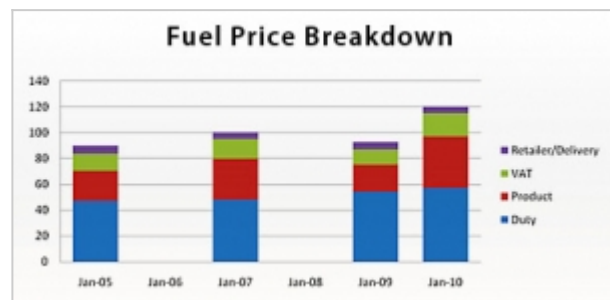
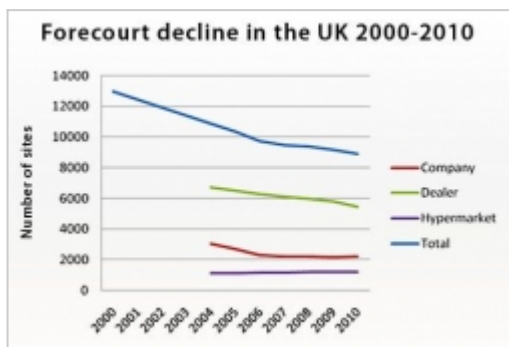


Petrol PLAZA

Cloud computing - a new technology for efficient site management



Over the last ten years wireless communication systems and internet technology have matured to provide information anywhere anytime. In an age where more and more data management is being handled using cloud computing many retailers are confused as to what benefits the new technologies can bring to their operations. In this article we look at the technology available for the management of forecourt businesses.

Changes in the market need changes in technology

Over the last ten years there have been many changes in the petrol retailing market with a strong move away from small independent garages with workshop facilities. In many cases the sites have simply closed down entirely or stopped selling fuel. The remaining sites are now generally mini supermarkets attached to a petrol forecourt. Although some of these still operate successfully as single site independent companies there has been a noticeable trend towards the formation of small to medium sized groups of sites being operated as a single company. This has happened in both the franchised sector and the independent sector. For example an oil major in the UK operates on a multi site licence and an increasing number of independent groups in both the UK and Germany operate with 25 to 100 sites. The growth of the independents has often been accelerated by oil company divestment in the retail sector although this may not be apparent to the customer as the newly independent sites may continue to trade under the oil company's logo.

The decline in the number of forecourts in the UK 2000-2010

So from operating a single site in a stable market the typical forecourt operator is now running a business with multiple sites and perhaps a total turnover of well over €100 million. For the oil companies which still have franchise operations and for the new independent groups the same

question arises, “How can I manage my network and have up to date, reliable, financial information available?” The days of sending your accountancy data to an accountant at the end of the month and then waiting several weeks for a financial report are over. With very low profit margins real time reporting is required to react quickly to changing conditions and prevent the business failing.

Fortunately at the same time these changes have been taking place in the forecourt market there have been equally dramatic changes in communication systems and internet technology. These developments can be used to provide the real time management tools needed by today’s forecourt operator. In the sections below we look at some of the technology now available.

Internet enabled POS / BOS systems

POS / BOS system have become increasingly complicated as the cost of technology has come down however in the past users have often failed to benefit from their stock management capabilities. In many cases after buying a new POS / BOS system the individual site operator quickly becomes tired of manually updating product barcodes and the quality of the data in the system rapidly deteriorates. With the latest internet enabled systems it is easy for the operator of a network of sites to:

- Update product prices and barcode data remotely at all sites in the network.
- The POS / BOS will automatically place orders with suppliers when stocks are running low.
- Extract sales data in real time for import into other financial reporting systems.

Online accountancy systems

Traditionally most retailers have employed an accountant to prepare their accounts and tell them how profitable their business is however this information is often months out of date when it arrives. An alternative is to use standard accountancy software to prepare the accounts yourself but this can be difficult to use and is usually not well designed for a retail business making it an unrealistic option for most people.

The solution is to use an online accountancy system designed for the forecourt market.

To minimise data entry errors and reduce inputting times information can be imported from the EPOS / BOS system and from supplier’s electronic invoices/statements. Typical information which may be captured in this way is shown in the table below.

Source	Information
EPOS system	Sales Method of Payment (Credit Cards, Account Customer etc.), Payments out, Bankings
Back Office System (Stock Control)	Stock Data Stock Purchase Invoices (if available, often only delivery note data is held)
Electronic invoices and statements	Invoices (This is usually better quality data than that from the BOS).

In a franchise operation where most supplies are direct from the franchisor or their preferred supplier it may be possible to reduce data inputting times by up to 90% when importing the data shown in the above table.

An online accountancy system can be accessed from anywhere using a standard internet browser. When combined with the latest mobile communications technology many new ways of working become possible. For example:

- Data can be imported from the POS / BOS system on site by a senior cashier. This deskills the work reducing the need to use a bookkeeper or accountant to enter data.
- A laptop computer with mobile internet connection can be taken from one site to another for data entry to be made. This may be cost effective where internet connections and computers are not installed at all locations.
- Head office can upload data from the site and import all data into the accountancy system at the head office.

In the first two cases all paperwork is entered at site and does not need to be sent to an accountant or head office meaning that it is always on hand at the site for future reference.

Once all data has been imported or entered it can be used to instantly produce up to date management reports which can be viewed by different levels of management from the office, at home or on the move. For example territory managers can carefully monitor the performance of a new franchisee in the first few difficult months of operation. Catching problems early on improves the operation of the site increasing profits for both the franchisee and franchisor, clearly a win-win situation.

Off site data storage

How safe is your data? Financial and safety records need to be stored for extended periods to comply with legal requirements, for example six to ten years for accountancy records depending on the country. In many cases off-site storage of the physical documentation is not practical however data files can easily be copied to an off-site data vault.

In the case of an online accountancy system no data is stored on the local computers, instead data is saved to servers housed in a purpose built server farm. High integrity backup procedures are implemented including redundant hard drives, on and off site tape backups.

Wet stock management

Automatic Tank Gauge monitoring means that leak detection can be continuously monitored using either directly cabled or wireless probes. This saves considerable staff time and presents fewer health and safety issues when compared to manually measuring tank volumes daily with a dip stick and calculating fuel losses as was common practice 10 to 15 years ago. Combining volume gauges with temperature probes can also compensate for fuel volume shrinkage making fuel loss calculations far more accurate.

Signage

Fuel pricing poles are now commonly controlled electronically rather than by the operator climbing a ladder to change the price. Electronic advertising based on flat screen technology is also becoming

popular offering considerable cost advantages over a traditional poster campaign once installed. By analysing shop sales at each site remotely the head office can develop better site specific promotions, these can then be pushed out to sites electronically without the need to wait for printing and distribution of new posters.

Electronic shop pricing

The latest electronic edge pricing systems can be controlled remotely through the BOS and allow the possibility of changing prices from a central location to respond to shopper habits. For example having a special discount on some lines during the day or increasing prices during the night shift when customers are less price sensitive.

Remote training

Although training DVD/CD ROMs have been used for self taught training on health and safety, best management practice etc. for a number of years but there are situations where direct, one to one contact is required. In the past this has been costly and involved either site visits by the trainer to the site or the site operator and staff visiting a central training location. Various providers now offer remote access software which allows the trainer to interact directly with the trainee. The software allows both the trainer and trainee to see each other's computer screen and to talk through training examples as though they were at the same location. This has two major advantages:

- Training costs are reduced as neither the trainer nor the trainee has to leave their office.
- When managing one or more petrol stations the unexpected can always happen, an accident on the forecourt, delayed fuel delivery, staff off sick, all of which can cause a training session to be cancelled at the last minute. With remote training there is minimal cost penalty as the training session can be easily rearranged and neither the trainer nor the trainee has travelled a considerable distance to the venue before the cancellation.

CCTV

Again costs have come down and the quality of equipment improved in recent years. This can help in a number of areas:

- Having problems with fuel theft from your network of sites? Centralised monitoring of CCTV footage using number plate recognition technology can help to identify repeat offenders in an area and allow an up to date list of known cars to be distributed across the sites.
- Staff stealing from the till? A cheap and simple web cam installed above the till area to record activity and monitor staff remotely may be all that is required to cut down cash shortages due to theft. Alternatively more sophisticated systems time stamp footage against till activity allowing cashier actions to be matched to individual transactions.

Time to move forward?

As we have seen with the above examples recent changes in technology have made it easier to manage forecourts, reduce costs and improve profits in an era where profit margins are continually shrinking. Think hard about the way you are doing business and by adopting some of the technology

in this article you could you could soon be doing it better.

Adrian Sandbach has been involved in developing and installing forecourt accountancy systems for almost 15 years. He is Director of Operations with CV Retail Ltd. the developers of CounterBooks, an online accountancy system for the forecourt sector. The system has over 1,000 users operating under many different petrol brands including Shell, Esso, Pace, BP, Aral and Agip. The system is currently available in the UK, Republic of Ireland, Germany, Switzerland, Finland and South Africa.