



# PAY BY PLATE 101

OUR VISION TO SUCCESS

[#EvolveParking](#)

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Parking regulation and management systems have not only changed over the years, but have also diversified. Parking professionals now routinely deal with as many as half a dozen different systems, all within the same municipality or campus: meters, chalking, permits, pay and display and pay by space kiosk technologies for regulating and enforcing parking ordinances co-exist, creating a complicated, expensive and often inefficient enforcement process.

Wouldn't it be much more productive to have a single, dynamic parking enforcement system that would integrate all parking technologies? In fact, **gtechna**, the developer of Integrated eCitation Software, can offer just such a solution. It is a unified system of integrated parking technologies tied to vehicles' license plates. This replaces the patchwork of parking management with a methodology that allows parking professionals to combine all parking technologies together into one, rational and efficient system.

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# NEW PATTERNS OF PARKING

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Vehicle traffic – and parking – is not only the lifeblood of cities, but also an enforcement challenge. The same vehicles that bring in workers, customers and visitors into your city have to be parked somewhere. To complicate matters, each neighborhood has its own particular requirements: commercial business districts want free or inexpensive parking for their customers (but only for a limited period of time, to maintain a steady turnover), areas with concentration of office buildings want parking for their employees and visitors, residential neighborhoods want to restrict parking to homeowners and their guests, while community institutions such as college campuses and hospitals have their own particular needs. Over the years, cities have developed strategies to provide efficient parking enforcement to better serve local merchants, residents and visitors, to improve the local economy and overall quality of life. This has created a mixed pattern of parking systems, driven not only by the demands of particular neighborhoods but by economics (new systems can be expensive to adopt), urban planning and simply the willingness of drivers to adapt to emerging technology. The challenge of managing the enforcement of so many different systems can become complicated, frustrating and inefficient.



# PAY BY PLATE TECHNOLOGY

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In recent years, cities – large and small – are rapidly embracing fast and efficient Android - and plate-based parking enforcement technologies. By using the license plate as a unique vehicle identifier, scofflaw lookups as well as all parking system credentials from visitor passes and permits to pay stations and pay-by-phone, can be monitored and enforced with a single, unified technology. Suddenly a patchwork of disconnected systems becomes a centralized ecosystem.

Achieving that goal can be complicated, however. Pay by plate systems require carefully planned implementation in order to function to their full potential. It is essential that such factors as information technology, network communication, efficiency, adaptability, infrastructure and scalability are considered and that key stakeholders are brought aboard early on in the planning process. Addressing these challenges, **gtechna** has created an innovative set of solutions to help communities implement a successful unified parking enforcement system.



# HOW GTECHNA CAN HELP

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Serving public safety and parking enforcement agencies for more than 20 years, **gtechna** has developed a flexible and configurable electronic citations software system which offers enforcement solutions for plate-based enforcement integration. Called Officer™, this system allows fast, efficient and accurate parking enforcement across a broad spectrum of parking systems with virtually zero human and machine error. Officer™ can increase the efficiency of parking and code enforcement, reducing the amount of time and effort that goes into that activity and freeing up resources so that officers can focus on better serving and interacting with the community.

# HOW IT WORKS

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The basis of this new parking technology is using electronic data capture instead of manual processes. One of its key force multipliers is License Plate Recognition (LPR) technology, which captures a vehicle's plate identification and uses that datum to search a database to determine its status. Officer™ software, developed by **gtechna** for the Android platform, is loaded onto Smartphones carried by enforcement officers. Using these tools, patrols can quickly scan license plates of parked vehicles or type in the license plate number and immediately determine if it is in violation. If so, the officer can either instantly issue a citation that can be electronically delivered to the system for processing or contact another patrol for enforcement action. The system allows for patrols to communicate among themselves (a motorized patrol, for example, can direct an enforcement officer on foot to a vehicle in violation) and for officers in the field to receive dispatches from their headquarters.

# ACCURACY

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By using license plate recognition technology, automatic time stamps, GPS mapping technology and embedded officer electronic signature, most of the manual transcription is eliminated. The Officer™ system has been shown to reduce transcription errors by 15% to 30%, which lowers the rate of ticket challenges and court rejection rates. By eliminating errors due to the manual entry of incorrect information, incomplete citations and illegibility, this increase in accuracy also saves time at an enforcement agency's headquarters.

# INCREASED EFFICIENCY

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The system allows parking enforcement officers to perform their duties quickly. Simply driving through a parking zone – on the street, in a lot or through a parking structure – and capturing license plate information will automatically trigger notification of violations.



# CROSS-SYSTEM INTEGRATION

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Since Officer™ uses the license plate as the key identifier, it works across all parking systems. Officers can use time-stamp logs in areas that limit parking times by recognizing vehicles that have over-stayed their allowed time. Vehicles with expired permits can be recognized without having to examine window stickers. Kiosk-based or pay-by-phone parking can be regulated by integrating with the data bases that track the information for each paid vehicle. Scofflaw alerts are triggered by vehicles with unpaid tickets.



PAY BY KIOSK



VEHICLE LPR



PAY BY PHONE



PAY BY PERMIT



SCOFFLAW

# FEATURE-RICH

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Municipalities can set the features of the Officer™ system to reflect their enforcement philosophy. Changes in parking regulations, such as seasonal or special events, can be made at headquarters level. In certain scenarios, for example, grace periods can be provided for some areas. Paper tickets can be printed out and affixed to the vehicle manually, while a copy is sent electronically to the “Command Center” central hub.



# SCALABLE

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Even if a municipality or campus has not yet implemented a new parking technology, such as pay by plate pay stations (or pay kiosks), the Officer™ solution allows enforcement with existing technologies like pay and display and pay by space. The software will also allow for changes in existing technology over time and across parking systems in different neighborhoods.



# COMMAND CENTER IN THE CLOUD

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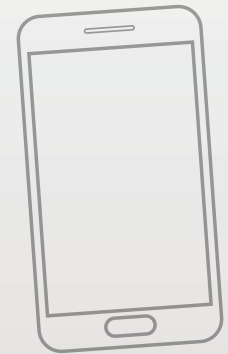


As part of its services, **gtechna** provides cloud hosting in its web based Command Center. This central data hub allows real-time communication between and among patrols, headquarters and the database of license plates, violation records and scofflaws.

# ANDROID READY

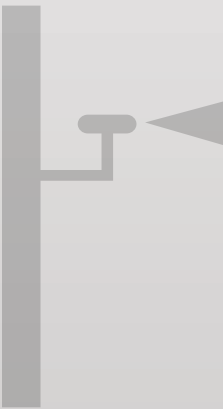
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The equipment used by patrol officers is as simple and familiar as an Android phone, because that's exactly what it is. The **gtechna** parking enforcement solutions are custom developed for any Android device, which also allows officers to use talk, text and e-mail to communicate among patrols and with headquarters as well as take advantage of productivity apps to assist routine activity. Agencies can choose whichever model best suits their needs – and their budget – to integrate with both their communications provider and the **gtechna** system.



## FIXED LPR

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A stylized illustration of a fixed camera system. It shows a vertical post with a horizontal arm extending from it, and a camera head at the end of the arm, pointing towards the right.

The Officer™ pay by plate solution also includes fixed camera systems for off-street settings, such as university parking facilities to dramatically increase coverage. Fixed cameras record the time of entry and exit into parking structures or limited-access lots for license plate inventory and management of permit and metered zones. Whether by digital permit, pay station or pay by phone, all parking credentials are accessible via the plate number for enforcement. These fixed camera systems work hand-in-hand with vehicle and handheld license plate recognition enforcement systems. A dashboard displaying information on parked vehicles is at the parking enforcement officer's disposal. Alerts appear in the dashboard indicating the location and status of any vehicle that does not have the appropriate parking credentials. Patrols equipped with LPR can be dispatched to verify the plate and issue an electronic citation where needed, saving valuable time, especially in sprawling campus or airport lots.

# ABOUT GTECHNA

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Founded in 1993, **gtechna** is a leading company in the field of parking enforcement solutions. Our team of experienced, highly trained professionals provides the most up-to-date expertise in information technology to build leading-edge software applications for parking enforcement and public safety departments throughout North America. We develop Android e-Citation software that unifies parking enforcement to form an integrated parking management solution. Twenty years of successful collaborations with leading cities such as Seattle, Pittsburgh, Washington, D.C., Baltimore and Banff, Alberta have also led to the company's expansion into markets outside North America. In addition, **gtechna** is a certified Independent Software Vendor (ISV) partner in the Samsung Enterprise Alliance Program (SEAP). This partnership allows **gtechna**'s research and development teams to build real-world applications for government and public safety agencies using the latest mobile devices and technologies on the market.

## DO YOU WANT MORE INFORMATION?

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If the concept of a simple, integrated, efficient parking enforcement solution appeals to you, **gtechna**'s team of parking solutions advisors is ready to provide detailed information on our systems. To learn more, please contact:

**Tim Taylor**  
Marketing-Communications  
(866) 483-2462 x114  
tim.taylor@gtechna.com

If you'd also like to see a demonstration of our Officer™ system, go to:  
<http://www.gtechna.com/request-demo/>

We look forward to helping you explore gtechna's innovative solutions to parking and code enforcement.

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