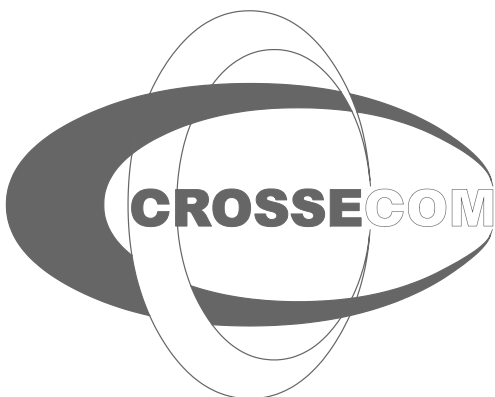


# MobiFill

Electronic Mobile Fuel Delivery & Fleet Usage System



RETAIL FUEL SOLUTIONS  
CARD PAYMENT SYSTEMS  
RFID APPLICATIONS



## System Components

### VEHICLE TAG

This is a small batteryless electronic data storage unit (20-50mm in diameter) epoxied to the vehicle near the fill pipe. It can contain information such as vehicle details, owner identification, driver identification, fuel type etc. The tag uses RFID contactless communication techniques to release its details to the authorising reader. This technique employs two-way authentication allowing only genuine authorised tags to ensure the correct fuel is pumped into the authorised vehicle. To prevent fraud, a high security challenge and response crypto-algorithm is used.



### NOZZLE ANTENNA / READER

The antenna, mounted conveniently on the dispensing nozzle spout, comprises a small loop antenna with its low power electronic components. It is connected to the reader (mounted inside the pump housing) via a special petroleum resistant cable.

An optional panel reader (with or without pinpad for odometer entry if required) can be mounted on the pump itself for driver identification purposes. It can also be used to authorise fuel deliveries if the additional security offered by the vehicle mounted tag is not required.

### CONTROLLER

The System Controller stores information on all authorised vehicles and their respective owners as well as the fuelling requirements for each vehicle. This information is continually updated and shared between all devices on the network using the cellular network.

The Site Controller checks the data obtained from the tag against available information on that particular vehicle to determine if fuelling is permitted. In the case where the vehicle is not authorised for fuelling or if it has been reported stolen or missing, a suitable alert can be raised.

This system enables vehicles to be fuelled even if communication with the Head Office system is temporarily unavailable by keeping a local copy of the database, but will be updated as soon as communications is restored.

Sales and other events are transferred to Head Office for reporting and analysis



### HEAD OFFICE

The Head Office System comprises a number of different applications that control the overall operation. These applications are responsible for the tag information database & authorisation process as well as the production of various management reports for sales, vehicle usage, GPS mapping of events etc. Exports to third party systems are supported

RECORD: GULFT 03/09/2013 [NT] Logoff				Terminal Activity Report			
TERMINAL ACTIVITY REPORT - [DATE]							
KCT:10002 m	03/07/2013 21:15:35	Exception	Site-MOB	160 MF Status: Fault 'CG'			
KCT:10002 m	03/07/2013 21:16:13	Exception	Site-MOB	160 MF Status: Fault 'C'			
KCT:10002 m	03/07/2013 21:16:43	Exception	Site-MOB	160 MF Status: Fault 'CH'			
KCT:10002 m	03/07/2013 21:16:43	Exception	Site-MOB	160 MF Status: Fault 'C'			
KCT:10002 m	03/07/2013 21:16:44	Exception	Site-MOB	160 MF Status: Fault 'CG'			
KCT:10002 m	03/07/2013 21:17:22	Exception	Site-MOB	160 MF Status: Fault 'C'			
KCT:10002 m	03/07/2013 21:17:43	Sale	Vehicle	RTG-KC02 Diesel 102.00			
KCT:10002 m	03/07/2013 21:17:53	Exception	Site-MOB	160 MF Status: Fault 'CG'			
KCT:10002 m	03/07/2013 21:18:31	Exception	Site-MOB	160 MF Status: Fault 'C'			

## Benefits of MobiFill - to Fleet managers / owners

- ◇ ensures fuel actually pumped into correct machine
- ◇ better monitoring of fleet fuel consumption
- ◇ improved data collection
- ◇ reduced errors due to minimised human intervention
- ◇ elimination of plastic cards or paper coupons
- ◇ minimisation of fuelling to non-authorised vehicles
- ◇ elimination of stolen cards problem
- ◇ reduced disputes on unauthorised fuel transactions
- ◇ reduction of manpower requirements
- ◇ 24x7 operation
- ◇ auditable "Super tags" allow filling of un-tagged vehicles
- ◇ full auditing of every litre of fuel dispensed
- ◇ online GPS tracking of vehicles and events
- ◇ allows vehicle performance analysis
- ◇ **EVERY LITRE PUMPED IS AUTOMATICALLY RECORDED TO AN AUTHORISED TAG OR SUPER TAG**

## to drivers / machine operators

- ◇ reduced process time
- ◇ elimination of paperwork and logbooks
- ◇ elimination of signed chits or plastic cards
- ◇ no disputes over fuel allowances
- ◇ automatic vehicle/machine identification

### SOME OTHER PRODUCTS AVAILABLE FROM CROSSECOM

**ISSAS** — Integrated Service Station Accounting System comprising a comprehensive suite of applications covering the full range of retail automation requirements.

**CrossGAUGE** — Automatic Tank Gauging System. Fuel tank monitoring and management, utilising Cloud or Stand-alone mode.

**CrossESEAL** — Sealed Parcel Delivery System. Protects and tracks bulk fuel transportation and delivery.

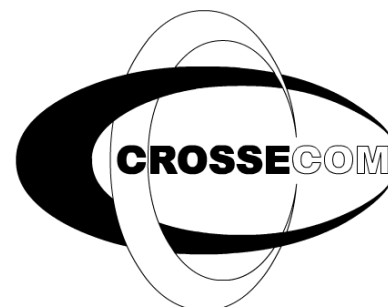
**FastFill** — Electronic Fuel Delivery and Fleet Usage System. Utilises state of the art RFID technology. Certified Intrinsically Safe.

**VeriFill** — Stand-alone fuelling authorisation, monitoring and recording system. Fits to any electronic pump.

**MobiFill** — Mobile Tanker Fuelling Station. Update and monitor fuelling details and locations from anywhere in the world.

**RECARD** — Fleet Fuel Accounting System. Issues cards, statements and reports. Secure Cloud Server.

**Custom Hardware** — Design and production of unique and specialised components for the forecourt.



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