Around 25 years ago, automatic retailing in America faced a crisis when the price of a vended soft drink had risen to an amount that was no longer convenient to pay with coins. Margins became stuck at artificially low levels, thus limiting growth.

The solution came with the dollar-bill validator, which revolutionised vending and fuelled strong growth for many years. Today, however, the US soft drinks vending industry is undergoing another revolution that promises to be even more dramatic.

“Cashless vending is the greatest innovation in vending for more than 25 years,” says John Powell, vice president of sales and marketing at Transaction Network Services (TNS), a major provider of data communication services for transaction processing.

After more than five years of hard work and a 10 million dollar investment, TNS recently won brand authorization from Pepsi and will be equipping some 10,000 vending machines across the United States over the coming year with its Synapse cashless payment terminals for wireless credit card processing.

Significantly, TNS also hopes to deploy the system in Europe and Asia.

Synapse cashless vending is a completely bundled solution offered by TNS that makes it easy for Pepsi bottlers and distributors to equip their vending machines. Installation takes 15 minutes (continued overleaf)
and involves mounting a combination card reader/note validator that is compatible with virtually all existing Pepsi machines. Mobitex modem is mounted as a separate unit inside the vending machine.

Achieving this status of exclusive supplier to Pepsi in the vending industry, took considerable dedication and effort on the part of TNS. Like all major brands, Pepsi manages every aspect of its branding and requires all suppliers to undergo rigorous trademark authorization, consisting of lab testing and market research trials, to ensure that the consumer experience is what Pepsi expects. The equipment that TNS supplies to Pepsi bottlers is now trademark authorized, and TNS is the sole supplier for cashless vending.

**Added value for bottlers**

"Cashless vending provides key benefits for bottlers," continues John Powell, "Initial field trials at convention centres, for example, show that credit-card usage ranges from 30 per cent to as much as 50 per cent for some machines. Usage at other high-value locations such as hotels is only slightly lower."

On average, the increase in sales was 22 per cent in the first eight weeks. This was obviously a key factor in the decision by Pepsi to roll out 10,000 units. Other important benefits include reduced cash handling and improved logistics and reporting.

The Mobitex solution supplied by TNS also provided some unexpected advantages. As the machines employ wireless communications, they are more mobile, requiring only a power source. This is a major benefit, for example, in a convention centre environment where up to 50 per cent of all vending machines are moved, and a fixed dial-up connection is simply not an option.

**Dynamic routing**

As specialists in transaction processing, TNS fine-tuned every aspect of system performance. Through Mobitex, transaction time for credit card validation is almost instantaneous. “Approval of credit-card transactions takes less than five seconds. There is no way people are going to stand waiting if the technology introduces any delay,” notes Charles Nelson, president and ceo of Velocita Wireless, which provides the wireless data communications via Mobitex for the cashless vending solution.

Another important point is that the transaction appears the same as a cash purchase for the bottler. “In effect,” says John, “we translate credit-card settlement into cash-based transactions. TNS can also provide reconciliation of all transactions all the way back to the last time the vending machine was filled.”

The patented TNS system allows route personnel to swipe a card telling the machine to reconcile its transactions so that TNS can report back to the bottler all credit card and cash sales. Electronic meters inside the machine count card and cash transactions, making the system fully accountable to the bottler. The report produced by the TNS system can be compared with the bottler’s own meter readings.

As all transactions are recorded, the system can determine when machines need servicing, allowing bottlers to take route management to the next level of dynamic routing. “Dynamic route management is still in its infancy,” reports John Powell. “At present, the data needed to monitor stocking of vending machines is not registered centrally, but rather recorded individually by drivers as they complete their routes. Now that bottlers are beginning to understand that cashless vending will significantly increase sales, we can move to the next level. With dynamic route management, costs can be reduced substantially in an industry with razor-thin margins. The potential is enormous.”