

ANALYSIS



TAKE
CONTROL

STATION AUTOMATION SYSTEMS • TANK AUTOMATION SYSTEM
VEHICLE/CUSTOMER IDENTIFYING & MANAGEMENT SYSTEMS
MANAGEMENT SOFTWARE • SIR/CALIBRATION

www.asis.com.tr



OUR STORY

Foundations of our company were laid in 1990. This is the date when Robosis Computer and Electronics Services Ltd. began to conduct researches and develop software for the fuel oil industry. Robosis converted its 10 years of gained experience through its founders and professional staff into ASİS Automation and Fueling Systems Inc. which was founded in 2000.

Our Company develops automation systems, customer identification systems, and software through its R&D and manufactures all systems and equipment with its own resources. We are the only domestic manufacturer of automation and customer identification systems, and the only Turkish company that develops turnkey solutions in the field. With many projects ASİS completed, gained great experience and success through years.

ASİS Automation and Fueling Systems Inc. provides services to all oil companies, and public and private organizations, meeting the Turkish and international standards with its customer-oriented innovation mindset.

ASİS has a widespread service network providing services in all towns and provinces in Turkey with its Headquarter in Istanbul, and regional directorates and logistic warehouses in Ankara, Izmir, Antalya, Adana, Malatya, Trabzon, Kocaeli, Samsun, Siirt and Çanakkale provinces.

Continuing its successful operations in the fields of service station automation systems, mobile automation systems, vehicle identification systems, central management systems, the 3D CalibeX® Laser Calibration Technology (World patented product) and the technological services, ASİS offers swift and practical solutions fully meeting the Energy Market Regulatory Authority (EPDK) of Turkey in the fuel oil industry. Having expanded its vision with its achievements in Turkey, ASİS continues to strengthen its sales and service network in the international market.



◀ GENERAL MANAGER'S MESSAGE

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 everyday. 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 the result of being 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, represent the power of technology to you. We are greatly happy to share this magnificent technological power that we have created in Turkey.

Yusuf Kaya



..... WHY ASIS? ▶

Wide Service Network

ASiS provides services for automation systems and Vehicle Identification Systems (VIS) to oil stations and public and private establishments in Turkey with its field expert staff. The applications of service centers operating all around Turkey to be an authorized service center of Asis have been considered and the best ones among these have been added to our service network in order to provide better services to our customers. ASiS provides continuous and quality services all around Turkey with its widespread service network.

Experience Gained From Special Projects

ASiS 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.

Innovative Software

ASiS develops software that enables continuous development and ease of use with its own engineers in accordance with the demands of the sector.

ASiS Offers Turn Key Solutions

ASiS fills an important gap in the sector by performing installation of all required automation systems under the projects that it manages in accordance with the requirements of liquid fuel stations and private companies. All equipment used – from software to hardware- are developed under company's structure. Thus, all services required by the customer in the field are satisfied by a single company.

Superior Experience in Technology, Installation and Marketing

ASiS sells not only equipment but also full service with its advanced technological means and its expert staff. ASiS undertakes the installation and acts as a consultant in all phases of the project to keep its service quality at the highest level.



◀ STATION AUTOMATION SYSTEMS .

Petech® PUMP AUTOMATION SYSTEM

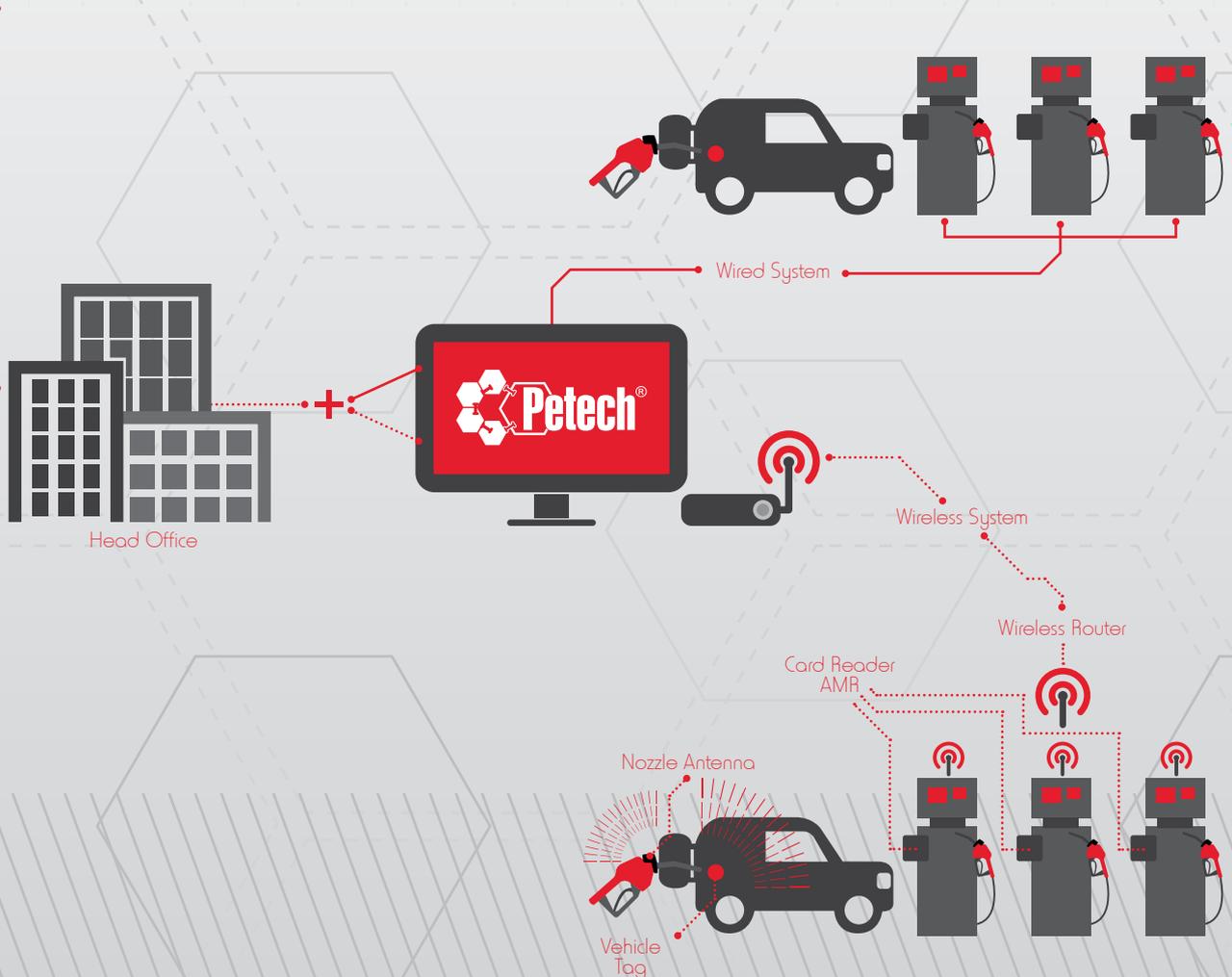
The system that manages pumps in the filling station automation system. Allows full control over pump sales, unit price management, shift application, pump attendant and customer management.



Asis Fuel Pump Automation System equipped with innovative, modern and state-of-the-art technologies offers automation solutions meeting the current requirements. This innovative system having wired and wireless options providing full control over fuel sales from dispensers, price management, shift applications and management of attendants and customers. The system differentiates from other fuel pump automation systems with its suitability for use with many types of fuel pumps, ability to control itself, capability to compile reports in a number of formats and flexibility.

Wired: Ideal for filling stations with suitable infrastructure for cabling.

Wireless: Ideal for filling stations with unsuitable infrastructure for cabling.



STATION AUTOMATION SYSTEMS

Basic Features of the System:

- ▶ Wired and wireless cabling systems
- ▶ Online pump monitoring
- ▶ Pump integration
- ▶ Unit price changing/programming
- ▶ Self-service application
- ▶ Shift management
- ▶ Automatic tank calibration
- ▶ UPS integration
- ▶ Smart self-diagnostic
- ▶ Alarm management
- ▶ Variable unit pricing
- ▶ Discount management
- ▶ Current account management
- ▶ Customer display
- ▶ Flexible reporting tools
- ▶ Remote update feature

System Options

Customer Identification System

Vehicle Identification System



 **Petech® 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 including automation management.



Basic Features of the System

- ▶ 20 ft or 40 ft container options
- ▶ 5.000-35.000 lt storage capacity
- ▶ Various flowrate Pump/Dispenser options
- ▶ Various flowrate transfer pump options
- ▶ Improved mechanical hardware
- ▶ Outdoor featured automation system
- ▶ Integrated Customer and Vehicle Identification System features
- ▶ Compatible to all safety regulations
- ▶ Customization according to customer needs

◀ STATION AUTOMATION SYSTEMS .

CYMOBIL® TANKER AUTOMATION SYSTEM

The system converts tanker truck to a mobile petrol station with automated fuel deliveries. It is specially designed for fuel deliveries to heavy duty vehicles in field which cannot refuel from a regular petrol station.



With Cymobil® automation system, tankers deliver fuel to heavy duty vehicles and construction machineries which works in field with automated system. System console has touch screen display placed in the truck cabin and connected to electronic meter register and solenoid valve, ensuring all delivery is controlled and recorded by the system. Customer recognition and vehicle identification modules can be added to the system, thus the system will have high-level control on limits and congestion management.



Basic Features of the System

- ▶ 7" touchscreen display
- ▶ Report/receipt printer option
- ▶ Flexible reporting tools
- ▶ Remote update feature
- ▶ Online counter monitoring
- ▶ Credit customer account management
- ▶ Unit price change/programming
- ▶ Integrated Customer and Vehicle Identification System features
- ▶ Delivery control over electronic counter and solenoid valve

System Options AWS (Automatic Wake-Up Switch), Cyber TTS®, MobileX®

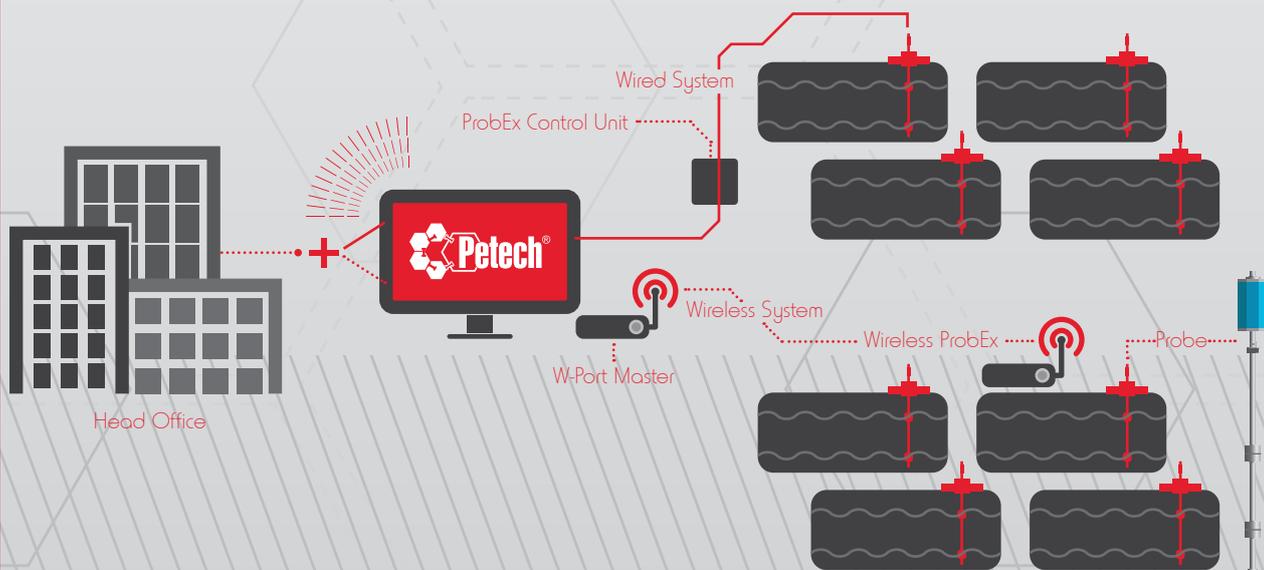
TANK AUTOMATION SYSTEM

Petech TANK AUTOMATION SYSTEM

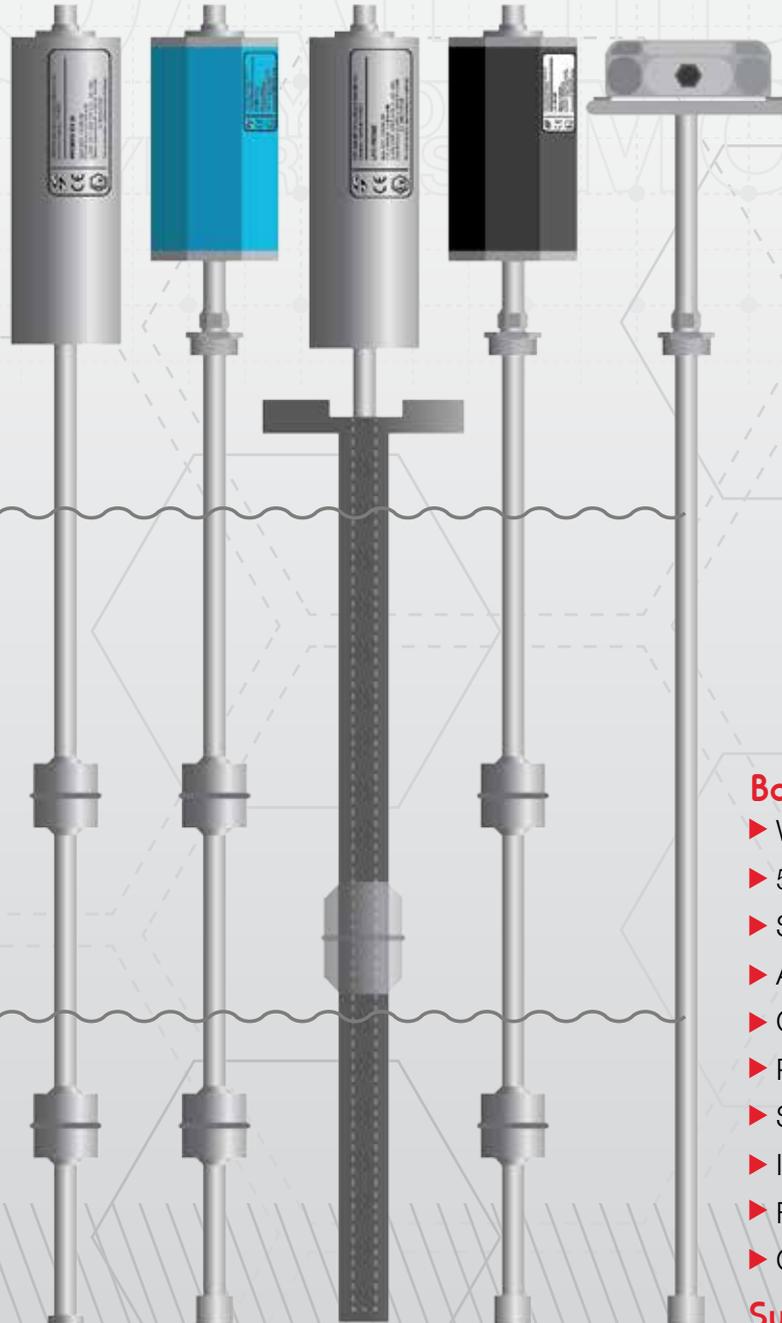
This system detects, monitors and manages all functions of fuel storage tank of a petrol station. Inventories, deliveries and all in tank alarm cases are being monitored real time and controled.



Asis Tank Automation System equipped with innovative, modern and state-of-the-art technologies offers automation solutions meeting the current requirements. This innovative system having wired and wireless options provides full control over all operations inside the fuel storage tanks (current tank inventory, fillings and alarms generated for tanks). The system differentiates from other tank automation systems with its capability to manage different types of tank models, controlled filling, automatic calibration, capability to compile reports in a number of formats and flexibility.



PROBE EX IA PROBE EX D LPG PROBE PROBE
MODEBUS V PROBE



Basic Features of the System

- ▶ Wired and wireless cabling systems
- ▶ 5 different probe options
- ▶ Simultaneous inventory management
- ▶ Automatic delivery detection
- ▶ Controlled delivery feature
- ▶ Programmable tank alarms
- ▶ Smart self-diagnostic
- ▶ Interactive tank inventory screening
- ▶ Flexible reporting tools
- ▶ Central update feature

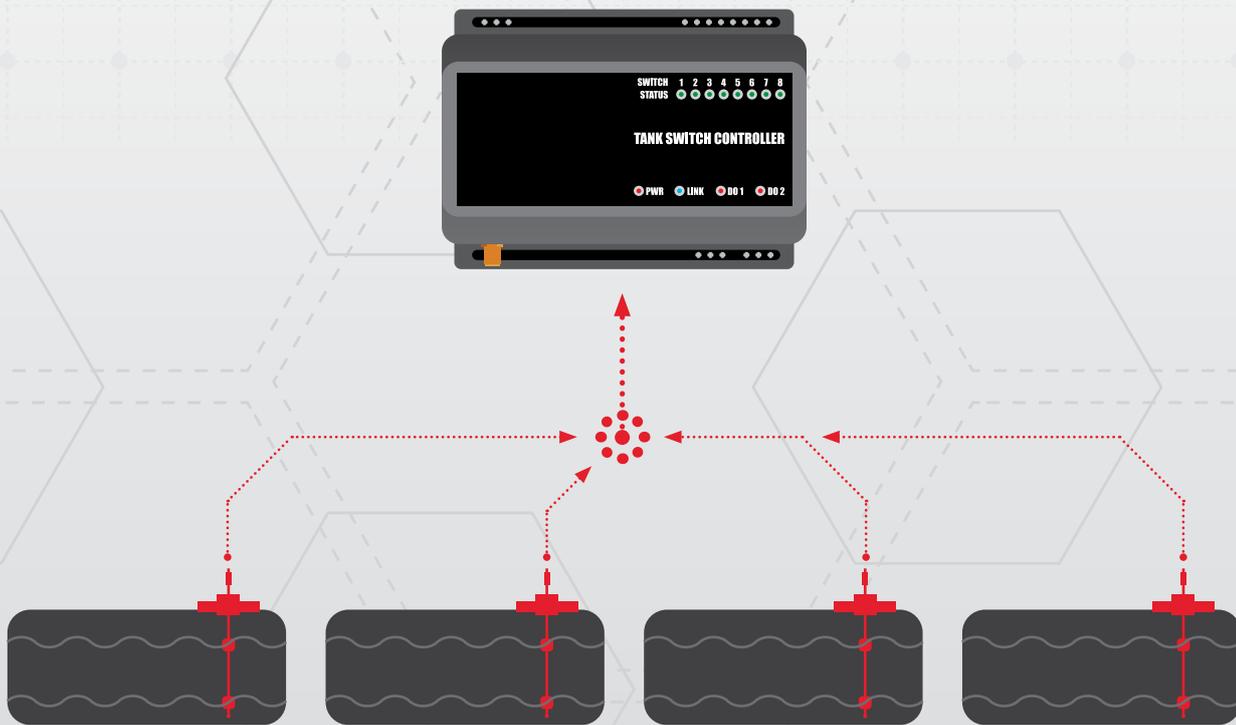
System Options

- Tank Switch Controller (TSC)
- Tank Relay Unit (TRU)

TANK AUTOMATION SYSTEM.

TANK SWITCH CONTROLLER (WIRELESS)

The hardware that allows transmission of tank switching data to the tank automation system using package switches on tanks with manifold. Thus, it enables more efficient and advanced control of the calibration, stock analysis and fuel transactions.



Basic Features of the System

- ▶ Integration with tank automation system
- ▶ Manifoldd tank management
- ▶ Triggering external devices
- ▶ Power supply monitoring
- ▶ LED indicators on the panel

TANK RELAY UNIT

This device activates or deactivates external equipment such as emergency light, buzzer and submersible pump in case of any event, alarm or warning in storage tank. TRU eliminates manual interaction with external devices in case of any alarm and lowers the risks of accidents by controlling peripherals through the system.

Basic Features of the System

- ▶ Integration with tank automation system
- ▶ All tank alarms can be configured
- ▶ External device activation/deactivation
- ▶ LED indicators on the panel



VEHICLE/CUSTOMER IDENTIFYING & MANAGEMENT SYSTEMS.

Cyber TTS® (UHF) VEHICLE IDENTIFICATION SYSTEM

Cyber TTS®, the reader of the UHF Tag vehicle identification unit installed on the fuel nozzle and operating with the vehicle identification system. Cyber TTS® is a fleet fuel supply management system allowing the filling stations to control the fuel expenses of fleets and to supplied fuel under control thanks to its special design and ease of use.



The Ultra High Frequency (UHF) technology provides flexibility and technological security in vehicle identification units, while eliminating the reading faults on fuel nozzles and any environmental problems. The system supports expansion of the projects with its economic and rapid installation. Cyber TTS® has a special design suitable for use with almost all fuel nozzles and nozzle holders and can adapt to any nozzle easily with its flawless mechanical design.

Basic Features of the System

Nozzle Antenna

- ▶ Wireless nozzle antenna
- ▶ High tag reading ability
- ▶ 2 years battery life on average station
- ▶ 3D nozzle movement detection feature
- ▶ Wireless communication with site controller



Vehicle Tag unit

- ▶ 3 different vehicle tags for different vehicle types
- ▶ Ability to read km over pulse
- ▶ Ability to read online or offline km read via GPS
- ▶ Integration with Asis NeoFleet Map platform
- ▶ Mechanical and electronic temper-proof protection
- ▶ Easy tag installation (no need of certified technician)



Flex Pass (Cars)



Meta Pass (Trucks)



Ind Pass (Industrial vehicles)



VEHICLE/CUSTOMER IDENTIFYING & MANAGEMENT SYSTEMS

CUSTOMER IDENTIFICATION SYSTEMS (CIS)

The system controls both fleet and individual customer fuel supplies, and allows use of customer loyalty programs. ASIS have many different contactless card, key tag and RFID tag options, because of various customer programs, interactive information management and different functionality needs. Thus, ASIS provides variety of options to have the opportunity to choose the most suitable equipment for their customers or projects.

TETRA

- ▶ Designed to read Mifare Classic 1kByte, Classic 4kByte and Ultralight cards
- ▶ Compatible with ISO1443 A/B standards
- ▶ Reading ability up to 70 mm
- ▶ Automation communication with RS-485
- ▶ Alphanumeric keyboard
- ▶ Menu and function keys
- ▶ 3.5" TFT LCD display with 320x240 resolution
- ▶ Audible and visual warning
- ▶ Working temperature -25 °C to + 75 °C



COBRA

- ▶ Designed to read Mifare Classic 1kByte, Classic 4kByte and Ultralight cards
- ▶ Compatible with ISO1443 A/B standards
- ▶ Reading ability up to 70 mm
- ▶ RS-485 Automation communication
- ▶ Alphanumeric keyboard
- ▶ Menu and function keys
- ▶ 6-line, 16-character manageable dot-matrix LCD
- ▶ Audible and visual warning
- ▶ Working temperature -25 °C to + 75 °C



MOBILEX[®] CUSTOMER IDENTIFICATION SYSTEM

MobileX[®]; the first ATEX approved mobile sales terminal designed to be used in gas stations. It has the capability to read vehicle stickers, customer cards and key-fobs. MobileX[®] has a wireless communication feature with site automation system which is the perfect and economical alternative of on-pump card readers. Having a mobile design, it shortens the time of sale period and increases the efficiency of the site. MobileX[®] provides cost and time efficiency to both customer and station owner by its mobility to customer identification. MobileX[®] can be programmed for extra features such as data entry, pin code entry etc., to be able give more security measures.

Basic Features of the System

- ▶ Wireless customer card reader
- ▶ Wireless vehicle sticker reader
- ▶ Compatible with Mifare, UltraLight, 3DES*, NXP cards and stickers
- ▶ Real time vehicle recognition
- ▶ Mobility and flexibility for pump attendants
- ▶ Activation over automation system
- ▶ 2,4 GHz FHSS host communication
- ▶ 48 hours operation, battery life
- ▶ Easy and practical charging dock
- ▶ IP Protection
- ▶ ATEX Ex ia certificate
- ▶ Working temperature -20°C to + 50°C



◀ MANAGEMENT SOFTWARE.

CENTRAL MANAGEMENT SYSTEM (POL)

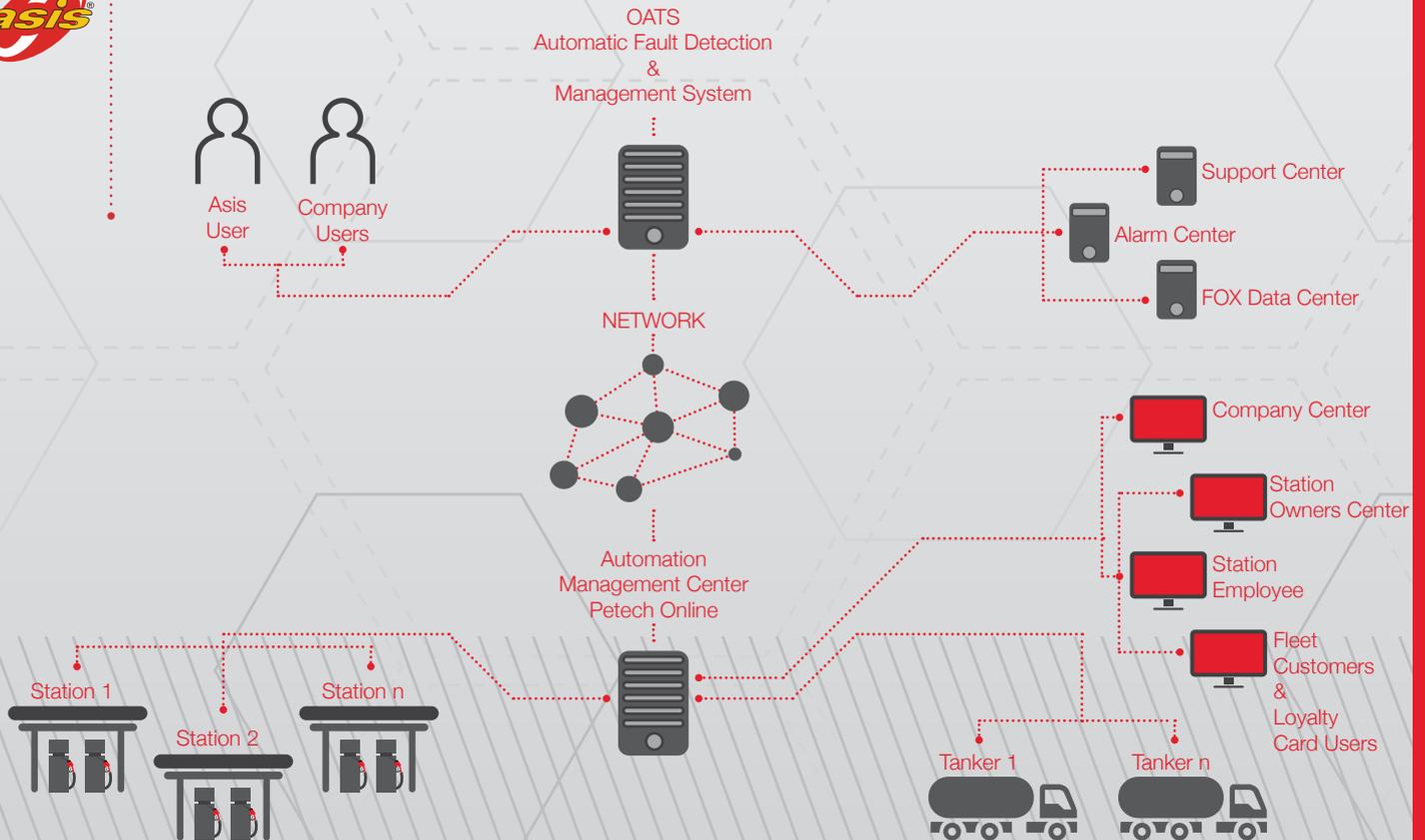
POL is web-based, automated centralized system management platform that allows users to centrally manage Asis pump automation, Asis tank automation and modules within all fuel stations, without any user/customer limit. Petech® Online is the world's most comprehensive and capable centralized system that has been developed for many years and is still being developed for additional features. Petech® Online has become the most preferred system in our sector with its advanced infrastructure, multi-data manageable databases, advanced functions, wide reporting ability, customer and station portals, multi-user infrastructure and compatibility with EPDK processes.



Basic Features of the System

- ▶ Web-based, providing accessibility from multiple locations.
- ▶ There is no user, station, customer, card and vehicle definition limit.
- ▶ Advanced report filtering mechanism.
- ▶ All reports can be exported in various formats.
- ▶ All mechanisms such as auditing, reporting, portal, authorizations, unit price management, loyalty applications, TTS applications work under one software. It does not require the use of separate software.

- ▶ Includes all TTS applications (hierarchical customer definition, definition of tools, centralized authorizations, various reporting tools, commission and discount calculations, station and customer billing, ERP integration, money, time, region limit and constraint management, customer portraits, etc.).
- ▶ Developable client programs can be added to existing loyalty applications (central discount, debit application, scoring etc.).
- ▶ Allows users to define strategies with cross-query analysis reports, as well as station, product, region, tank, pump static reports.
- ▶ All user activities and station systems can be reported by logs.
- ▶ With remote update feature, there is a remote and automatic updating of the station software in exchange of parameters, in contrast to system improvements. With this feature, there is no need to update at stations.



MANAGEMENT SOFTWARE

CENTRAL ALARM SYSTEM (CAS)

CAS is a service provided to take automatic precautionary actions without having need of any manual intereaction for undesirable situations on hardware, software and data that may occur in automation systems.



Automatic Recognized Alarms

- ▶ ABU/PIR Communications
- ▶ Pump Communication
- ▶ Pump Counter Difference
- ▶ Wireless Equipment Communications
- ▶ PC Port Error
- ▶ Pump Automation Off
- ▶ Tank Automation Integration
- ▶ UPS Error
- ▶ UPS Over Voltage
- ▶ Database Problem
- ▶ Software Services Intervention
- ▶ Asis Guard Errors
- ▶ Tank Automation Off
- ▶ Probe Communication
- ▶ ProbeX Communication
- ▶ Tank Water Alarm
- ▶ Tank Water Float Alarm
- ▶ Tank Temperature
- ▶ Overflow fuel level
- ▶ Critical fuel level
- ▶ Fuel Level " 0 "
- ▶ Filling Alarms
- ▶ High Fuel
- ▶ Low Fuel
- ▶ Tank leaks
- ▶ Central Server Data Transmission
- ▶ Online / Offline Transitions
- ▶ Irregular Software Start/Restart
- ▶ Pump Software Run/Stop
- ▶ Tank Software Run/Stop
- ▶ Petech Online Alarms

AKARIA BACK OFFICE MANAGEMENT SOFTWARE

AKARIA backoffice management software provides time and cost savings to users with the Back Office and Supermarket software. The software packages allow you to maximize control over the inventory and finances, while minimizing your service station. Akaria has 2 versions as LIMITED and PRO.

General Specifications

- ▶ User friendly interface
- ▶ Highly secure SQL database
- ▶ Windows-supported visual design
- ▶ Customizable menu shortcuts
- ▶ Unlimited user and company capacity
- ▶ Customizable menu and authorization restrictions
- ▶ Allows keeping a record of all transactions using data log technique
- ▶ Enables monitoring users and their transactions
- ▶ Simple and efficient new year and carryover procedures
- ▶ Highly secure data structure and authorization mechanism
- ▶ Capability to export all reports to Excel, HTML, TXT and PDF formats, and to print or send them by e-mail directly from the software
- ▶ Automatic backup and recovery
- ▶ Capability to use notepad and reminders
- ▶ Date-based document locking
- ▶ Supermarket, POS/new-generation cash register integration (Optional)
- ▶ Full integration with the e-invoice module, including e-invoice transactions and reports (Optional)

System Architecture

- ▶ Service Station Management Office-Akaria Pro
- ▶ Accounting - Finance – Inventory and Current Account Management
- ▶ Station Supermarket/Dry Inventory Management

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 (AKARIA PRO)
- ▶ Detailed fuel and commodity ordering transactions (AKARIA PRO)
- ▶ Inventory by Average, FIFO and LIFO (AKARIA PRO)
- ▶ Cash Register, Barcode, Invoice Printer
- ▶ Station Forecourt / Wet Inventory Management
- ▶ Dispensers, Tanks



◀ MANAGEMENT SOFTWARE



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

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 (AKARIA PRO)

- ▶ Online and archived automation sales, CIS, attendant reports and analyses (AKARIA PRO)
- ▶ Online and archived automation summaries and statistics (AKARIA PRO)
- ▶ Integration with other automation systems (AKARIA PRO)
- ▶ Vehicle filling and promotion monitoring (AKARIA PRO)



E-Invoice Integration (Optional)

- ▶ 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



Akaria Supermarket

AKARIA SUPERMARKET is a software package designed for management of dry inventories of the supermarkets within service stations.

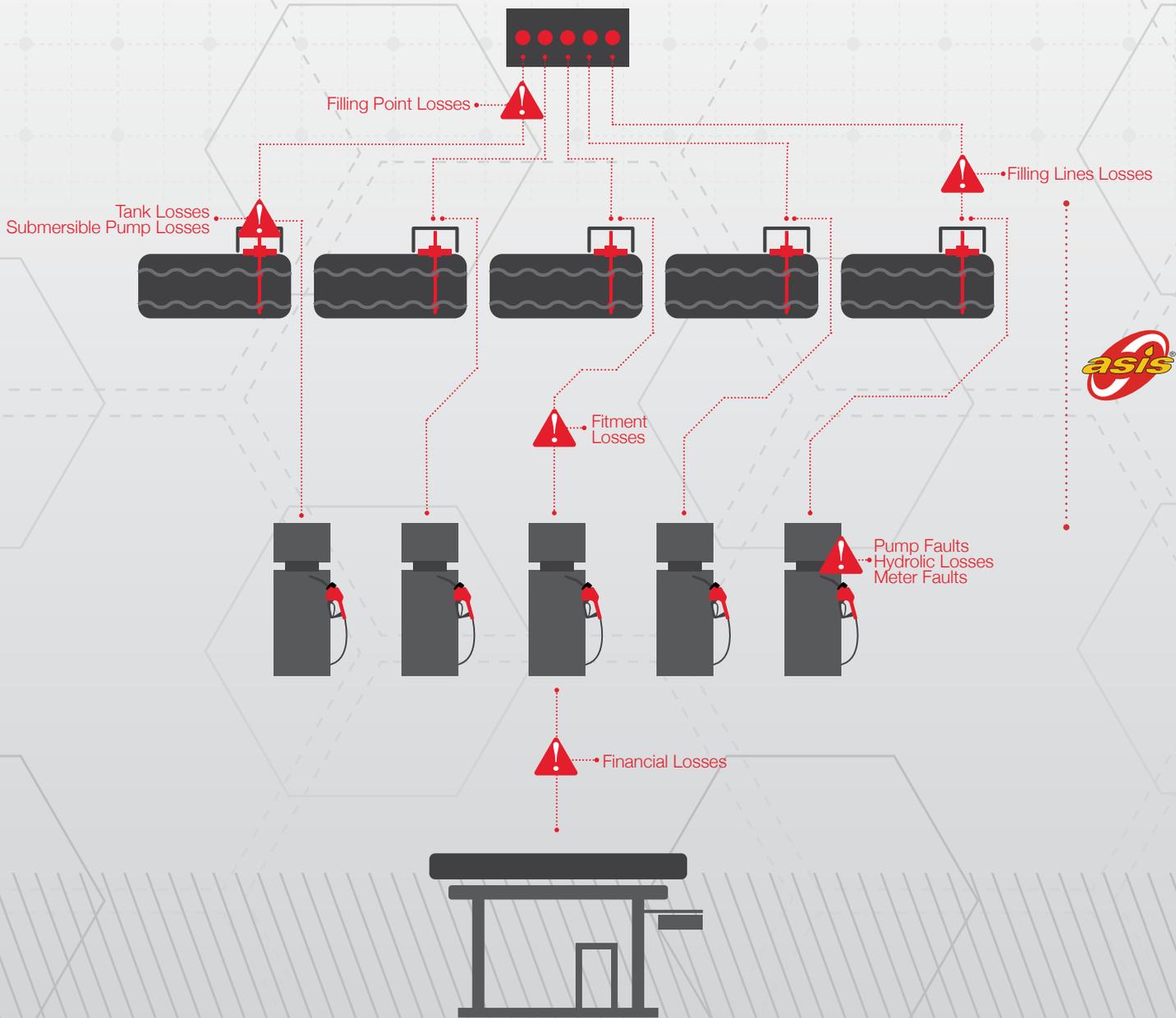
- ▶ New-generation cash register integrations
- ▶ Stopping sales of out-of-stock items (AKARIA POS-IBM POS)
- ▶ Authorization based on cashiers
- ▶ Special invoicing for customers paying cash and on credit
- ▶ Issue of notes or slips for credit sales
- ▶ Checking the price with barcode, cancellation 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



◀ SIR/CALIBRATION

FOX (Statistical Inventory Reconciliation-SIR®)

Statistical Inventory Reconciliation System (SIR®) allows identification of any fuel losses or gains in the service station by examining the tank and dispenser movement data obtained from the service station.



System Architecture

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

Basic Features of the System

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.



What can be identified with FOX SIR® ?

- ▶ Tank, piping and filling leaks
- ▶ Pump calibration errors
- ▶ Automation system faults
- ▶ Submersible pump or suction pump faults
- ▶ Faults on the piping components
- ▶ Intrusions
- ▶ Theft
- ▶ System manipulations

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.

◀ SIR/CALIBRATION

CALIBEX® 3D LASER CALIBRATION TECHNOLOGY

3D CalibeX® is one of the most comprehensive technology developed by Asis to date. It is a system composed of advanced robot mechanics, mechatronics, 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 to the specially developed laser-measurement technology applied through the 2" coupling, which is the smallest inlet of fuel tank covers. The system creates a SPATIAL POINT PATTERN for the tank volume using the 3D algorithms, ultimately creating the 3 dimensional mathematical model of the underground fuel tanks. 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.

Technical Specifications*

- ▶ -0,6 mm \pm 0,1 mm accuracy in distance measurements
- ▶ -0,2° +0,3° accuracy in pan measurements
- ▶ -0,6° \pm 0,1° accuracy in tilt measurements
- ▶ -0,1° \pm 0,1° accuracy in inclination measurements
- ▶ \pm 0,3% accuracy in volume calculations



Basic Features of the System

- ▶ Measures the internal dimensions of the tanks on a 3D spatial point pattern.
- ▶ Calculates the inclination of the tank (angular)
- ▶ Calculates the direction and position 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.
- ▶ It is reliable and all risk factors are taken under control (ATEX).
- ▶ Application and operation of the system fully meets the Occupational Health, Safety and Environment 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.
- ▶ One tank can be calibrated within maximum 30 minutes and calibration of all tanks at a filling station can be completed only within a few hours.

Security and Safety

All system components are designed and certificared according to international safety regulations.

**According to VSL Dutch Metrology Institute and NMI evaluation results*



USA

MEXICO

PANAMA

COLOMBIA

WORLD OF ASIS



- Azerbaijan
- Colombia
- Egypt
- England
- Ethiopia
- France
- Georgia
- Ghana
- Iraq
- Italy
- Kenya
- Kosovo
- Kuwait
- Libya
- Mexico
- Nigeria
- Panama
- Saudi Arabia
- South Africa
- Spain
- Syria
- Tanzania
- UAE
- Uganda
- USA
- Zambia



www.asis.com.tr