



PARKING SOLUTIONS

Creating outstanding customer experiences!



PORTIER

WHO WE ARE?

Portier has been providing parking guidance solutions for more than 20 years and we currently cover nearly 500 000 parking spaces globally. Our operations and sales offices are in Finland, Germany and USA. In addition to our own offices, we work with network of excellent partners covering more than 40 countries.

400 000 SPACES GLOBALLY

20+ YEARS

Our extensive experience combined with our unique range of products enables us to serve large variety of customer segments - and always with a solution that adds most value!

WHAT IS THE VALUE OF GUIDANCE?

Parking guidance adds value in many different ways. In highly occupied facilities, accurate and visible guidance will improve capacity utilization as drivers can be assured that they are able to find the free spaces.

Furthermore, if high occupancy is combined with a short parking duration, effective guidance will shorten the turnaround times which further improves utilization rates and leads into higher revenues.

On the other hand, better utilization means also smaller investments during construction as the number of spaces constructed can be smaller.



Besides the direct revenue increases or savings in investments, parking guidance is often the first impression for a driving customer and sets the customer mood right from the beginning. Right mood means happier customers, better customer experience, creation of customer loyalty and ultimately more business!

Effective guidance will also eliminate idle driving as available spaces can be located quickly and easily. Reduction of emissions has of course positive environmental impact while also making parking safer and less stressful experience!

PORTIER PARKING SOLUTIONS



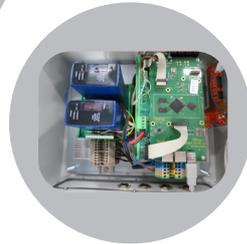
VISION
INDOOR



SONIC



VISION
OUTDOOR



COUNTERS



LPR

PORTIER *HOST*



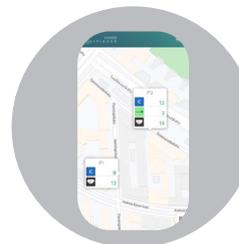
AI



SEARCH
KIOSKS



DISPLAYS



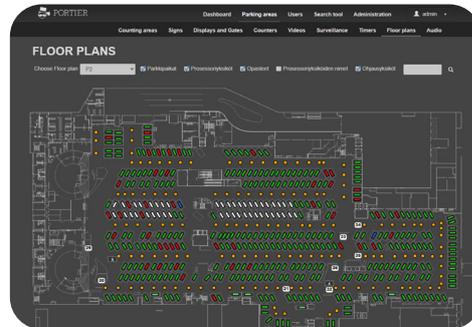
WAYFINDER



API

PORTIER HOST™ SW PLATFORM

Our HOST platform is a globally unique parking guidance platform. HOST offers unprecedented versatility through the ability to combine multiple technologies ranging from induction loops and ultrasonic sensors to camera-based indoor and outdoor guidance solutions - all in a single, seamless user experience. Platform approach gives an opportunity to freely mix different technologies even within the same installation and on the other hand, multiple facilities with varying technologies can still be operated with the same software solution.



Despite the impressive technical capabilities of HOST, browser-based user interface makes it extremely easy and intuitive to use.

“ PORTIER HOST IS ON A COMPLETELY DIFFERENT LEVEL AS A PARKING GUIDANCE SOFTWARE COMPARED TO OTHER SOLUTIONS ON THE MARKET. ”

In recognition of the importance of data, HOST comes with an advanced search engine which contains both standard as well as user configurable reports for analyzing the vast amount of data stored in the database. IT architecture can range from a traditional, localized solution to a full-blown cloud service depending on the user need and technology used. Portier HOST is continuously enhanced—not only by introducing new technologies and value-adding features, but also by ensuring the software remains fully up to date. The optimal deployment method depends on several factors, such as the volume of generated data, the customer’s IT infrastructure, and cloud availability. However, an increasing number of installations are cloud-based due to advantages such as accessibility, cost-efficiency, enhanced data security, and reduced hardware maintenance.

PORTIER HOST™ SW PLATFORM

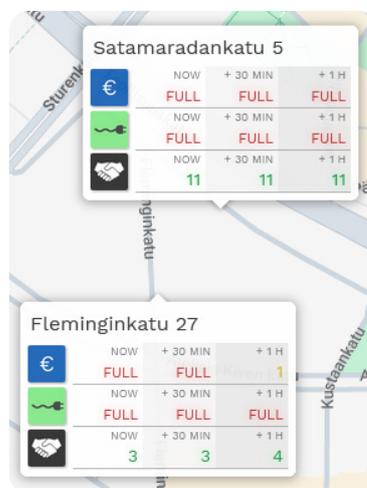
HOST has been designed as an open platform and includes a built-in REST API that supports seamless data import and export. The open API enables straightforward integration of the parking guidance system with third-party applications, such as parking revenue and access control systems, wayfinding applications, and public websites. In addition, the ability to import data from external systems allows users to utilize HOST as a central platform for all parking guidance information, regardless of the hardware technology provider.

PORTIER AI

The Portier AI Module is an advanced add-on to the Portier HOST platform, designed to forecast parking occupancy behaviour with high accuracy. By combining historical data with relevant external inputs, the module generates reliable occupancy predictions for one or multiple counting areas over selected time horizons – whether for the next 30 minutes, 2 hours, or even 8 hours ahead. These forecasts enable users to make proactive parking and mobility decisions before starting their journey, rather than reacting to real-time occupancy information upon arrival. This improves overall traffic flow and enhances the customer experience.

Beyond user benefits, the AI Module supports intelligent capacity management. For sites with allocated parking quotas, such as separate spaces for employees and visitors, the system can automatically adjust allocations based on forecasted demand to optimise occupancy levels and maximise revenue.

In addition, occupancy forecasting enables dynamic pricing strategies. For example, in pre-booking scenarios, parking rates can be automatically adjusted according to predicted demand, ensuring both competitive pricing and revenue optimisation.



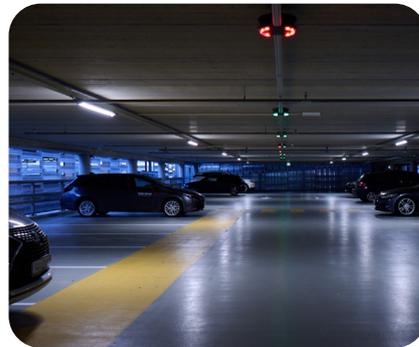
PORTIER VISION™

Portier VISION™ offers camera-based guidance solutions for both indoor and outdoor use. Indoor solution consists of camera units that monitor the occupancy of each parking space whereas outdoor solution monitors occupancies of larger open areas.

VISION KNOWS VEHICLES AND YOUR CUSTOMERS!

In the indoor solution, camera units monitor between one to six spaces on one or both sides of the driving lane and when a space becomes occupied, our proprietary algorithms detect the vehicle and subsequently read the license plate.

VISION stores all movement around vehicles which increases safety and helps possible damage claim resolutions. Stored videos and images can be quickly and easily searched using camera id, license plate and/or time span. VISION has also in-built audio that can be used e.g., for marketing campaigns or for streaming music.



VISION provides information about the customers and their behaviour such as visiting times and patterns as well as how different areas of the facility are filling up and utilized over days. HOST platform offers advanced search tools and also REST-API which are extremely useful in further data analysis and integrations with third party solutions.



**WE WERE POSITIVELY SURPRISED THAT VISION
STARTED TO WORK FROM DAY 1 WITH AN
ASTONISHING ACCURACY AND RELIABILITY!**



ADDED VALUE OF CAMERAS

In addition to the general benefits of video and image recording, license plate recognition (LPR) offers significant added value compared to other parking guidance technologies such as ultrasonic sensors.

LPR at the parking space level provides the exact vehicle location, enabling services such as “locate your vehicle.” Customers can enter their license plate at a Portier search kiosk and receive guidance back to their car. Vehicle location data also supports value-added services including car sharing, rental and delivery services, valet operations, and automated EV charging activation for registered users. Through the software API, this information can be easily integrated into third-party systems and applications.



For parking operators and facility owners, license plate identification delivers valuable insights into customer behavior. When linked to loyalty programs (with proper consent), it enables customer-specific analysis. Even anonymized data provides meaningful insights, such as visit frequency, duration patterns, and the effectiveness of marketing campaigns, as well as opportunities to combine parking data with indoor tracking solutions

**VISION KNOWS VEHICLES
AND YOUR CUSTOMERS!**

PORTIER VISION OUTDOOR CAMERAS

Effective calculation and guidance for outdoor parking areas remain one of the biggest challenges in parking and parking guidance. Over the years various different solutions ranging from simple induction loop counting to individual ground sensors have been used but the most recent developments in camera technology and advanced image analysis have made it possible to utilize cameras for counting and guidance in outdoor parking areas.

VISION outdoor cameras monitor defined areas and based on the proprietary image analysis, they detect the amount of vehicles and calculate the number of free spaces. Space availability can be shown for example in the Portier parking guidance displays or Portier Wayfinder web application.

**FORGET REPEATED
CALIBRATIONS!**



VISION outdoor camera algorithms are proprietary development by Portier and our varying development environment offers really unique conditions ranging from midnight sun to polar night and areas flooded with sunshine, rain, slush or snow. Such a diversity has made the outdoor solution suitable for diverse conditions globally. Algorithm itself calculates the total number of vehicles in the area of interest and since the result is not dependent on whether vehicles have been correctly parked or not, solution works robustly under different weather conditions.

Outdoor cameras offer also live streams via HOST platform and although system does not store streams, user can define whether still images are saved and how long they will be available in the system.

PORTIER LPR

Portier LPR is based on a proprietary development by Portier since 2015 and it is available as a stand-alone solution or it can be combined with Portier HOST access control module. Stand-alone solution can be integrated to third party applications using our REST-API interface. If LPR is used with Portier HOST access control module, it creates an efficient management solution for contract parking.

Our proprietary algorithms gives us flexibility to continuously improve the performance as well as to adapt the algorithm to local needs should there be any special requirements.

Typical use cases for Portier LPR:

- Integration with third party access control and payment solutions
- Control of gates and doors based on a third party white lists
- Management of contract parking e.g. for employees
- Plate recognition for differential tariffs
- Research and analysis of customer behaviour

YOUR GLOBAL PARTNER!

Each driving lane can contain one or two LPR cameras which are connected to a local computation unit or to a cloud computing. Dual camera approach leads into highest accuracy as it can handle cases where front or back plate is unreadable due to weather conditions (e.g. snow, slush) or plate is missing completely. Cameras are powered over Ethernet (PoE). License plate detection is triggered based on movement on the video stream so the camera does not require external triggering although it is also possible to use external triggering. Movement induced analysis works in a fully gateless solutions but it can also be combined with gate control whereby Portier HOST controls the barriers, doors or gates.



PORTIER SONIC™

Sonic represents the most robust technology within parking guidance - ultrasonic space-specific guidance. Although Sonic was launched in 2021, it relies on our 20+ year experience on ultrasonic guidance solutions that has covered so far more than 300 000 parking spaces globally.



The robustness and cost-effectiveness of ultrasonic technology make it an ideal solution for a wide range of parking facilities. In large car parks, single-space detection combined with indoor guidance displays creates a highly efficient parking guidance system that directs drivers to the nearest available spaces. This reduces unnecessary circulation, improves traffic flow, and significantly enhances customer satisfaction.

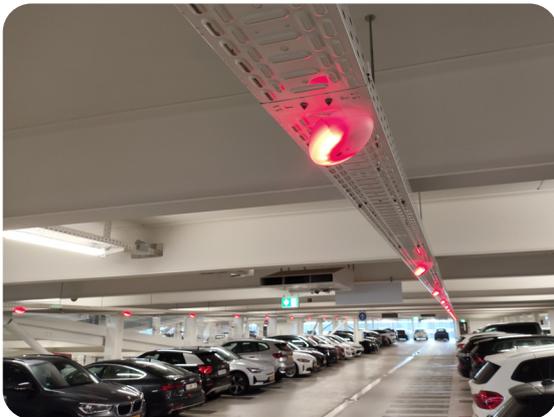
However, the benefits of ultrasonic detection extend beyond parking guidance. With 99.9%+ detection accuracy, the system delivers highly reliable occupancy data – a critical factor for smaller, high-utilisation sites such as park-and-ride facilities. In these environments, precise occupancy information enables better traffic management and allows drivers to make informed decisions between different parking or mobility options.

Thanks to its flexibility and scalability, ultrasonic guidance is one of the most versatile parking technologies available. It is equally effective in facilities with fewer than one hundred spaces as it is in large-scale operations with thousands of spaces.

PORTIER SONIC™

Sonic is available in two different versions: one that is installed on top of the parking space, and another which is installed at an angle in front of the parking space. Latter installation method has the benefit that sensor's LED indicators are more visible for the drivers. Sonic's angled version is also quicker and more cost-effective to install than sensors equipped with a separate external LED indicator since such solutions require additional cabling between the sensor and the external light.

Each sensor has RGB LEDs which enables easy separation of space categories (normal, EV, ADA, family, etc) using different LED colours. Sensor itself is also available in different colours so Sonic solution can either be blended with the facility's colour scheme or it can really stand out for maximum visibility.



“

SONIC IS ONE OF THE VERY FEW ANGLED ULTRASONIC
SENSORS THAT IS ACTUALLY ACCURATE

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PORTIER COUNTERS

Despite the developments in the space-specific guidance technologies, such as camera or ultrasonic detection, there are still certain cases where simple counting solution can be the most value adding solution. For such needs, Portier offers ultrasonic, microwave and induction loop counters.

Ultrasonic counters are suitable for covered areas and can effectively replace induction loops - main benefit of the ultrasonic counter compared to an induction loop is that installation doesn't require cutting loops into structures which might be problematic in some locations. Furthermore, cut loops tend to break over time as the traffic erodes the surface. Ultrasonic counter is able to detect the driving direction of the vehicle and has an equal accuracy compared to induction loops.

**MICROWAVE COUNTER IS AN
EASY ALTERNATIVE TO LOOPS**

For installations where it's difficult or impossible to due to structural constraints such as reinforcements, moisture protection layers or heating elements with structures we offer Portier Microwave Counters. It is a roof- or wall-mounted and offers an easy, quick and versatile installation together with maintenance-free operations.

Like other Portier technologies, counters are integrated into Portier HOST platform which means that a single installation can have a mix of counters as well as more advanced technologies depending on the user need. At the same time, HOST offers easy tools for manual or automatic calibration of counts.



PORTIER DISPLAYS

Visible and easily understandable guidance displays are an essential component of a well-functioning parking guidance solution. Portier provides a diverse range of displays for both indoor and outdoor use. We have developed our display technology for more than 20 years and our installed base stretches from Northern European cold climate to Middle Eastern and Australian extremely warm temperatures.

Display types include simple numeric or alphanumeric displays as well as RGB matrix displays and display sizes vary from 100 to 1000 mm which allows the customer to select the most suitable solution for each use case. Generally, Portier prefers to utilize universal symbols as much as possible so that the guidance information would be easily and quickly understandable.

Displays can be integrated into different housings depending on the design customer is requesting and Portier offers also various connection types including mobile, radio or cable connections.

**HIGH QUALITY DISPLAYS
FOR VARYING USER NEEDS**



PORTIER WAYFINDER™

Innovations in urban mobility offers increasing number of transport options such as shared car services, connected journeys combining different transportation modes or short-term rentals. At the same time, vehicle technology is moving towards electric vehicles which means more demand for EV charging stations and thus real-time availability information of charging stations is more important. Even if the mobility is changing, convenient and effective parking will continue to be an important piece of the mobility puzzle as above trends will just increase the demand for accurate and timely parking information.

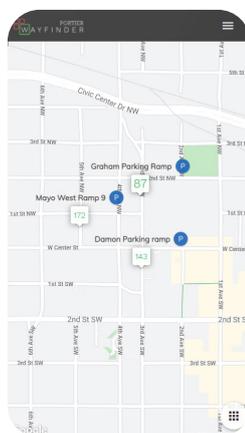


WAYFINDER HAS MADE A HUGE DIFFERENCE TO OUR EMPLOYEE PARKING - NOW IT'S SIMPLE AND FAST TO FIND THE RIGHT LOCATION!



Traditionally parking guidance has focused on effective on-site guidance but as mobility becomes more diverse, guidance should also extend beyond on-site premises. Portier Wayfinder provides accurate and real-time parking availability in easily understandable format.

Wayfinder is accessible with any Internet-connected smart device without logins or without the need to download yet another application. Wayfinder runs on standard browsers and as soon as the users reach the Wayfinder website, they can see a snapshot of the overall availability or access more detailed information per parking facility or area.



API & OTHER TECHNOLOGIES

Portier HOST platform features REST-API interface that can be used to export as well as import data between HOST and various third party systems.

HOST API offers a wealth of information such as counting areas and their statuses, possible alerts, parking spaces and their statuses, floor plan images, other images, video streams, license plates etc. On the other hand, API allows updating the counting areas as well as displays even if counting and updates would be based on other than Portier technology.

HOST API capabilities have been successfully used in a number use cases such as:

- Providing real-time parking information to the customer's website
- Providing real-time parking information to park&ride applications
- Importing parking data from third party pay-on-foot machines
- Importing parking data from third party in-ground sensors

CONTACT US

Please visit our website at portier.host for more information about our solutions and to contact your local representative.

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