

# FOR THE MODERN POST OFFICE

A card that resembles a credit card. Is this the simple solution that will enable customers to access a post office's whole range of services?

Most national post offices have long provided money transfer services to their retail customers at modest cost. Starting with postal notes, then for larger amounts money orders, and more recently as agents for American Express or Western Union, the service now spans a range of amounts, speeds of transmission and distances. Fees have also grown, with customers paying a hefty premium for express and international services, but demand remains strong, especially for migrants who have a continual need to send money home to support their families, often in relatively small amounts.

The services to date have been based on a corresponding range of technology platforms, which have sometimes been quite a challenge to incorporate into the existing back office processes. Security has also been a major issue, especially for international transfers, with the result being that encashment at a destination post office is often not available. Counterfeit money orders and theft can be minimised without too much trouble, but more sophisticated frauds can result in large losses.

Retail banking service is another area where post offices have an important part to play, particularly in developing countries. Banking services can require substantially greater levels of security and record keeping, so computerisation is an essential implementation strategy.

The other branch of the modern post office's financial service provision is third-party agency activities, particularly bill payments. Over the past 15 years bill payments have become a lucrative niche despite competition from other organisations and more recently the internet, with some customers now having direct online access to their accounts.

The IQ Card technology now pulls these disparate requirements together, with a new level of security, efficiency and convenience, and provides some unique additional

features at an exceptionally low cost. Security is built in to the system from the ground up and each card has its own encryption engine, security keys and pin-pad functionality (including keyboard) right inside a physical format identical to any debit and credit card. A non-secure USB card reader is all that is needed to perform just about any of the usual financial transactions from a standard PC.

The IQ Card's redundant transaction servers are continually maintained, providing worldwide access through the internet at all times, and transaction processing is fast – just a few seconds – and always performed in real time. All transactions are digitally signed by the authorising card and immediately approved or denied based on the cardholder's authorisation parameters, account balance and exchange rates, for instance. Transaction processing costs are so low that electronic micro-payments are at last a practical reality.

Online accounts are continually maintained so that users can access account data, make payments and transfers, manage regular payments, print statements and modify access restrictions for subsidiary cardholders at any time. Cash deposits and withdrawals can be performed securely and very quickly over the counter. Purchases at point of sale can be accepted and verified immediately from debit and credit accounts. Bill payments are handled quickly at the counter by virtue of a fully integrated billing system. Payments can be effected immediately, at the due date or scheduled for a future date.

Transfers to and from existing bank

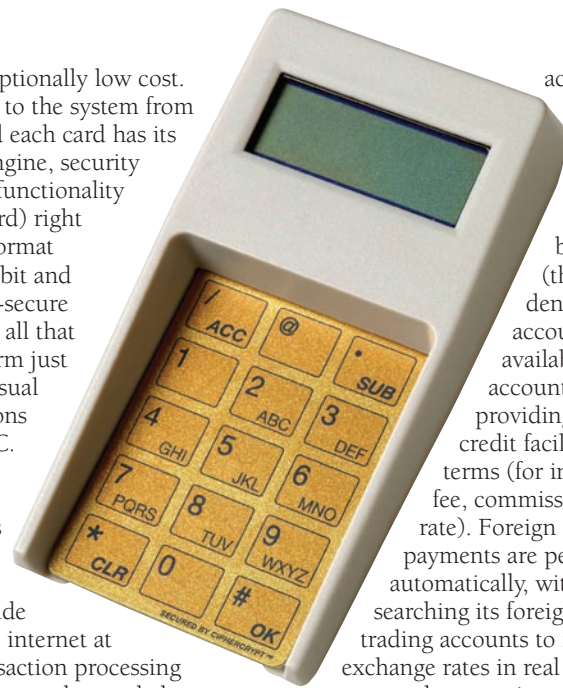
accounts are easily performed.

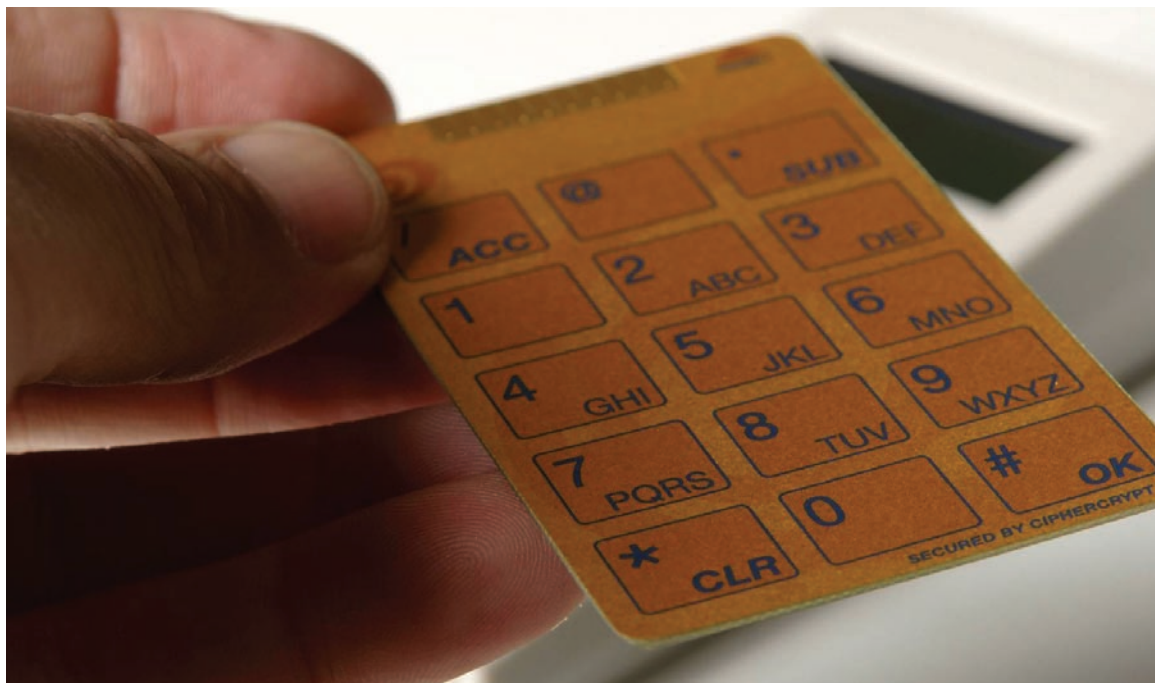
Debit accounts are the norm by default and accounts cannot be overdrawn (the transaction is denied).

Credit accounts are also available with another account holder, providing the actual credit facility on preset terms (for instance annual fee, commissions and interest rate). Foreign currency payments are performed automatically, with the system searching its foreign currency trading accounts to find the best exchange rates in real time. The payer, payee and transaction currencies may all be different.

Multiple cards may have access to the same account but with individual usage parameters, such as transaction limit, and the transaction record identifies each user. Multiple accounts (personal, family, club or corporate) may be accessed by the same card but with individual usage parameters. Using the same card and PIN to access a variety of accounts is a great convenience. Precise control by the principal account holder enables access privileges to be set, including transaction, daily and total spending limits, cash-in and cash-out limits, permission to attach other cards or modify privileges, and authority to view transactions and reports.

There is a simple interface to existing PC-based point-of-sale systems. User definable transaction codes may be assigned to each transaction to categorise payments and simplify the interface to existing accounting systems. Default codes can be set for each card to streamline the

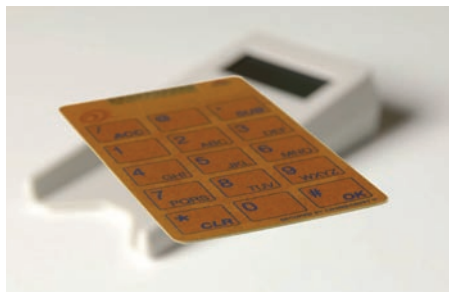




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process. Online invoicing is provided with various standard formats through to full import for use with third-party accounting software. Customer information may be assigned to each card and account so that the delivery address, for example, can be automatically captured at point of sale. Sales tax and VAT may be separately applied to any transaction and transferred automatically to a VAT holding account.

A user PIN between 0 and 16 digits may be set for each card depending on the required security level, and the user may change the PIN at any time. The PIN is stored only in the card and never transmitted to external devices. Photographic ID and signature may be electronically loaded into each card for additional security and independent identification requirements. Encrypted data



may be securely stored within the card so that it doubles as an electronic driving licence, passport or medical insurance card, or for building access or other security-critical applications.

The IQ Card and its transaction-processing infrastructure may be used in a variety of ways to suit the changing needs of a developing post office. At one extreme is a simple agency mode of operation where only counter staff are issued with cards and perform all transactions on behalf of their customers at the counter. Alternatively customers may be issued with their own cards but still visit the post office counter to perform transactions.

Later a self-service PC may be provided within the post office and customers who hold their own cards are encouraged to perform their transactions directly. As customers obtain internet access at work and home they need only obtain a low-cost USB card reader to perform transactions independently. This seamless progression can proceed at a rate to suit each customer.

Eventually local merchants that have internet access in their shops can accept direct payments from card-holding customers and also use their post office banking system online account to make payments to their suppliers.

Furthermore the IQ Card system accepts custom 'currencies' such as e-Votes where participants in an election are issued with an e-Vote by the electoral authority and 'pay' it to the candidate of their choice on election day. The results are known immediately (no counting is required) and the IQ Card's security and ID features ensure that only those permitted to vote are able to do so.

The IQ Card's flexibility, low cost and absolute security make it an attractive option for emerging and established postal administrations wanting to provide their customers with access to advanced financial services in today's internet-centric world. Hytech International is one of the early adaptors of this new revolutionary standard and will integrate the IQ Card technology in its Postal Vision postal services suite, as part of which the IQ Card will be marketed as the Postal Vision IQ Card.

## FIND OUT MORE

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