

# NEXT GEN SOLUTIONS for Retail Automation



## End-to-end solution for Retail Automation

Bahwan CyberTek offers FuelTrans Retail Automation Solutions for end-to-end automation of fuel stations for real-time visibility and control of your entire retail operations. The solution covers every major component of the fuel station from the pump, dispenser, tank and covers vehicle identification, wet stock management and fleet contracts.

The solution aspires to provide customers real-time visibility into stocks and equipment and ensures streamlined and optimized operations.

## Pump Automation Solution

A Forecourt Automation System's main principle is the connection and control of all dispenser units to an interface unit which is connected to the forecourt controller computer resulting in increased visibility and control.

All fueling operations on the dispensers are reported, controlled and recorded by the controller computer, resulting in control of all the transactions in the forecourt. BCT's Pump Automation Solution has also the ability to detect local customer / station attendants. The tag readers installed to the dispensers, identify and approve the tags given to the local customer / station attendant, so that the system can provide authorization to the dispenser for fueling. After refueling, the owner of the fueling operation (dispenser attendant or the local customer with key-chain) is also mentioned in the sale records.

### Benefits for station owners

- Dispenser sales are registered automatically on all the dispensers that are integrated
- No need to deliver fuel coupons to the companies
- Since the sale entries are automatic, no fault in accounting is encountered
- The accuracy of the receipts is certain
- Various reports can be generated whenever needed
- Drivers will be sure about fueling amount
- Customer companies will receive reports attached to invoices
- Fueling details are as written on the display of the dispenser and are printed directly on to the receipt
- Shift-end operations averagely take 25 minutes for each manual station; an automated fuel station can process the same in 5 – 10 seconds, resulting in continued fuel sales for one more hour
- Vehicle is identified automatically by the dispenser. Fueling details are transferred automatically
- Driver of the vehicle does not need to pay for fueling
- Cumulative invoice and direct payment system for all fuel purchases is possible. Vehicle odometer is read and reported automatically in every fueling
- All analyses done for the odometer control are transferred to the customer
- Different fuel types are not delivered even if a mistake occurs. No fueling is done to unidentified vehicles. The dispenser operation will be stopped in case the nozzle is taken out of the vehicle. Since no refueling can be done apart from the tank of the vehicle, the customer is sure that he/she is paying for the right amount of fuel that was delivered to his / her vehicles / fleet
- All the data is transferred automatically without any manual process. Manual intervention is not required. Secure and accurate reports are transferred to the customer
- After fueling, sale data for the driver is printed and delivered
- Reports enable the customer to analyze and compare the fuel consumption of the vehicle per kilometer/hour
- It is possible to monitor the fueling station and fueling time of each vehicle





## Wet Stock Monitoring solution

The Tank Controller Software must have an integration with major TLG providers like Veeder Root, OPW Petro vend, Pro Gauge and Incon.

The system:

- Controls the existing wall mounted Tank Level Gauging System
- Manages and Reports Tank Inventories in the Station
- Holds reconciliation, Delivery, Fuel Level, Alarms and automatic calibration tasks for the Tank Controller Software System

BCT's Wet Stock Monitoring Solution provides an optimized, cost effective control on fuel inventories in multiple tanks and locations. The application can also be linked to Central Tank application (CMS) for monitoring and alerts at the Head Office.

## Benefits include

- Automatic detection and alerts on fuel shortage, issue of fuel delivery order, track of the delivery, verification of the amount, as well as the quality of the fuel supplied to the specific tank
- Ability for fuel managers to plan ahead and forecast required deliveries based on previous data, simplifying the planning for optimal price and quantities
- Auto calibration and reconciliation for accurate and tight tracking of the fuel inventory, minimizing losses
- Detection of un-authorized filling of tanks in the stations (such as smuggled or low quality fuel) - vital for oil companies. Fuel quality could be monitored using the optional density probe
- Leak detection to prevent losses and contamination of the environment
- Remote capabilities – Monitor and Manage your tanks
- Alarms via text message (SMS) or E-mail to predefined personnel

## RFID based vehicle identification solution (e-Fuel)

This solution is a customer identification and vehicle identification module for the Pump Automation Solution, allowing automated fueling with Cardless / Cashless filling operations. This helps oil companies to cater to fleet customers, and track fillers / agents at filling stations.

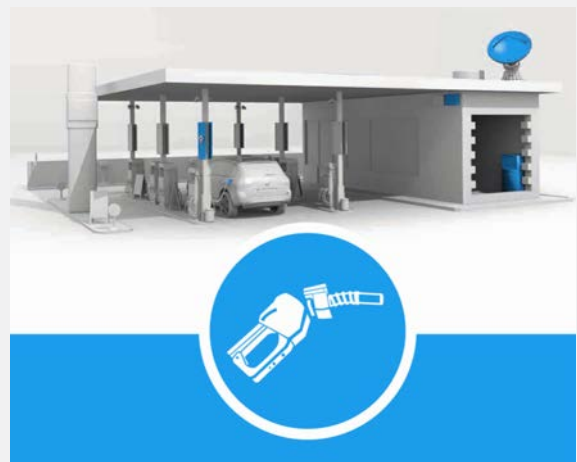
e-Fuel can be integrated with the CMS, where oil companies can manage fleet customers, contracts, limits and restrictions for every vehicle, including the generation of reports.

These include

- Setting fueling limits per day/week/month
- Restricting fueling to stations in a specific region
- Allowing fueling only on specific days of the week

## Benefits for fleet owners

- Benefits for fleet owners
- Saving on fuel expenses
- Fueling of authorized fleet vehicles only
- Prevention of fuel fraud
- Efficient use of time and manpower in fleet management and accurate accounting
- Reporting on vehicle usage and consumption
- Odometer and engine hour readings for effective maintenance scheduling
- Advanced fleet reporting based on information collected from the vehicle bus

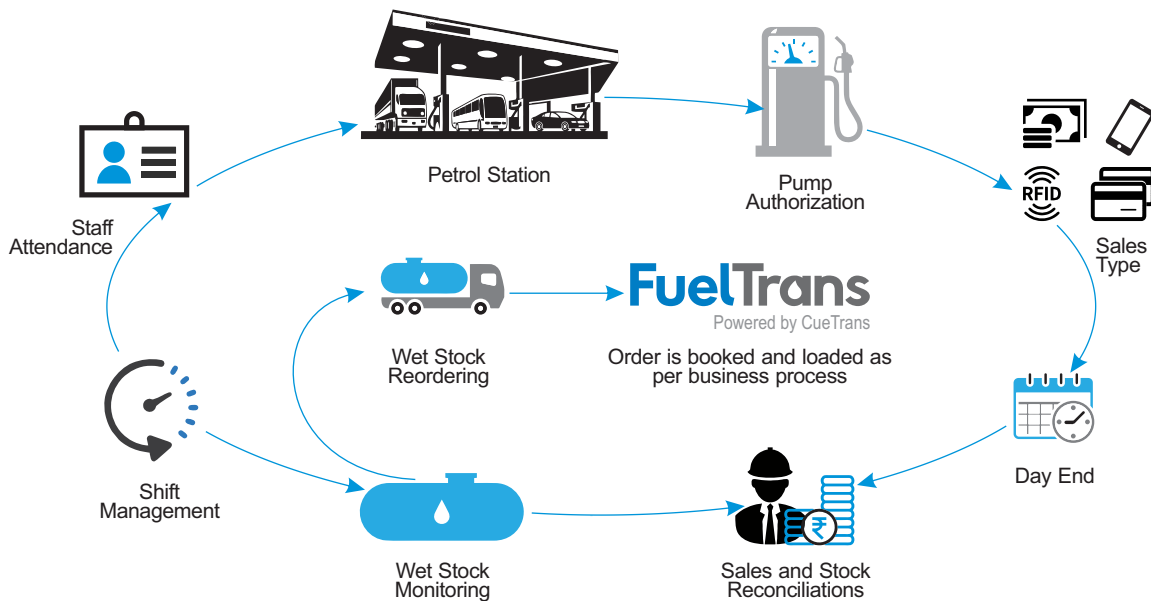


# Centralized Monitoring and Management Solution

BCT's CMS is a Head office system used for centralized monitoring and management of the filling station network, wet stock and Fleet contracts. The application collects and synchronizes with the Pump Automation, Wet Stock Monitoring and e-Fuel (information like fleet, prices, pumps and tanks) and stores the data in a central data bank. This information would also be available at filling stations with offline limits/restrictions for avoiding business disruptions due to errors in communication links.

## Key features

- Filling station management – Sales and inventory
- Wet stock monitoring and management
- Vehicle Detection Systems and Customer management
- Customers and Resellers with electronic reconciliation
- Integration with ERP applications
- Synchronization with Web applications
- Users authorization and restriction
- A comprehensive analytics and reporting system



## About Us

Bahwan CyberTek (BCT) is a digital transformation company founded in 1999, and has delivered solutions in over 20 countries, to major upstream & downstream O&G organizations. With over 2800 associates, and 1000+ Enterprise Customers & 3500+ SME Customers globally, BCT is a thought leader and innovative solutions partner.

BCT has also delivered transformational solutions across Fuel Station Automation, Fuel Logistic Planning & Transportation, Predictive Analytics, Education and Payments & Citizen Services through IP-led products & cognitive solutions, growth accelerators and outcome-based business models using our expertise in Analytics, Blockchain, IoT and AI.

For a demo on our Fuel automation solutions, please contact  
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