



UNICODE
S Y S T E M S

Complex IT Solutions for Service Stations



SINCE 1990



*Moving forward
with a clear vision*

My people are my confidence

The company was founded by me in 1990. In 2000, the company was transformed into a limited company with a total of 4 partners. More than 30 years have passed and today our solutions are in operation at **more than 5 000 petrol and EV charging stations in 11 European countries.**

As one of the few EU mid-sized companies, we specialise exclusively in the field of information technology for petrol stations retail. This very extensive industry spans our IT solutions from forecourt control to software management solutions of the biggest petrol companies HQ.

We have extensive experience in developing, integrating, and implementing systems. Besides development, our work also includes service activities in the form of technological and IT support including software maintenance, hot line, on-site service, 2nd and 3rd level support.

My partners and I are proud to be among the industry leaders in Central and Southeast Europe.

We deliver innovative products, work closely with our customers, and very often set new standards in petrol station retail. We work with the utmost responsibility and our solutions help our customers to increase the productivity and competitiveness of their petrol stations.

Ing. Miroslav STŘÍBRSKÝ
Director and Founder of the Company



EUROSHOP3 – PETROL STATION MANAGEMENT AND OPERATION SYSTEM

The next generation product with everything included



ECR System EuroShop3 is a comprehensive package of cash register (POS), Back Office (BOS) and an optional central web-based application (WEB OFFICE) – together as the solution for the management and operation of petrol stations. The development is based on more than **25 years of experience** in the field, and we continuously improve the system according to current trends.

Thanks to the combination of individual modules, the system easily adapts to all requirements. It is therefore the ideal solution for petrol stations of all types and sizes.

COMPONENTS OF THE EUROSHOP3 SYSTEM

1 POINT OF SALE
Provides sale of fuel, dry goods, services and more

2 BACK OFFICE
Complete petrol station management

3 WEB OFFICE
Web application designed especially for central management of small up to mid-size networks



EUROSHOP3 – POINT OF SALE

Designed for fast cashier work

1 The POS cash register provides the **sale of fuel, goods, and services**. It can also control all external station technologies, such as washer fluid dispensers, price totems, car washes, electric charging stations and more.

The status of the fuel dispensers is displayed for the entire time the cash register is running. Other cash register features include e.g. loyalty systems to support sales or monitor and motivate cashier behaviour.

The cash register accepts all types of non-cash payments, the cash payments can be made in several currencies. Top-selling items can be set up as favourite keys.

The layout of the EuroShop3 POS user screen is tailored so that customers can be checked in as quickly as possible. The screen user interface has intuitive ergonomics to speed up checkout operation and the pleasant colour design protects the cashier from eye strain.

Self Checkout Point of Sale

The self-service solution on the Diebold Nixdorf BEETLE / iSCAN POS hardware platform enables faster customer check-out.

The side effect is reduction of petrol station staff or saving their workload. A similar solution is used by many supermarket chains today.

The self-service checkout is designed exclusively for electronic payment methods.



THE OPERATOR EASILY CONTROLS ALL KEY PROCESSES AT THE PETROL STATION

- Dispenser control, fuel deliveries management
- Dry goods selling, dry stock
- Gastronomy in table or self-service mode
- Price signs and fuel level gauges
- OPT control, car washes
- Fleet, local, discount, and prepaid cards



BANKNOTE AND COIN RECYCLING DEVICE

Working with cash without contact of the cashier

Banknote and coin recycling system that allows customers to deposit their payments and then automatically receive their change. It is designed to be installed in cash counters, facing the customer. It handles customer **cash transactions without any staff contact**. The system has 8 trays for receiving and dispensing coins and 3 trays for receiving and dispensing banknotes. Therefore, it can handle all denominations of coins and notes of the respective currency (the number of trays is according to the currency of the country). It is possible to set in the system how many notes and coins will be taken to the bank after the shift closure and what quantity will remain in the exchange facility for the next shift. Higher denomination banknotes are automatically deposited directly into a **secure cassette for transport to the bank**.

The system guides the customer where to insert the notes and coins via a small customer monitor.

The device fully cooperates with the EuroShop3 POS system.

THE MAIN ADVANTAGES OF THE BANKNOTE AND COIN RECYCLING SYSTEM

- Hygienic handling
- Simple cash-to-bank calculation
- Cost savings for coins exchange
- Security against theft
- 100% banknote verification
- Fast and safe shift handover
- Elimination of errors when returning cash
- Cashier has reduced material responsibility
- Protection against the risk of embezzlement
- Faster customer clearance
- Recycling of banknotes and coins
- Processes EUR, CZK, PLN and other currencies



SELF-SERVICE FOOD ORDER TOUCH DISPLAY

Speeds up customers check out and saves cashier time

Self-service ordering display for placement in the petrol station shop. **Fully integrated** into the EUROSHOP POS gastro system as **an additional cash register**.

Intuitive touch display allows the customer to select and purchase the offered range of food and beverages by creating an order, which is processed and prepared directly in the kitchen area of the petrol station.

MAIN FEATURES

- Ordering refreshments without waiting in line
- Consumption on site/takeaway
- Order process information on the screen in the shop
- Selection of all gastronomic products
- Printing a receipt with the order number
- Order clearance in the kitchen on the order terminal
- Promoting and sale of promotions
- Similar solution as in known fast food chains
- Payment by card directly at the device or at the cash desk

Increases customer comfort





EUROSHOP3 – BACK OFFICE

Service station under control

2 Back Office is a key tool for service station management. It allows you to carry out the entire operational agenda – from **orders, delivery lists or complete stock inventory reports, fleet cards or station cards management, invoicing, and many other necessary activities**. Complete recipe solution with a link to the raw materials in the stock is available for gastro operations.

The solution includes extensive reporting from the generation of printouts to the export of data in various formats, especially for the needs of various accounting systems. Special attention is paid to customer **promotions** and support of active **sales offers**. Back Office also ensures high security of data handling, monitoring of risky transactions and the prevention of unauthorized actions, which ensures data security against unauthorized manipulation.

For example, a module for monitoring of risky operations performed at the cash register or a system of user profiles that allows you to set access to data and system properties for each user individually. The concept of the solution also allows working on several tasks at the same time. The petrol station manager can easily check, for example, shift statements, stock levels and fuel deliveries at once in split windows.

The Back Office manages every detail of the petrol station operation



WEB OFFICE EUROSHOP3

Operation and management from anywhere

3 Web Office is a comprehensive central system designed to **manage and control petrol station networks**. The system is designed primarily for small and medium-sized networks, but also fully covers the needs of largest station networks as a middleware. It does not matter whether the petrol stations have regular ECR, OPT, or a combination of both. The functional concept of the Web Office solution is based on the Back Office functions, which are expanded by several additional functions necessary for the management of the petrol station network.

In the Web Office, it is possible to monitor and report key operational information for the entire network and for individual stations or group of them. The application can be conveniently operated from computer, tablet, or mobile phone via a commonly available internet connection.

For a simple overview, especially when using a mobile device, the system's main screen can be set up to display key operational information – for example, fuel tank levels, sales overview, summary of current fuel prices or indications of suspicious POS transactions. The Web Office solution also includes a data export module to most standard accounting systems.

WEB OFFICE KEY FEATURES

- Category management
- Station billing
- Management of station customers
- Reporting
- Pricing of fuel and dry goods
- Logistics and management of fuel deliveries
- Promotions, marketing
- Invoicing



OPT CARDMANAGER STAND-ALONE AND BUILT-IN SERIES

Fast and safe refuelling and charging solution

The OPT CardManager range meets all the requirements for the operation of **self-service** petrol stations. They are equipped with a touch screen that allows intuitive operation. The devices can be easily connected to the ECR and central systems of UNICODE SYSTEMS, or other ECR and control systems, e.g. DOMS. They can also be operated completely independently in fully unattended stations. All models accept a wide range of non-cash payment methods, with the top model in the range also featuring **multi-currency cash** acceptance.

A module for collecting points into loyalty systems and accepting various vouchers with a barcode or QR code is also available for all models. For fully unattended stations, basic station management tasks, such as registering fuel deliveries, can be performed on the fuel dispenser. All models allow direct control of all common European-made dispensers. An additional option is the control of the car wash technology for **self-service car wash programs**. For remote management and monitoring of the operation, each device is connected to the service centre by the ECR Monitor application.

TYPES OF CONSTRUCTION

- Freestanding (stand-alone)
- Outdoor construction (IP54 coverage)
- ATEX for explosive environment

PAYMENT METHODS

- Bank cards
- Fleet cards
- Station cards and RF chips
- Vouchers
- Cash (CZK, EUR, PLN, HUF)

CONNECTION TO TECHNOLOGY

- Liquid fuel, CNG, LNG, hydrogen, Ad-Blue dispensers
- Price signs and level gauges
- Camera surveillance
- Carwash
- EV chargers

MANAGEMENT METHODS

- ECR EuroShop3, other ECR
- Central Web Office system
- Basic management via a web application
- Local control in the internal company network



CardManager Full

Convenient model allowing all types of payments including banknote acceptance safely stored in the built-in safe.



CardManager Compact

The best-selling model, designed to accept all non-cash payments.

CardManager Compact ATEX

Meets the conditions for installation in an **explosion hazardous areas**.



CardManager Mini

Simple economical solution accepts all types of non-cash payments.

Version for EV charger & car wash

The multi-functional device can also control EV chargers or car washes.



CardManager Wet & Dry

Combines a classic OPT with a large **32" touchscreen display**. It allows for the ordering of refreshments during refuelling. The unique double-sided construction is designed for large petrol stations or EV chargers with food services to mount on an island near the dispensers.



CardManager Built-In

The optimal solution for **pay-at-pump** concept. The device is designed based on the Mini model. Various design solutions are adapted for the 5 major manufacturers of dispensers on the European market.



CARDMANAGER WET & DRY

Unique solution for a modern pay-at-pump concept

CardManager Wet & Dry is the most significant **product from the OPT series** produced by UNICODE SYSTEMS. The unique design combines a classic outdoor OPT with a large **32-inch** touchscreen food ordering display. Similar device has been seen only in fast food restaurants till the present time.

The design can be **single or double-sided** and is adapted for mounting on the petrol station island. The device is designed especially for **large petrol stations or EV charging stations with gastro shops**. Customer can order refreshments, learn about sales promotions, or watch advertising clips with new products while refuelling. Payment for fuel or other goods can be made either directly on site via a payment terminal, in the shop at the cash register or in combination.

The device is also ideal for EV charging stations, where the customer spends much more time than when refuelling.

The Wet & Dry system includes advanced software for managing graphics, sorting gastro products into groups, supporting marketing events, managing promotional video clips and other functions.

Wet & Dry combines fuel or electricity sales with refreshment sales in one device



CARDMANAGER BUILT-IN

Built into all types of fuel dispensers as pay-at-pump concept

Tokheim

Wayne

Gilbarco

ADAST

Tatsuno

OPERATING CHARACTERISTICS

- For all European dispensers
- Designed for new dispensers or as a replacement unit for existing dispensers
- Easy on-site installation
- Easy to operate and maintain

BASIC TECHNICAL PARAMETERS

- CardManager Compact in a different construction design
- Support for all types of non-cash payments (bank cards, Fleet cards, RFI onboard units OBU)
- Support for loyalty systems (QR or barcode)

- TÜV SÜD certification
- LCD touch screen 7 or 10.1"
- Fully integrated into EuroShop POS, Web office and HOS
- Built into dispensers: Tokheim, Wayne, Gilbarco, ADAST, Tatsuno

Built-in fuel dispenser speeds up customer check-out right at the stand





OPT FOR EV CHARGING STATIONS

Innovative payment solution to open your charging station to all customers

Our cutting-edge solution ensures seamless user experience for electric vehicle charging, matching the convenience of traditional fuelling while meeting the highest standards in customer-driven self-service payment processes for both station operators and drivers.

With OPT CardManager, you can now pay for electricity using **standard bank and fleet cards** without the hassle of registering with an electricity provider. Our solution allows payment with all major fleet cards, catering to corporate fleet operators who have a significant share in the EV market. OPT not only enlarges existing e-roaming payment methods and thus enhances the accessibility of charging stations for the general public.

The charging station can thus be an integral part of the standard network of petrol stations, both technically and through the use of means of payment and transaction data processing.

The entire solution is completely independent of the type of charging station, OPT communicates with all existing charging network management systems based on the standard OCPP protocol via the UNICODE PowerHUB cloud application.

KEY ADVANTAGES OF OPT SOLUTION

- The same solution for both stand-alone charging stations and charging stations at petrol stations
- Independence from the type of charger - the OPT connection does not interfere with the charger hardware
- Economy - one OPT can control several chargers at one station
- Simple payment and charging management process
- OPT does not restrict existing e-roaming payment methods in any way

OPT FOR EV CHARGERS

OPT Mini EV

- Economical solution - one OPT unit can serve several chargers / charging points
- Intuitive user interface via 7" touch screen
- Supports OCPI or OCPP protocols
- Barcode / QR code scanner for loyalty cards and discount vouchers
- The IP 54 protection allows operation without using a shelter

OPT Max EV

- Ideal solution for bigger petrol / charging stations with gastro refreshment shop
- One OPT unit can serve several chargers / charging points
- The customer orders refreshments in the shop on a 32" touch screen during charging
- Barcode / QR code scanner for accepting loyalty cards and discount vouchers
- The device is intended for outdoor operation under a shelter
- Supports OCPI or OCPP protocols

PAYMENT OPTIONS

- Payments by all bank cards without the need to register with an electricity supplier
- Payments with all common fleet cards (Routex, DKV, UTA, AS24, MOL, Orlen and others...)
- Payments with local cards, protected by a PIN, either for the operator's own consumption or sale to contractual customers
- Possibility to use various loyalty programs
- **Receipt printer as an option**

Expand payment options and increase user comfort with our OPT models for EV chargers





FORECOURT SERVER FCS

Safer control of petrol station technologies

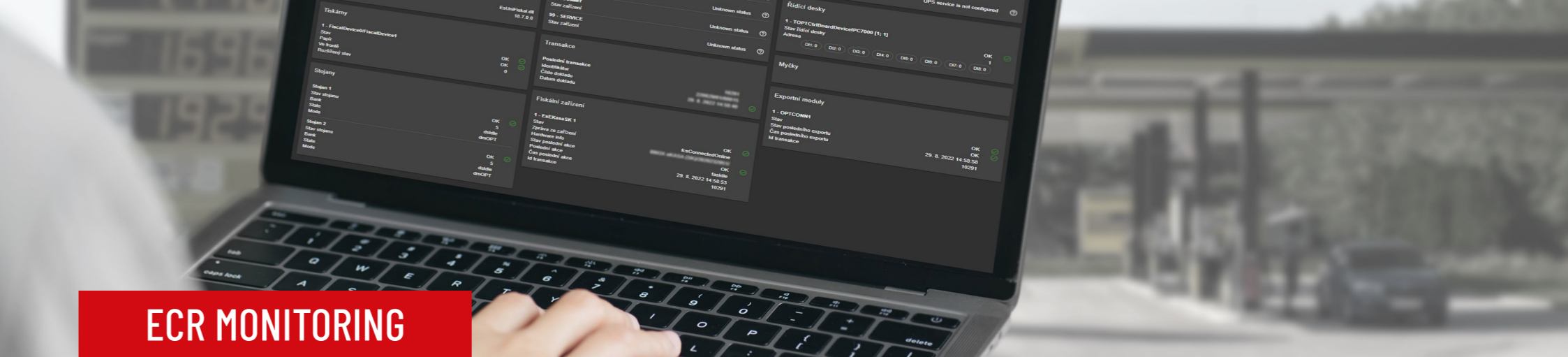
The Forecourt server is an advanced control unit designed to control technology at larger petrol stations, typically with more than two dispensing points. It controls all external technology parts of the station such as **dispensers, price signs, fuel level gauges, OPT's** and **car washes**.

This device significantly contributes to the safety of the petrol station operation, as it works as an intelligent intermediate link for communication of the EUROSHOP POS system with dispensers and other devices at the petrol station, including OPT. The POS is not burdened with direct data processing, especially from dispensers, everything is provided by the Forecourt server, which pre-processes the data. Thanks to the Forecourt server, the operation of the petrol station is not completely threatened by a possible failure of one of the cash desks; in the extreme case, fuel can be dispensed, for example, at the gastro POS.

The Forecourt server is typically installed at petrol stations with multiple dispensing points, of which it can handle **up to 32**. For even greater security or for the largest stations with more than **32 dispensing points**, several FCS units can be installed to divide the station control into independent functional units.

For communication with these devices, the Forecourt server integrates the appropriate communication protocols, certified by the relevant European fuel dispensers and forecourt technology manufacturers.

Forecourt server – the ultimate operational safety for large petrol stations



ECR MONITORING

Remote monitoring of service station devices

ECR Monitoring is an effective tool for **remote monitoring and management of OPT, ECR POS and Forecourt servers**. The monitoring enables proactive surveillance of the operating status of key components of all the installed devices. It is a very effective tool for the operation and service of all equipment installed at petrol stations and charging stations.

Access to ECR monitoring is given to the service organisation on the one hand and the operator of the network of filling or charging stations on the other hand. The ECRM is integrated into the UNICODE service help desk and into the help desks of third parties providing the service maintenance. In addition to technical information, the ECRM system also receives operational data, such as the temperature of the device, the state of the paper tray for printing receipts, or the statistics of bank and fleet transaction errors. etc... It thus helps to predict OPT, ECR POS or Forecourt servers' faults, for example.

MAIN FEATURES OF ECR MONITORING

- Centralised supervision of the operating conditions of equipment at filling/charging stations
- Active monitoring of network and operational availability of all connected devices
- Timely overview and warning of operational and technical problems and device faults
- For each device, it displays the history of warning and error states, including their statistical evaluation
- Sending selected operational information via SMS/email to service technicians and station operators
- Archiving of devices configurations and changes to their configuration
- Each user has access only to the devices in his network of filling/charging stations
- Includes management of users, their contact information and roles



MOBILE PAYMENTS

A simple and safe way to pay

The mobile payment system turns your mobile phone into a fuel dispenser with a **secure payment terminal** and a smart loyalty card. The app provides a simple, fast, and secure way to pay at petrol stations. Unlike NFC, the phone is completely independent of the payment terminal. Depending on the type of payment, the phone communicates directly with a **specially designed bank payment gateway** or with the UNICODE SYSTEMS Authorisation Centre.



SUPPORTED CARDS

Bank, fuel, loyalty, and discount cards can be integrated.



EASY SETUP

Cards are simply added to the virtual wallet in the app.



FAST PAYMENT

After reading the QR code on the fuel dispenser, the customer pays in one click.



FLEXIBLE PAYMENT

Possibility to pay before or after refuelling, at the stand or at the cash desk.



IOS/ANDROID SUPPORT

Available on the App Store and Google Play for free.



SAFE TO USE

Security with MPIN, fingerprint or Face ID, card data is not stored in the mobile phone.



HEAD OFFICE SYSTEMS

Custom solutions for large petrol corporations

Project-based solutions for the largest petrol station networks provide a comprehensive portfolio of information systems designed to manage large station networks equipped with the **EuroShop3 ECR system** and **CardManager OPT**.

The central **Head Office** system provides control of the service station operations, overview and graphs of economic results, management and logistics of dry goods, fuels, and reporting. This portfolio is complemented by the central marketing system **Bonus Management**, which manages loyalty programmes and discount promotions, issuing vouchers and gift cards.

All data transfers between petrol stations and central applications take place via a secure data connection that guarantees high data security. We also offer central systems as a service through a private corporate cloud, operated at the UNICODE SYSTEMS **Datacentre**.

HEAD OFFICE SYSTEM ALLOWS

- Easy central management of a large network of petrol stations
- Control goods management, prices, promotions, station customers
- Two-way connection with the customer's accounting systems
- Connections with third parties (suppliers, carriers, etc.)
- Receiving detailed information about the current events at petrol stations

BONUS MANAGEMENT SYSTEM

- Is used to create your own loyalty system
- Its modular, allowing both points collection and direct discounts on goods and fuel
- Supports the creation and acceptance of vouchers
- It can work on the platform of a classic card or in a mobile application
- Allows connection to a third-party loyalty system



UNICODE AUTHORISATION CENTRE – ACU

Secure authorisation for the majority of European fleet card issuers

We provide solutions for the authorisation of fleet cards of all major issuers for the business locations of our customers and partners. The **ACU system (Authorisation Centre Unicode)** is an authorisation switch, operated in high availability mode thanks to the geocluster architecture. In the geocluster, data is stored on two data servers in geographically separate locations (Prague, Brno). In case of failure of one server, the service continues to run from the other location. The ACU authorisation center is thus characterised by high availability and prevents data loss.

Acceptance of fleet cards is implemented either **by standard bank terminals or separate terminals**. Our banking partners include KBC group, Société Generale group, Erste Bank group, UniCredit Bank, Raiffeisen Bank and Global Payments.

The authorisation centre accepts fleet cards from **more than 20 issuers** and their range is constantly expanding. The whole system and its modules have been developed for more than 20 years to cover all business processes of this demanding and specific field. **For customers with a request for their own fleet card**, we deliver a comprehensive solution covering all processes and the functionality associated with them.

The authorisation solution is based on the IFSF standard and meets the highest demands for high performance and cryptographic security. This is ensured by **two clusters of Thales 10k HSM units**.

The ACU system is exclusively provided to customers as a service.

ACU – secure and flexible authorisation system



UNICODE DATA CENTRE – DCU

Modern data technology with high security

At UNICODE, we specialize in providing cutting-edge hosting solutions for central systems such as EuroShop Web Office, FEP Authorisation Centre, MEP Mobile Payments, PowerHUB EV charger management, and more.

By utilizing our Data Centre (DC) services, our customers avoid the substantial investment and ongoing maintenance concerns of operating their own data centres. Our DC infrastructure ensures seamless system operations with high availability, robust data storage, archiving capabilities, and stringent physical and IT security measures aligned with industry standards.

Our **two data centres** in Prague and Brno are interconnected **as a geocluster**, guaranteeing uninterrupted access to applications. This interconnected network ensures data security and availability across both locations. Our central systems are deployed in Active/Active mode within a private cloud setup, maximizing the benefits for our clients.

At UNICODE, our data centres boast powerful servers and high-speed backup data links. We prioritize physical security, locating our data centres within T-Mobile premises under constant surveillance and restricted access, reinforced by personal security cards and biometric authentication.

Committed to uninterrupted service delivery, our data centres adhere to the most stringent operational standards, ensuring continuous availability of our services for system operators and their end customers.

Partner with us to relieve the challenges of investing in and managing your central systems



TECHNOLOGY PARK BRNO

Production facilities for OPT manufacturing

A PRODUCTION BASE

- Production premises with a total area of 700 square metres
- Monthly production capacity of up to 100 pieces of all OPT models
- Quality assurance in all phases of the production process
- Large warehouse of components for production and service

OPT PRODUCTION CHARACTERISTICS

- Design of body and other mechanical structures fully in the CAD system
- Materials resistant to oil products, climatic influences, extreme temperatures
- 3D printing of plastic components
- Effective mass testing of finished products



Monthly production capacity of up to 100 units of OPT



SERVICE SUPPORT CENTRE

Service competence centre – professionalism and experience

An integral part of our activity is the provision of support services in the form of a competence service centre, which is available for service station operators **24 hours** a day, **7 days** a week. We emphasize efficiency, quality, and speed in resolving service incidents with the goal of minimal downtime for your service station.

We have **4 service** centres in the Czech Republic and Slovakia. For our service partners in **9 other European countries**, we provide remote support (3rd level support) and software maintenance.

OUR ADVANTAGES

- Qualified technicians on the Hotline
- Availability 24/7
- Practical knowledge of the petrol station environment
- Support of Expert Group (2nd and 3rd Level Support)
- Resolving most faults by remote management
- Monitoring of events by the customer on the shared service portal

OUR GOALS

- To minimize the downtime of the service station, which means financial losses and reduced customer satisfaction
- To prevent faults and malfunctions through early prophylaxis
- To keep up-to-date database of service events and their solutions and provide our customers with the best support



TRAINING CENTRES

Operator and technician training

Our work does not end with the development and sale of our information system. Our team of trainers provide user documentation, training of new users and subsequent user support throughout the use of the system. We have our own training centres in the Czech Republic, in other countries, our service partners provide the training.

During the training, the service station operator will learn how to work as efficiently as possible with the cash register as well as with other related systems, whether **Back Office**, **Web Office**, or a **OPT**. Our aim is always to tailor the training to the individual needs of the client and to focus on the areas that are important for the operation of the petrol station.

In addition to initial training, we also offer training for new staff or refresher training on new modules and functions of the system, or individual consultations and specific topics.

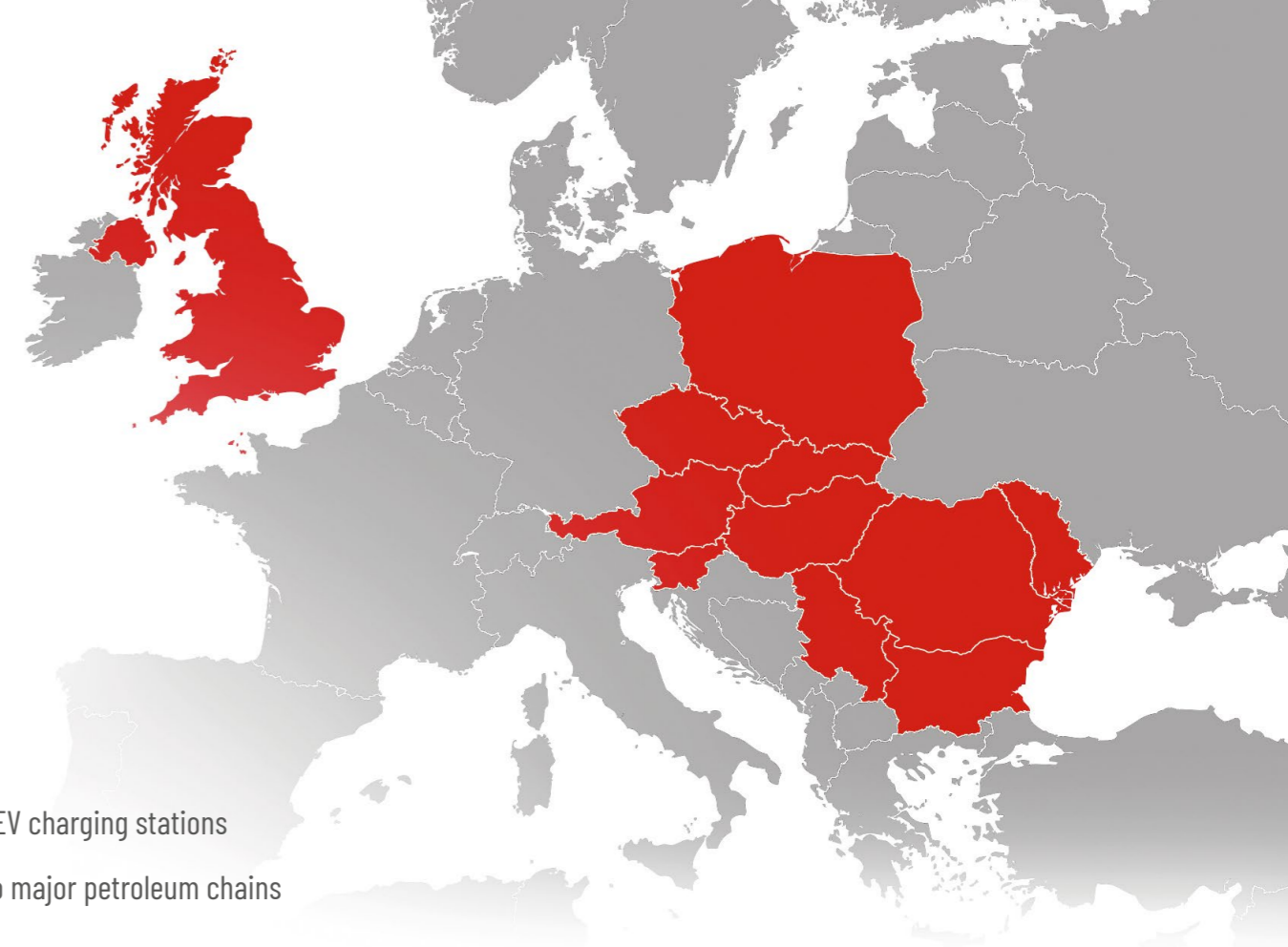
Our training centres also provide technical training for service partners in 9 other European countries.

A well-trained operator or technician is the basis for the quality operation of a petrol station

COMPANY HIGHLIGHTS

At a glance

- Over **30 years** of experience in the industry
- A dedicated team of **130 professionals and experts**
- Our solutions extend across **11 European countries**, exceeding over **5 000 petrol stations** and hundreds of EV charging stations
- Serving a diverse clientele, from small petrol stations to major petroleum chains
- Significant service partners and associates
- In-house production capabilities ensuring quality control
- We, as **ISO 27001 holders (Information Security Management Certification)**, ensure compliance with the global standard for information security, prioritizing trust across employees, processes, IT systems, and common corporate security strategy



We offer constant growth, innovation, and stability

Sales Team



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PRAGUE DEVELOPMENT CENTRE

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Prague, Czech Republic

TRAINING CENTRE - Vyšehrad Garden

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Prague, Czech Republic

TECHNOLOGY PARK PRODUCTION

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Brno, Czech Republic





UNICODE
SYSTEMS

Complex IT Solutions for Service Stations

