Canada finds a paperless solution

Canada has been taking great strides in electronic banking recently. Paul C Churchill and Mike Redferne of the Toronto-Dominion Bank assess developments.

A largest companies have had some sort of operational exposure to Canada. As such, in reviewing and contrasting the key features of the Canadian banking system and looking at ongoing strides in electronic banking, it should not just be logging companies in British Columbia that need to keep an eye on developments in this market.

The Canadian banking system

Canada has one of the most efficient banking systems in the world. The five major Canadian banks have a nationwide geographic presence similar to that in the UK. Each of the five has 1,000 or more branches located coast to coast. The resulting network and direct clearing capabilities allow customers to minimise the number of banks they deal with, enabling payments to be processed quickly and efficiently. For the treasurer, there are distinct advantages to this system. Disadvantages arise, however, when the system is compared to UK and US banking systems.

Uniquely to Canada, there is no cheque float (ie, cheques clear with same-day value) for all Canadian dollar cheques deposited, enabling customers to earn interest or pay down loan positions with same-day value. To achieve this no-float environment, all entries are electronically posted (cleared) on an overnight basis. The customer is advised the following morning of their closing balance(s) for the previous day.

The downside of this system is that if an account is overdrawn there is no way to cover this on a backdated basis, just as there is no way of knowing what will clear the account until the next day. To address this issue, specifically in terms of corporates and organisations with a variety of accounts spread nationwide, overnight consolidation services such as zero balancing and other proprietary products that electronically consolidate In Canada, large national banks have developed robust electronic payment solutions to insulate the payment originator from differing levels of technological sophistication of trading partners

customer accounts, have been developed to allow customers to optimise their balances. These latter products can produce individual account reporting despite the fact that physical cash is transferred to a single consolidating account on a daily basis.

The no-float and overnight clearing environment means that controlled disbursement products to clear cheques are not required in Canada, unlike in the US. However, lock boxes are used in Canada because there is still mail float and as such they are used solely as a tool to access funds more quickly, rather than for forecasting as in the US.

In addition, unlike US banks, Canadian banks are allowed to pay interest on overnight balances and therefore an overnight net surplus position will earn interest. As a result, US banks have developed a set of sweep investment accounts to move surplus cash into overnight interest- bearing accounts to provide a facility to earn interest on overnight balances.

In Canada, unlike in the UK and US, there is not an intermediary to exchange electronic funds transfer (EFT) and eectronic data interchange (EDI) items. In the mid-1970s, given the small number of Canadian banks, the decision was made that this was not necessary and that banks would directly exchange their electronic files, providing a more efficient environment leading to a shortening of processing lead times. In the US, the ACH and, in the UK, BACS have been developed to allow the interchange of EFT transactions.

Table 1 provides a short summary of the similarities and differences between Canadian, UK and US banking systems.



Paul C Churchill



Mike Redferne

TABLE 1		Comparing banking systems UNITED STATES		
5 Major Banks	\rightarrow	Numerous Banks	\rightarrow	4 Major Banks
Nationwide banking	\rightarrow	Banking by state	\rightarrow	Nationwide banking
National branch network	\rightarrow	Limited interstate banking	\rightarrow	National branch network
No float on cheques clearing	\rightarrow	1-5 day float on cheques	\rightarrow	3-4 day float on cheques
C\$ + US\$ clearing	\rightarrow	US\$ clearing only	\rightarrow	Sterling clearing only
Interest paid on balances	\rightarrow	Investment sweep accounts	\rightarrow	Some interest bearing accounts
Banks self govern (Canadian Payments Association) (EFT, EDI)	\rightarrow	Government sponsored cheque clearing (ACH)	\rightarrow	Banks self govern (BACS, CHAPS, C&CCC)
Automated cash concentration or national direct deposit	->	Manual movement of funds between regional banks	->	Pooling and cash concentration
Proprietary electronic reporting systems				

Electronic banking

Although there are many factors that have contributed to the lack of success of electronic commerce adoption, loss of float on a company's cash position is at the top of the list. It's no wonder then, that Canada was, and is, uniquely positioned to migrate from paper cheque issuance to electronic disbursements. The absence of float impact combined with solutions that provide benefits to both the payment originator and the payment receiver has contributed to the 100% annual growth in this type of electronic initiative since 1994.

Electronic disbursements, better termed 'payables outsourcing', extends the offering of simple electronic payroll to a more robust offering that enables a company and the treasurer to disburse their entire payables requirements electronically. On implementation, the company becomes 100% electronic, finally achieving what EDI and electronic commerce promised to do (and is still trying to do) a decade ago. Pure EDI (the ability to exchange business documents electronically among trading partners) continues to fail due to the requirement that trading partners employ similar levels of technology. Payables outsourcing in Canada allows each trading partner to operate at their current level of technology.

What distinguishes business to business (B2B) e-commerce is the level of

detailed information required to support business transactions. In the consumer world, receiving a payroll deposit requires that one be informed of the amount, deposit date and payer. In the business world, where transactions are continually increasing in complexity, a supplier, on receiving payment, must be able to reconcile against invoices, potential discounts, damaged goods and so on. Although the payment originator is able to provide these details (witness the remittance stub of a cheque), the supplier or payment receiver would normally require advanced technology (software, translators and so on) to process the transaction electronically. These costs associated with the technology have limited the success or creation of an electronic trading world.

> Payment originators are finding that trading partners are signing up for electronic delivery of information at over 50% at programme inception

The supplier community (aside from a few giant organisations) has rejected electronic trading. Has this signalled the demise of B2B e-commerce or its predecessor EDI?

Robust future

In Canada, some of the large national banks have developed robust electronic payment solutions to insulate the payment originator from differing levels of technological sophistication of the trading partners. Although solutions vary, the successful service will include the following:

- the payment originator transmits a file electronically to the bank. The file structure can be customised (as direct output from SAP, Peoplesoft, JD Edwards and so on) or can be an open standard such as ANSI X12 or ediFACT;
- the electronic transmission is secured using encryption and authentication techniques (some Canadian banks provide this technology as part of their service);
- the bank verifies the transaction(s) and returns confirmation to the payer (usually within two hours of transmission – seven days a week, 24 hours a day, 365 days a year); and
- the bank then converts the electronic messages into the format desired by the trading partner.



The success of a payables outsourcing programme usually hinges on this last point. The more output alternatives that are available to the trading partner (payment receiver), the more likely they are to choose an electronic method, thereby lowering the payment costs to the originator. The most successful solutions will provide payment and remittance information in one of the following formats:

- cheque;
- e-payment with faxed remittance;
- e-payment with paper remittance;
- e-payment with e-mailed remittance;
- e-payment with EDI (X12/ediFACT); and
- remittance

Although the demands for a paper cheque are rapidly declining it will still be some time before it is completely eliminated. So rather than having to support two systems, one to disburse payments electronically and one to create cheques, Payables Outsourcing will create and distribute paper cheques as well as electronic information from a single source.

It is also important to note that the solution must also be able to distribute payments to businesses as well as individuals (for the receipt of payroll or expense reimbursement). Figure 1 shows a successful implementation of this technology.

With cheque fraud increasing rapidly, the 'push' methodology of electronic payments further increases payment security. Also, for payments that are to be distributed as cheques, the service will capture the data received from the payment originator and build a cheque information database. Cheques, once cleared through the banking system, which are not contained in the original database will be flagged as potentially fraudulent and identified to the payment originator for payment determination. In this regard, cheque fraud can be almost entirely eliminated.

The combination of robust disbursement solutions, efficient national banking systems and the absence of payment float as a demotivator to migrate

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from paper cheque issuance, has created an environment in Canada that is ripe for the adoption of B2B electronic commerce.

How successful is this environment? Payment originators today are finding that their trading partners are signing up for electronic delivery of information at a rate of better than 50% at programme inception. This typically grows to almost 80% after the first year. A company issuing 10,000 cheques per month is able to eliminate 96,000 pieces of paper (cheques) within the first year, dramatically reducing their operating expenses.

Combine this with the fact that the trading partner (supplier) receives payment information much quicker and in the format they prefer (at no additional cost!) and it's easy to see why Canadian companies (or companies with Canadian subsidiaries) are realising early some of the promised benefits of electronic commerce. ■

Paul C Churchill is group manager, electronic commerce solutions for the Toronto-Dominion Bank in Toronto, Canada.

Mike Redferne is managing director, corporate finance at the Toronto-Dominion Bank in London.