



FastFill Presentation

By **CROSSE**COM



Fuelling Excellence in RFID Solutions and Retail Automation



A grayscale image of a city skyline at night, with numerous skyscrapers illuminated and their lights reflecting on a body of water in the foreground. The image is semi-transparent, allowing the text to be clearly visible.

FastFill

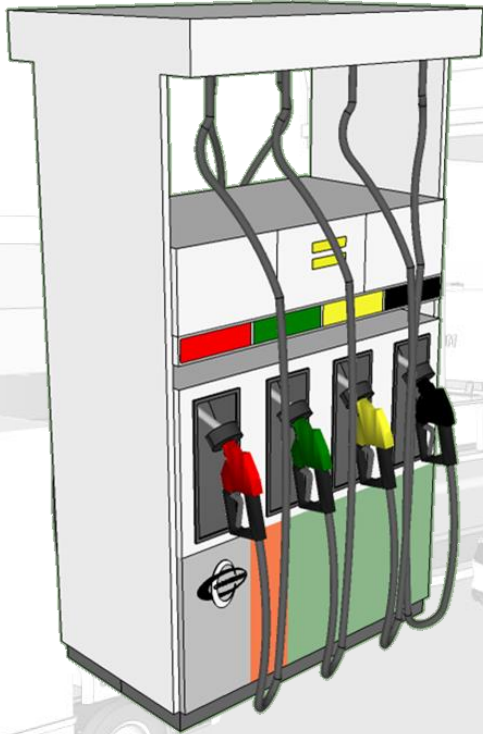
Electronic Fuel Delivery & Fleet Usage System



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Introduction









- ✓ RFID Fuelling Dispenser
- ✓ RFID Verification Technology
- ✓ Fast Fuelling of Vehicle
- ✓ Multiple Depot / Fuelling Site
- ✓ Paperless Fuelling Transaction



Product Features


-  Uses RFID contactless technology to eliminate fraud
-  Holds Aust. Govt Testing Authority issued “Certificate of Intrinsic Safety”
-  Speeds up fuelling vehicle at the pump
-  Eliminates fuelling paperwork, wallet or purse completely
-  Uses passive batteryless tag requiring no connection to the vehicle electrical system
-  Requires no hole drilling in the vehicle body

Product Features

-  Easy, simple, quick and inexpensive to fit—little downtime
-  Has virtually unlimited life for batteryless vehicle tag
-  Tags are rendered inoperative if removed from vehicle
-  Optional pinpad odometer reading entry for fuel usage reporting
-  Optional pinpad for driver ID entry for identification and reporting
-  Virtual tank levelling (when used with Crossecom FASTFILL site system)


System Features

 Minimises filling attendant intervention

 Reduces fuel shrinkage

 Optimises control over fuel sales

 Reduces filling process time






 Improves fleet fuelling security



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System Features

-  Ensures only authorised vehicles are filled with correct fuel
-  Allows budgeting of fuel usage for individual vehicles or groups
-  Eliminates need for logbook documentation
-  Provides full audit trail
-  Allows emergency fillings of non-authorised vehicles when necessary — with full audit trail

Report

Usage Colour Scale (Gallons) 0 < 55 < 110 < 165 < 219 < 274 > 328

Site	Terminal	Date	Pump Hose	Start Hour																								Day Total
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
KCT	10002 m	Thu	01/08/2013	1/1						236	175	268	62	116	137	104	136	6	220	44							1693	
		Fri	02/08/2013	1/1						199	20	194	66	265	118					3							1133	
		Sat	03/08/2013	1/1						180	264	224	61	252	236	37		170									1870	
		Sun	04/08/2013	1/1						158	243	257	56	169	234	38			2								1157	
		Mon	05/08/2013	1/1						103	216	251	112	101	128	223	71	14	124								1343	
		Tue	06/08/2013	1/1						248	261	184	152	244	253		189	231	102	13							1876	
		Wed	07/08/2013	1/1						218	262	218		92	197	125	259		155	124							1651	
		Thu	08/08/2013	1/1						67	209	271	181	46	175	288	101	73	146								1886	
Grand Total (Gallons)										1340	1777	1805	800	1496	1592	702	941	688	847	495	146						12609	
Grand Total (%)										10.6%	14.1%	14.3%	6.3%	11.9%	12.6%	5.6%	7.5%	5.3%	6.7%	3.9%	1.2%						100.0%	

✓ Sale Enquiry

✓ Sale Map

✓ Sale Heatmap

✓ Exception

✓ Dashboard

System Component

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.



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System Component

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.



System Component

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.



System Component

Controller

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.



System Component

2

Regular **CROSSE.COM**
Diesel
Super **CrossFLOWER**

Photos



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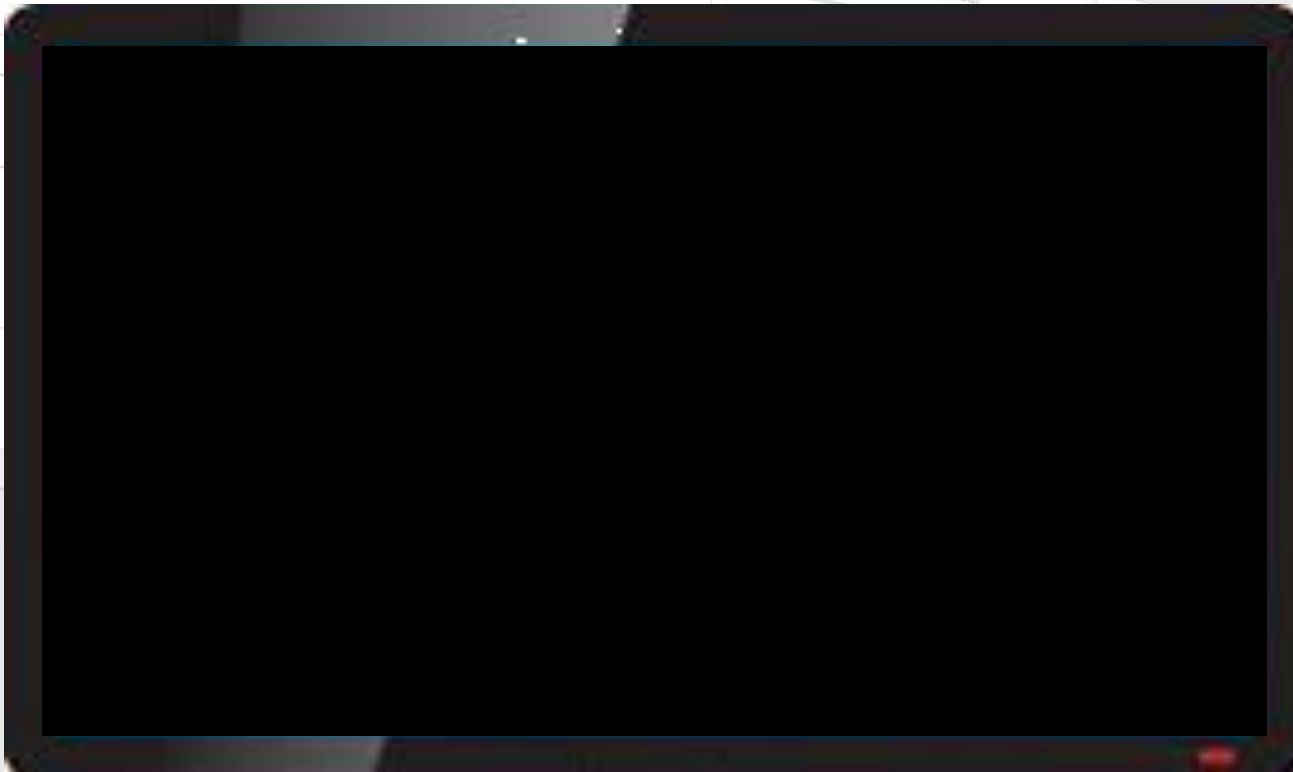
System Component

Head Office

TERMINAL ACTIVITY REPORT - [DATE]						
KCT:10002 m	03/07/2013	21:15:35	Exception	! Site-MOB	160 MF Status. Fault 'C'	
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 'C'	
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 'C'	
KCT:10002 m	03/07/2013	21:18:31	Exception	! Site-MOB	160 MF Status. Fault 'C'	

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 etc. Exports to third party systems are supported.

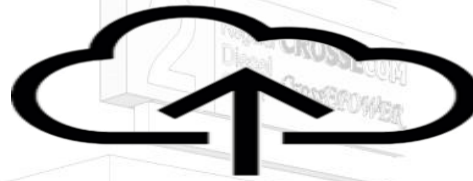
FastFill Site View – Fuel Depot Site



- Buses
- Securities
- Tankers
- Taxis
- Trucks
- Others



Brief Process



Fuel Station



Vehicle



Verify



Leave Site



Secure Web



FastFill



Read Tag



Start Fuelling



Transmit



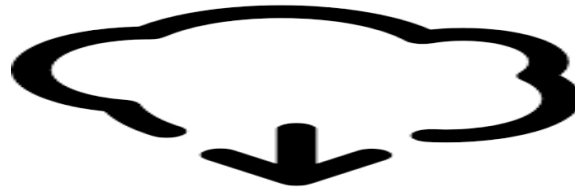
Real-time



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Brief Process



Depot/Site



Supervisor



Fuelling Info



Easy Access



Manager



Efficient



Access Server



Reports



Anywhere








Devices








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Benefit of FastFill – To Fleet Manager & Owner

-  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






Benefit of FastFill – To Fleet Manager & Owner

-  Minimisation of fuelling to non-authorized vehicles
-  Elimination of stolen cards problem
-  Reduced disputes on unauthorised fuel transactions
-  Reduction of manpower requirements
-  24x7 operation

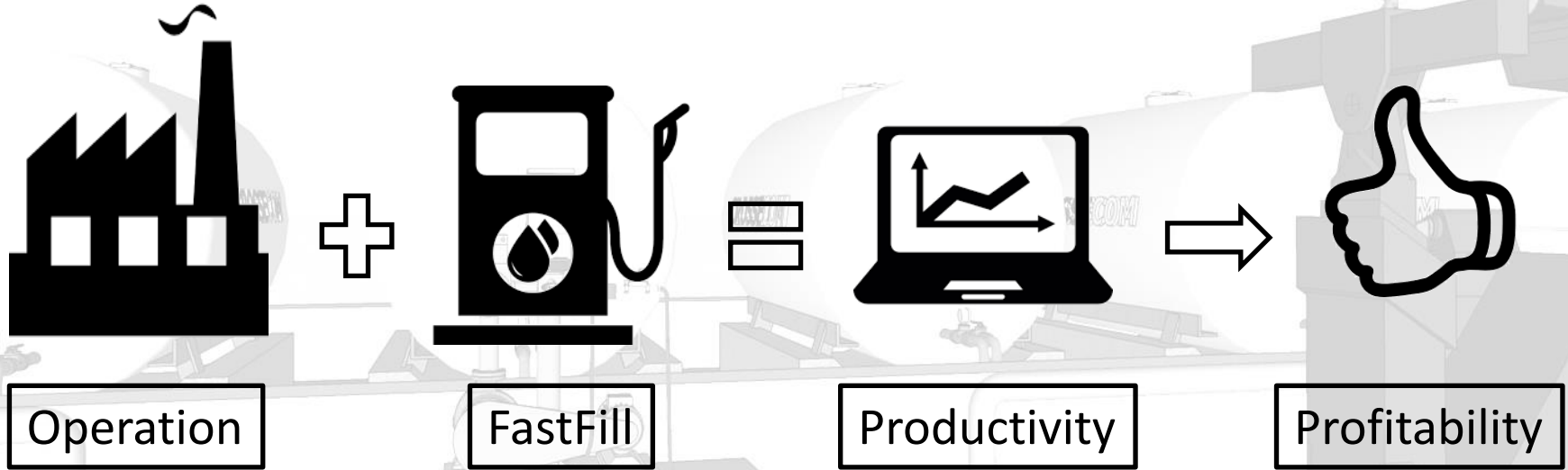
Benefit of FastFill – To Fleet Manager & Owner

-  Auditable “Super tags” allow filling of un-tagged vehicles
-  Full auditing of every litre of fuel dispensed
-  Allows vehicle performance analysis
-  **EVERY LITRE PUMPED IS AUTOMATICALLY RECORDED TO AN AUTHORISED TAG OR SUPER TAG**

Benefit of FastFill – To Driver & Operator

-  Reduced process time
-  Elimination of paperwork and logbooks
-  Elimination of signed chits or plastic cards
-  No disputes over fuel allowances
-  Automatic vehicle/machine identification

Benefit of FastFill – To Business Owner



Crossecom (Australia) Pty Ltd

Over 25 years of Retail Fuel Industry Experience

Clients to have used Crossecom systems since 1984 include:

Bechtel (Malaysia)
Singapore Petroleum Corporation
Shell (Singapore)
BP (Singapore and Malaysia)
BH Petrol (Malaysia)
Hindustan Petroleum Corporation (India)
ESSO (Australia, Singapore and Malaysia)

Emarates Petroleum (Dubai)
Kuwait National Petroleum Corporation
JomoGAS (Jordan)
Conoco (Malaysia)
Duty Free Stores (Okinawa)
Public Bank Berhad (Malaysia)
American Express (Malaysia)

Our products and services include:

Retail Automation - ISSAS
Point of Sale Hardware and Software - TouchPOS, FuelPOS
Protection of goods in storage and transit - CrossESEAL
Radio Frequency Identification (RFID) - FastFILL Automated Fuelling System
Latest;
CheckFILL- Patented Technology for NGV/CNG Industry
visit us on: www.crossecom.com.au



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A grayscale image of the Chicago skyline at night, with the city lights reflecting on the water in the foreground. The image is semi-transparent, allowing the text to be clearly visible.

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Thank You



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