cross®

Road Traffic Technology

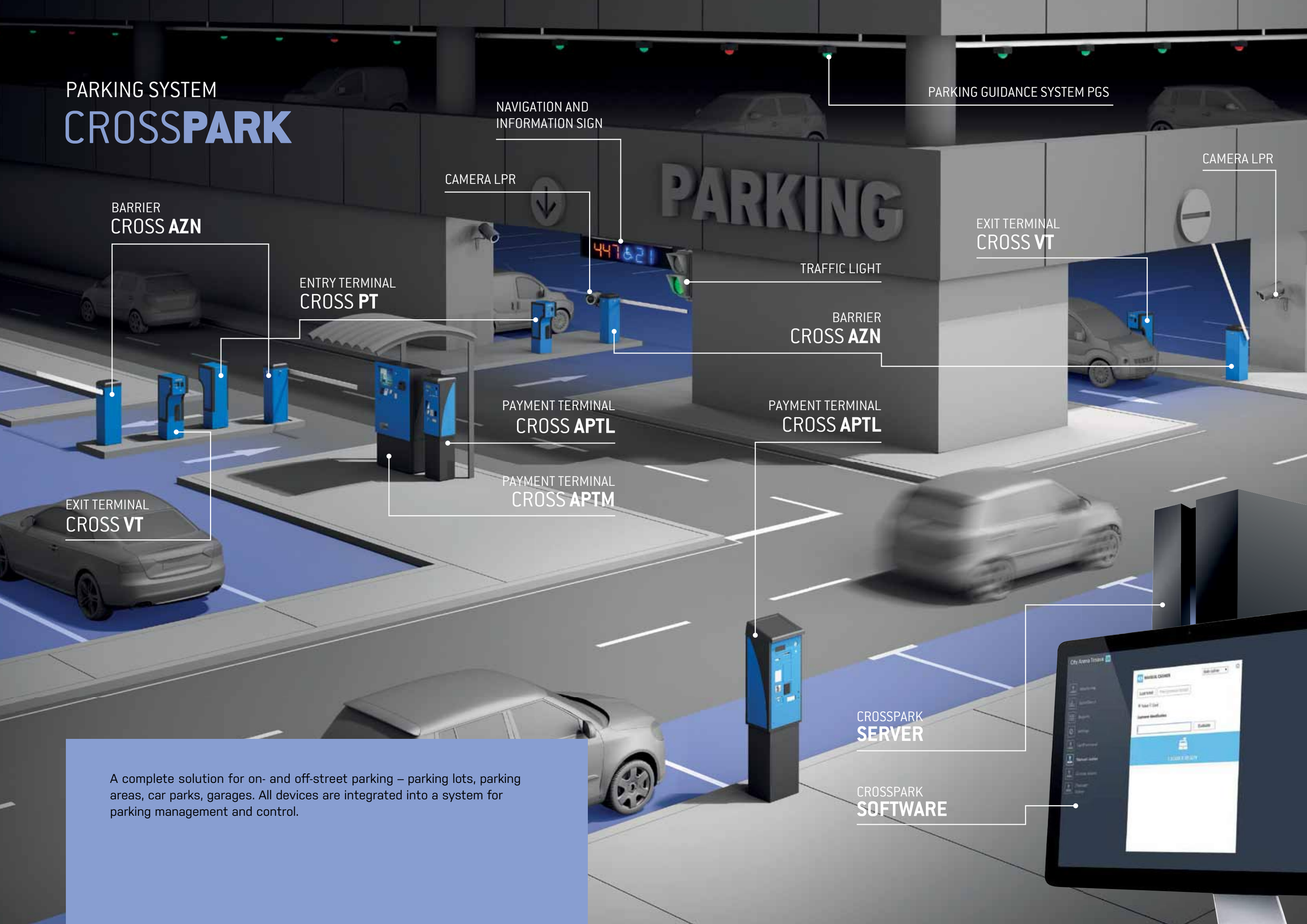
PARKING SYSTEMS

PAYMENT SYSTEMS | PAYMENT TERMINALS

CrossPark	AUTOMATIC BARRIER PARKING SYSTEM
CROSS APTM	AUTOMATIC PAYMENT TERMINAL
CROSS APTL	PAYMENT STATION

PARKING SYSTEM

CROSS**PARK**



A complete solution for on- and off-street parking – parking lots, parking areas, car parks, garages. All devices are integrated into a system for parking management and control.

PARKING SYSTEM

CROSS **PARK**

CrossPark is a modular and universal Parking Access and Revenue Control System (PARCS). The system includes a comprehensive range of hardware components for parking entrances and exits as well as payment terminals and other payment channels. A range of integrated accessories (free space parking guidance, LPR cameras) is offered to customers along with an umbrella software offering a full solution.

CROSS system is designed for both on-street and off-street car parks and their combinations with the following use cases:

- Shopping centers
- Hotels
- Commercial buildings, Offices
- Airports
- Hospitals, Medical centers
- Local Councils, City parking
- Campus, Universities
- Private parking zones

PAYMENT STATION

CROSS **APTL**

CROSS APTL is an automatic payment terminal for both on- and off-street parking. The payment terminal can work completely independently, but is usually monitored and managed via the umbrella software CROSS InVipo. It can also be connected to CrossPark system as a light version payment terminal.

The standard version for on-street parking prints Pay-and-Display tickets; it can be powered from interrupted street light supply and also from solar panels.

CROSS APTL allows payments with coins, bank notes, bank (credit) cards or contactless cards. Change is given as coins only.

ACCESSORIES – TYPICAL EXAMPLES

1

2

3

4

1 Variable Message Signs VMS

Variable signs display whether there are any free parking spaces. In its basic form it only displays "FREE" and "FULL". The advanced versions also display the number of free spaces (normal, disabled) or even number of free spaces on each floor of multi-storey car parks. They can be installed at car park entrances but also as navigational signs in cities.

2 Traffic Lights and Displays

Simple signaling device typically placed at entries to garages.

3 Automatic Number Plate Recognition ANPR

System CrossPark also allows management of registered vehicles and their authorization to enter a car park. ANPR cameras at entrances and exits can also be used for automated billing.

4 Parking Guidance System PGS

The parking guidance system helps drivers to find a free space. It works on the basis of red-green lights placed above parking spaces.

CROSS**PARK** COMPONENTS

Barrier
CROSS AZN

- Electromechanical based device
- Simple and low-maintenance construction
- Right / left arm position
- Straight or folding arm
- LED light signalization on arm as an option
- Fast lift (rise) time (from 0,9 s)
- Control electronic with invertor
- Compatible with inductive loop or infrared sensors
- Variable wireless autonomous control, RFID card control
- Third-party system integration
- RS 232 / RS 485 communication
- Dimensions 1100 × 320 × 320 mm
- Operational temperature from -25 to +70 °C (under -25 °C with additional heating)
- Lifetime at mil. cycles
- Custom RAL color

Entry terminal
CROSS PT

- Barrier control
- Parking ticket printer / dispenser
- 5000 pcs tickets capacity
- Blue & White LCD display / Graphic
- RFID card reader (or third-party card reader) an option
- IP intercom an option
- Occupancy display control (traffic lights) an option
- Parking ticket validator (circular ticket, VIP parking) an option
- RS 232 / RS 485 / IP communication
- Dimensions 1100 × 330 × 480 mm
- Operational temperature from -25 to +70 °C (under -25 °C with additional heating)
- Custom RAL color

Exit terminal
CROSS VT

- Barrier control
- Motor driven parking ticket reader
- Variable all-direction bar code reader
- Blue & White LCD display / Graphic
- RFID card reader (or third-party card reader) an option
- IP intercom an option
- Parking ticket validator (circular ticket, VIP parking) an option
- RS 232 / RS 485 / IP communication
- Dimensions 1100 × 330 × 480 mm
- Operational temperature from -25 to +70 °C (under -25 °C with additional heating)
- Custom RAL color

Payment terminal
CROSS APTM

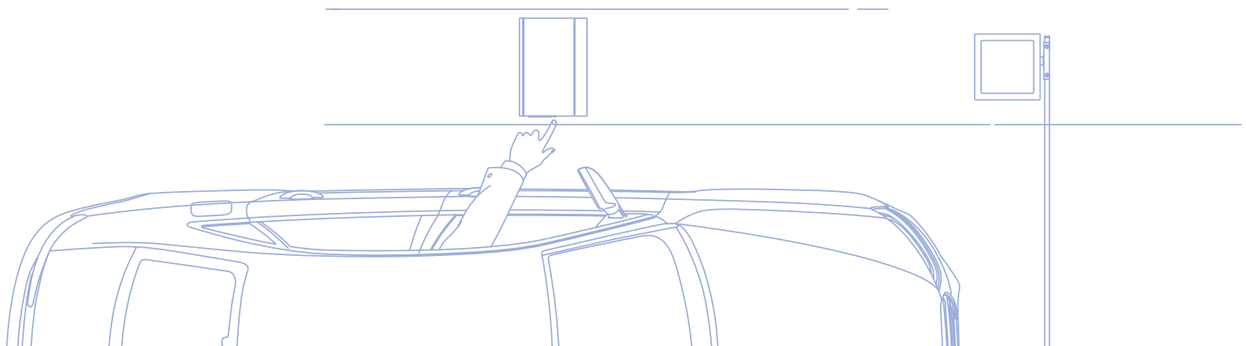
- Unattended parking fee payment
- Rugged construction
- Multi-level cash protection
- Language selection (4 languages)
- 17˝ LCD anti-vandal touch screen
- Industry PC control unit with Windows 7
- Motor driven parking ticket reader
- Variable all-direction bar code reader
- Option of simultaneous use with 2 different currencies
- Payment with coins, banknotes and payment (credit) cards
- Change (coins, banknotes)
- RFID card reader (or third-party card reader) an option
- Fiscal receipts printer
- IP intercom an option
- RS 485 / IP communication
- Dimensions 1821 × 956 × 550 mm
- Operational temperature from -25 to +70 °C (under -25 °C with additional heating)
- Custom RAL color

Note: Shelter for outdoor installation an option

Payment station
CROSS APTL

- Unattended parking fee payment
- On-street design
- Multi-level cash protection
- Language selection (3 languages)
- Blue & White LCD display
- Motor driven parking ticket reader
- 2 different currencies at the same time compatible
- Payment with coins, bank notes, pre-paid cards, bank (credit) cards, contactless cards
- Change (coins only)
- RFID card reader (or third-party card reader) an option
- Fiscal receipt printer
- RS 232 / RS 485 / IP communication
- Dimensions 1660 × 450 × 375 mm
- Operational temperature from -25 to +70 °C (under -25 °C with additional heating)
- Custom RAL color

CROSS APTL-E can be integrated with CROSS AZN barrier at the exit of the car park to allow direct payment from the inside of a car.



CROSSPARK
SOFTWARE

The 4th generation of the CrossPark system is modular, with new and improved highly-scalable software architecture. The system is designed to monitor and control small parking lots as well as large parking garages. For integration, the system provides a simple web based API interface. End users or parking operators can use their web browser to access the system. In addition, the system can be easily customized according to customer needs.

The system consists of a database, core services, web API and web application for system monitoring and control.

DATABASE

- SQL relational database
- Storage of all operational data
- System settings & configuration
- Archives

CORE SERVICES AND WEB API LAYER

- Modular solution (multiple subsystems)
- Fast and efficient data communication between subsystems
- Enables integration of 3rd party systems
- Logic for complete parking management & control (customers, license plates, discounts, tariff terminals, etc.)
- Web-based API for integration with superordinate systems

WEB APPLICATION

- Remote on-line access
- Multi-level user access rights
- All major web browsers supported
- Monitoring of parking system and individual devices including failure notifications
- Manual control
- Account & parking reports
- Custom reports and statistics
- Full system management and settings

CROSS APTM
USER INTERFACE

CROSS APTM offers our customers broad screen customization options. Colors, backgrounds, logos, photos, language versions, and specific tailor-made functions can be added to the large touchscreen. It is also ready to display slideshows or video presentations when idle.

CROSS **INVIPO**
FOR OFF-STREET AND ON-STREET PARKING

CROSS InVipo is a visualization and integration platform for the creation of specific monitoring views of multiple parking systems (of one operator / city). The system can be installed at customer servers or it can be hosted in CROSS cloud as a SaaS.

Slovakia, Bratislava

Czech Republic,
Prostějov

Slovenia, Ljubljana

REFERENCES

Romania, Bucharest

Czech Republic, Břeclav

Azerbaijan,
Baku

Hungary,
Győr

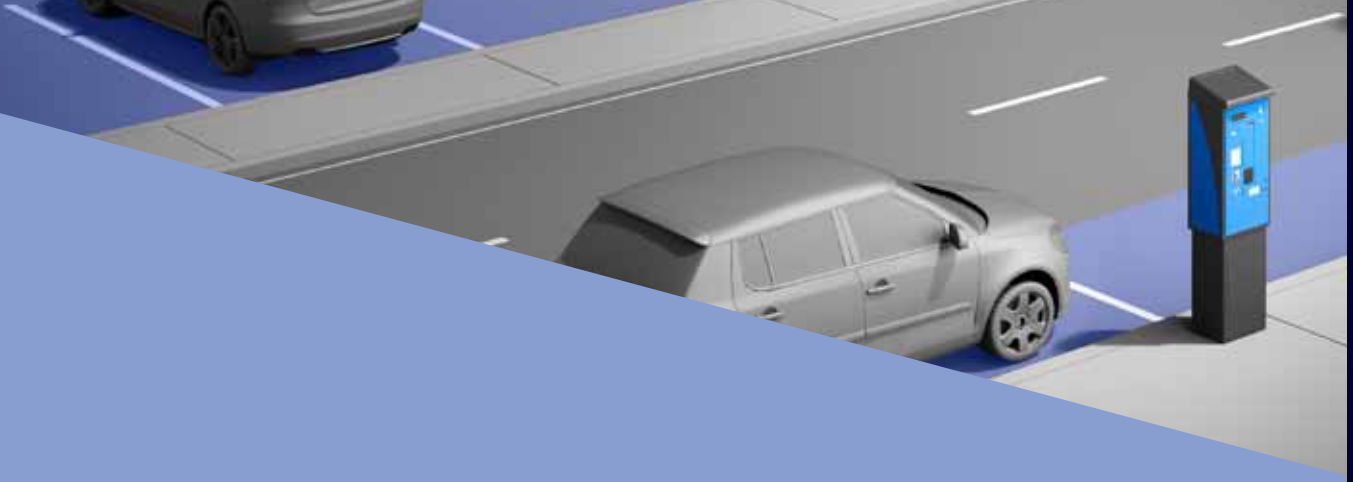
Malta, St. Julian

Czech Republic, Brno

USA, Cleveland

Czech Republic,
Zlín

Romania,
Sibiu



cross®

CROSS Zlín
Hasičská 397, Louky
763 02 Zlín
Czech Republic

EUROPEAN UNION
European Regional Development Fund
Operational Programme Entreprise
and Innovations for Competitiveness

www.cross.cz

03/2016