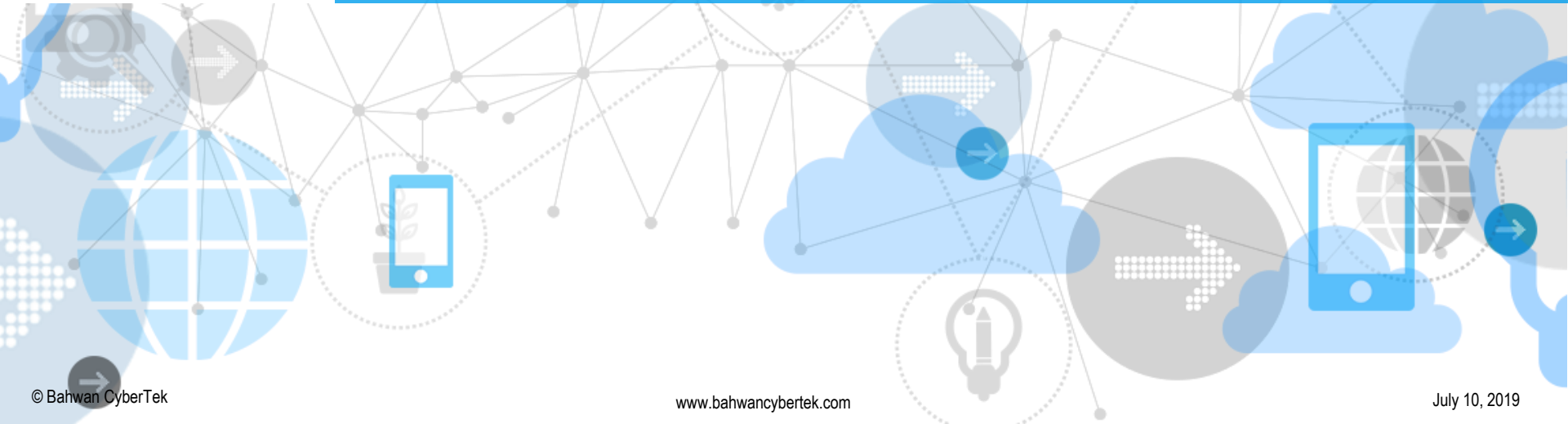




BAHWANCYBERTEK

Integrated Solution for Oil & Gas Companies



Oil & Gas Automation credentials



End 2 End

Management of Oil & Gas upstream & Secondary Distribution supply chain

7

Control Towers



ISO: 9001
ISO: 18001
ISO: 14001

\$1b

Spend on services from **local contractors**



2,600

Contractor personnel managed



20,000+
Retail Automation
Devices
Managed



4,500+
Rig Moves
Managed



1,000+
Logistics Assets
Managed



20,000
vehicles tracked
through
BCT IVMS



Centralized
Journey
management

\$54m

Saving through
Rig move
optimization

\$130m

Supply Chain
Saving through
Cost modeling



Technology

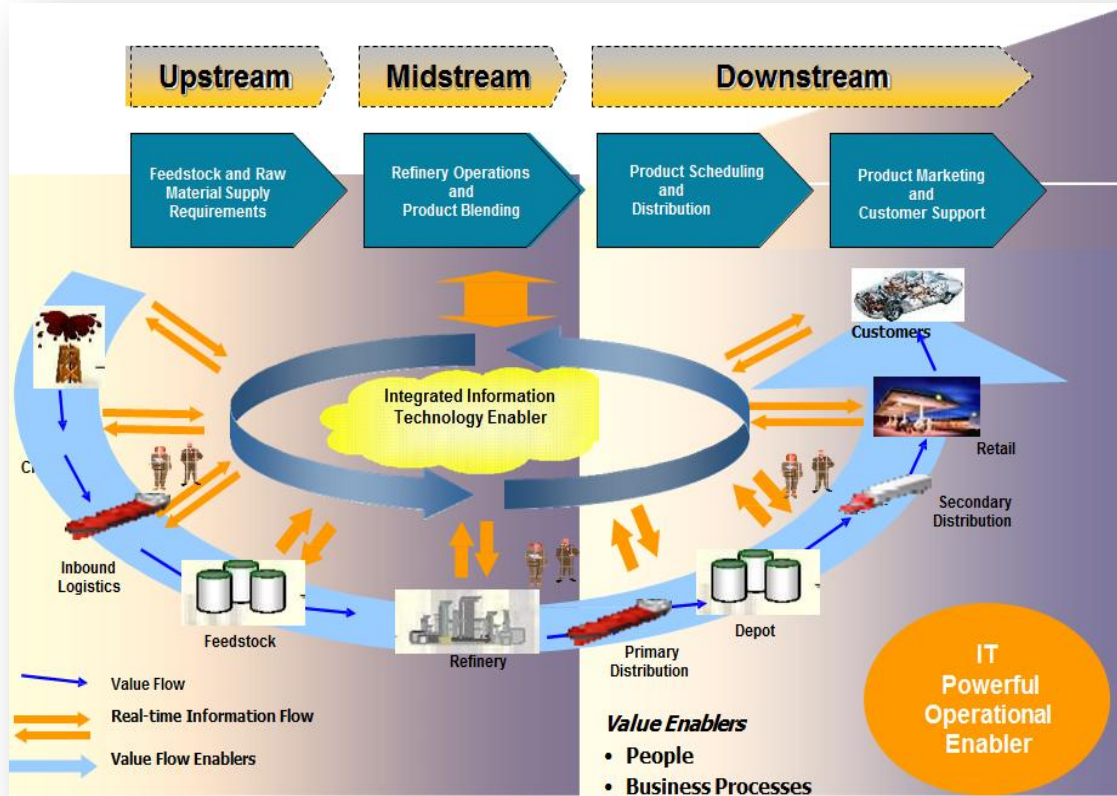


BCT's customers in Oil & Gas



شركة تنمية نفط عُمان
Petroleum Development Oman





“right product, right place, right time, every time” should dominate scheduling and distribution activities.

Differentiating Practices

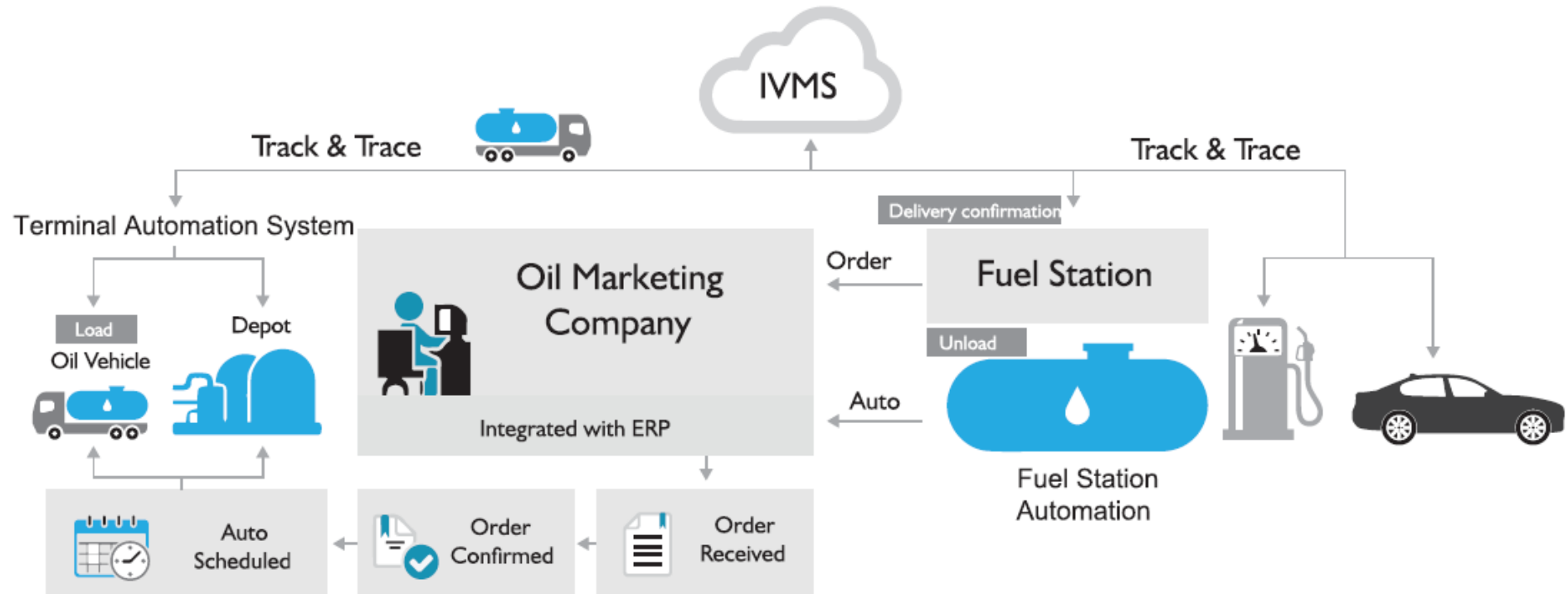
Continuous **Replenishment** techniques

Scheduling targets to **reduce distribution** cost, maximize resource utilization

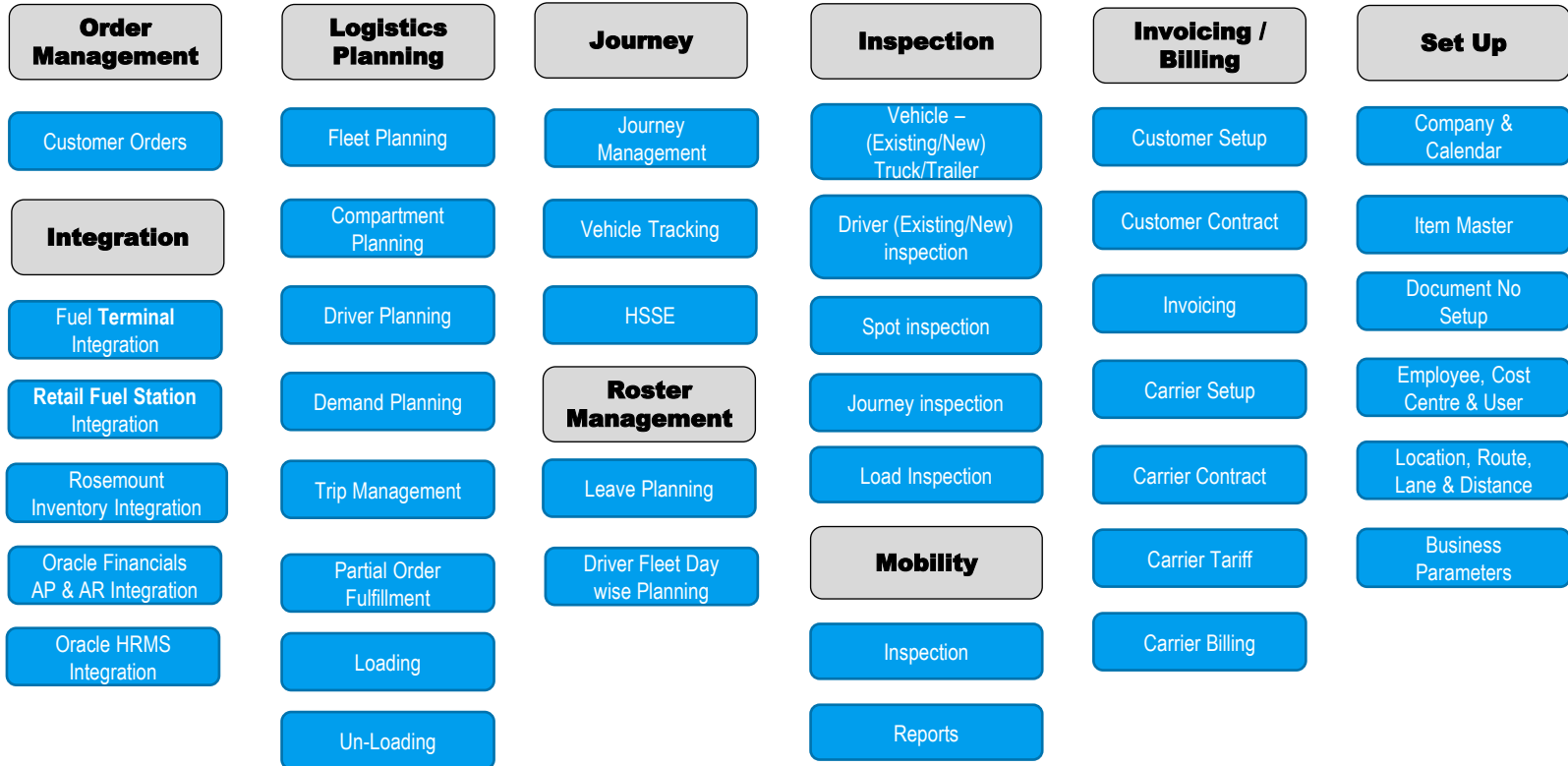
Scheduling information is maintained in **real time** and can be accessed by internal and external customers

Collaborative practices **reduces demand** variability and hence the strain on logistics.

FuelTrans Process Flow



Solution Map for Fuel Transportation



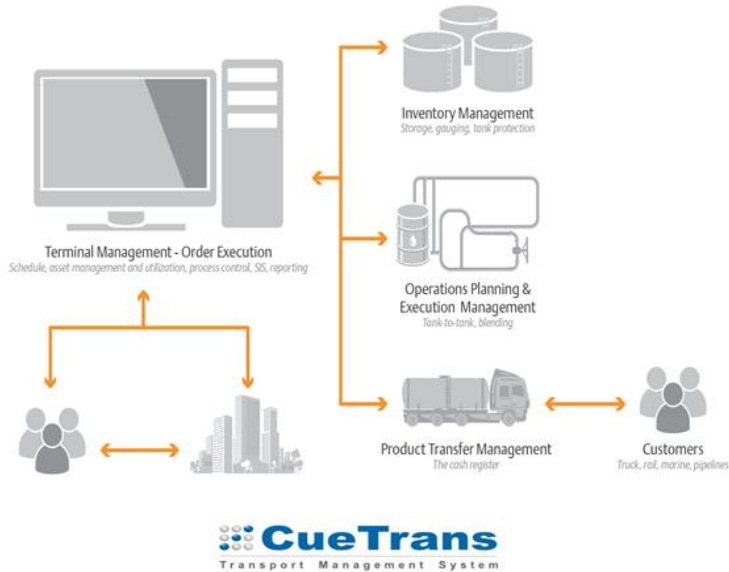
Business Performance / Intelligence / Analytics / Process & Event Management

Secondary Distribution – Control Tower Solution



Integration to Key Application

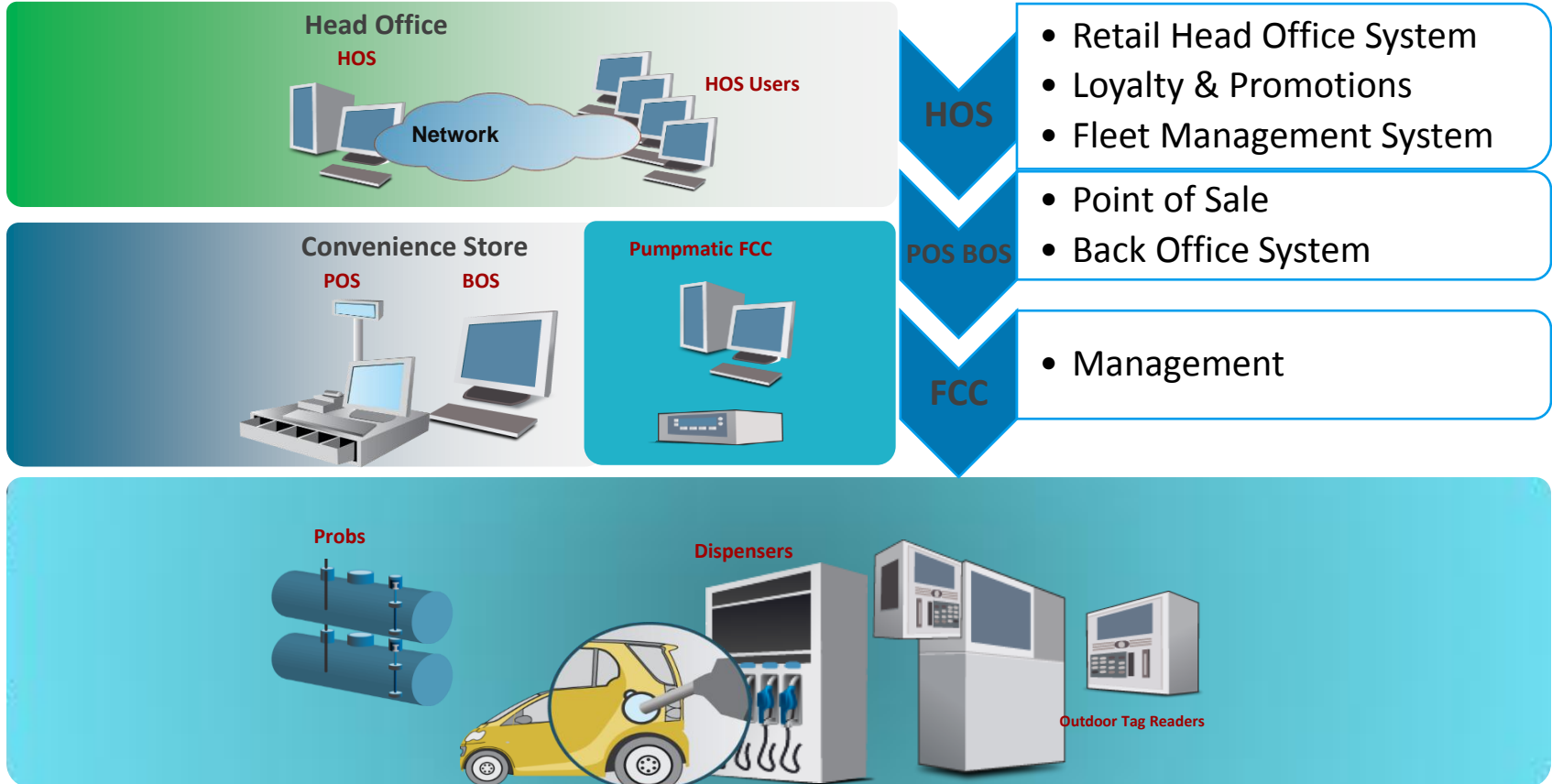
FuelTrans Powered by CueTrans



- Order Management
- Auto Order Consolidation & Load Planning
- Auto Vehicle Scheduling & Allocation
- Journey Management & Tracking
- Inventory - TAS
- Connection to TAS (Terminal Automation System)
- Connection to ATG (Automation Tank Gauging)

Fuel Station Automation Solution

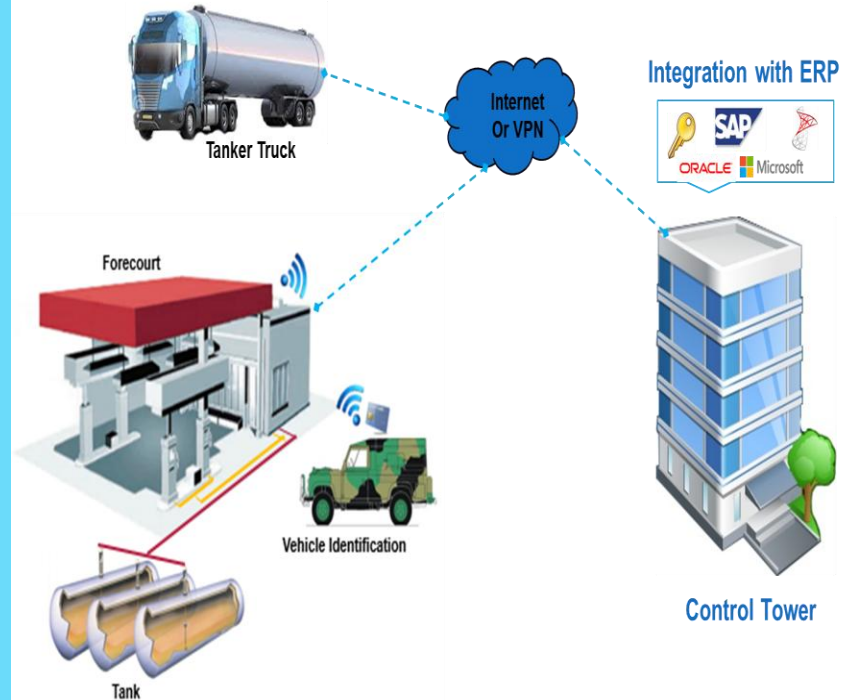
Solution Components



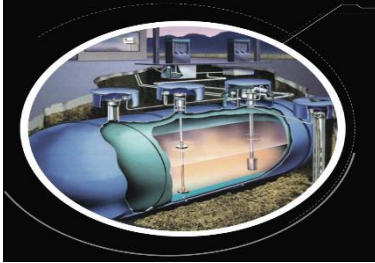
Fuel Station Automation Solution

- **Head Office Automation :**
All pumps, Automation System and loyalty applications are centrally managed with online data storage.
- **Pump Automation System : (eFuel Station)**
Pump and cash register integration, Loyalty program management & BOS / POS integration.
- **Tank Automation System :**
Inventory Data, Delivery detection, Alarm detection and Automatic Dynamic calibration.
- **Vehicle RFID Customer Identification System:**
Automatic refuelling, Prevents Fuel Fraud, Fuel Usage Control, Efficient Use Of Time & Manpower, Accurate Automatic Reporting, One point payment.
- **Integration with ERP :**
Fully integrated solution that Capture station sales and inventory, Wet Stock Monitoring, Periodical payment and billing information for retailers and customers. Integration with management and accounting system link ORACLE/SAP/MICROSOFT ERP

End-to-End Automation Solution: Supply , Implementation , Support and On field Managed Services & Central Call Centre Operation



Automation Solution Value Proposition



- Fully integrated with ATG
- Automatic Dynamic Calibration
- User friendly Software
- Detailed Report Management

Complete Visibility on wet stock inventory

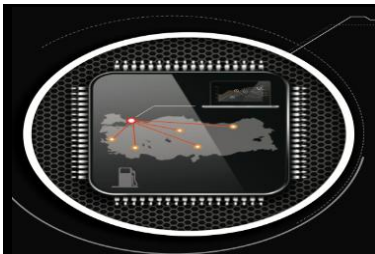
Control Fuel pilferage



- Pump and cash register integration
- Tank automation system integration
- Vehicle and customer identification system integration
- Loyalty program management
- BOS / POS integration

Manage Issues on reconciliation

Control Misuse of fuel subsidy



- All pumps, Automation Systems and loyalty applications are centrally managed with online data storage
- Dry & Wet Stock Pricing Management

Transparency and control of Retail operations

Monitor Fuel Consumption with RFID based VIS solution

Pump & Tank Automation

Pump - Automation System



- Pump Sales Management
- Customer Identification
- Vehicle Identification
- Pump Attendant Id
- Local Account Management
- Loyalty Management
- Fleet Card Management
- Shift Management & Reports
- Price Management

Components

controller



controller is a standalone pedestal that offers complete automation and flexible fueling authorization capabilities.

- Pump authorization.
- Shift Management.
- Driver and vehicle identification
- Report generation.

Nozzle Reader



- Reliable and robust
- Easy to install and service
- Tamper-proof and secure
- Advanced power management capabilities
- Self-contained with replaceable batteries

Tag Reader



- Handle a variety of authorization options
- Robust & reliable
- Cost-effective
- Field-proven
- Suitable for manned and un-manned stations

Wireless Gateway



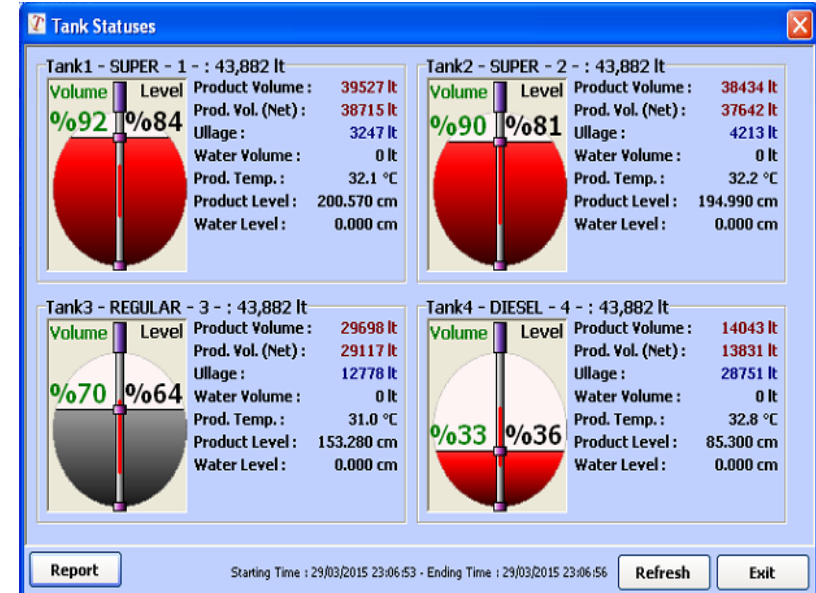
- Enables RFID based Vehicle identification system
- Communicates with RFID nozzle reader
- Collects data from RFID equipped vehicles
- Works on Zigbee protocol

Tank Automation System





Tank Automation


- Fully integrated (OPW , Veeder Root, FAFNIR, INCON, START ITALY, HECTRONIC)
- Compatible with major Tank Gauging units
- Delivery and inventory alarms
- Automatic Calibration
- User friendly SW
- Detailed Report Management
- Integration with Center HOS – Wet Stock





Tank – Inventory & Dynamic Calibration



Station Tank Status



Tank Status


CentroTank History


Tank Alarm Monitor


Tank Inventory Monitor


Tank Calibration Monitor


CentroTank Reports

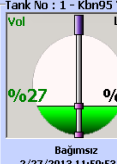
Station Tanks
Tank Reports

Station: **EKO-PETROL YINBAAT TURIZM TAHHUT TYCARET LYMYTEDI**

Station Code: **000014**

Tank Status

Tank No : 1 - Kbn95 YN V/MAX 95 - Kap. : 31,000 lt


 %27 %29

Level: **8328 lt**

Product vol: **8328 lt**

Product vol(Net): **8328 lt**

Ullage: **0 lt**

Water vol: **0 lt**

Product temp: **-1.0 °C**

Product level: **735.640 cm**

Water lev: **0.000 cm**

Cal. Type: **0 - 0**

Cal. inter. (cm): **0 - 0**

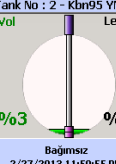
Cal. inter. (lt): **0 - 0**

Cal. sensitivity: **(%2417700000)**

Uncalibrated

Bağımsız
2/27/2013 11:50:53 PM

Tank No : 2 - Kbn95 YN V/MAX 97 - Kap. : 31,400 lt


 %03 %06

Level: **850 lt**

Product vol: **850 lt**

Product vol(Net): **850 lt**

Ullage: **0 lt**

Water vol: **0 lt**

Product temp: **-1.0 °C**

Product level: **144.520 cm**

Water lev: **0.000 cm**

Cal. Type: **0 - 0**

Cal. inter. (cm): **0 - 0**

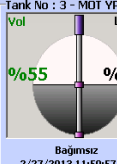
Cal. inter. (lt): **0 - 0**

Cal. sensitivity: **(%2596000000)**

Uncalibrated

Bağımsız
2/27/2013 11:50:55 PM

Tank No : 3 - MDT YPRDZLEDz10 - Kap. : 30,500 lt


 %55 %50

Level: **16663 lt**

Product vol: **16663 lt**

Product vol(Net): **16663 lt**

Ullage: **0 lt**

Water vol: **0 lt**

Product temp: **-1.0 °C**

Product level: **1259.510 cm**

Water lev: **0.000 cm**

Cal. Type: **0 - 0**

Cal. inter. (cm): **0 - 0**

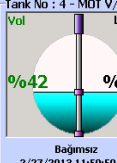
Cal. inter. (lt): **0 - 0**

Cal. sensitivity: **(%3155500000)**

Uncalibrated

Bağımsız
2/27/2013 11:50:57 PM

Tank No : 4 - MDT V/MAX E-Dz10 - Kap. : 31,500 lt


 %42 %42

Level: **13118 lt**

Product vol: **13118 lt**

Product vol(Net): **13118 lt**

Ullage: **0 lt**

Water vol: **0 lt**

Product temp: **-1.0 °C**

Product level: **1049.120 cm**

Water lev: **0.000 cm**

Cal. Type: **0 - 0**

Cal. inter. (cm): **0 - 0**

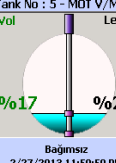
Cal. inter. (lt): **0 - 0**

Cal. sensitivity: **(%1625700000)**

Uncalibrated

Bağımsız
2/27/2013 11:50:59 PM

Tank No : 5 - MDT V/MAX E-Dz10 - Kap. : 31,500 lt


 %17 %21

Level: **5412 lt**

Product vol: **5412 lt**

Product vol(Net): **5412 lt**

Ullage: **0 lt**

Water vol: **0 lt**

Product temp: **-1.0 °C**

Product level: **524.750 cm**

Water lev: **0.000 cm**

Cal. Type: **0 - 0**

Cal. inter. (cm): **0 - 0**

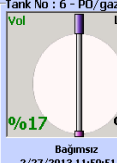
Cal. inter. (lt): **0 - 0**

Cal. sensitivity: **(%3162200000)**

Uncalibrated

Bağımsız
2/27/2013 11:50:50 PM

Tank No : 6 - PD/ gaz Otogaz - Kap. : 10,000 lt


 %17 %0

Level: **8060 lt**

Product vol: **8060 lt**

Product vol(Net): **8060 lt**

Ullage: **0 lt**

Water vol: **0 lt**

Product temp: **-1.0 °C**

Product level: **80.600 cm**

Water lev: **0.000 cm**

Cal. Type: **0 - 0**

Cal. inter. (cm): **0 - 0**

Cal. inter. (lt): **0 - 0**

Cal. sensitivity: **(%7557200000)**

Uncalibrated

Bağımsız
2/27/2013 11:50:51 PM

Last Deliveries of the Station :

Starting Time	Ending Time	Tank No	Product	Volume Before Delivery	Net Volume Before Delivery	Volume After Delivery	Net Volume After
<No data to display>							

Turpak - TankOMat V2.2.0.116

Automation

Audit Log...

Invent...

Calibrat

Leak De

Invoice

Configu

Repo

Othe

Kalibrasyon - Petrovend 1 - Bx

Tank Calibration Process Tank Calibration Info

Calibration (Dynamic)

No	Product	Manifold/Syp...	Diame...	Capacity(lt)	Active	Progre...	Range (C...	Range (lt)	Starting Time	Ending time
1	DIESEL	Independent	260	50000	YES	1 / 6	190 - 205	39472 - 690...	22.07.2014 10:43	
2	REGULAR	Independent	260	50000	YES	2 / 6	127 - 221	24790 - 102...	22.07.2014 10:43	
3	SUPER	Independent	260	50000	NO	6 / 6	24 - 239	2423 - 4817...	22.07.2014 10:43	30.08.2014 03:

Start

Stop

Prepare Chart

Show Chart

Fix Chart

Update

Close

Service Status : ●

Close Program

Service Status : is running NumOfRecords in Queue : 0 Inventory info period : 30 min. Alarm info period : 2 min. Inventory info period : 30 min. De

Vehicle Identification – RFID Solution

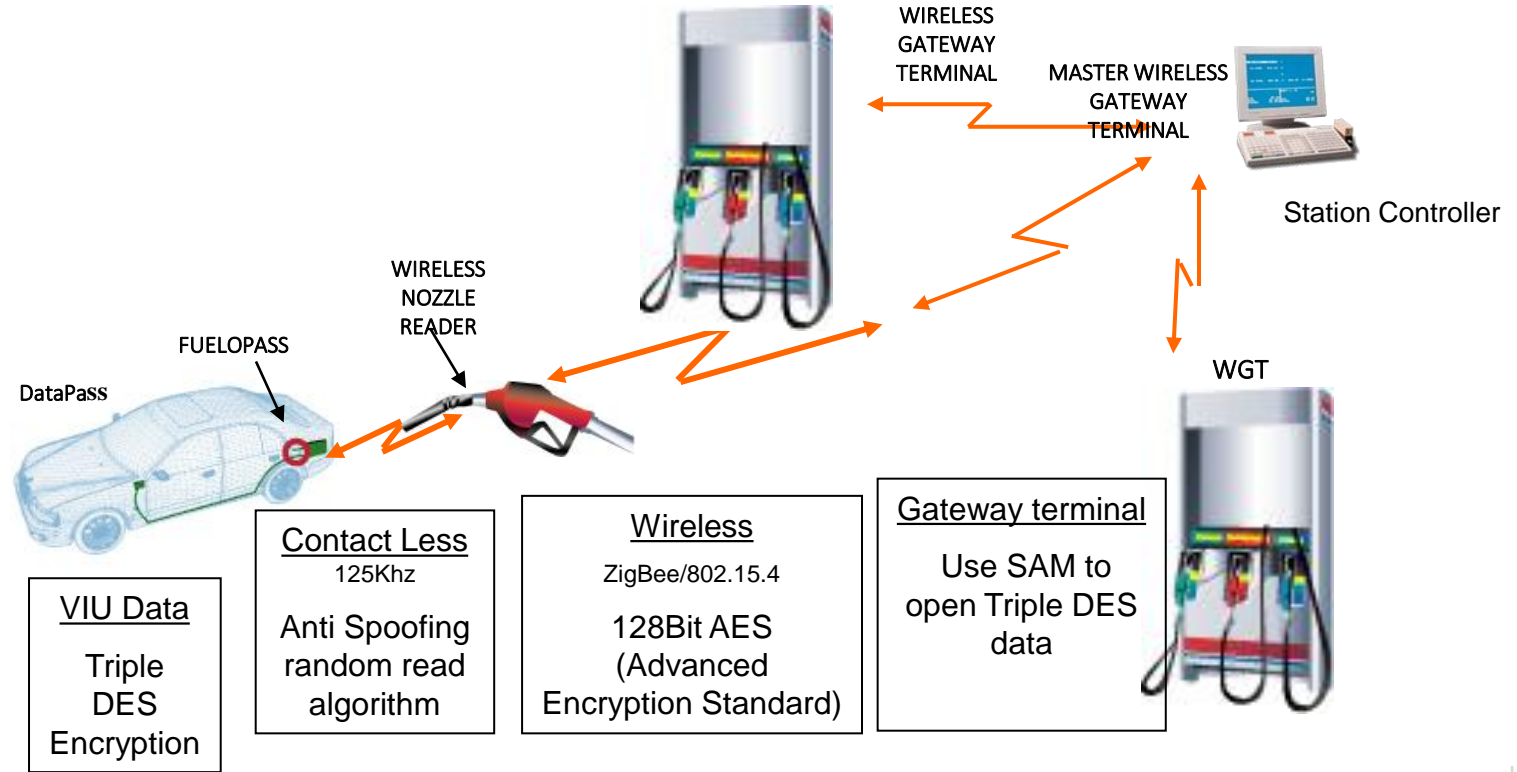
Vehicle Identification – RFID Solution



- Automated refueling
- Prevents deviation
- Fuel Usage Control
- Efficient use Of Time & manpower
- Accurate Reporting
- Available for all type of fleet vehicles
- Smart-card technology
- Encryption - Triple DES
- Protected against removal
- Advanced power saving



Vehicle RFID Automation System



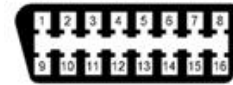
RFID Components

RFID vehicle identification tag



- Automatic refueling
- No card, ticket and ledgers
- Prevents Fuel Fraud
- Fuel Usage Control
- Efficient Use Of Time & Manpower
- Accurate Automatic Reporting
- Available for all type of fleet vehicles

Data Pass Units – ODO meter or Running hours



OBD 2 ports



OBD 2 Datapass



- Fetches ODO meter information
- Merges it with RFID transaction
- Availability of reports.

Mobile Unit Automation

Tanker Truck



- Automatic refueling
- Transactions can be monitored at HO
- Accuracy of the sales
- HO can authorize the transactions

Modification required

- Modification of compartment
- Install Solenoid valve
- Installation electronic meter
- Modification to compartment

 www.bahwancybertek.com

 twitter.com/BCTGlobal

 facebook.com/BCTGlobal/

 linkedin.com/company-beta/206605/