Banking and Finance

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DEVELOPMENTS IN ELECTRONIC BANKING

The impact which developments in information technology have made upon industry have been no less significant in the banking sector. Anxious to reduce cost structures and conscious of a competitive and increasingly global market, Australian banks are now set to embrace new methods of providing traditional banking services. Two of these services are internet banking and the use of stored value cards or "smart cards".

INTERNET BANKING

Payment by credit card, debit card and "electronic cash" or "digital cash" are three possible methods by which the Internet can be used as a means of funds transfer.

The use of credit cards as a means of payment for low value Internet transactions is now relatively common. The major impediment to more significant use is concern over security. Interestingly, many people are quite prepared to give their credit card details over the telephone and also assume that their credit card details are safe with merchants and their employees. However, there is a general reluctance to send credit card details over the Internet. Security is certainly a problem, but with more sophisticated encryption techniques, it will become less of a problem in the future.

The mechanisms for achieving payment by credit card over the Internet are already in place. Parties can rely on standard merchant/bank and consumer/bank agreements, although the risk of the transaction will be worn by the consumer.

Payment over the Internet by debit card presents a greater security problem and will not be available until Secure Electronic Transmission (SET) protocols are adopted by Australian banks.

Payments by "electronic cash" or "digital cash" over the Internet are possible, although few Australian banks are presently making that facility available. Payments by the use of electronic cash can take place in a relatively secure manner by the use of public key and private key encryption. A person's public key is in the public domain but the corresponding secret key is known only to that person, something like a PIN number. A message which is encoded with a person's public key can only be decoded with that person's private key, and vice versa. Whilst there are a number of different electronic cash systems, the procedure will generally be as follows:

A bank will issue an electronic "coin" and encode it. The "coin" is in fact an electronic message and will contain details such as its value and identity of the issuing bank. It will also contain a distinctive serial number. When a customer requires access to a "coin" it sends in an encoded request whereupon the encoded "coin" will be issued by the bank upon being satisfied as to the customer's identity. The customer may then use the "coin" to acquire goods or services and make payment by forwarding the encoded coin to the merchant.

At the last stage of the trail (ie when the merchant receives payment) the merchant will present the coin to the issuing bank and receive payment. The coin will then be cancelled by the bank so that it cannot be used again.[1] Encoding by the use of public key and private key encryption along the various stages of the transaction ensures that the transaction is relatively secure.

It can be seen from the above account that electronic cash is not really "cash" in the usual sense of the term. It is nothing more than a series of agreements between bank/customer/merchant for achieving payment. The payment transaction does not take place in "real time". There is an analogy with EFTPOS and it may be

appropriate to provide for protocols for the use of electronic cash by amending the Electronic Funds Transfer Code of Practice rather than by creating any new legislation or other codes.

SMART CARDS

At the moment trails are being undertaken in Australia for the use of smart cards. There are various smart card systems.[2] Perhaps the most sophisticated is the Mondex International Ltd system which has now been licensed to the major Australian banks and no doubt will be used in future in this country. A smart card is essentially a card which contains a computer chip and into which monetary value is loaded. Some of the more sophisticated smart cards can be reloaded as required. Smart cards can be used by consumers to purchase a range of goods and services. We are used to primitive versions of them, eg. the pre-paid telephone card and the photocopying card used in tertiary institutions.

When the smart card is scanned through the merchant's computer, the value of the goods or services acquired by the consumer is transferred from the card to the merchant's computer. The merchant then presents the relevant credits to its bank and the bank credits the merchant's account accordingly. The card issuer's account is then debited with the value, and this takes place via the payment system. Thus the transfer of value does not take place in "real time".

As is the case with electronic cash, the value which is transferred under a smart card cannot be regarded as "cash" in the usual sense of the term because its efficacy depends upon the payment system (although there is one similarity to cash in that a consumer will not earn interest on the amount loaded on to his or her card). The transfer of value through use of a

smart card is actually analogous to EFTPOS. It remains to be seen what legal infrastructure will be put into place to govern smart card transactions, but as suggested above in relation to electronic cash, a sensible approach would be to vary the Electronic Funds Code of Practice and merchant/bank and bank/consumer EFTPOS agreements to cater for smart cards.

A problem at the moment with the use of smart cards is that there are many legal uncertainties which arise, mainly due to the fact that smart cards do not presently have a defined legal status. Probably by the time that smart card trials are complete in Australia, their function will b e absorbed into a multi purpose card such as the Multos system which encompasses a debit card, credit card, stored money, telephone and other facilities. This makes it all the more important to clearly identify all of the issues relating to the various facilities so that a workable set of protocols and legal infrastructure can be adopted for the use of the relevant card.

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1 For a detailed description of this process, see Alan Tyres "Virtual Cash — Payments on the internet;", Part 1 March 1996, Banking Law Journal, p35.

2 For a good summary of the development of smart cards and the resulting legal issues, see "Robin Edwards: "Questions on Stored — Value Cards (Smart Cards) that you were too scared to ask" Sept '96 Current Commercial Law, Vol 4. No. 2.

Press Release

AUSTRALIAN GOVERNMENT AWARDS EICON ENDORSED SUPPLIER STATUS

The Australian Government has awarded Eicon Technology the status of Government Endorsed Supplier, which formalises the company's reputation as a supplier-of-choice for government projects and includes all Eicon products in PE 64 and PE 65[1] government contracts. Eicon is one of only 400 organisations to have achieved Endorsed Supplier status since the program commenced in late 1994.

According to the Competitive Tendering and Contracting Group, which is part of the Government's Department of Finance and Administration, the Endorsed Supplier status gives recognition to companies operating on a world class level. The inclusion of a company's products in PE 64/65 contracts provides Australian government departments and agencies with greater access to such world class connectivity resources as those offered by Eicon.

To achieve the Endorsed Supplier status, Eicon Technology was required to demonstrate its long-term value-added activities in Australia as well as its financial viability and commitment to standards, quality and customer service.

Steve Jones, Territory Manager Australia/NZ for Eicon believes that, since the company established its regional headquarters in Australia earlier this year, its commitment to long-term activities in the Asia-Pacific region has been unwavering.

"With the support of the Federal Government's Regional Headquarters Program earlier this year, Eicon laid a strong foundation to pursue its regional investment strategies. The pursuit of Government Endorsed Supplier status was the next step in ensuring the quality and reputation of our products was recognised in a competitive market."

"The Government Endorsed Supplier status is further testament to our commitment to this region, and highlights the quality and reputation of our products, and the organisation."

Eicon's connectivity solutions have already been demonstrated in such Government departments as: the Department of Defence and Training, DEETYA (Department of Employment, Education, Training and Youth Affairs), the Australian Army, DTR (Department of Training and Industrial Relations) and the DSS (Department of Social Security), where a range of Eicon products have already been implemented.

About Eicon Technology

Eicon Technology is a worldwide provider of connectivity solutions for personal computers. The company develops, markets and supports hardware and software products for connecting PC-based servers, desktop PCs and notebook PCs to corporate networks, IBM host computers and the Internet. The products are sold in more than 70 countries through an extensive distribution network. For more information, visit Eicon Technology on the World Wide Web at http://www.eicon.com

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1 *PE64 contract* relates to **connectivity hardware**; and the *PE65 contract* relates to **software**.