



PARKING SYSTEMS



# ADVANCED PARKING TECHNOLOGIES





CONVENIENT AND EFFECTIVE PARKING

# PARKING SYSTEMS

NAVIGATION AND  
INFORMATION BOARD

PGS PARKING GUIDANCE SYSTEM

LPR CAMERA

EXIT TERMINAL  
CROSS VTi

LPR CAMERA

BARRIER  
CROSS AZN

ENTRY TERMINAL  
CROSS PTi

PAYMENT TERMINAL  
CROSS APTM

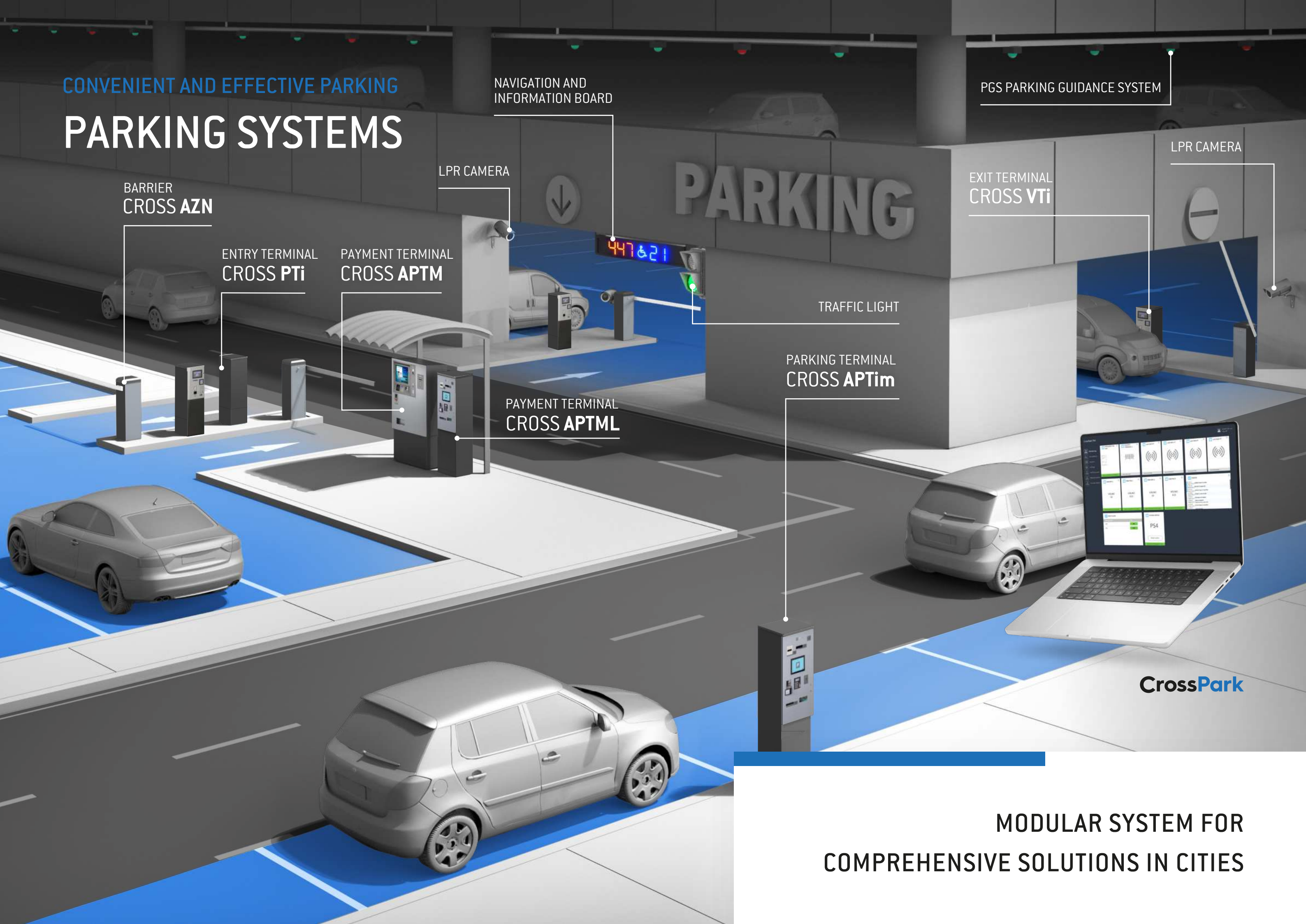
TRAFFIC LIGHT

PARKING TERMINAL  
CROSS APTim

PAYMENT TERMINAL  
CROSS APTML

CrossPark

MODULAR SYSTEM FOR  
COMPREHENSIVE SOLUTIONS IN CITIES



## PARKING PERFECTED

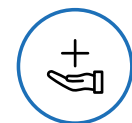
# PARKING SYSTEMS

More and more cars are on the roads, putting ever greater pressure on parking facilities. This is particularly true of cramped city streets. Alongside building new car parks, a smart solution is to effectively administer parking spaces, allotting them for long-term or short-term use. Advanced technologies by CROSS monitor the state of car parks and provide effective tools for managing and regulating stationary vehicles.



### Smart parking for smart cities

When designing a solution for crowded cities, it is necessary to make the best use of available parking capacity through efficient administration. CrossPark technology ensures that a car park operates optimally so that there is always a vacant space. Our systems fully monitor the parking facility and permit central management of it.



### Value-added parking

Parking without a ticket purely on the basis of a vehicle registration number, reserving a space remotely, taking advantage of special functions for hotels, hospitals, shopping centres, airports, Park and Ride facilities and multistorey car parks, having assistance in finding a parking space and being navigated to it precisely – this is CrossPark.



### Dynamic tariffs and simple payment

Regulations for parking are made more efficient through having in place a flexible pricing policy in combination with easy and convenient options for payment. Whether in cash, by card, via mobile payment, on the spot or remotely, all forms of payment are covered. Moreover, thanks to the Software Development Kit, custom applications can be created for a payment terminal to facilitate the sale of tickets for public transport or other purposes, the payment of city fees and so on.



### Parking that meets one's needs

A system that is modular in structure, which permits the benefits of modernization over time, backwards compatibility, a robust yet functional design and versatility in payment terminals, all with an open software toolkit, allows for purchase of a complete solution – but one not under the control of a single supplier. Thanks to its open API, CrossPark can be integrated with other systems.

## APPLICATION FOR BARRIER PARKING SYSTEMS

# CROSSPARK SOFTWARE



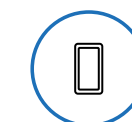
Convenience is key for the 4th generation of the modular CrossPark system. Access is provided through a user-friendly web interface presented on mobile devices, and it can be run on existing IT infrastructure at the given location. Moreover, its API permits integration with equipment from other vendors.



WEB based solution



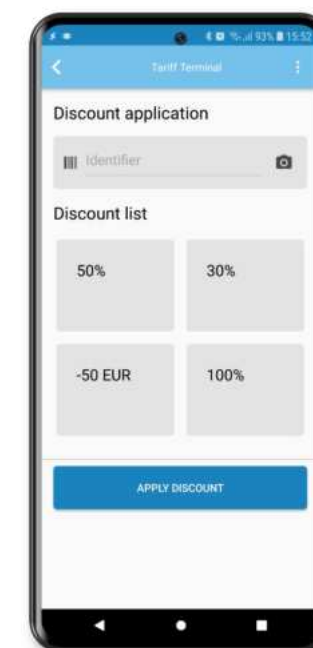
Turnkey solution



Mobile application

## KEY FEATURES

- Efficiently laid out control panel for the car park
- Management of tariffs and discounts
- Management of subscribers and vehicles
- Notification of current events by SMS and email
- Real-time statistics and reports
- Web API for data integration



## EXTENDING MODULES

- Booking facility
- Manual register
- Tariff terminal
- Circulating tickets
- Vouchers





# CROSSPARK COMPONENTS



**ENTRY/EXIT TERMINAL**  
**CROSS PTi/VTi**

- 7" or 8" colour touchscreen
- QR code reader
- Bank card identification possibility – Tap In
- Optional RFID or third-party card reader
- City cards integration possibility
- Optional IP video intercom
- PTi: capacity of 5,000 tickets
- VTi: optional reading of the ticket from four sides



**UNIVERSAL TERMINAL**  
**CROSS LTi**

- 7" colour touchscreen
- Configurable idle screen (ad option)
- High reliability
- Easy maintenance
- CROSS AZN barrier control
- TCP/IP communication



**BARRIER**  
**CROSS AZN**

- Simple and low-maintenance construction
- Arm positioned on the left or right
- Straight or folding arm
- Compatible with inductive loop or infrared sensors
- Lifespan of 5 million cycles



**PAYMENT TERMINAL**  
**CROSS APTML**

- 8" LCD touchscreen
- Payment by coins, banknotes and payment cards
- Cash back (coins, banknotes)
- Optional RFID card reader (season tickets and residential cards)
- Printer for receipts
- Language selection options
- Optional IP video intercom
- Possibility to collect additional fees



**PAYMENT TERMINAL**  
**CROSS APTML**  
CASHLESS VARIANT

- 17" LCD touchscreen
- Payment only by payment cards



**PAYMENT TERMINAL**  
**CROSS APTM**

- 17" LCD touchscreen
- High-capacity coin return slot
- Payment by coins, banknotes and payment cards
- Cash back (coins, banknotes)
- Optional RFID card reader (season tickets and residential cards)
- Printer for receipts
- Language selection options
- Optional IP video intercom
- Possibility to collect additional fees



The software in the CROSS APTM / APTML unit is flexible enough to be used for other applications, e.g. issuing tickets for the theatre or public transport, handling municipal and hospital fees. The potential exists for additional independent applications to be developed through its Software Development Kit (SDK).

- Payment for parking
- Sale of public transport tickets
- Sale of tickets for the theatre or similar
- Collection of municipal fees



# GUIDANCE SYSTEMS



## PARKING GUIDANCE SYSTEM

A powerful system that uses cameras to monitor parking spaces. The cameras are capable of detecting the occupancy of 4 spaces, identifying license plates or observing a given parking spot.

- Detects level of occupancy
- License plate identification
- Lights to navigate drivers
- Detects incidences of inappropriate parking
- Supervision of safety
- Fully integrated with CrossPark parking systems

## PARKUM – BETTER PARKING FOR EVERY DAY

Pay parking fees easily, anywhere, and online.

- Always secure payments
- Access to selected online parking payments
- A modern personal account for drivers
- One system for parking fees
- Next generation solution for checking paid vehicles

## OCCUPANCY SENSORS

- Detect overdue parking times
- Vehicle identification by electronic license plate recognition
- Full integration with the Invipo application for on-street parking

## GUIDANCE DISPLAYS

- Show availability of parking spaces
- Navigation to free parking spaces



## ON-STREET PARKING APPLICATION

# INVIPO

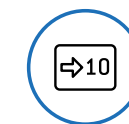
CROSS Invipo is a web platform that presents specific views of several car parks at once, permitting simple and clear management of multiple car parks. This solution can be installed to a local server or function as a cloud service on CROSS infrastructure.



Convenient parking systems



Turnkey solution

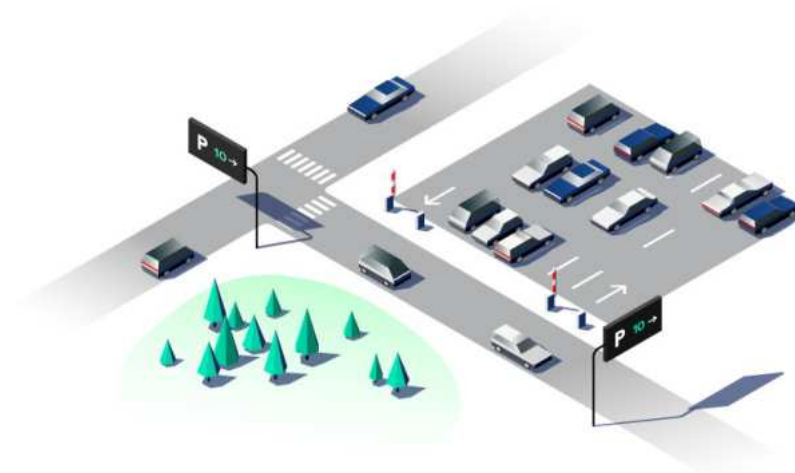


Navigation systems

- Efficiently laid out control panel for parking facilities
- Management of subscribers and vehicles
- Notification of current events by SMS and email
- Detailed data on parking terminals
- Real-time statistics and reports

## CITY NAVIGATION SYSTEM

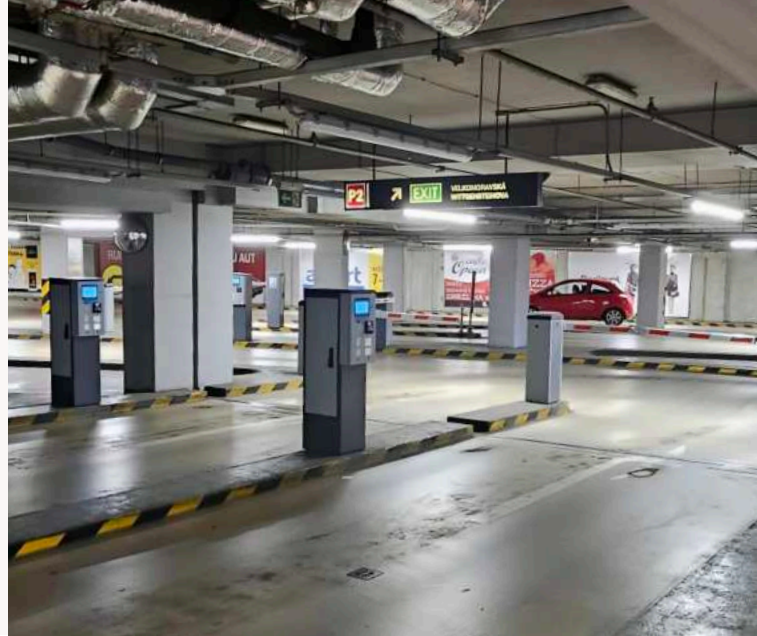
- Navigating drivers to parking locations
- Information on closures
- Information on travel times
- Event information
- Consolidation of all data inputs into a single software control tool





PARKING SYSTEMS

# EXAMPLE INSTALLATIONS



A breadth of options are available to enhance a parking system, including components for entry and exit, internal and external navigation and monitoring empty spaces. Additionally, expanding ticketing to incorporate special modes for residents and hotel guests is possible.

Our technologies are in place in private and public car parks, as well as shopping centres, office buildings, hotels and airports. Also, it is designed for on-street parking in city centres and similar public parking lots.



# REFERENCES

Other references



**Baku, Azerbaijan**  
Heydar Aliyev Cultural Center



**Makerere, Uganda**  
CrossPark system on the African continent



**Podgorica, Montenegro**  
The CrossPark system for the Voli hypermarket chain



**Červenohorské sedlo, Czech Republic**  
Solutions for parking at ski slopes



**Karlovy Vary, Czech Republic**  
P + R parking – barrier parking system



**Mošnov, Czech Republic**  
Airport parking



**Ostrava, Hlučinská, Czech Republic**  
P + R parking



**Šantovka Shopping Gallery, Czechia**  
Parking in the shopping gallery - 2000 parking spaces, 3 parking areas within the building, 3 outdoor parking lots



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