

# Parking enforcement solutions for cities

Parking can be a headache for both drivers and cities—but it doesn't have to be. With automatic license plate recognition (ALPR) technology, cities can enforce parking regulations in less time while boosting parking compliance and service.

There's a lot of parking available in cities, yet motorists still struggle to find vacant spots. In fact, drivers usually spend about 20 minutes looking for parking per trip. According to an Emerging Trends in Parking Study by the International Parking Institute (IPI), driving around looking for parking not only increases traffic congestion by 30% but also contributes to surging greenhouse gas emissions.

To keep commuters happy and enhance urban livability, cities are under pressure to increase parking availability and enhance services. This stress falls on parking managers who are struggling to make improvements with limited resources.





With the right parking management solutions, cities can efficiently enforce regulations, improve customer satisfaction, and streamline operations, all while seeing a return on investment.

Whether you're managing parking on-street, off-street, or both, an ALPR system helps you get the job done. With ALPR cameras mounted on vehicles, your officers can scan thousands of license plates per shift. The system helps your enforcement staff simultaneously manage permit and overtime regulations or scofflaws and alerts them to infractions, so they can take action. This leads to higher compliance and helps you recoup your investment faster.

Since the license plate number acts as a virtual permit, drivers can simply park and go, without fumbling with stickers or hangtags. With a fully integrated pay-by-plate solution, you can add mobile apps and digital pay stations, making payment more convenient for extra parkers as well. Your ALPR system can also help you track lot occupancy in real-time. Armed with that data, you can guide drivers to lots with available spaces, improving the flow of traffic in your city.

# Considering an investment in ALPR? Here are 5 things to think about

#### Return on investment

Length of time to ROI will vary depending on factors such as the number of ALPR units, types of applications, and the scale of your operations. The City of Fort Lauderdale recouped their investment in two months by improving scofflaw detection alone.

#### 2 More than enforcement

Improve off-street parking management and resource allocation. Get information on length of stay, what zones are busiest during the day, and how many vehicles are parked during events. Use this data to justify improvements and maximize enforcement routes.

#### **3** IT support

Deploy an ALPR system faster, without needing on-site servers or IT support. With AutoVu™ Managed Services, your entire system is hosted in the cloud and expertly maintained by Genetec professionals.

#### Securing your lots

View and record video streams from ALPR devices and use license plates as access credentials to secure your lots. Unify ALPR with other security systems in one platform. All video and data are associated to license plate reads so you can quickly retrieve evidence.

#### 5 Safe city collaboration

ALPR systems can directly alert law enforcement agencies to vehicles of interest, without your officers' knowledge. These could be stolen cars, wanted persons, amber alert vehicles, or people who are not permitted on your property.



#### How a popular tourist destination automates parking enforcement

Managing parking is an around-the-clock job in the City of Fort Lauderdale, Florida, United States. There are over 15,000 parking spaces spread on streets, within 39 lots and 5 garages. To support enforcement officers, the city invested Security Center AutoVu ALPR. Within the first 8 months of using the AutoVu ALPR system, the City of Fort Lauderdale was able to apprehend and boot over 600 scofflaw vehicles and collect over \$200,000 in unpaid fines. Because of a 1400% increase in scofflaw identification, the City recouped its investment on the ALPR system after only two months.

#### Key benefits of the AutoVu ALPR system for city parking enforcement



#### **Boost enforcement efficiency**

Enforce all parking rules simultaneously and digitally chalk vehicles for future passes without leaving the vehicle. The system can also automatically select enforcement zones and rules based on GPS coordinates.



#### Stay open to other technologies

Link your ALPR system to other third party solutions such as mobile pay stations, payment apps or digital signage and remain open to future advancements. Body-wearable devices can also be integrated with the ALPR system so officers can record incidents and stay safe on the job.



#### Increase parking compliance

See which lots have the most vehicles in violation and dynamically adjust patrol routes to enforce them. You can also identify scofflaws as part of routine enforcement to crack down on repeat offenders.



#### Go green by going gateless

Reduce vehicle idling and greenhouse gas emissions while improving driver experience by removing gates from your parking lots. A fixed ALPR system automatically alerts you to vehicles in violation, helping you manage many remote lots such as commuter parking.



#### Improve customer service

Move away from issuing printed tickets and paper permits with pay-by-plate parking. Parkers can conveniently register for permits online using their license plate, saving your team countless hours during renewal periods.



#### Automate access and prevent fraud

Automate access to municipal building parking lots by using city workers' license plates as credentials. Fixed ALPR cameras will alert you to illegal parkers who try to use the lots. You can also use the fixed cameras to track when city sanitation or maintenance vehicles exit or enter storage lots.

#### Our solutions for parking enforcement

## Security Center AutoVu automatic license plate recognition

Simplify parking enforcement and improve your overall operations using fixed and mobile ALPR cameras to identify violations and scofflaws on and off-street.

#### AutoVu Free-Flow

Keep track of off-street violations and lot occupancy in real-time to increase parking enforcement efficiency and compliance, and direct new vehicles to open spaces.

#### AutoVu Pay-by-Plate Sync

Simplify parking enforcement and improve customer experience by moving to virtual permits with a complete pay-by-plate system.

#### **AutoVu Managed Services**

Enhance and simplify parking enforcement by hosting your ALPR system in the cloud to eliminate installation and maintenance headaches.

#### Motoscan

Pack a complete, energyefficient ALPR system in a mobile case to easily patrol busy and narrow routes on a scooter.

#### AutoVu Sharp cameras

Use AutoVu SharpV stationary or AutoVu SharpX mobile cameras to capture plate numbers on moving vehicles or those parked in parallel, at 45° or 90°.







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# Automatic License Plate Recognition for Parking Enforcement and Management





Parking density is skyrocketing and community expectations are growing. But when asked to enforce parking regulations and increase compliance, parking directors are faced with limited resources and accelerating technology changes. This is where Security Center AutoVu $^{\text{\tiny M}}$  automatic license plate recognition (ALPR) solution can help.

## Invest in Long-Term Benefits with AutoVu™

Security Center AutoVu™ has been helping municipalities, universities and parking operators increase enforcement efficiency for over 15 years. AutoVu™ specialized hardware and software are designed and developed in-house by our Genetec™ engineers, offering you an end-to-end ALPR solution for your parking enforcement and management. This single, powerful ALPR solution automatically captures and reads thousands of license plates per shift, compares each plate to any existing database in real time, and notifies officers of infractions.

Powerful Back-Office Software – Genetec's Security Center, the back-end software of the AutoVu™ solution, allows you to centrally manage parking rules and permits lists from your office, and wirelessly and instantaneously synchronize updates to each patrol vehicle. It also offers reporting and data-mining capabilities, such as route playback, occupancy counts, citations statistics and individual officer performance statistics.

User-Friendly In-Vehicle Software – AutoVu™ Patroller is the intuitive in-vehicle interface, offering easy touch-based interactions to parking officers. With advanced features like GPS-assisted lot selection, in-vehicle mapping and route optimization features, Patroller helps operators optimize their patrol and identify a greater number of infractions.

#### Highly-Accurate AutoVu™ Sharp ALPR Cameras -

AutoVu<sup>™</sup> Sharp ALPR cameras can capture images at high resolutions (up to  $1024 \times 946$  pixels), enabling a single unit to accurately decipher plate numbers on vehicles parked in parallel, at 45° or 90°. All Sharp units are equipped with integrated illumination, ensuring consistent performance at night and during the day. And thanks to their increased field of view, a single AutoVu<sup>™</sup> ALPR camera reads plates on low-riding sports cars and SUVs simultaneously.

#### **Key Benefits**

**Enhance Enforcement Productivity** through automatic identification of parking infractions.

**Increase Compliance** by identifying permit or timelimit infractions and scofflaws.

**Increase Patrol Coverage** by checking more parking zones, more frequently per shift.

Increase Customer Satisfaction by offering better management of on-street and off-street parking.

Maximize Your Investment with a flexible system that easily merges with other technologies.



### Increase Enforcement Efficiency with AutoVu™

Flexible Permit Enforcement – Easily add, edit or remove license plates from multiple permit lists, and manage employee access to each list with user rights features. Get real-time synch and enforcement of many permit types, including:

- residential
- university semester
- employee
- short term transient
- shared permits

Patented Digital Tire Chalking – Safely enforce time-limited parking zones in any weather, without needless confrontations. AutoVu™ automatically identifies vehicles parked in the same space, block face or district for longer than the allotted time, and advises the operator. Our optional wheel imaging feature



collects additional evidence that the vehicle has not moved between each driveby, minimizing overturned violations and disputes.

### More Time-Saving Features

**Fuzzy Matching** – Using AutoVu's fuzzy matching module, you can adjust plate matching parameters to your application, minimizing false hits while ensuring you are detecting valid infractions.

**Automatic Lot and Zone Selection** – AutoVu<sup>™</sup> seamlessly selects the appropriate permit zone or parking lot based on the patrol vehicle's position.

Simultaneous Scofflaw Detection – AutoVu<sup>™</sup> can also detect vehicles with outstanding tickets, warrants or expired license plates and optionally notify local law enforcement silently, further increasing officer efficiency.



### Begin Your Move to Pay-by-Plate Parking

#### AutoVu Pay-by-Plate Sync feature

AutoVu Pay-by-Plate Sync feature introduces hassle-free compatibility between leading solutions of permits and citation management systems, parking meters, pay stations, mobile payment apps, data collection services, and more.

This helps you move towards a pay-by-plate parking management system, eliminates physical permit tags and provides users with immediate access to permits upon issuance. This also gives you the freedom to evolve your system as your needs change.

AutoVu<sup>™</sup> Pay-by-Plate Sync Partners

















## Strengthen Off-Street Parking Operations with Fixed ALPR

Direct enforcement to parking lots with unenforced violations, automate vehicle access control, improve security and track the evolution of parking enforcement efficiency by mounting ALPR units at the entrances and exits of your parking installations. Within Security Center, our unified platform, AutoVu™ can improve vehicle access control and become your first line of defense against potential threats.

#### **Track Off-Street Parking Violations in Real-Time**

Monitor the location of unenforced violations across your parking installations and adapt patrol routes dynamically with  $\text{AutoVu}^{\text{\tiny{M}}}$  Free-Flow.

AutoVu<sup>™</sup> Free-Flow records the license plate of vehicles entering and leaving each parking lot, and compares them to the list of payments received through pay-by-plate-enabled pay stations, mobile parking apps and permit holders. Vehicles extending their stay beyond their purchased parking period are automatically marked as a parking violation awaiting enforcement, and synchronized in real-time with patrol vehicles.

Measure Enforcement Efficiency – Monitor the evolution of key performance indicators, such as violation capture rate, average length of vehicle stay and the distribution of new and returning patrons, and measure the impact of decisions on customer behavior and enforcement efficiency.

Automate Vehicle Gate Control – Reduce congestion at peak hours and risks of collisions between vehicle and gate by automatically granting access to trusted vehicles. AutoVu<sup>™</sup> compares license plate read to lists of employees, suppliers and other known vehicles, and opens the gate without operator action. Access rules can be adapted based on schedules and vehicle profiles for exceptions like executives or off-hour shift workers.

Augment Safety and Security – AutoVu $^{\text{\tiny M}}$  SharpV ALPR units also include secondary video cameras which can be used as video surveillance units within your Security Center system, helping you maximize your investment. Seamlessly combine AutoVu $^{\text{\tiny M}}$  with video surveillance, access control, intercoms and more through a single unified security platform, .



