Take
Control

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"Asis" from past to present

The foundations of Asis Automation were laid in 1990 and the company started its activities by providing services in IT and information technologies. In 2000, the company was transformed into Asis Automation Fuel Systems with its professional staff, intense knowledge and experience.

Since then, Asis has been producing automation systems, technological services, hardware and software solutions for many sectors, as well as the fuel industry and manufacturing, assembly and after-sales services for all products and services it produces.

Asis Automation, which launched the most comprehensive, well equipped and large R&D center of its sector in 2017, works also in areas of satellite systems, payment systems, mobile applications, IoT, artificial intelligence, robotics, embedded systems, image analysis and sensor technologies. R&D Center have 8 project development experiment laboratories, 2 fully equipped advanced testing laboratories and 1 prototyping laboratory.

By putting R&D studies at the center of its innovative approach, Asis Automation develops special projects for the needs of the fuel sector and depending on customer demands.

Asis aims to be a true "Solution Provider" in all software and automation needs of its customers with its expert and experienced staff, with its quality product and service, customer-oriented approach and competitive prices.

It is not sufficient to do only the business and the best in this globalizing world anymore. You should definitely be an expert in your business and in the industry for Turkey and the world. You should both conduct your business in the best way and provide innovative and brand-new products to your industry.

You should create business partners that are happy working with you and with your solution partnership. This is possible only with establishments that has been inoculated with science and technology culture and that invests in R&D. We adopt this very important point as a goal and provide solutions for today's requirements and create the future of automation. Today, new regulatory applications and special requirements arise almost every day. It is a known fact that the way to be able to meet the requirements is through technology.

The importance we attach to technology has made it our commitment to become "The Best in Turkey". The yield of being a technological enterprise leads to result of being leader manufacturer.

Naturally, you attain the power to conduct the business in better way each day. We know what we do and what kind of a responsibility we have assumed in the fuel industry.

With this responsibility, we undertake the heavy work of developing new technologies. As a result, we can offer the power of technology to you.

Therefore, we will be happy to share this magnificent technological power that we have created in Turkey with you.

10 November 2000

Yusuf Kaya

Asis is a Turkish company with 100% domestic capital, but it is a pioneer in the field of R&D. While producing automation systems with advanced technology for the fuel sector, it develops special projects and applications that will serve both fuel and other sectors in the R&D center.

Wide Service Network
With its experienced and expert staff Asis provides continuous and quality service.

Successes and Experience Gained from Special Projects
It has become the most preferred and leading firm in the sector with its liquid fuel management automation projects carried out for the largest public and private companies.

Innovation Cycle
With its constantly updated and renewed products, Asis keeps its innovation cycle dynamic in its products thanks to the importance it attaches to R&D.

R&D Investments / Local Software
Asis develops software that provides continuous development and ease of use in line with the demands of the sector with its young and dynamic engineers in the R&D center building.

ASIS Offers Turn Key Solutions
Asis, which manufactures all equipment from software to hardware, can provide all services from a single source.

Superior Experience in Technology, Installation and Marketing
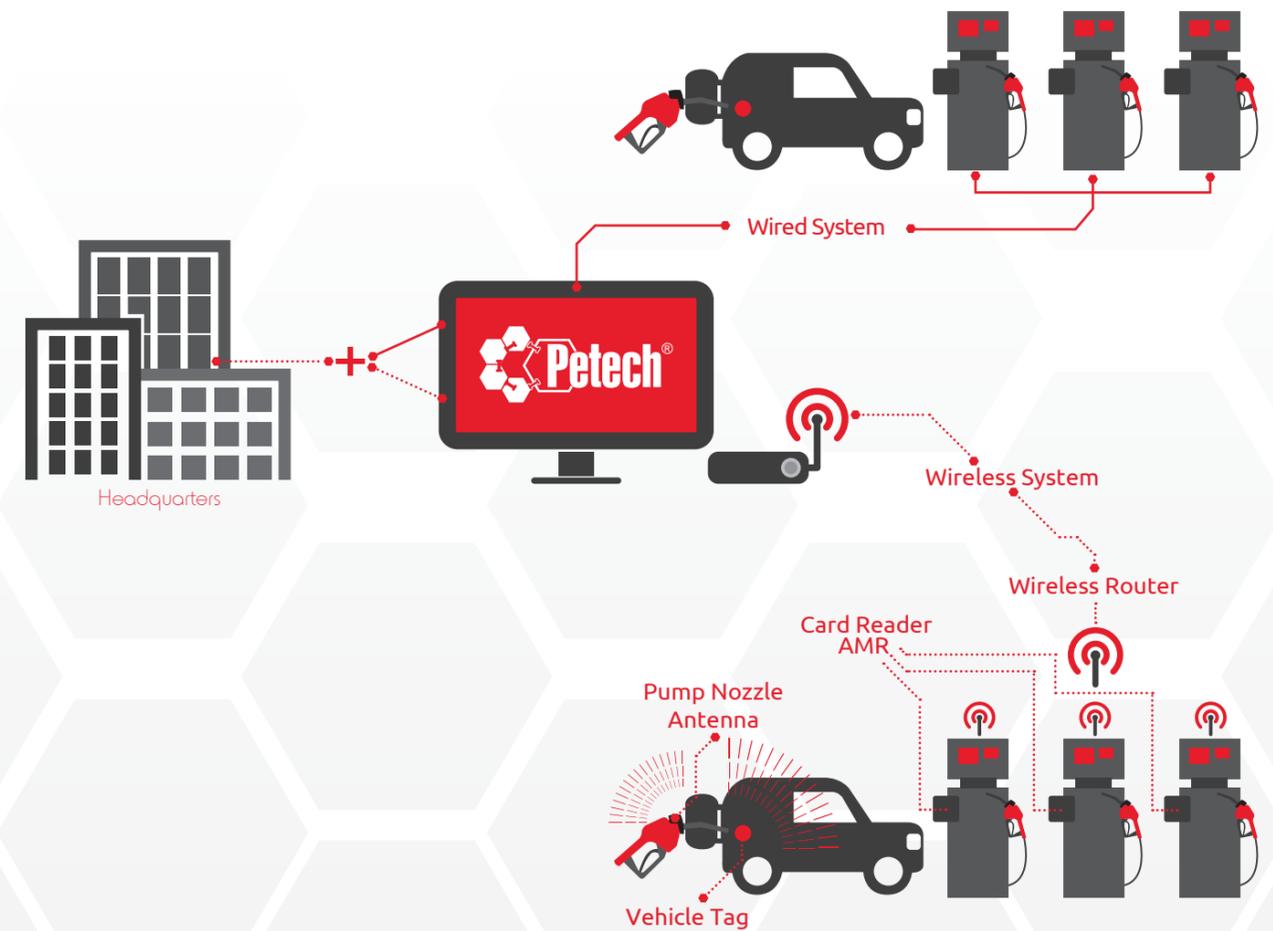Asis provides service with its advanced technological facilities and expert staff.

Social Responsibility Approach
Asis, the institutionalized address of charity and tolerance, understands the importance of education in children´s lives and, therefore, supports future generations with educational difficulties with the Monticola project.

Fuel Management Systems

Petech® Fuel Management Systems

The system that manages the pumps in the gas station automation system. Allows full control over pump sales, unit price management, shift application, pump attendant and customer management. It provides compatibility for all kinds of station infrastructures thanks to wired and wireless applications.

Pump automation system maximizes station efficiency. It saves time in basic operating processes such as calculating all pump sales on a volumetric and amount basis, grouping by pump officers, shift operations and completely eliminating the risks of potential miscalculations or reporting.

Thanks to the system, shift operations, which take 20-30 minutes on average, decrease at the level of seconds. Since all movements are recorded in the system, historical data can be easily accessed.

In summary, Asis Pump Automation Systems that control all front field movements in a station are indispensable solutions for distribution companies and station managers.

Wired System

Headquarters

Wireless System

Wireless Router

Card Reader
AMR

Pump Nozzle
Antenna

Vehicle Tag

Fuel Management Systems

System Basics

Online Pump Monitoring

Amount of the fuel supplied is indicated in liters and monetary value simultaneously on the customer screen at the supermarket during a sales transaction.

Pump Integration

Integration is possible with many known pumps. Pumps and metering equipments with the system integrated; Petposan, Europump, S4, Mexan, Gilbarco, Tokheim, Mepsan, Baransay, Wayne, Yenen Gaz, Ruby, CSA, MITES, Bennet, VEGA II, IPT-ECR79 Tanker counter, Scheidt & Bachmann, Midco, Prowalco, Elettrogas CNG, Compaq CNG, SANKI. In addition, the cash registers with the system are integrated Profilo, Mepsan, Beko, Turpak. If the communication protocol and simulator for the pumps that cannot be integrated can be provided, such pump systems can also be integrated within one week.

Totalizator Reading

Totalized data on each pump and dispenser are transferred to the system after each sales transaction. Any differences between the sold amount and the totalizator value are identified and reported by the system.

Unit Price Changing/Programming

Unit prices can be changed right on the system, without a requirement to change the unit price on each dispenser. New unit prices entered are automatically registered on each pump and unit price changes can be reported on user basis.

UPS Integration

In case of connection of a UPS conforming to the system, it reports the status of the UPS; and in case of a UPS problem or problem with batteries, the smart system is shut down in safe mode automatically.

Alarm Management

Any unwanted situation in the pump automation software, peripheral hardware and in the operation of the system are detected and alarms are generated accordingly.

Self-Service Application

Using a card or vehicle ID unit predefined on the system or after advance payment at the supermarket, the respective pump is turned on by the automation system, allowing customers to fill their fuel tanks themselves.

Shift Management

Once the shift program and shift changes are defined in the system, shift changes can be achieved by pushing a single button. All sales transactions, pump attendant details and fuel type data are transferred to a special shift account for reporting.

Automatic Calibration

It operates in integration with the tank automation system. In systems equipped with tank automation, it matches the pump sales with tank inventories for automatic of the tanks.

Automatic System Update

Automation software at the stations can be updated automatically by the Central Management System.
The need for continuous improvement of both station automation systems and central systems according to customer and market demands is emerging.
The fact that the stations can be located in different locations and/or the number of centrally managed stations both extends the operation of the systems on site and increases the service costs.
Thanks to the ability of Asis automation systems to be updated automatically remotely, these operations can be carried out both costlessly and very quickly.

Current Account Management

Limitations, discounts, etc. can be applied to any pre-defined current accounts and all current sales transactions are managed and reported by the system in a different status.

Reporting

Allows creation of a variety of filterable reports for sales transactions, pumps, pump attendants, products, etc. and they can be converted into a number of file formats.

### Misfueling Prevention System

Misfueling Prevention System which can be optionally added to the automation system, ensures that the refueling to the vehicles coming to the fuel stations is safe and accurate. The system prevents supply mistakes thanks to its large database.
Misfueling Fuel Prevention System; compares the license plate of the vehicle in the database with the plates of the vehicle that comes to the pump before refueling.
If the vehicle defined in the system, the automation system checks whether the correct refueling has been made. If it is the right product, refueling starts; if it is not the right product, the system warns and does not start the refueling. If the vehicle that will be refueled is a new vehicle, the type of fuel can be defined with simple security steps in the system. This way, the possibility of wrong refueling is eliminated.

Central Connection

All pump sales are sent to the center online, sales models that require central authorization are applied, daily opening and closing data are compiled by the system and sent to the center at midnight.
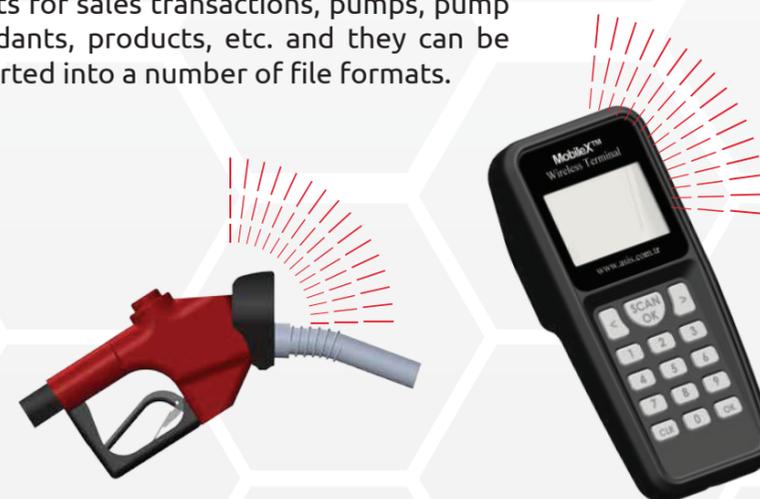
Tank Automation Systems

The system that manages all functions inside the storage tanks. Measuring the current tank inventory, tank fillings, and tank alarms, it controls the in-tank movements. There are wired options for gas stations with suitable cabling infrastructure and wireless options for those who do not have this infrastructure.

Tank automation software communicates at high frequency through the barrier unit ProbeX, which ensures the safety of the system, examines, manages, records and reports the fuel, water and temperature movements in the tanks in high resolution.

Thanks to the recording of all movements in the system, historical data can be easily accessed. Fuel storage and monitoring activities, which are very important in terms of safety, environmental factors and commercial aspects for a station, are completely under control thanks to the tank automation system.

- Probe
- Tank Control Unit
- Forecourt Controller
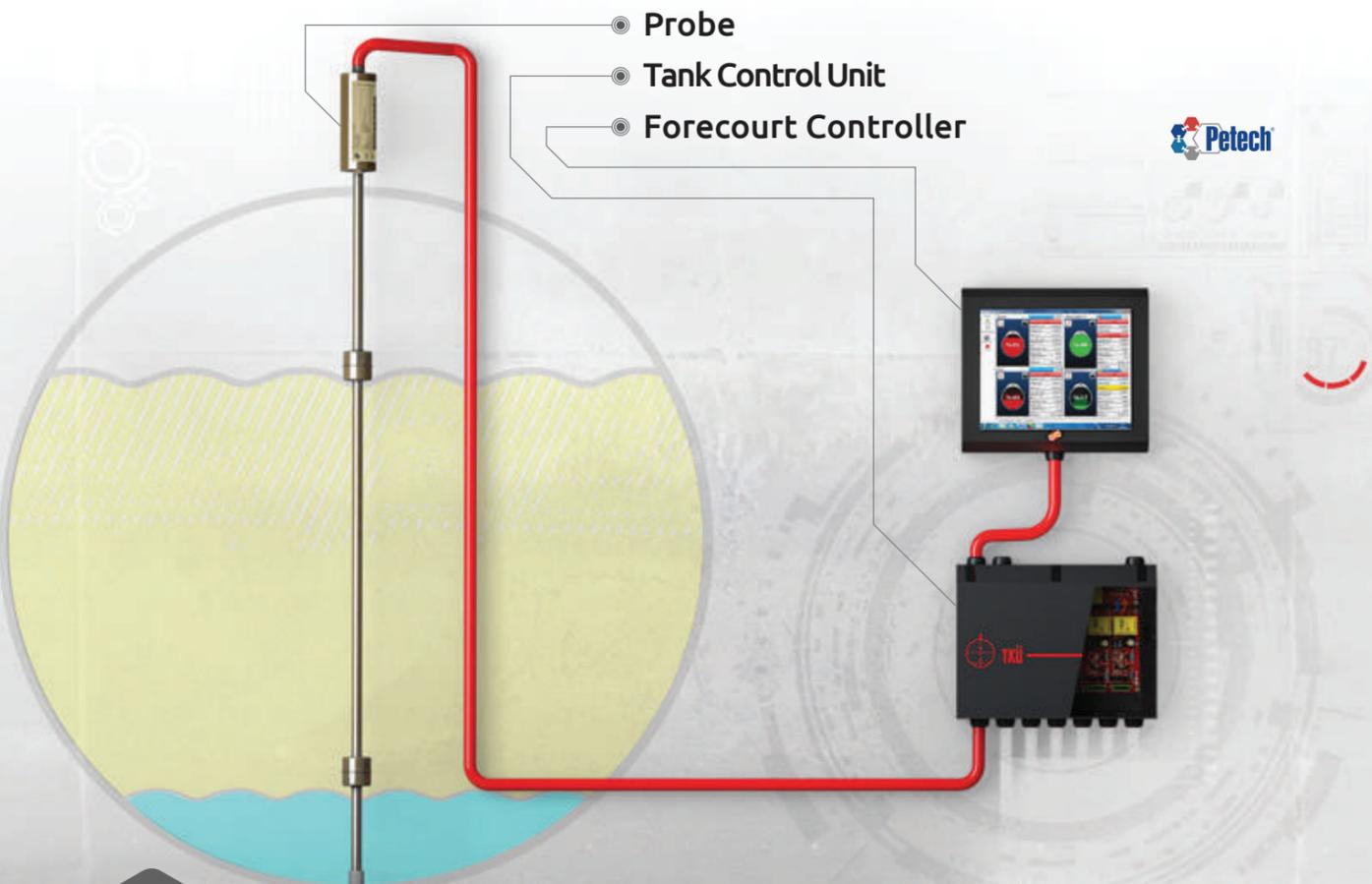
System Basics

Simultaneous Inventory Management

Volume and height data of the fuel and water inside the tanks, the capacity of the tank, empty volume of the tank, as well as the temperature of the fuel inside the tank can be displayed on the screen and reports can be generated.

Fill Detection

Detects tank fillings automatically, displays the tank inventory data before and after each filling. Owing to integration with the pump automation system, generates accurate filling reports by also including the sales transactions made during filling operations.

Controlled Filling

It is possible to enter the amount to be filled, as well as the waybill/invoice number, prior to the filling operation; and following completion of the filling operation, by clicking on the completion button, the formal document data are also recorded in addition to the filling values.

Tank Alarms

The system automatically detects and records any unwanted situations such as excessive filling, high water level, low fuel level, high temperature, etc. and displays them as additional information on the inventory screen.

Statistical Reports

Inventory values of tanks, alarm data, statistical reporting of fillings.

Recorded Reports

Tank inventories are recorded and reported at predefined times. Thus, it provides information about the past of the in-tank movements.

Automatic Calibration

The system operates in integration with the pump automation. In systems equipped with tank automation, it matches the pump sales with tank inventories for automatic calibration of the tanks.

Management of Different Tank Models

The system works integrated with pump automation. In systems with pump automation, it allows the system to calibrate tanks automatically by matching pump sales with tank inventories.

Reporting

Allows creation of a variety of filterable reports for sales transactions, pumps, pump attendants, products, etc. and they can be converted into a number of file formats.

Central Connection

The system is fully compatible with the Asis Central Management System (Petech Online). All sales from pumps are transmitted to the center online. Sales models requiring central authorization are utilized and all daily opening and closing data are collected and transmitted to the center at the midnight.

Tank Automation Systems

Different Probe Integrations

Apart from Asis probes, many different brands of probe and tank are integrated with the automation console. Currently integrated tanks and probes; Asis, VeederRoot, Fafnir, OPW, Start Italiana, MTS, Hectronic, MLB. Thanks to its integration capability, current investments of distribution companies and / or stations are protected, and a standard management system independent of hardware is created.

External Device Integrations

It is fully compatible with TRU, ALR equipment, providing additional control mechanisms for tank automation functions.

PROBE EX İA   PROBE EX D   LPG PROBE   PROBE MODEBUS   V PROBE
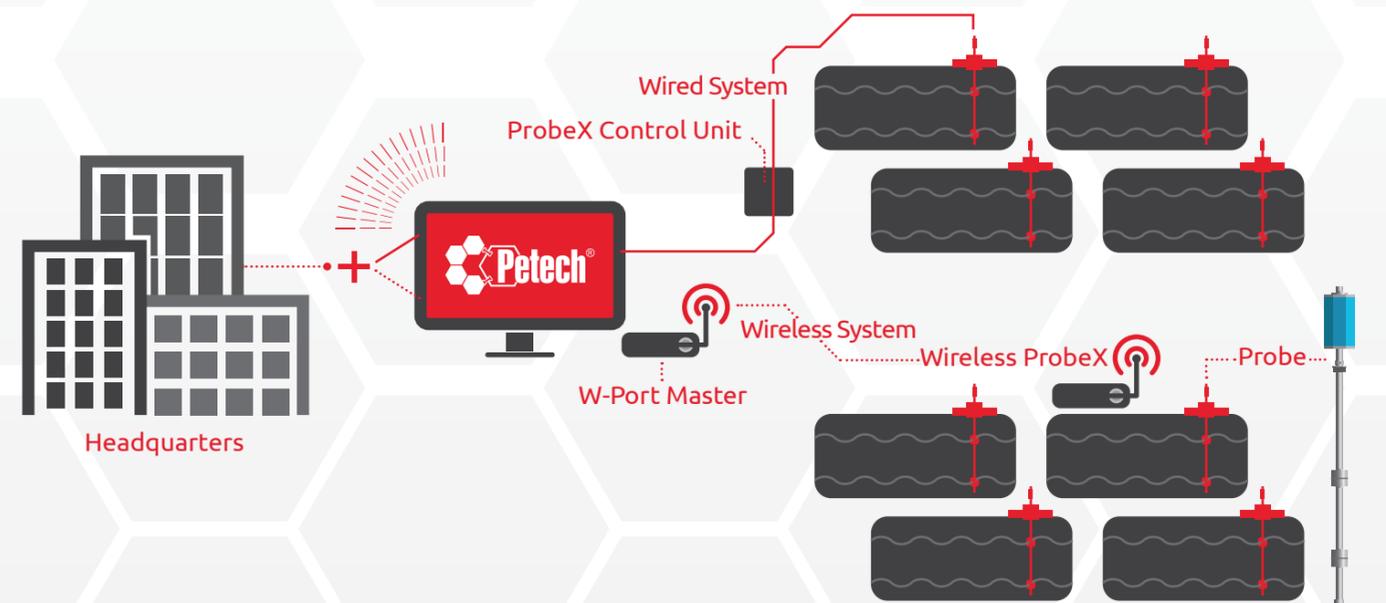
Automatic System Update

Automation software at the stations can be updated automatically by the Central Management System. The need for continuous improvement of both station automation systems and central systems according to customer and market demands is emerging. The fact that the stations can be located in different locations and/or the number of centrally managed stations both extends the operation of the systems on site and increases the service costs. Thanks to the ability of Asis automation systems to be updated automatically remotely, these operations can be carried out both costlessly and very quickly.

System Architecture

Wired System
ProbeX Control Unit
Wireless System
Wireless ProbeX
Probe
W-Port Master
Headquarters

Customer Identification Systems

Customer Identification Systems

It is a customer management system that controls the refueling of both fleet and individual customers, and where special customer loyalty programs can be implemented, operates as a module under Asis pump automation.

The system can be configured independently according to the customer demand, to be managed at the station location or to be managed from a single center to cover many stations. In addition to its many different customer management models, it also offers its users diversity during the creation of customer identity.

Thanks to both the trading model and identity diversity, the system offers the possibility to serve many customer segments through the system. Apart from its control and supervision features, it is an ideal system for institutions that want to use automation systems commercially.

Customer management modules are available within the Asis pump automation and central management system, and it is possible to use them with plug and play logic by adding customer recognition modules to the systems.

System Basics

Multiple Choice Customer Detection

With various components of the system, the system can manage customers of different identities with magnetic card, mifare contactless card, mifare key ring, mifare label and plate detection.

Multiple Choice System Components

It is integrated with contact / contactless card readers (Orbit, MCR), mobile card readers (MobileX) and artificial intelligence plate sensor (PSensor) produced by Asis in order to detect customer identities.

Pump Attendant Management

When pump attendants are issued cards and defined as pump attendants, the customer identification system records all sales transactions made by all pump attendants on the system. This provides both time savings, and eliminates any problems and mistakes in calculations relating to specific pump attendants at shift changes.

Local Customer Management

Fuel sales to specific local customers of a gas station can be faultlessly tracked using special cards, without a requirement for a central system, allowing the gas station owners to increase their customer potentials.

Central Customer and Loyalty Management

Thanks to the cards distributed to the local current customers of the station without any central system, the sales of these customers are tracked accurately, helping the station owners increase their customer potential.
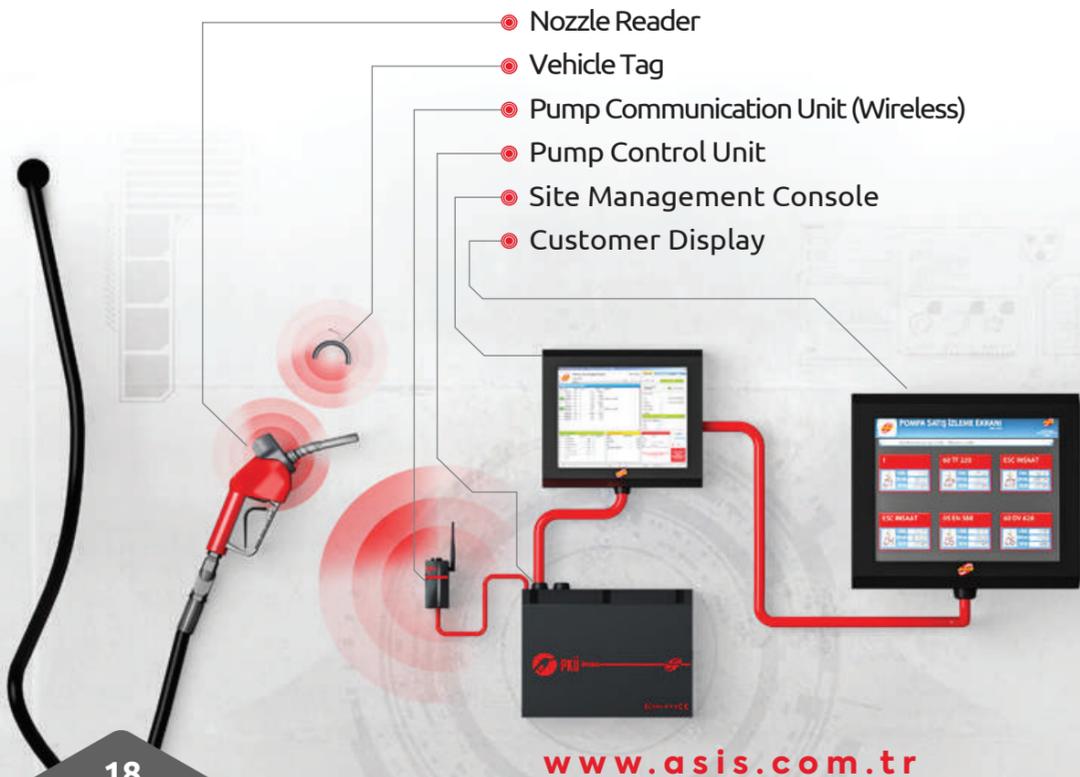
Security

In case of use of card readers equipped with a keypad in customer identification programs managed locally or centrally, security of projects is ensured by using methods such as answering a question, PIN, km data, etc.

Vehicle Identification Systems

Cyber TTS® Vehicle Identification Systems

This is a customer management system that controls the refueling of fleet customers, where special limit and constraint programs can be implemented and operates as a module under Asis pump automation. It is a customer recognition system on the basis of vehicle recognition system, and it is differentiated into customer recognition systems especially with the advantages it provides to fleets. Working principle; It is in the form of reading a tag attached around the vehicle warehouse with a special tag reader unit installed on the nozzle that fills the vehicle, and replenishment after the system approval processes. With this method, the system is guaranteed to supply the specified vehicle.

Cyber TTS vehicle recognition systems developed by Asis, offer its customers the most advanced vehicle recognition technology with its advanced technology and advanced security options. Besides reading the tag with UHF technology, there is electronic and mechanical tamper protection both in vehicle tag units and nozzle antennas. In addition, thanks to the technology of controlling the 3D nozzle movements in the nozzle reader unit, system security has been maximized by preventing the supply to the vehicle in unwanted nozzle supply positions.

The end-to-end ATEX approval of the system has enabled it to fully meet the safety standards. In addition to vehicle identification detection, if Odometer devices are also included in the system to obtain vehicle km data, the mileage values of the vehicles and / or engine hours of operation can be transferred to the automation system during each replenishment, thus, the consumption calculations of the vehicles can be made. Capable of integrating with Asis NeoFleet map platform.

System Architecture

- Nozzle Reader
- Vehicle Tag
- Pump Communication Unit (Wireless)
- Pump Control Unit
- Site Management Console
- Customer Display

System Basics

Wireless Nozzle Reader

The vehicle identification readers installed on nozzles are completely designed with wireless architecture. The life of the batteries of these readers as active units is minimum 2 years for a gas station with medium level of traffic intensity. The batteries of the readers can be replaced on the site.

Vehicle Tag

There are the chips -with some vehicle information embedded in tags -installed on the vehicles. Vehicle tags, which are protected against external interference, lose their functionality if disassembled or deformed after assembly. In this way, high level of security is provided.

Odometer Unit

This unit is installed inside the vehicle and transmits the odometer values to the automation system.

Wireless Nozzle Reader

Odometer Units

S Type Tag (Commercial Vehicles)

T Type Tag (Industrial Vehicles)

Vehicle Identification Systems

Operation

Once the nozzle is inserted in the fuel tank of a vehicle, the reader on the nozzle safely reads the vehicle's ID information from the antenna chip of the vehicle, as well as the data from the Odometer Pulse or Odometer GPS as the case may be and transmits them to the automation system.

The automation system transmits these data to the Asis Central Management System to obtain approval from the center for fuel supply. Once the approval has been obtained, the automation system instructs the pump to begin supplying fuel.

Following completion of the fuel supply, the automation system records the fuel supply details as well as other data obtained from the vehicle and transmits them to the center simultaneously.

Vehicle Tag Reading Capability

A high-level contactless reading technology is utilized between the vehicle tag and the nozzle reader. Furthermore, the reading intensity of the system can be adjusted parametrically to eliminate any reading problems on vehicles with different types of fuel tanks. The system also prevents supply of fuel to other vehicles while supplying fuel to a specific vehicle by removing the nozzle.

Security and Safety

All vehicle identification system components are ATEX certified and they are suitable for use at gas stations and on vehicle fuel tanks. The contactless communication between the vehicle unit and the nozzle is protected by means of a special encryption method to provide complete security.

Petech®
Petroleum Technologies
Automation Systems
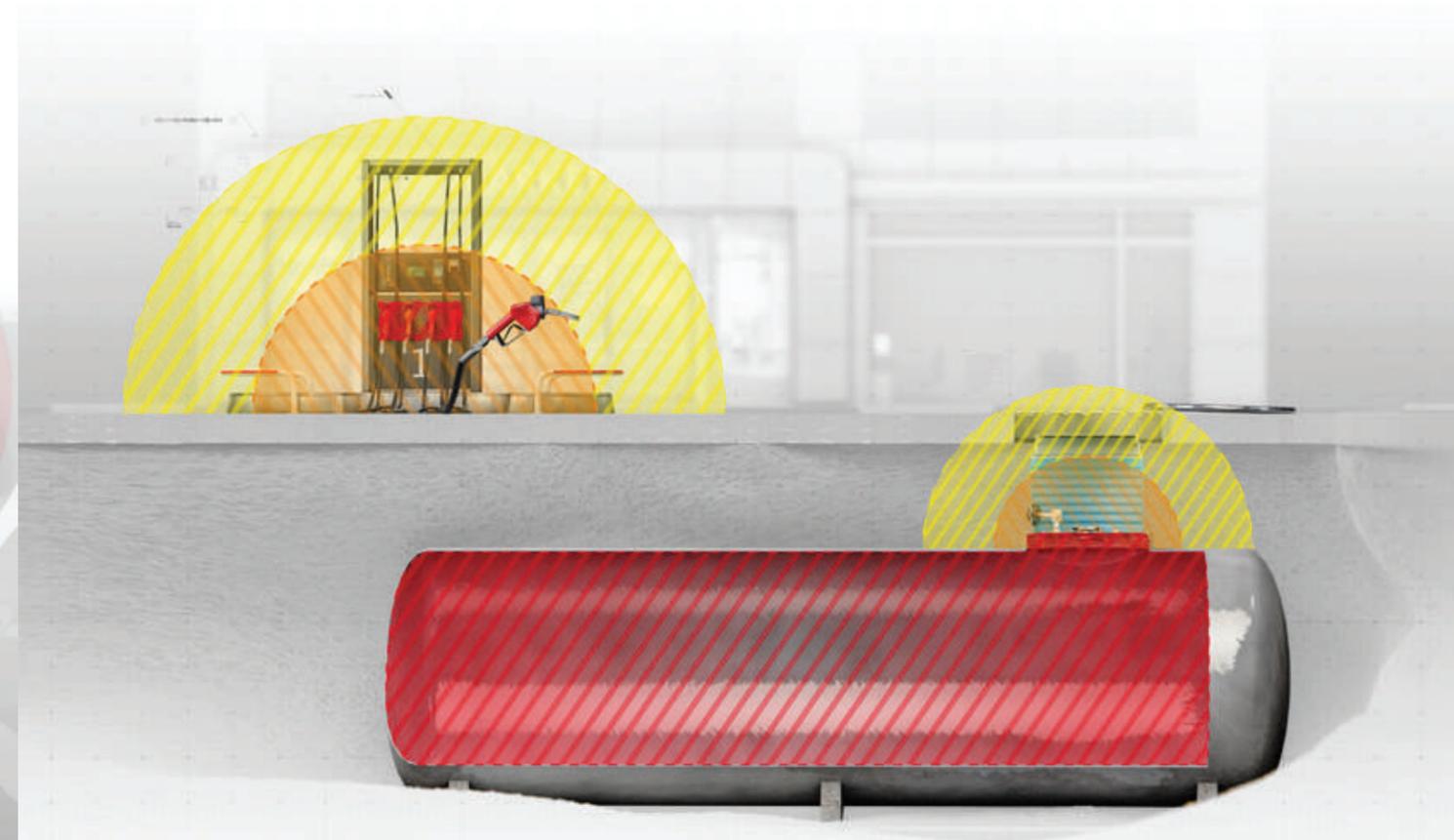
Petech® Tanker Automation Systems

Asis tanker automation systems have been developed with 2 different architectures that can refuel and dispense fuel.

In refueling tanker automation systems; it is possible to make sales from fuel tankers like a mobile station. It is an ideal solution to manage the refueling of vehicles in the field, construction sites and rural areas with tankers.

In the system developed for distribution tankers; in distribution companies that supply stations centrally, which point, in which quantity and which tanker will supply is managed centrally.

It is a highly functional system for optimization and efficiency in distribution companies that centrally manage supply.

System Basics

Fuel Supply Orders

Stations enter fuel orders through our central system, and orders are assigned to tankers as work orders, by distributer company authorized staff with electronic work orders. Dealers can also view order history information via the system.

Tanker Supply Program

Orders with approved credit will be assigned to the tankers as work orders via the system by the distributer company's authorized staff. This way, how much refueling any tanker will make to which station(s) will be conveyed to the automation system in the tankers.

Tanker Inventory Tracking

Supplies made to the tankers at filling facilities are entered into the tanker through the system. All the supplies made by the tankers to the stations are deducted from the purchases of the filling facility and the amount of fuel on the back of the tanker is continuously reported. In this way, efficiency in tanker supply programs is increased.

Credit Check

With the integration of the central system with the distributor company's ERP system, orders entered by the dealer are controlled by electronic credit before the work order is assigned to the tankers. The supplying process of the dealers whose credits are eligible continues through the system.

Tanker Automation Systems

Fuel Supply Control

Fuel supplies can be managed by the automation system using a solenoid valve added to the mechanical installation on the tankers.

Electronic Counter

The electronic counters installed by removing mechanical counters make the system suitable for use with automaton system. The electronic counters managed by the automation system record the fuel supply data automatically, allows supplying fuel using preset values, and enables control of unit prices electronically.

Automation System

The automation system installed inside the driver's cabin of tankers has an industrial architecture, and allows users to manage the system easily using the large and touch-screen display. In addition to fuel supply start and stop functions, it also has many functions such as communication with the center, generating fuel supply reports, fuel supplies using cards, etc. The embedded 3G modem allows communication with the center.

Receipt Printer

Due to receipt printer, which can be added to the system optionally, the system can print the supply receipt, dispatch note, invoice after each supply. If the invoice and waybill are barcoded, the possibility of making a mistake is eliminated by reading the waybill and invoice barcode / QR code reader printed on the system by the tanker driver.

AWS (Auto-Wakeup Switch)

The systems carry out end-of-day process in tanker fleets managed centrally. In cases where the tankers are inoperative at the time of the end-of-day process, the optional AWS system turn the system on at a specific time for end-of-day process, and then safely turns off the system automatically after completion of the process. Thus, the system operates in such a way that the end-of-day process can be performed without exhausting or damaging the batteries of tankers.

Electronic Counter Integration

System already integrated with many known counter brands. If documentation and simulators of non-integrated brands provided, they will be integrated into the system in a short time. In all tanker automation models, the amount of fuel supplied from the register is automatically recorded by the tanker automation system. In dispatching tankers, the ordered amount sent to the counters and the supply is made as the approved credit amount.

Totalizator Reading

Totalizer data on each register is transferred to the system after each sales transaction. Any differences between the delivered amount and the totalizator value are identified and reported by the system.

Unit Price Changing/ Programming

Unit prices can be changed right on the system, without a requirement to change the unit price on each register. All price changes can be reported in the system on user basis.

Automatic System Update

Automation software at the stations can be updated automatically by the Central Management System. The need for continuous improvement of both station automation systems and central systems according to customer and market demands is emerging.

The fact that the stations can be located in different locations and / or the number of centrally managed stations both extends the operation of the systems on site and increases the service costs.

Thanks to the ability of Asis automation systems to be updated automatically remotely, these operations can be carried out both costlessly and very quickly.

System Architecture

Cymobil Automation Console (3G)

Electronic Counter (Brody Meter)

Solenoid Valve

Fuel Storage Facility Automation

It is an automation system solution that monitors which fuel station, which tanker, which driver, by which attendee, to which compartment of the tanker, how many liters of which product is supplied from a single point.

Thanks to many smart control mechanisms such as refueling without financial approval with the dealer order system, and prevention of supply in case of tankers and/or driver document problems, it has been ensured that the distributor or stations are fully compliant with the official and safety rules.

In addition to the management of supplies, it is possible to simultaneously monitor the fuel inventories of the facilities in the system. The system, which provides information about the stock deviation by controlling the incoming and outgoing fuels in the facilities, has also increase the stock control processes of the facilities.

System Basics

Tanker Management

All tankers that will supply from the facility must be defined in the system. The information of the tanker such as the special license, license information, permits belongs to the tankers are also completely defined in the system within the tanker definitions.
Before the supply, the validity of information of the tanker is checked according to the parameters defined in the system. This way, the tanker is prevented from having penalties during its journey, and warnings are generated to remedy its deficiencies. Since tanker information is recorded within refueling data, and which refueling is done with which tanker is known in the system.

Tanker Driver Management

Prior to supply, the validity of the tanker information is checked according to the parameters defined in the system. The system does not query the previously registered information.
The validity periods and contents of the driver´s documents are also checked by the system, and the system prevents replenishment in contradictory cases. Driver data associated with tanker data are also transferred to supply records.

Refueling Ordino Operations

A supply with order confirmation is distributed to the compartments of the relevant tanker. The amount of different types of filled products to each compartment of the tanker is entered by the operators.
The filling amounts are also controlled by the system according to the transport capacities of the tankers, and out-of-capacity filling entry is not allowed. Thus, the filling order of the tanker is created.

Supply Management

The automation system ensures that the tanker arriving at the filling point is filled according to the relevant order. The filling operator at the facility reads the tanker card through the MobileX hand terminal developed by Asis, sees the tanker order data on its screen and chooses from which filling arm to which compartment of the tanker will be refueled. According to the selected filling arm information, the automation system ensures that the filling arm is supplied with the corresponding order value.
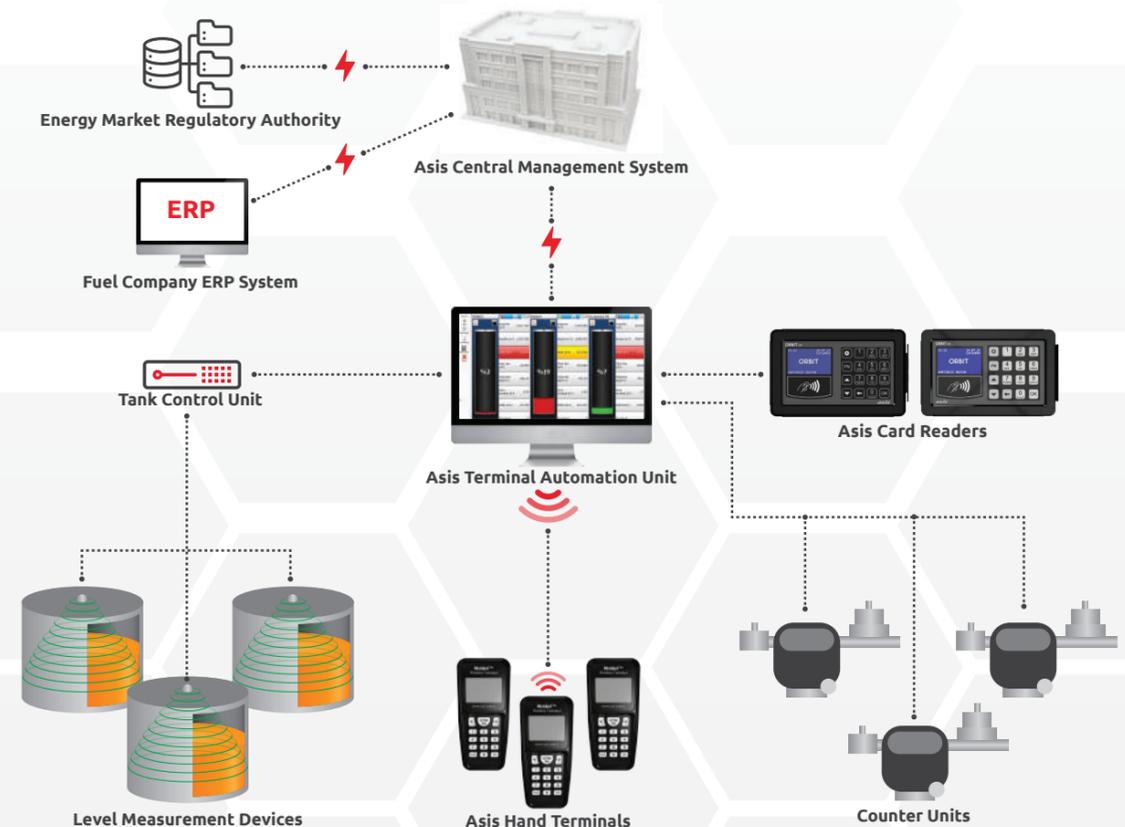
Facility Refueling Operator Management

After the facility operator use tanker card, the system asks him to have his card read as well. Thus, which supply is made by which operator is also recorded in the system.

E-Invoice and Waybill Management

After the completion of the fillings, the supply data is automatically sent to the ERP system at the facility or distributor center and e-invoice and e-dispatch note are generated.

System Architecture

Energy Market Regulatory Authority

Asis Central Management System

ERP

Fuel Company ERP System

Tank Control Unit

Asis Terminal Automation Unit

Asis Card Readers

Level Measurement Devices

Asis Hand Terminals

Counter Units

LPG Automation Systems

LPG.Net LPG Automation Systems

Petech LPG automation systems can record and control all LPG movements from the filling facility to the fuel station, from fuel station movements to customer transactions. With the system that offers special solutions to all LPG processes, LPG refueling of tankers, LPG level in tanks, etc. information can be checked instantly. It also provides central monitoring for distributor companies.

System Basics

Fuel Station Order Management

Stations can give their LPG orders through the system. The order received at the center is processed after the loan query in the distributor´s financial system. The system alerts the stations with unsuitable credit. Dealers can also view the status of their current orders and the information of their past orders through the system.

Tanker Refueling Management

Approved orders are electronically transmitted as refueling orders to the tankers defined in the system and assigned to the distributor regions. More than one work order can be assigned to a tanker. While the distributor users assign tasks to the tankers, they select the fuel on the tanker, the orders they have, and the location on the map by seeing them on the systems.

Station Refueling Management

When tankers arrive at the station for refueling, they receive the confirmation that they are at the correct station electronically from the center by location control over the automation system on the tankers. Tanker automation system allows it to fill only up to the approved order quantity and stops the refueling when it reaches the approved value. The refueling information will be recorded and sent to the central system automatically. It is also transmitted electronically from the center to the financial system and invoices can be issued.

Station LPG Level Controls

If the LPG probe or ALR's developed by Asis are at the stations, the LPG tank data is also sent to the central system. Thus, LPG central monitoring will manage and keep track of LPG tank levels in the stations, creates distribution orders on behalf of station manager, matches fillings made at the stations with the orders and compares whether filling is made from a different point.

Tracking of Fuel on the Tanker

The amount of refueling made from the storage facility to the tanker is entered into the tanker´s automation system. The system deducts the supplies it makes to the stations from the tanker inventory and continuously sends the printed inventory data to the center. Thus, refueling orders can be managed more effectively.

E-Waybill Integration

Because of the integration with distributor's ERP systems, e-waybill documents of tanker supplies are transmitted to the LPG management system and from there to the tankers and displayed in road inspections.

Filling Receipt Printing

The automation system on the tanker can, if desired, print receipts after supply to the station. Refill receipts are printed on papers designed according to the distribution firm´s standards and institution.

Online Central Management Systems
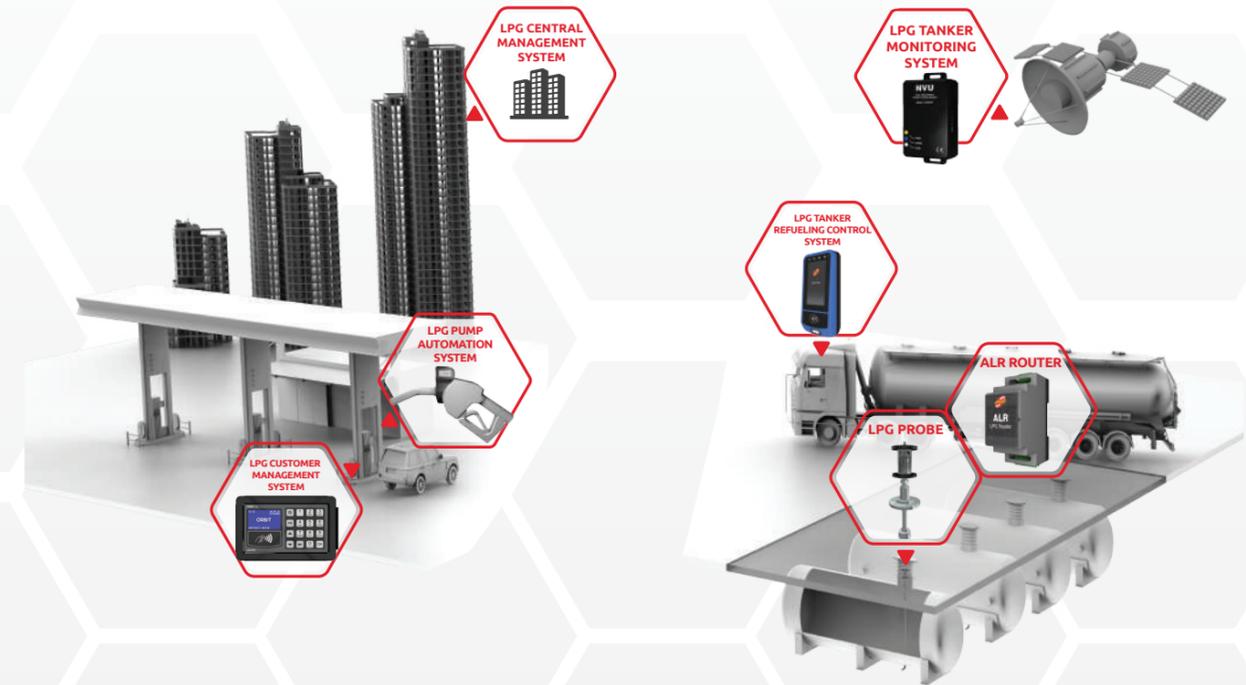
Online Central Management System

A web-based system management platform that enables management of all gas stations centrally, without any limitations in terms of the number of gas stations, users, number of customers/vehicles, etc. a platform with functions far beyond merely transmitting data to the center.

System Basics

Structure

The system is designed as a web-based system to provide full support for mobilization.
There are no limitations in terms of the number of users, gas stations, tankers, customers and vehicles. It can be installed at customer's center, and it can also be offered to users for individual use of gas stations.

System Configuration

It allows setting basic system parameters such as gas stations, tankers, users, product types, prices, customers, vehicles, loyalty parameters, as well as limits and restrictions.

Fleet Reports

This function allows reporting of all vehicle identification, customer identification, loyalty purchases, and their details managed centrally.

Gas Station Reports

This function allows reporting of pump sales, vehicles, types of sales transactions, defined customers, connection statuses, details on communication with the center and reconciliations.

Product Reports

Sales amounts of products sold at gas stations are reported analytically by their prices, types, details of the gas station, region, etc.

Tank Reports

Inventories of the fuel tanks in gas stations, filling operation, tank alarms, leakages, etc. are reported on gas station, region, zone bases.

Other Reports

Communication, data transmission, data reconciliations, pump and tank problems relating to the technical infrastructure of the system are reported.

Reconciliation

Generates management reports by carrying out cross analyses such as deviations from inputs and outputs to and from gas stations, comparison of filling operations carried out at the centers and gas stations.

Remote Update

Both the central system software and the gas station and tanker software can be automatically updated remotely. Thus, systems can automatically update themselves after development of additional features expected by customers from the system.

Central Authorization

In all vehicle identification and loyalty programs, the customer, vehicle, card, limitation, restriction and balance data are retained at the center, and authorization is obtained from the center by means of two-way communication between the gas station automation system and the central management system. Thus, the respective sales transactions are managed centrally by the system automatically.

Accessibility

The entire center software is designed as a web-based application. This allows users to connect the system from anywhere in the world.

User Management

Many different model users are defined in the system, and each user can be individually authorized for using specific functions such as viewing, data entry, deleting, reporting, etc. within the system.

System Limitations

There is no limitation on station, user, vehicle, card numbers. It is enough to choose server hardware properly according to numbers.

Invoicing

Generates reports and data for issuing invoices by calculating the parameters such as discounts, commissions, points, etc. relating to the amount to be invoiced to customers and gas stations at the end of the sales models such as vehicle identification and loyalty.

Vehicle Tracking Systems

neofleet Vehicle Tracking Systems

It is a system that increases total efficiency by performing comprehensive online monitoring of vehicles, performance, expense and location control for companies with fleet. Thus, companies get back their investment in a short time and gain high profit in the long term. Using your username and password, you can access many instant and retrospective data about your vehicles either on the web or on the application you have installed on your phone.

System Basics

Economic and Safe Driving Tracking

Cost savings are achieved by controlling the driver´s access to off-road roads with proper use of the vehicle or integrated animation. It saves up to 20% in fuel consumption, thanks to the prevention of excessive use of vehicles, the control of trips off the specified route, unnecessary running time at idle and the out-of-work vehicle controls.

Alarm Management

The activities of the vehicles managed by the system, other than the defined working conditions (theft, overspeed, towing, etc.) are determined and the managers are warned instantly by the system, via SMS or e-mail.

Drive Performance Check

Performance evaluation is performed on the graphics for drivers. (Speed, fuel consumption, etc.) provides control and control over vehicles and drivers thanks to 24/7 monitoring and detailed reporting. It improves productivity by controlling field teams' adaptation to overtime.

Geographical Limit Determination

By determining the boundaries with the polygon and point adding options on the system, you can check the entry-exit of your vehicles to these areas, and see the violations made via e-mail or the mobile application.

Vehicle/Personnel Activity Tracking

You can follow up and determine whether the vehicle and / or personnel have gone to predefined destinations and how long they are at the destination.

Special Reports for Fleet Managers

Fleet managers can view special customized reports like vehicle maintenance, insurance, accident, penalty, visa records, temperature alarm, graphic location, overtime usage, fuel consumption, zone violations, past monitoring, daily vehicle movements, overtime, point zone entry exit, speed and shift. Reports can be converted to different formats and printed. In addition, all fleet data can be integrated with different systems and administrative efficiency will be increased.

Special Systems and Solutions

Irrigation Tracking And Control System:
In pivot irrigation systems, sensitive motion systems are controlled and the working status of the device is monitored.

Intelligent Station Tracking System:
Depending on the time of the bus station times, entry and exits are inspected. This way, the best service is provided to the customers by following the vehicles with priority.

Motorcycle Tracking System:
Business plan and tracking is provided for couriers. For individual drivers, it minimizes the risk of theft.

Heat Sensor Solution:
With temperature sensor integrated into the vehicle tracking system for cold storage and refrigerated vans, you can easily monitor the temperature of both your vehicle and the cooling unit.

Vehicle Tank Fuel Status Tracking:
Abnormal fuel level changes in the tank of a vehicle while driving or parking are detected by the level sensor developed by Asis and the user is warned by generating simultaneous alarms.

Construction Machine Management:
The working hours of the construction machines are calculated by comparing the working hours of the engine´s working hours and the parts (bucket, cylinder, etc.) of the construction machine. This way, with high accuracy, progress payment and vehicle maintenance reports can be produced.

Mobile Container Automation System

Mobile Container Automation System

A mobile station and automation system consisting of tank, pump, mechanical devices and automation system, placed inside standard-sized containers. It is designed particularly for supplying fuel using mobile systems, and automation management.

System Basics

Storage Tank

The system enables creation of a storage capacity between 10.000 and 30.000 liters in a standard 20' or 40' container. The tanks are manufactured to the internationally recognized standards, and can be designed as per customer specifications.

Supply Pump

Suction pumps are generally utilized in container systems. As standard, our systems use standard flow rate and single nozzle, but, the number of nozzles and supply flow rate can be customized to customer requirements.

Mechanical Instruments

Steel mechanical installations in sizes and quality used at standard gas stations. The equipment used on the installations can be arranged specially depending on customer requirements.

Automation System

An automation system architecture exactly the same as that of gas stations is used. It is possible to add other automation modules depending on the customer requirements and needs. The only difference from the gas stations is use of industrial models particularly in PC-based hardware.

Safety Systems

Alarm systems, gas detectors, fire extinguishing systems, etc. can be included in the system as per the customer requirements.

Automatic System Update

Automation software at the stations can be updated automatically by the Central Management System.
The need for continuous improvement of both station automation systems and central systems according to customer and market demands is emerging.
The fact that the stations can be located in different locations and / or the number of centrally managed stations extends the operation of the systems on-site, both in terms of time and increases the service costs. Thanks to the ability of Asis automation systems to be updated automatically remotely, these operations can be carried out both costlessly and very quickly.

Back Offfice and Supermarket Automation Systems

Akaria Back Offfice and Supermarket Automation Systems

It is a station management package designed specifically for the needs of fuel service stations, can work integrated with pump automation, fuel stocks, current accounts, and cash transactions can be tracked. The software, which is completely designed for the operation of fuel stations, allows the management of all market, back office and pre-accounting functions.

Akaria's modular structure has been designed to support different areas of use. In this way, it is ensured that only modules for need are provided and system confusion is prevented. Information about Akaria modules are given below.

System Architecture

- Service Station Management Office
- Accounting - Finance – Inventory and Current Account Management
- Service Station Supermarket / Dry Inventory Management
- Cash Register, Barcode, Invoice Printer
- Service Station Forecourt / Wet Inventory Management
- Dispensers, Tanks
- Promotions

Inventory Management

- Capability to define unlimited number of storages and tanks
- Fuel, commodity, oil entry, exit, dispatch and stocktaking notes
- Simple stocktaking transfers with PDA handheld terminals
- Entry/exit, stocktaking and dispatch reports
- Periodical stock status, movements, and inventory reports
- Periodical movement reports for buying and selling fuel
- Daily, monthly fuel sales reports
- Summary or detailed business profitability analyses and balance sheet
- Detailed fuel and commodity ordering transactions
- Inventory by Average, FIFO and LIFO

Current Account Management

- Customer, seller, personnel, bank, expense, cash and vehicle cards
- Entry/exit invoices with or without consignment note for fuel, commodities and oil
- Booking and monitoring the expense invoices
- E-invoice transactions
- Liter-based current account monitoring
- Detailed (stock, current details) buying and selling invoice reports
- Daily activity report
- Automatic invoicing based on credit vouchers
- Practical cheque/bond transactions and detailed reporting
- Periodical status and trial balance reports
- Detailed daily, monthly and annual VAT reports
- Expenses analyses and reports in personnel accounts, salary, deficit, surplus, and turnover reports
- Capability to send the current account balances by SMS and e-mail

Shift Management

- Capability to operate in integration with all automation systems
- Automatic credit voucher transfers from all automation systems
- Detailed shift summaries and reports
- Shift closing with counter, tank and storage checks
- Distribution of the shift accounts by attendants or their partners
- Unlimited shift returns and corrections in returned shifts
- Monitoring of increasing- or decreasing-based oil counter in shifts
- Authorized intermediary shift rotation and correction operations

Automation System Management

- Online and archived automation sales,
- MTS, attendant reports and analyses
- Online and archived automation summaries and statistics
- Integration with other automation systems
- Vehicle filling and promotion monitoring

Back Offfice and Supermarket Automation Systems

E-Invoice

- E-invoice integration with Akaria
- Capability to automatically query the e-invoice current accounts from Revenue Administration, and to see them as e-invoice taxpayer in Akaria
- E-invoice sending
- Preview of e-invoices before sending
- Allows querying the receipt statuses (accepted/cancelled) of e-invoices sent
- Optionally sending the e-invoices with consignment not and/or order numbers
- E-invoice receipt operations
- Transfer of received e-invoices to any current account
- Transfer of received e-invoices to stocks by stock matching
- Sending accepted/cancelled responses for e-invoices received
- Viewing and archiving the e-invoices received
- Transfer of LPG invoices on kg basis to the system in liter basis

Supermarket Management

- New-generation cash register integrations
- Stopping sales of out-of-stock items Authorization based on cashiers
- Special invoicing for customers paying cash and on credit
- Issue of notes or slips for credit sales
- Checking the price with barcode, cancellation and repetition operations
- Monitoring of online automation sales in the supermarket
- Shift compliant account closing management
- Entering the sales in stocks or current accounts automatically
- Active storage and commodity inventories reporting
- Detailed reports for cancelled documents
- Return transactions

Service and Support

Akaria users can receive 24/7 Solution Center support, and year-end closing services provided that they conclude an annual support contract. On-site service and training requests are provided by our expert back office officials scattered throughout the regions.

**CALIBEX®**

CALIBEX® (3D Laser Calibration Technology)

The system safely capable of calibrating fuel tanks with high accuracy, safely, in a short period of time, using 3D methods and laser technology.

3DCalibeX® is one of the most comprehensive technological projects developed by Asis to date. It is a system composed of advanced robot mechanics, mechatronics, state-of-the-art electronic circuit designs, on-board LEL device design, laser and optical applications, etc. and applications consisting of 3D modeling algorithms and data analysis software involving advanced mathematics.

One of the most important features of the system is its capability of completing the calibration processes within a short time such as 25-40 minutes, owing this to the specifically developed laser-measurement technology applied through the 2" coupling, which is the smallest inlet of fuel tank covers.

With its special 3D algorithm, the system automatically determines the critical dimensions of the internal dimensions of the tank, performs the necessary measurements and creates the 3D mathematical model of the underground tank.

All internal and external dimensions of the underground tanks, tank volume, length, inclination angle, radius of tank heads, as well as any other data can be obtained digitally and visually using the modeling data generated from the spatial point pattern. Then, the calibration table is created based on the mathematical model.

CALIBEX®
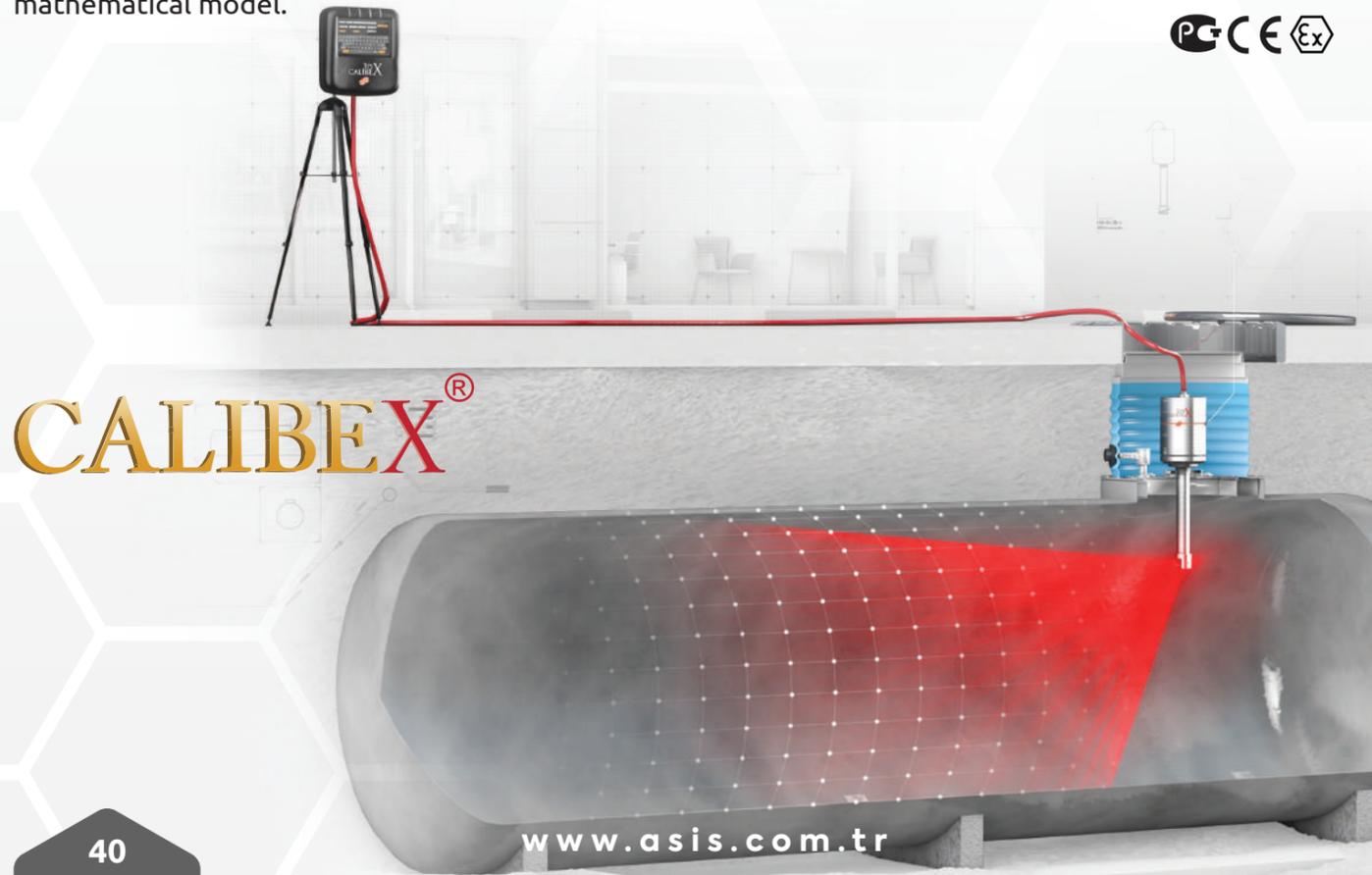
Features

- Measures the internal dimensions of the tanks automatically.
- Calculates the inclination of the tank
- Computes the diameter of the tank.
- Calculates the internal dimensions of the tank (Depth and length, etc.).
- Calculates the diameters of the tank heads.
- Creates mathematical model of the tank.
- Usable in all horizontal, cylindrical underground and aboveground tanks.
- One tank can be calibrated within 25-40 minutes and calibration of all tanks at a gas station can be completed only within a few hours.
- It is reliable and all risk factors are taken under control (ATEX).
- Application and operation of the system fully meets the Occupational Health and Safety and Environmental criteria (OHSE).
- Calibration process does not cause downtime.
- It does not require the tanks to be full. The emptier tank, the higher accuracy of the system.
- It generates highly accurate and reliable calibration tables compared to any other systems.
- Ensures prompt and definite results from the tank automation system.

Technical Specifications

- Calibration in 30 minutes
- Easy to install, easy of use and carry (75x15x15 cm)
- Measures the inner diameter, dimensions, height and slope of the tanks
- The tank does not have to be completely empty for calibration
- Suitable for most horizontal-cylindrical tanks
- 10 m measuring distance
- 230 Vac power supply
- 2" input size
- Mobile CalibeX set (100x40x40 cm)
- 6 kg product weight
- IP 54 Protection
- ATEX approved Laser Technology
- Meets all Environment, Safety and Health (HSE) criteria
- ± 0.5% accuracy in volume calculation (VSL Netherlands Metrology Institute and NMi evaluation results)
- ± 0.1 ° accuracy in inclination measurements (VSL Netherlands Metrology Institute and NMi evaluation results)
- ± 0.1% overall measurement accuracy
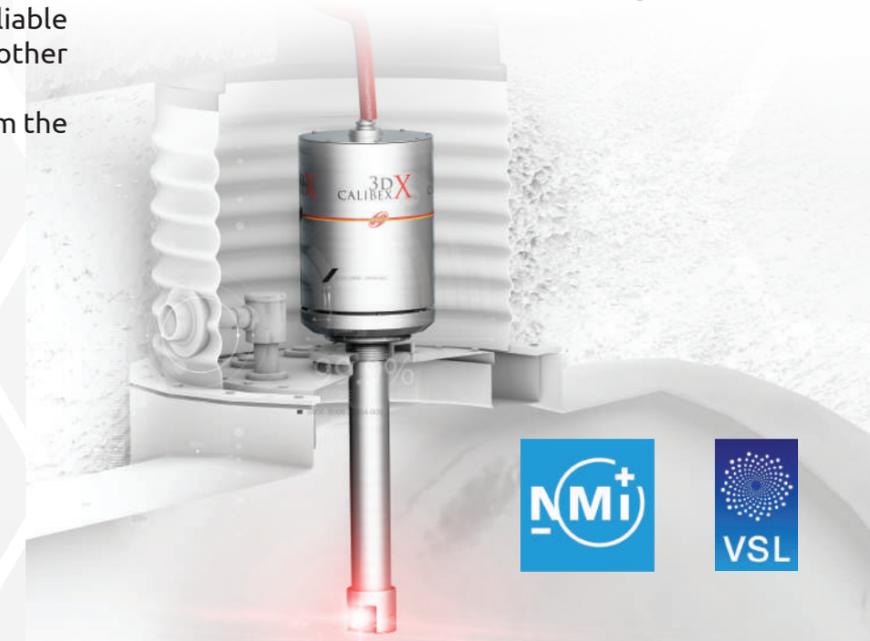
Fox® SIR (Statistical Inventory Reconciliation)

Fox®SIR, the US EPA (Environmental Protection Agency) is the first and only approved SIR system in Turkey.
Fox®SIR is our technological service, which examines the fuel movements on the tank and pump sides obtained from the automation systems in the stations, the cause of the total stock difference (positive or negative), and all kinds of fuel leaks, losses and gains in the station can be determined.

What can be identified with Fox® SIR?

1. Tank, piping and filling leakages
2. Faults on the piping components
3. Automatic tank level meter malfunctions
4. Pump calibration errors
5. Calibration tables
6. Missing refills
7. Theft
8. Losses due to evaporation
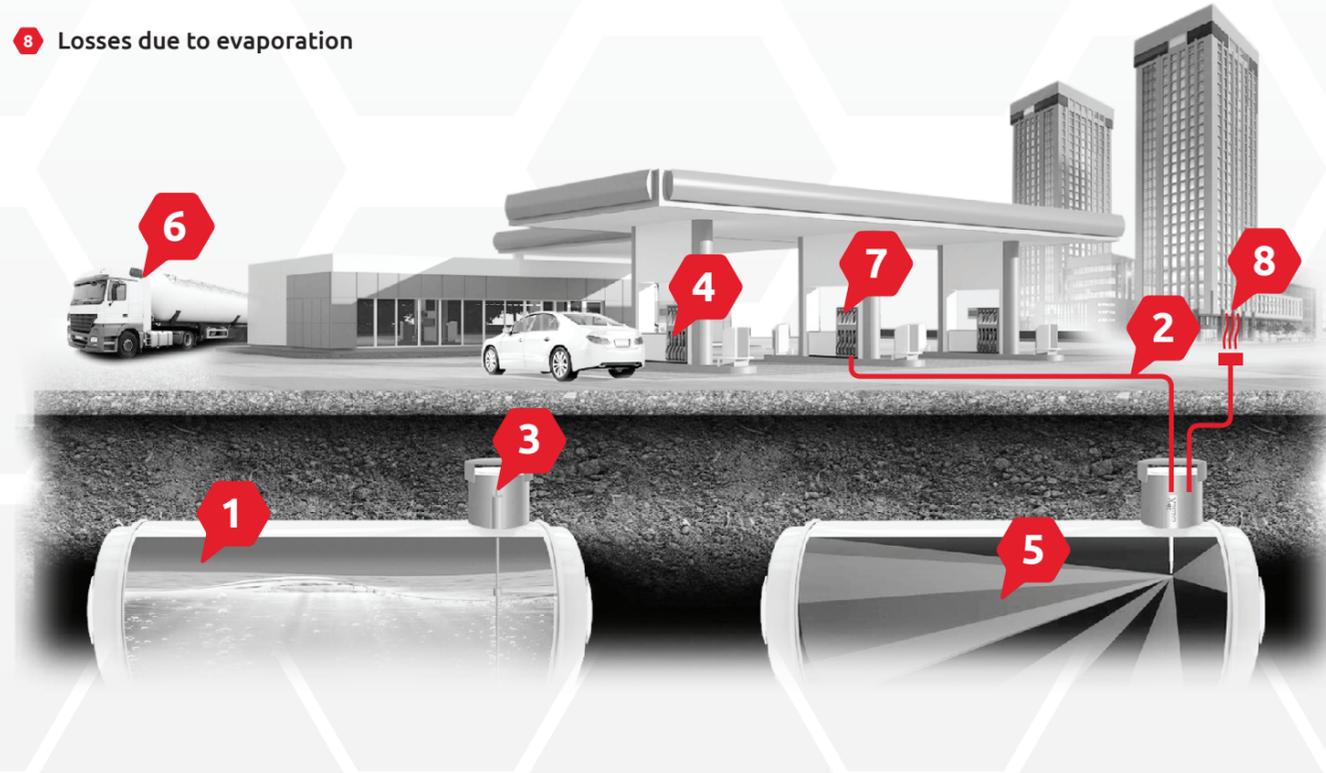
Features

Each sales transaction is analyzed. All sales data from the Tank and Pump Automation Systems are sent to the Fox®SIR platform on real-time basis, and the tank inventories are sent with very short intervals. Alarms generated in cases such as sudden losses, ingress of water into the tank, equipment failures, etc. are transferred to the Fox®SIR platform from the CAS (Central Alarm System) platform.

Reasons and details of any losses or gains are identified by means of advanced data analysis software, without support from the service station. Each tank is analyzed separately.
Analysis results are presented in the form of a report generated automatically by the Fox®SIR platform. Fox®SIR completely uses the automation and special logger data during the analyses. It is the first SIR software developed in Turkey.

Process Steps

- Fox®SIR structuring in service stations
- Collection of Fox®SIR data in the center
- Analysis of the Fox®SIR data by the system
- Analyses by operators
- Collecting information about the service station
- Performance of site inspections
- Reporting of results of analyses

What are the importance of Fox® SIR?

- It plays a very important role in prevention of environmental pollution.
- Losses can be checked and minimized.
- It is fast and effective leakage identification method without site inspection.
- Performance of the service station can be monitored on real-time basis.
- It provides site personnel with facilities during station inspections.
- Maintenance programs can be applied more effectively.
- It allows identification of product losses along with the reasons.

Technical Spesifications*

- Leak detection percentage (probability): 99.9% (0.76 Liter / hour leak level), 96.5% (0.38 Liter / hour leak level)
- Leak detection capability (volume): 0.343 Liter / hour (instantaneous) or 8.24 Liter / day (daily) Minimum 95% accuracy.

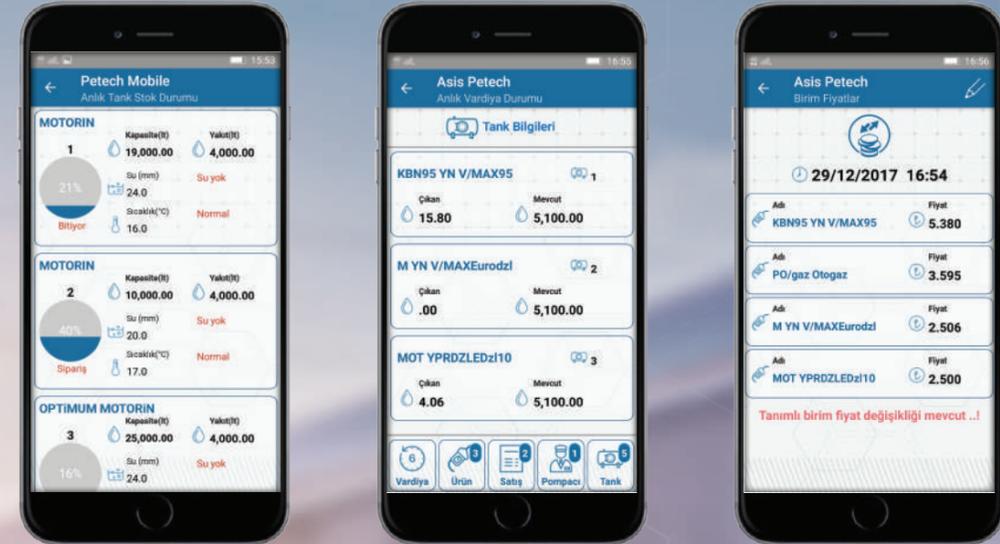*EPA (Environmental Protection Agency) Certificate data.

Asis automation systems is an automation mobile application specially developed for station authorities, where station managers can access, perform basic station system functions and enter service records.

Features

- You can see all your sales and shifts online.
- You can monitor tank filling and status online.
- You can automatically shift and report to a scheduled date or time.
- You can change the unit prices of your pumps automatically by programming the date and time you want.
- You can send a requests to the technical service or call center and track your requests online.

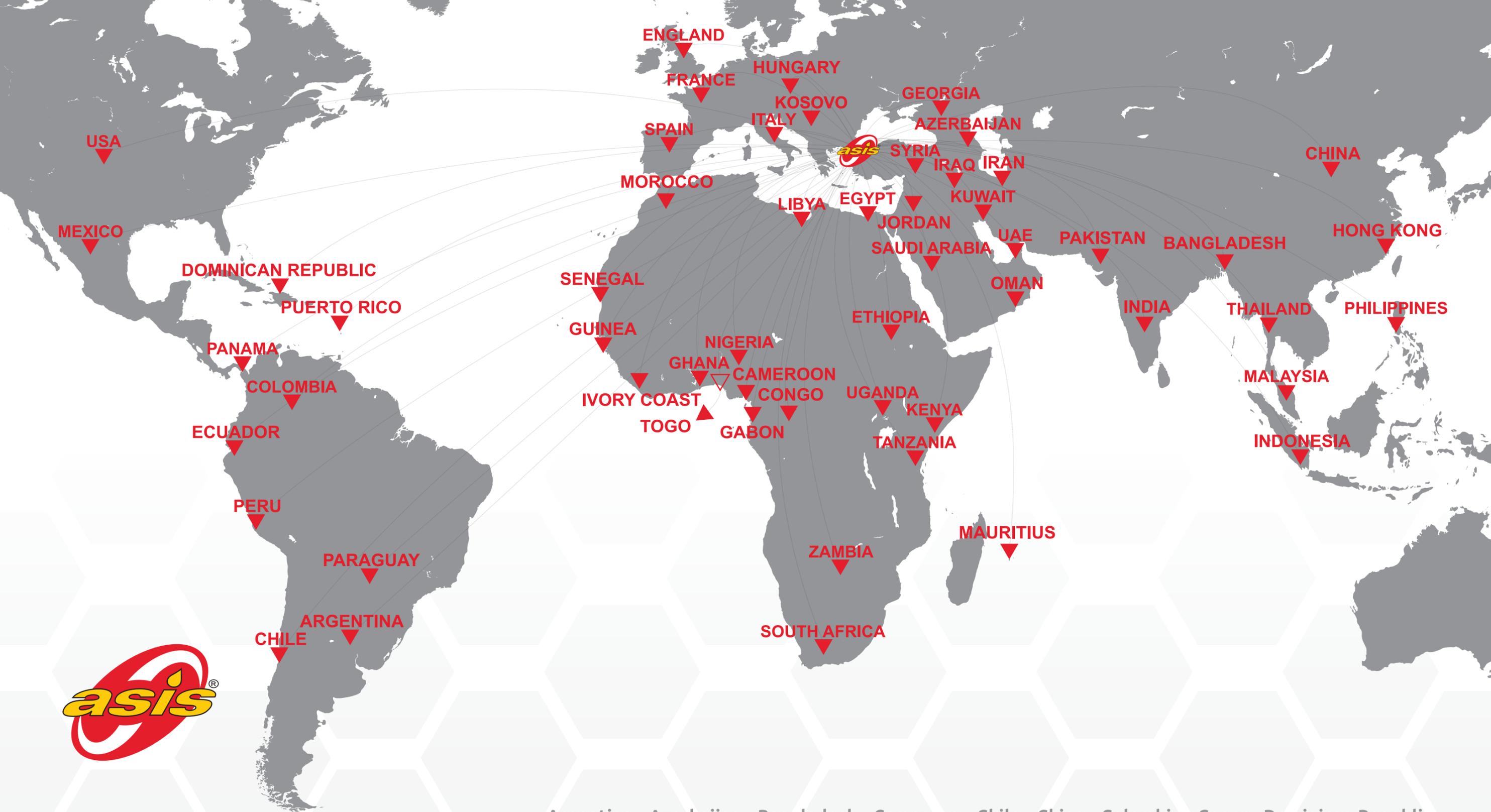# Manage Your Site Anywhere

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