

SOLUTION DESCRIPTION

Any person with its own operated fuel stations requires thorough management capabilities from the pump to the fleet vehicles. Our Management Solution for Mobile Bowsers offers complete bowser automation for both attended and unattended bowsers. It controls dispensers, tanks, using ruggedized controllers and Orpak's field proven **SiteOmat™** software, enabling a variety of fueling authorization and payment options.

It has an interface with XP payment Server which help fleet owners to monitor their investment done in their business in terms of fuel. Fleets can use automatic vehicle identification with a tamperproof RFID solution for fueling authorization. Geofencing enabled in Bowser enhances fueling to be done at correct and known customers Vehicles or assets. The system is designed in such a way that authorization happens only if known coordinates received from GPS device are validated. Vehicle Identification System is a unique technology which is designed to identify, enable and ensure secure transactions to happen once nozzle is inside fuel tank.



Orpak Bowser automation system creates the strongest loyalty between the fleet and the retailer, unmatched by any other fleet payment solution, with 100% of transactions being exclusive to the retailer.

KEY POINTS

- GVR/ Orpak is Empaneled with IOCL for bowser automation.
- Trusted and existing automation, Dispenser, ATG, Top Loading and other VAS service provider for IOCL/ Dealers.
- Sole RFID solution provider for IOCL (PESO Approved Solution) and leader globally.
- Xtra-Power integration enabled RFID
- Huge Service Force, to meet onsite maintenance requirements.

BENEFITS

- Reduces fuel and operational costs, losses, and ensures optimal fuel distribution
- Comprehensive fuel management through RFID solution
- Automated operations with real-time insight on bowser status
- Complete control of fuel usage while reducing fuel expenses, misuse, and losses

SOLUTION COMPONENTS

OrTC Truck Controller

OrTC is a mobile fleet fueling controller specifically designed for installation on fuel tanker trucks. Housed in a ruggedized box for harsh conditions and extreme temperatures, it features cushioning shock absorbers that dampen vibrations in severe driving environments. The unit controls, monitors and stores on the spot refueling data. It is designed to capture all fueling transactions done on the bowser. Truck controller is integrated with Oil Company Servers



Router with Modem

Router creates a network in the system while the modem connects that network—and thus system to the internet. Router has a USB port to connect with USB Modem. It works on 12V DC which is perfectly suitable for installations in Browsers.

WGT- Wireless Gateway Terminal

The Orpak WGT Wireless Gateway Terminal is Orpak AVI's key building block that covers the entire bowser unit. This creates a robust and reliable network that covers the entire automation Equipment's installed on the fuel bowser to ensure .All the messages reaches their destination, bypassing any possible physical interference or frequency jamming.



Nozzle Reader

The nano Nozzle Reader (nNR) reads the Orpak AVI Vehicle ID units using contactless technology. It then uploads the encrypted data over Orpak's Wireless network to the bowser automation system/ head office for refueling authorization. It is designed to withstand harsh environments and resist mechanical impacts, this self-contained unit fits directly onto the fueling nozzle and requires not wiring or external power source. With a universal installation kit that fits all common fueling nozzles – reducing installation and maintenance efforts. The nNR also maintains a clean industrial design that seamlessly blends with the fuel dispenser.

Vehicle RFID unit (Tamperproof Solution)

The NanOpass is a new passive vehicle identification tag, an RFID chip and antenna in one compact unit that is typically installed next to fuel inlet. With its minute size and extreme ease of installation, the NanOpass has been designed for mass deployment of the Orpak AVI for bowser automation solution. The tag is highly secure and tamper-proof, including a tamper-resistant feature that disables the unit upon any attempt to remove it from the vehicle.





OrTR Tag Reader

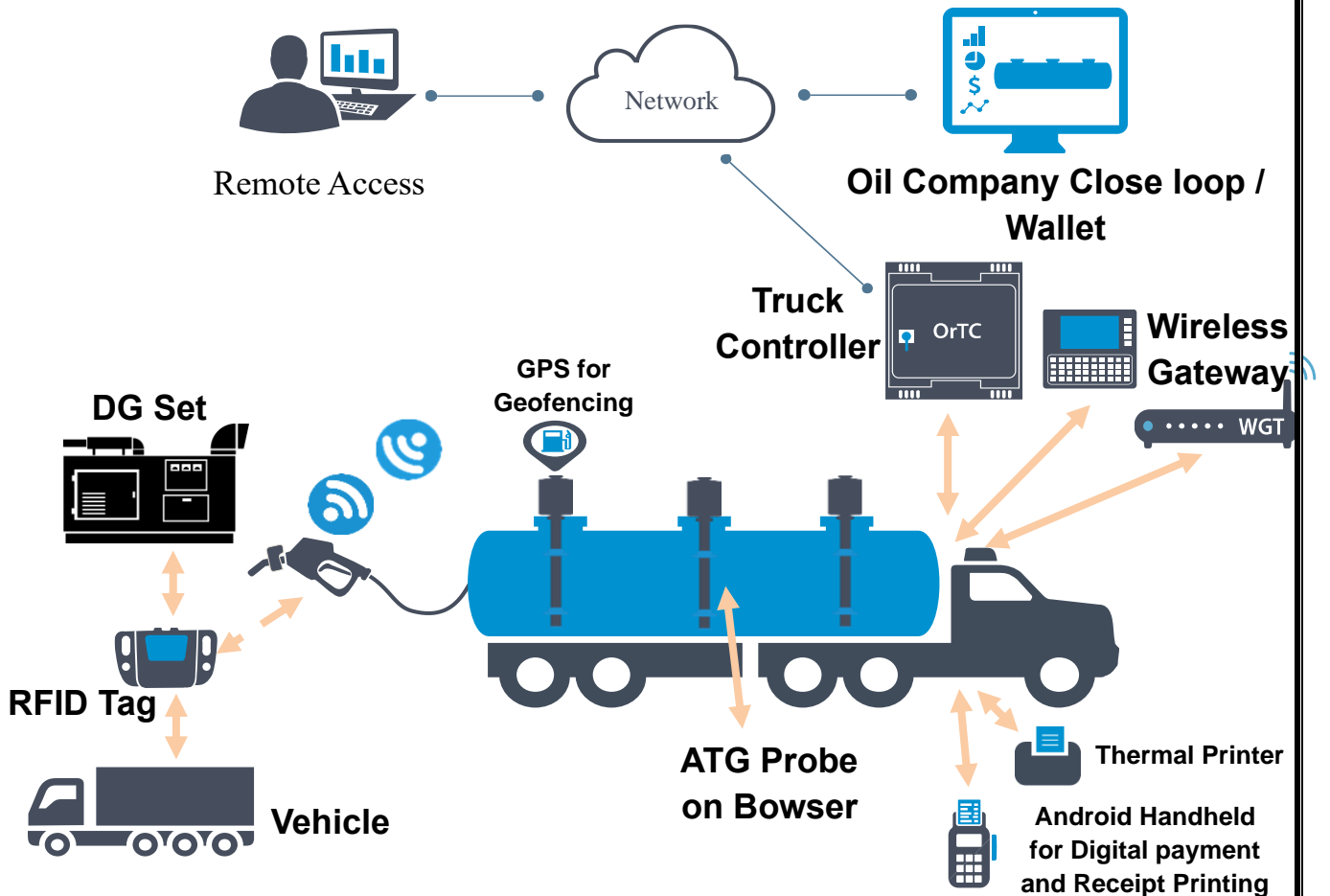
The Orpak Tag Reader (OrTR) is a versatile unit enabling preset facility to dispensing units installed in the bowser. It also helps to enable fueling authorization to authorized fuel attendant deployed with the mobile bowser. It has an alpha Numeric keypad helping in entering the numbers/ alphabets with much ease.

GPS Device

GPS device is securely installed in order to enable geofencing. This feature thus help to authorize fueling only when the Bowser is available in the customer marked locations.



SYSTEM ARCHITECTURE



OrTC
Truck Controller

WGT
Wireless Gateway
Terminal

nNR
Nano Nozzle
Reader

RFID Tags

Type	Industrial Grade Solid State Controller	RF Based	Dual Frequency Self Contained RF transceiver	Passive, RF;Low Frequency
Interfaces	RS-485, RS232, LAN, Dispenser interfaces for all common electronic dispensers			
Operating Voltage	12V DC	12-32 VDC	3.6 VDC	Passive Device
IP Rating	Need to Check	IP 54	IP 67	IP 54
Operating Temperature	-10°C to +60°C	-40°C to +60°C	-40°C to +60°C	0°C to +50°C
Humidity	80% non-condensing			
Certifications	-	UL, CE, ET, ANATEL	PESO, ATEX	PESO, ATEX