

Best practices for automatic cameraparking in gated and free-flow parking areas with mobile apps

Bernd Reul, EasyPark Intertraffic 2024



EasyPark +20 years of experience in parking

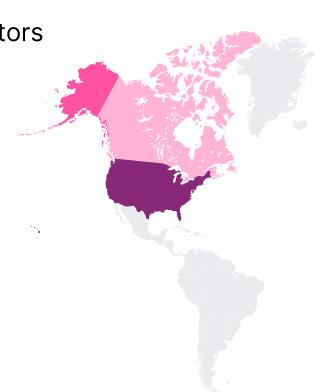
5000+ cities & operators

EasyPark Group presence















EasyPark is integrated with key PMS and CameraPark (ANPR/LPR) system vendors and the volume is growing rapidly

25.000 +

Off-street Parkings areas enabled with EasyPark

200%

more Camerapark transactions in 2023 vs. 2021















































Different CameraPark system integrations



How does the digitization and automation of parking areas affect the operation and customer experience?



Traditional gated car parks with paper ticket and ticket based pay stations



Open surface lots or car parks with P&Ds and manual enforcement









Gated car parks with ANPR (LPR) - either with tickets or ticket-less pay stations



Open surface lots or car parks with free-flow ANPR (LPR) system and ticket-less pay stations



Automatic CameraPark with a parking app - a seamless experience

An app based solution bringing fully automated parking on ANPR-enabled facilities for a touchless and free-flow parking experience with and without gates.









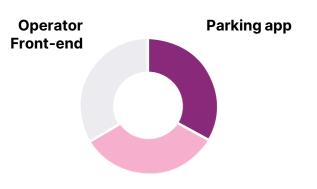
Question: What is your overall experience using EasyPark's Automatic CameraParking? 84% (very) satisfied and 11% neutral. Survey in Denmark, Dec 2023, 535 respondent

Automatic cameraparking - all 3 entities need to work seamlessly together for a flawless end-user experience

Parking Operators Interface

Focused on recurring/frequent customers

- Monthly subscriptions and long term parking
- Account management
- Premium services



Parking Management System

Parking App

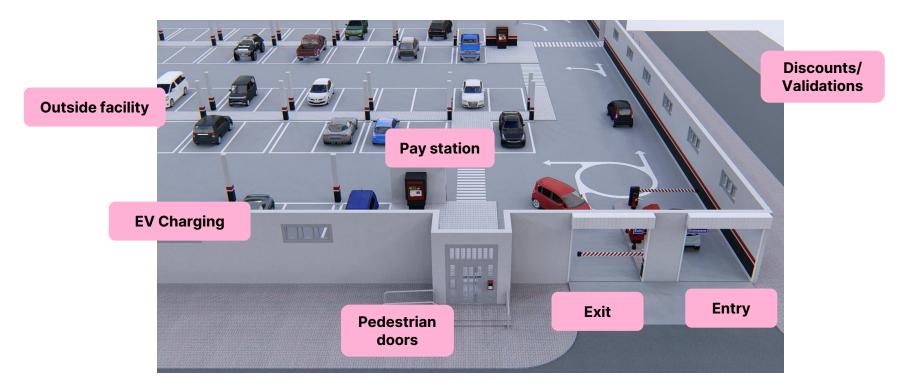
Focused ad-hoc users

- On-street & off-street in city and across cities
- New channel for operators

Parking Management System (PMS)

- Managing the cameras, pay stations, and gates (if applicable)
- Tariff engine including discounts

How does the digitization and automation of parking areas affect the operation and customer experience?





Entry (1/2)

What:

Show sign with apps/ services

Why:

Drivers are informed



What:

Prevent issuing of a physical parking ticket if payment is done via an app service

Why:

Avoid double-payments



What:

Digital display with information

Why:

Drivers are informed





Entry (2/2)

What:

Move subscribers from RFID to license plate based solution

Why:

Avoid double-payments



What:

Ensure correct priorities

Why:

Avoid double-payments



What:

Allow users to cancel automatically started transaction in parking app

Why:

(Wrong) user not forced to pay via app



EV Charging



What:

Allow users to pay for charging with same solution as for parking - manually for via ANPR

Why:

Make it easy to pay for EV charging





Pedestrian door

What:

Provide web based solution

Why:

People can enter with license plate







What:

Provide screen based solution

Why:

People can enter with license plate



Provide QR code scan solution

Why:

People can enter with QR code in parking app





Pay station

What:

Show that transaction is payed via app

Why:

Inform drivers that the payment is handled



What:

Support automatic and manual camerapark flows

Why:

Everybody can pay with app during first visit; shared car users can also pay with their parking app



What:

Allow drivers to cancel automatic payment and pay on site

Why:

Actual driver can pay instead of account holder for automatic service





Discounts & Validations

What:

In a digital ANPR based parking system, validations must be done based on license plate - not (only) on paper tickets

Why:

Guest will get the relevant discount also when using a parking app and ANPR









At exit

What:

Operator must close transaction in the PMS (after camera misread)

Why:

Ensure transactions are closed correctly

What:

Support QR code (in app) as back-up

Why:

Allow drivers to exit correctly



What:

Keep ANPR camera working even though gate may be manually opened

Why:

Ensure that transactions are closed correctly



After exit

What:

For non-closed transaction, allow apps to send endtime of exit to PMS

Why:

Get paid for transactions and remove open transactions

What:

Allow Operators to close the transactions in the PMS later

Why:

Remove open transactions



What:

Especially for Free-flow:
Automatically wipe nonstopped transactions at
zero price after short
period

Why:

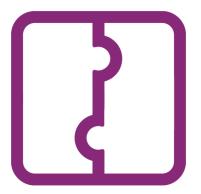
Remove open transactions



Direct integrations between parking apps and the PMS (Camerapark) systems have a number of benefits

Benefits of direct integrations

- Correct prioritization (Subscriber, Booking, Spontaneous parker)
- Full integration between ticket & pay stations and ANPR camera solution
 also avoiding double payments
- All transactions and revenue in one system (per car park)
- All features supported by PMS available to Operator, App and Drivers
- Least possible points of failure
- Fast response times between reading license plate and gates opening
- Clear service ownership and direct support contacts

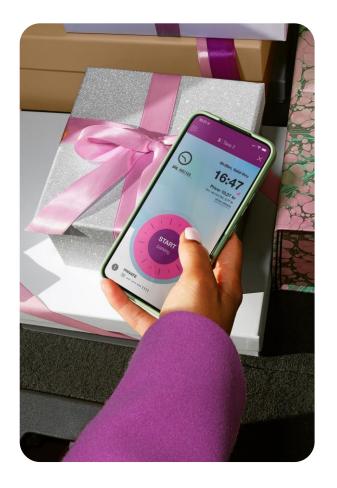




Summary

- Digitization of car parks using ANPR greatly improves parking experience for subscribers
- Enabling parking apps will also improve the experience for spontaneous parkers
- Following best practices for gated and non-gated facilities ensures the best possible customer experience
- Think about the end-user experience for the whole parking journey

...and working with the EasyPark parking app requires very little investment!





Thank you

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