feel parking needs improvement

Improved management of traffic, personnel and costs. Advanced PGS solutions give operators sophisticated tools for the aggregation and analysis of robust data. This includes live maps offering a comprehensive view of facility status on both macro and micro levels. The resulting insights can be used to help:

- Manage and reroute traffic flow during peak hours
- Plan staffing levels according to historical trends and anticipated activity
- Virtually reconfigure the allocation of bays throughout a garage, including special-purpose spaces for handicapped parkers, premium parking, etc.
- Eliminate time-consuming tasks for operators – giving them more freedom to focus on activities that add customer value
- Schedule maintenance when sections of the garage are not in heavy use

Automating license-plate inventories. In this era of heightened security risks, license-plate inventories are a key element in the intense security efforts an airport must undergo. Up to now, the process of conducting either manual walkthroughs or mobile LPR drive-bys has been both costly and time-intensive. Since a smart-sensor PGS keeps a real-time record of all vehicles present in a parking facility, a highly accurate license-plate inventory can be taken at any time.



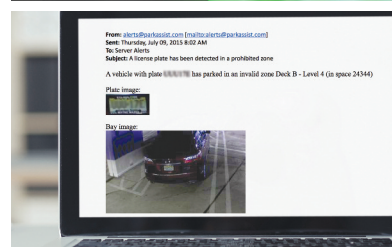
BOOSTING AN AIRPORT'S #2 REVENUE SOURCE

- Parking is second only to terminal arrival fees
- FLL smart-sensor installation achieves record level
- 22% increase in first year of operation

Extended Functionalities: *Using APIs to expand the utility of the system.*

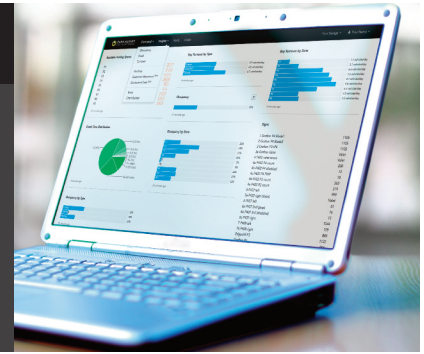
Through the use of sophisticated application programming interfaces (APIs), the core intelligence within a camera based GPS can be repurposed in a number of ways. While the list of API-driven add-ons continues to evolve, key functionalities already being used include:

- The ability to institute conditional and premium pricing without the need for additional equipment, gates or designated areas
- The introduction of reserved parking, initiated remotely by parkers via the airport website, mobile apps, and soon via smart dashboards in connected cars
- The opportunity to create and enhance customer loyalty programs, by integrating with the airport's PARCS, via the system's ability to identify and target frequent customers
- Policy enforcement via automated alerts and user-group control, without the need for fixed barriers
- Automated LPR-enabled alerts that warn the operator when a blacklisted threat vehicle has entered the building
- Expanded security from a unique vantage point: an unobstructed view of the spaces themselves



POSITIVE UPSWING IN IT SPENDING

- 87% of airport CIOs expecting level or increased funding in 2017
- Budgets growing about 32% > revenue over past 3 years
- Prime business-case opportunity for camera based PGS



Summary

The pervasive problems being faced by airports across the industry are having substantial effects on the efficiency and cost of operations, revenue/profitability levels and the customer experience (CX). But after years of ineffective problem-solving, advanced guidance-and-beyond systems using camera based technology are building a strong case for PGS investment through extended functionality and proven real-world results. The sum total is a multifaceted system that can be leveraged to maximize CX and operational efficiencies, while adding value to an airport's total technology investment.

Vince Balsamo is the Director of Account Management for North America for Park Assist, LLC. Pioneers of camera-based parking guidance and systems with embedded business intelligence, Park Assist continues to enhance its award-winning and now patented technology through leading-edge product innovations and robust API-driven solutions. With field-proven installations in 28 countries and counting, across a diverse set of industry verticals, the company serves major domestic and international airports – along with many of the world's premier property developers and operators.