

e-Getting Paid!

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The recent proliferation of e-concepts for us all to get excited about is quite alarming, especially following as it does hard on the heels of every possible variety of 'net. So I shall start this article with an attempt at a general definition of the 'e'.

In practice 'e' means 'on-line' or 'via the internet', or more specifically 'through a web browser'. e-business is simply about conducting any form of business communication using internet technology, whilst the word commerce tends to imply financial transactions. Central to e-commerce is how you get paid, this article examines some of the issues and options.

On account payments

The simplest way to do e-commerce is to trade with known account holders through an online ordering system. In this model customers are credit checked in the usual way, given a username and password, and invoiced on a regular basis in the traditional sales ledger process. Payments are not usually made online but the system could still be highly automated in that the customer account database would generate the invoices. Another option would be to use the direct debit system to request payments direct from the customers bank account.

The account based model is the basis of much existing e-commerce activity in the business to business market. It is also quite appropriate for business to consumer transactions where a long-term commercial relationship is involved. The use of credit accounts clearly requires a degree of risk management.

Some companies reduce the administration and risks by requiring customers to make cash deposits into their account in advance of purchasing goods. This approach might also be tied into additional cash with order discounts. Cash deposits are, for example, the favoured method of gambling sites.

Credit cards

Taking credit card payments over the internet is the most obvious approach for business to consumer sales. A great many organisations are doing this already. Unfortunately the most common approach is to accept credit card details electronically, print them out, and then retype them into a conventional PDQ machine or even phone them in. This approach is at best inefficient, and probably in breach of a vendors existing merchant agreement. An existing merchant agreement with a bank does not automatically allow internet transactions to be processed.

The second approach to credit card payments is to use a specialist intermediary to process payments for you. Solution providers such as World Pay or PDMS Advanced Systems can provide a payment processing service in which they take the perceived credit risk associated with the internet and charge an appropriate percentage of the transaction value.

Finally for the most committed online entrepreneur, a fully fledged internet merchant agreement can be entered into with the credit card company. This, in conjunction with appropriate online clearance systems, is the most time consuming and capital intensive way to get going, but it is legal and may be the cheapest if volumes are large. A limited number of solution providers including PDMS Advanced Systems are authorised by the credit card companies to provide the automated clearance facilities to merchants.

Micro-payments

Another interesting challenge is the demand for micro-payment systems. Many more information services could exploit the internet as a delivery medium if they could operate effectively on a 'pay as you go' basis. Mass market entertainment, news or even advice services have huge potential given a cost effective micro-payment system. The main requirement is to make the process as painless as possible by removing any perceived barriers to using the service. Few people would object to paying fractions of a penny per minute to browse a high quality news site if it was easy to do and the service was good enough. Digital systems can, and are, being used to make micro-payments a cost effective payment collection method.

Digital currency

Another possible approach to electronic payments is some form of digital cash. We all accept that bank notes, no matter how tatty, represent a real value. The idea of digital currency is simply to substitute the bank note with some form of data packet representing the value in digital form. The main advantage of this over account based systems is the protection of privacy. Once spent, digital cash like conventional bank notes should not be linked back to the individual making the purchase. If the value of the data packet was independently verifiable it could function just like physical cash. Obviously digital cash should also be able to change hands over the internet. However there remain some significant problems with compatibility between different systems, fraud prevention and inexact payments.

In practice there have been a number of trials of systems such as Mondex where a form of digital cash is moved about using smart cards. These systems are effectively hybrids based around conventional bank accounts with mechanisms specifically built in to guarantee anonymity.

My personal view is that the problems of digital currency outweigh the benefits, and the existing banking systems will adapt to meet the challenges of e-commerce long before we see a cyber Euro or digital Dollar in general circulation. The problems of authentication and risk management associated with online credit card use, for example, are much easier for the

private sector to solve without universally accepted standards, whereas a digital currency must be both anonymous and universal to offer any real advantage.

There are considerable opportunities for services based on extensions to existing billing systems such as your phone bill. One day we may find ourselves doing our weekly supermarket trip on the internet and paying for it on our phone or electricity bill!

The next article in this series will focus on another important area of e-business.

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