entringo

Integrated Vehicle Flow Management solutions for parking

Priit Ivanov
CEO

Entringo transforms **parking** and **yard management** through digital **innovation**, efficiency, and environmental responsibility. We provide secure, **flexible**, and **revenue-boosting** solutions that enrich **customer experiences** and build a **sustainable** future.

A **Technology company** designing, developing and producing **Vehicle Flow Management** Solutions

Our goal is to be the **leader** in **flexible, secure**, and **sustainable** vehicle flow management, enabling our partners to seamlessly **enhance operations** and shape the **future** of **mobility**.
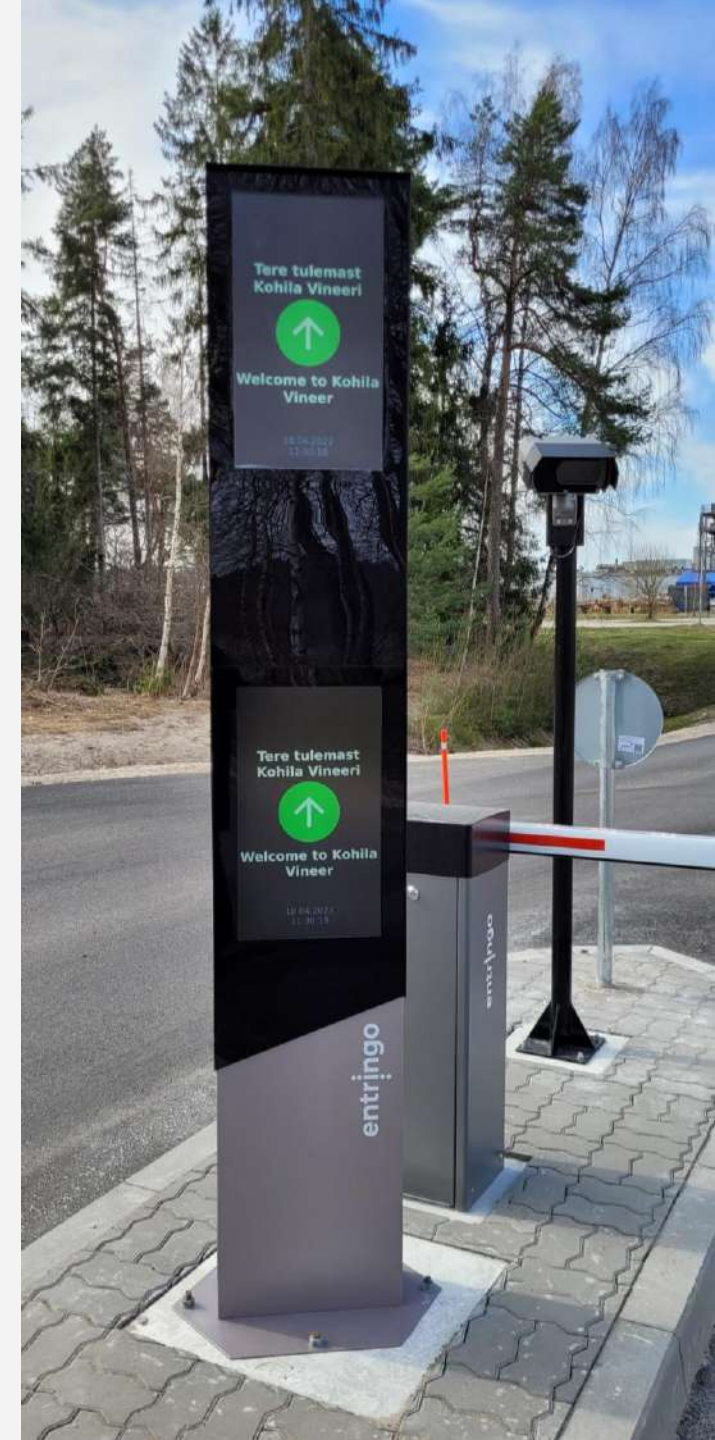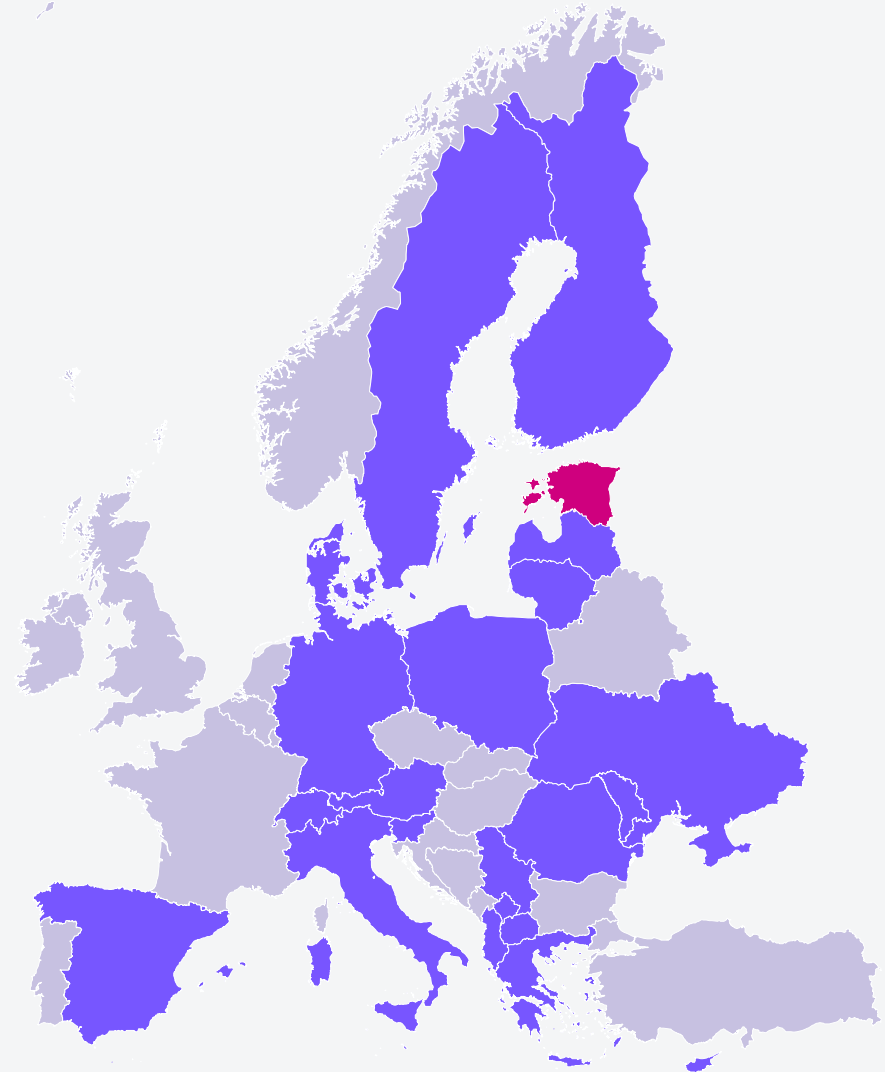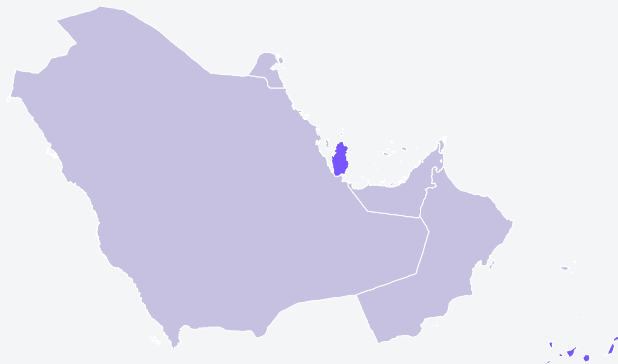
Entringo territory

Europe + Gulf region

Based in **Estonia**, with HQ in **Tallinn**

Entringo established in **2016**

Part of a group of technology companies – **Hansab Group (est. 1991) owned by BaltCap Investment Fund**

ISO9001, **ISO14001** and **ISO27001** certified

- 42+ mln Group Revenue
- 350+ employees

Parking

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Traffic

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Generic parking system

VS

entringo Parking

- Tickets – cost, cost, cost
- Difficult to integrate
- Limited custom features
- Expensive hardware
- Hardware reliability
- High maintenance need
- Standing still
- High TCO
- Slow ROI

- Numberplate based
- Easy to integrate
- Possible to develop
- Reasonably priced
- Simplified and lasting HW
- Lower maintenance need
- Constantly evolving
- Low TCO
- Fast ROI

Flexible Mobility Management solution for parking management

Our goal is to make parking **effortless** and **easy** for parking lot owners and drivers

User centric software focused approach to ensure the best application for every party

- 100% **LPR based** access and management for a simple process and easy integrations

- With **Flexibility** we are able to ensure that each and every customers needs are fulfilled

- **Reduction** of Operational **Costs** enable our partners to **boost** their **revenue** streams

- **Modular Hardware** platform to suit each parking scenario

An end-to-end flexible mobility solution on a single platform

- **On street** parking

- **Off street** paid parking **with** and **without** barriers

- **Private** parking for **offices**, residentials etc.

- Integrated **services** like **EV charging** or tickets to access an event

- **Centralized** platform for combined multi-site management

Hardware and software

Entringo Parking boasts rugged hardware and scalable software, both easy to integrate and configure.

Communication

Shows guidance and information to the driver

Lane Terminal is a key touchpoint for a driver. Terminal shows guidance and important information to the driver, such as feedback of the status of the process, vacancy information of the parking lot and the number plate information that is detected during the entry/exit.

- Access point information and guidance

- Space counting information

- Housing is designed to stand outdoor conditions. For cold environment heating element will generate warm air inside housing.

- Display is chosen very bright that will be clearly visible even with direct sun lights. Display has protection acrylic glass cover with antiglare coating so there are no sunlight reflections to driver.

- Custom messaging in any language with up to 8-lines of text.

Access

Manages the physical entrance and exit to the parking lot

Entringo barrier gate systems have been designed to control the entrance and exit lanes of heavy traffic parking facilities. Smart features of BLDC motor enable various functions to this model and the unique mechanical structure gives a high durability enough for enduring the heavy duties of medium or large parking lot.

The hardware detects the number plate of the vehicle and operates the physical barriers of the parking lot or building (gate, door).

- BLDC motor – quiet and smooth operations

- 3m/4m barrier arm option

- 4-speed settings – max. 1.5 seconds

- Built-in controller

- Manual open

- Auto open during power failure

- Low maintenance need (easy maintenance)

Optional

- LED lighting

- Swivel arm kit for low ceiling indoor installations

- Bar rebound sensor
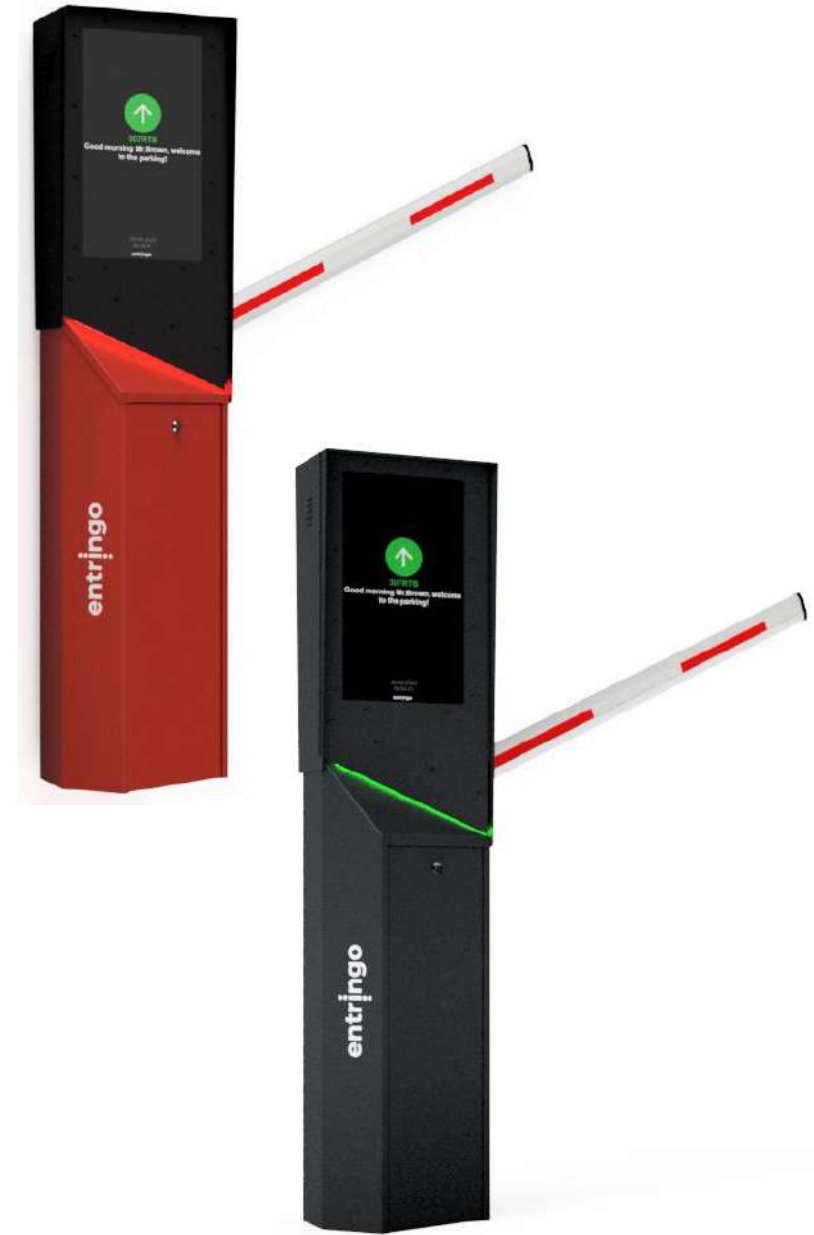
Access

2 in 1 access gate

A modular gate with integrated 24" high brightness sunlight readable display.

Unifies the traditional barrier gate and information screen into one device allowing simple installation and compact setup. Features same technical specs as Entringos main barrier gate and information display.

- 24" High Brightness display

- BLDC motor – quiet and smooth operations

- 3m/4m barrier arm option

- 4-speed settings – max. 1.5 seconds

- Built-in controller

- Manual open

- Auto open during power failure

- Low maintenance need (easy maintenance)

Optional

- LED lighting

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Access

Fast and accurate numberplate recognition at the gates

Entringo numberplate recognition camera has a built in processor and recognition engine, giving fast and accurate results independent of the general load of the parking lot.

The smart camera is able to recognize details of the vehicle and avoid detection of random objects that are not part of an actual numberplate.

Entringo is **Camera Vendor Agnostic**

- Purpose built cameras

- Built in ANPR engine

- IR based illumination

- Power – 24-28VAC

- Operating temperature - -45C to +65C

- IP67, IK10

Payment

Allows on-site payment for short and long-term parking

The device is modular and features an intuitive touchscreen interface with different payment methods in a weatherproof housing designed for both indoor and outdoor use.

- Modular concept housing

- Touchscreen UI (multitouch)

- Modular cash system, which includes card, coin recycling and notes

- Double point locking and heavy-duty hinge mechanism

- 2D imager for QR/Barcode

- Multi-language interface

- Context-based help for the end-users

- Service mode for the operator and technical tasks

Modular payment

Multi-purpose terminal for Pay on Exit or regular cashless payment

Unique design created to offer universal Payment on Exiting for passenger cars, buses and trucks with the possibility to utilize also as a regular cashless payment kiosk with in- and outdoor environments

- Modular concept housing – floor or wall mounted, vehicle or person height

- High Brightness Touchscreen UI (multitouch)

- Card payment ready

- Integrated IP Intercom

- 2D imager for QR/Barcode

- Receipt printer

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DASHBOARD

Dashboard

Dashboard(beta)

All

| All | Exit | Entry |

Exit 2 VNO P2 | **Open**

| T11961 | T11961 | 2024-07-12 12:44:42 | Yes |

Exit 1 VNO P2 | **Open**

| MUK033 | MUK033 | 2024-07-12 12:45:18 | Yes |

Entry 1 VNO P2 | **Open**

| KCP 227 | KCP227 | 2024-07-12 12:45:22 | Yes |

VNO P2

Entry 1 VNO P2	▶	KCP 227	KCP227	2024-07-12 12:45:22	Yes
Exit 1 VNO P2	▶	MUK 033	MUK033	2024-07-12 12:45:18	Yes
Exit 2 VNO P2	▶	T 11961	T11961	2024-07-12 12:44:42	Yes

VNO P7

| Entry VNO P7 | ▶ | UPS 034 | UPS034 | 2024-07-12 11:18:02 | Gate is closed |
| Exit VNO P7 | ▶ | KBF 787 | KBF787 | 2024-07-11 16:58:17 | Gate is closed |

admin

Software

Entringo software is modular allowing easy expansion

The reliable car park management software has been created with the customer in mind, combining all elements to turn it into a complete system. The comprehensive vehicle access management system is scalable for different business areas, from a simple company parking lot to networked city solutions all the way to complex parking operator installations.

Cloud versus On-Premises

On-premises hosting can be costly in terms of maintenance and hardware updates. With Entringo you can choose between Cloud-Based parking management software or On-Premises Server platform.
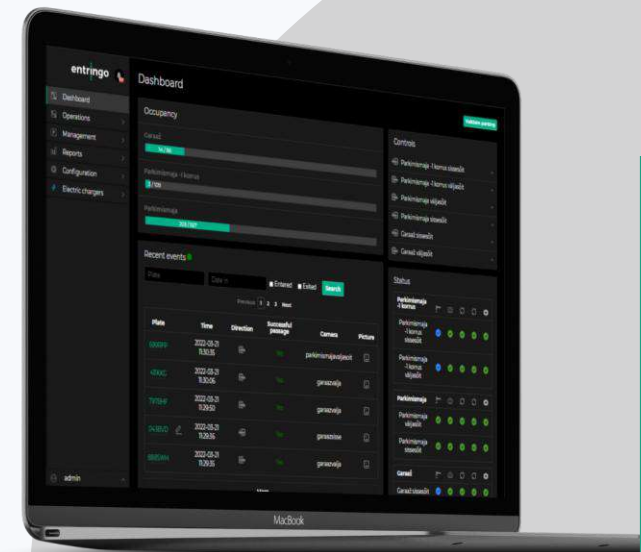
Software features

- **Dashboard** – an overview interface for parking operators/administrators, displaying information of the current parking status, vehicles parking, access gate live view and control and management of vehicle number plate information (plate corrections).

- **Logs** – overview of system logs, events by users and errors by devices and components.

- **Entry list** – section for pre-approved listed vehicles that are allowed to enter the parking premises and are pre-validated, managed by vehicle number plates.

- **Blacklist** – section for vehicles that are prohibited to enter the parking premise, managed by vehicle number plates.

- **Tariff management** – flexible tariff management by the hour and day separation for EV charging and parking.

- **Prepaid products** – flexible creation of prepaid period parking products for on-street parking or long term parking access.

- **Holiday mode** – the ability to set separate tariffs for events and holidays.

- **Customizable operating hours –** set your parking lot working hours – Only let vehicles in during working hours or even have the system automatically raise the barrier gates for certain times.

- **Customer management** – management of tenants, vehicle lists and tenant-specific tariffs.

- **Reports** – parking, financial/payment and tenants reports.
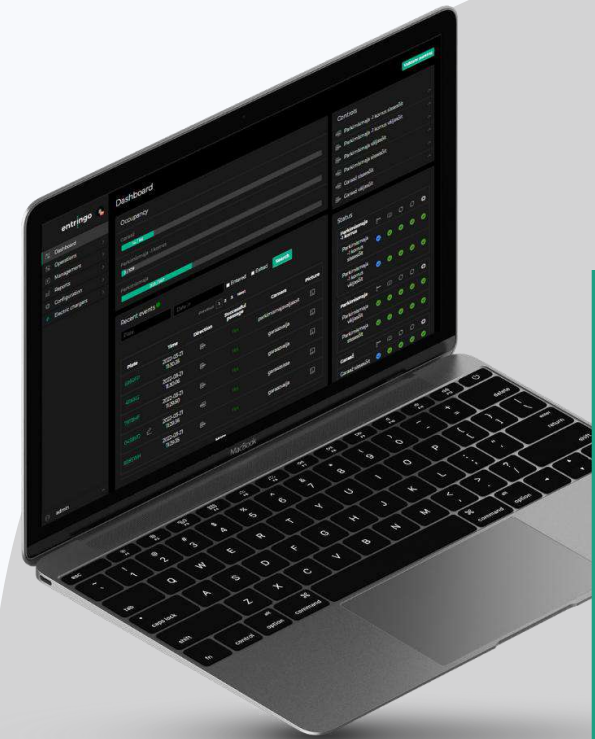
User Interface and Dashboards

Dashboard

Dashboard

entringo

Validate parking

- Dashboard
- Operations
- Management
- Reports
- Configuration
- Electric chargers

Occupancy

Garaaž
14 / 86

Parkimismaja -1 korrus
6 / 109

Parkimismaja
194 / 567

Controls

- Parkimismaja -1 korrus sissesõit
- Parkimismaja -1 korrus väljasõit
- Parkimismaja väljasõit
- Parkimismaja sissesõit
- Garaaž sissesõit
- Garaaž väljasõit

Recent events

Plate	Time	Direction	Successful passage	Camera	Picture
38SLH	2021-10-18 14:14:47		Yes	parkimismajavaljasoit	
125M3R	2021-10-18 14:12:49		Yes	garaazsisse	
681HBW	2021-10-18 14:05:21		Yes	parkimismajavaljasoit	
187MDB	2021-10-18 13:51:42		Yes	Parkimismajasissesoit	
650BJL	2021-10-18 13:51:17		Yes	parkimismajavaljasoit	

Previous 1 2 3 Next

More...

Status

Parkimismaja -1 korrus					
Parkimismaja -1 korrus sissesõit					
Parkimismaja -1 korrus väljasõit					
Parkimismaja					
Parkimismaja väljasõit					
Parkimismaja sissesõit					
Garaaž					
Garaaž sissesõit					
Garaaž väljasõit					

Logs

Time	Log
2021-10-18 14:16:44	too many (2) entries with similar license plate was found for 38SLH
2021-10-18 14:13:53	User admin edited user
2021-10-18 14:12:13	User admin added new plate 240MDB to customer with ID: 21
2021-10-18 14:11:05	User admin added secondary plate 931BTX to primary plate 627BXB to customer with ID: 21
2021-10-18 14:10:58	User admin edited customer plate: 627BXB

Parking lot: Parkimismaja — Mark as read

More...

admin

Regular

Payment step/interval: 10 min

Edit Remove

Monday

Daily payment limit: 5 €
Daily payment limit period: Day
Free parking time: 30 min

Add tariff entry Edit

Hour span	Hour price	Minute price	
00:00 - 09:00	1.000	0.017	Remove
09:00 - 17:00	2.000	0.033	Remove
17:00 - 24:00	1.000	0.017	Remove

Tuesday

Daily payment limit: 5 €
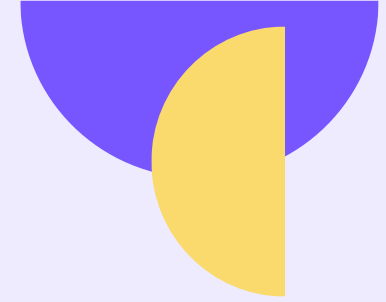Daily payment limit period: Day
Free parking time: 30 min

Add tariff entry Edit

Hour span	Hour price	Minute price	
00:00 - 24:00	1.500	0.025	Remove

Hosting: on-premises or cloud?

Depending on the specific needs of a project, it is possible to choose between on premises single parking lot hosting or centralized hosting for multiple parking lots.

On-premises hosting

One parking lot can be divided into multiple zones, with different access logics, tariffs and devices.

All the zones can be managed from the same backoffice dashboard hosted on the main server.

Parking Zone 1

Parking Zone 2

Parking Zone 3
Access control, monthly contract-based billing

Local Server and Database

Payment Kiosk
shared between two zones

Dashboard
manage all your parking lots from one place
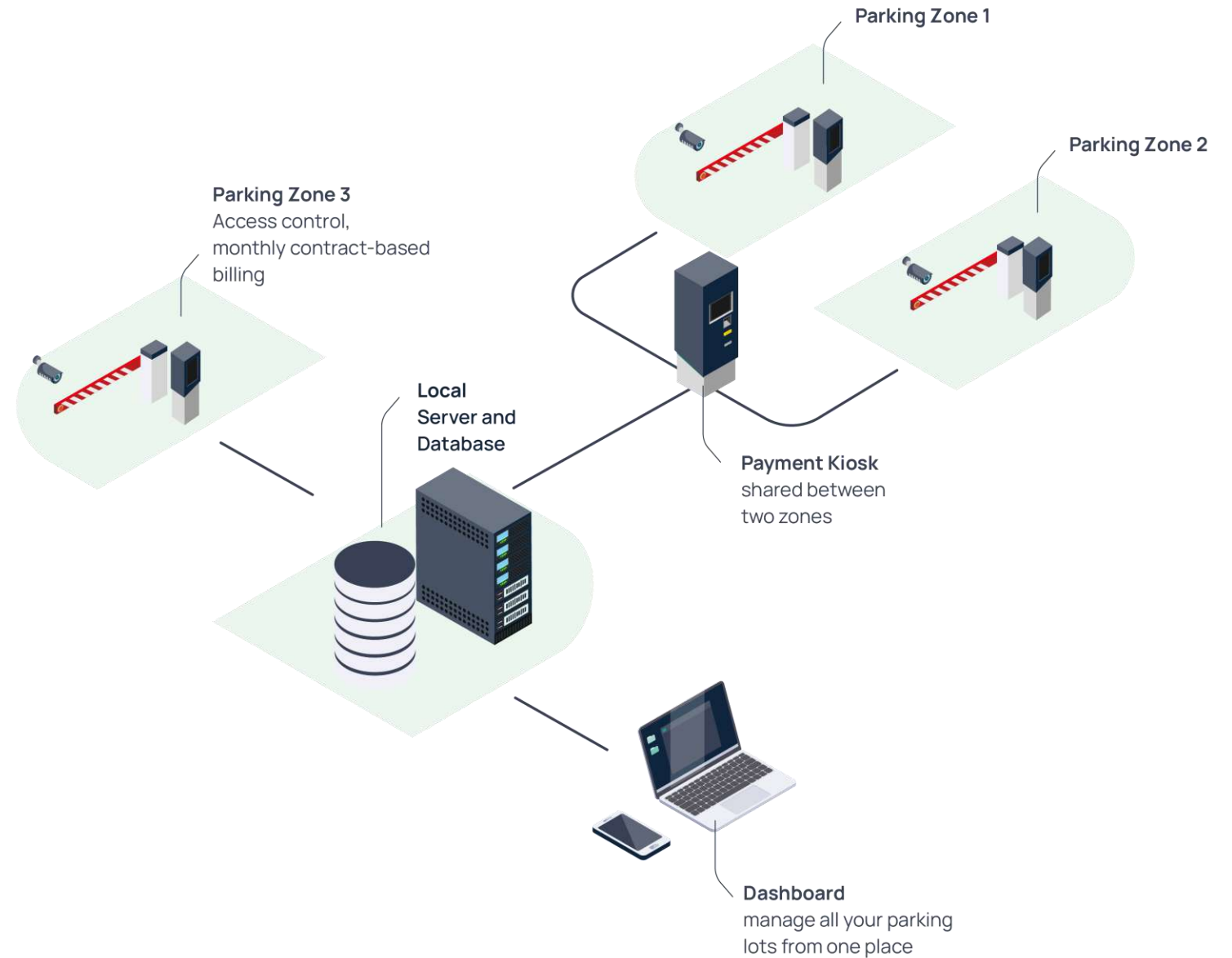
Cloud-based parking

One central parking lot site hosts the main server and database for all the different parking lots.

All the parking lots can be managed from the same dashboard. Remote parking lots have a redundancy server and database in case of connection issues with the main server.
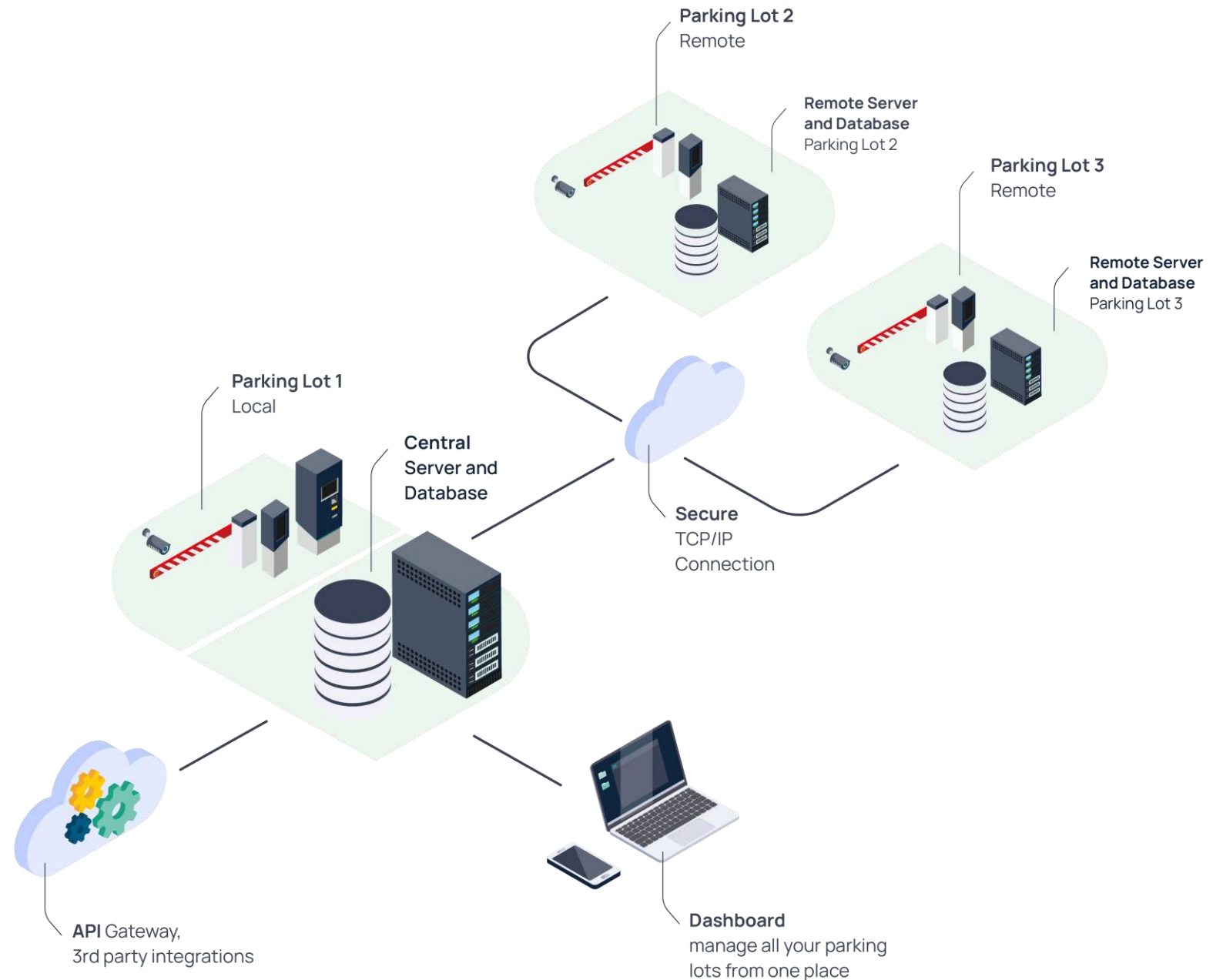
Cloud based hosting for multiple parking lots keeps the management simple and costs down. Redundancy servers do not need to be as powerful and maintaining one main server does not require as much labor.

Parking Lot 2
Remote

Remote Server and Database
Parking Lot 2

Parking Lot 3
Remote

Remote Server and Database
Parking Lot 3

Parking Lot 1
Local

Central Server and Database

Secure
TCP/IP Connection

API Gateway,
3rd party integrations

Dashboard
manage all your parking lots from one place

API Gateway

Our API integrations offer a wide variety of extra functions that may be necessary for your business. We have our own prebuilt API for the most common use cases and we also offer customer-specific integrations that can be made over the API.

3rd party payment methods

API Gateway

Smart building integrations (Access systems, ATS system)

Parking booking system

Custom integrations for customers

Permit management (Hotel Reservation systems)

References

What we have done so far

Vilnius Airport

Airports, Lithuania

ANPR based Kiss&Fly and commercial parking with on site payment possibilities and integrations to operators backoffice enabling application based payments and parking.

The setup

- 4 zones

- 9 gates with lane screens, ANPR cameras and barrier gates

- 3 payment points with cash and card

- 3 Pay on Exit payment terminals

- Management backoffice

Losogne

Shopping Malls, Hotels, Office buildings, Switzerland

ANPR based commercial parking with on site cash and cashless payment to manage parking lot of a shopping mall, Office building and a hotel.

The setup

- 4 gates with lane screens, ANPR cameras and barrier gate

- 3 payment points with cash and card

- QR code based discount for shopping mall customers

- Permit management for the hotel

- Management backoffice

Park and Ride Warsaw

Municipalities, Poland

ANPR based Park and Ride parking lots with integrations to Warsaw City public transportation systems and commercial parking options with payment possibilities by cash and card.

The setup

- 5 parking lots with customized HW

- 2-4 gates per parking lot with ANPR cameras for front and rear plate reading, 2in1 lane screen and barrier gate combinations.

- Integration to City public transportation systems

- 1-2 payment kiosks with ticket validation, cash and card payment

- Management backoffice

Arter Quarter

Business centre

The Challenge

Arter is the largest new business centers in Tallinn, with three different towers featuring independent concepts – a HQ for the largest Scandinavian bank Swedbank, general rental office spaces, Hotel and Luxury appartments. Entringo needs to offer management of parking for all of the individual entities.

The Result

Entringo delivered a parking system with integrated services – tenant parking management, private parking management, integration to PGS systems, Payment on foot and on exit. Entringo is integrated to the buildings access control system and parking operator back office.

Vytautas Mineral SPA

Hotels and spas

The Challenge

The limited space of Vytautas Mineral SPA is located in a recreational area that attracts many residents of Birštonas and guests of the city. Those who arrived usually left their vehicles in the parking lot of Vytautas Mineral SPA, which caused inconvenience to the guests of the SPA house, because there was simply no space left for their cars.

The Result

The implemented solution contributed to the creation of a better customer experience and allowed the visiting holidaymakers to forget about worries about parking space. We are happy to help customers solve challenges and implement ideas that ensure the comfort of their guests.

PDFC Green

Commercial parking, Germany

Commercial parking with on site cashless payment possibilities

The setup

- 1 two-directional gate with lane screens, ANPR cameras and barrier gate

- 1 payment point with card

- Management backoffice

Ibis Tallinn Center

Hotels and Spas, Estonia

ANPR based commercial parking with cashless payment to manage parking lot of the hotel.

The setup

- 2 gates with lane screens, ANPR cameras and integrated doors

- Ramp traffic management with traffic lights

- Management backoffice

Tartu University Clinic

Hospitals, Estonia

Pay by number on street parking to manage the parking lots around the hospital premises

The setup

- 7 pay by number indoor and outdoor payment kiosks with card and cash payments options

- Integration to the operators backoffice for enforcement purposes

- Management backoffice

Avala Quarter

Business Centres, Estonia

ANPR based private parking for business centre tenants and visitors. The parking is managed in a self service environment by each individual tenant.

The setup

- 6 gates with lane screens, ANPR cameras and barrier gate

- Secondary backup access method with access control cards

- Self service environment for tenants

- Management backoffice

Mazovian regional hospital

Hospitals, Poland

ANPR based private and commercial parking with 6000 parking places. On site payment possibilities and integrations to operators backoffice enabling application based payments and parking.

The setup and features

- 2 zones

- 11 gates with lane screens, ANPR cameras and barrier gates

- 4 payment points with cash and card

- 3 Pay on exit payment terminals

- Management backoffice

Unipark Centralized system

Operators, Lithuania

Centralized parking solution to manage different sites of Unipark in a single backoffice, integrated to the operators backoffice allowing enforcement and application payments

The setup

- 9 zones

- 28 gates with lane screens, ANPR cameras and barrier gates

- 4 payment points with cash and card

- Management backoffice

Kaunas Airport

Airports, Lithuania

ANPR based Kiss&Fly and commercial parking with on site payment possibilities and integrations to operators backoffice enabling application based payments and parking.

The setup

- 5 zones

- 13 gates with lane screens, ANPR cameras and barrier gates

- 4 payment points with cash and card

- Management backoffice

- Bus parking with height validation

Palanga Airport

Airports, Lithuania

ANPR based Kiss&Fly and commercial parking with on site payment possibilities and integrations to operators backoffice enabling application based payments and parking.

The setup

- 3 zones

- 7 gates with lane screens, ANPR cameras and barrier gates

- 2 payment points with cash and card

- Management backoffice

Swedbank HQ Riga

Business Centres, Latvia

ANPR based combined commercial and private parking with parking spot booking functionality for employees and payment for business centre tenants and visitors.

The setup and features

- 6 gates with lane screens, ANPR cameras for front and rear plate detection for motorcycles and barrier gates

- 1 Payment point with card payment

- Parking place booking system for employees

- Management backoffice

Tammsaare Business Center

Business Centres, Estonia

ANPR based private parking for business centre tenants and visitors. The parking is managed in a self service environment by each individual tenant.

The setup

- 3 gates with lane screens, ANPR cameras for front and rear plate detection for motorcycles and barrier gates

- Motorcycle plate detection

- Self service environment for tenants

- Management backoffice

Business Garden Vilnius

Business Centres, Lithuania

ANPR based private parking for business centre tenants and visitors. The parking is managed in a self service environment by each individual tenant.

The setup

- 4 gates with lane screens, ANPR cameras and barrier gates

- Self service environment for tenants

- Management backoffice