



The Evolution of Electronic Bill Payment in Canada

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Since 1985 an estimated two billion bill payments have been generated electronically, first by telephone and then by personal computers. Nearly all of those payments were generated by individuals paying monthly bills such as utilities and credit cards. The resulting savings have been enormous. One consultant estimated that the bank cost of processing an electronic payment was one ninth the cost of a paper payment. That would put nearly \$200,000,000 in the pockets of the banks and credit unions. The utilities and credit card companies probably saved in the order of \$1.00 per payment over processing cheque payments via the mail. That could be \$2 billion in savings to them. Then the bill payers saved over 50¢ per payment for postage alone for another billion dollars savings.

At 2010 volumes of over 400,000,000 electronic payments, the annual savings to all parties, consumers, utilities and financial institutions, would likely come to somewhere near \$600,000,000. And volumes continue to increase annually.

How did this come about? The Canadian Payments Association (CPA) would have us believe they had a big hand in it. Their submission to the Task Force for Payment System Review says "The CPA was instrumental in driving the transition from cheques and paper in the 80s to electronic payments in the 90s". That is simply not true. It was Telpay that started electronic bill payment 1985 and had to dodge sticks from the CPA and certain banks to stay in business. The banks and credit unions also would likely want the honours. But they were just the beneficiaries of an entrepreneurial effort that Comcheq Services Limited began in the early 1980's.

Here is the full story. Comcheq, a company that had started in 1968 with a computerized payroll service, was enjoying significant success by 1980. The only threat to that success was the fact that the main competition was from the five major banks. Though the banks had a connection with virtually every employer in the country, Comcheq was able to thrive by leading in systems initiatives and efficiency of its operations. But there was a change underway. Employees were moving from payment by cheque to payment by direct deposit. This posed a potential threat to the funding of the payments Comcheq made on behalf of the employers. With cheques we could always threaten the employer with the return of their employees' cheques if their payment was refused by their bank. We could not reverse a direct deposit. Though we took other steps to protect ourselves, there was no complete solution unless Comcheq itself changed.

Because of this situation we embarked on a process of becoming a bank ourselves. This had to be a completely branchless bank given the breadth of our customer base. Comcheq already had certain required elements in place. Bill payments were going to require debits to payer bank accounts and credits to payee bank accounts. Comcheq did both in large volumes to manage the flow of funds from employers to employees. We were thoroughly familiar with banking rules and our legal and accounting obligations as trustees of a substantial trust account. The reasons Comcheq did not form a bank is another story. But the bill payment technology we had developed did survive and we did not need a bank charter to utilize it.



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We were then in the early stages of the personal computer era. All the various components that could be attached to computers could be obtained off the shelf – printers of various kinds, card readers, computer chips of many kinds and so on. So computer service providers such as Comcheq moved from the limitation of their mainframe programming to being able to envision combinations of hardware and software that could perform tasks not otherwise feasible. It was an era, when high school and university students could be found who were extraordinarily adept at applying their knowledge of computers to real life problems. My son Howard and Ray Senez were school mates who built computer systems for their science projects. Paul Moffatt was very experienced at circuit board design. Gerry Bayer and Brent Kissick were newly graduated university students. They helped with programming. These five, all under the age of 25, working under the direction of Richard Gurevich, a professional engineer, and myself, created what may have been the first entirely branchless banking system.

With this system employees were delivered their pay statements and pay, or such portions of their pay as they needed from time to time via a terminal we called a Cashex Machine. To provide added service and keep cheque processing costs down, we added a telephone bill payment system. We were far enough ahead of the rest of the world that in some cases we had to design and build our own hardware. The main item in the phone service case was the voice response board. The only board of this type that was available “off the shelf” was one that had chips that had to be recorded in California and came back with a Southern accent. By 1985 we had the hardware and software completed and ready to be offered to the public.

A full electronic bill payment system consists of a number of elements. There must be a system that collects the bill payers instructions. That, in our case, was the telephone connected to a voice response system that guided the customer through the process of relaying the desired instructions. Each day the accumulated instructions were forwarded to a “batch” system that took everyone’s instructions and generated files that conveyed the necessary debits and credits to bank accounts and the reports to the various billers that customers wanted to pay.

We also had to have a relationship with those billers. They were all large companies where volumes of payments were sufficient that we could anticipate worthwhile numbers of payments. They inevitably had quite sophisticated payment processing systems that our initial reports did not fit. We had significant objections to overcome but we did so by adapting to their needs as much as possible. In the long run, they have benefited immensely from the introduction of electronic payments.

Our first reports of telephone generated bill payments were delivered to Manitoba Hydro and Manitoba Telephone System in March 1985. The lists were accompanied by cheques from the Telpay Trust Account for the total amount of the payments. Objections were raised and we listened to the objections but we also noted that our common customers had asked us to pay their bills for them. The billers could hardly refuse payment. Nevertheless we knew we had to accommodate the needs of billers. To do so, we soon generated scanable documents that could be read by their hardware to which we added a cheque for the full amount of the payments. Our real aim, of course was to get them to accept a file rather than a document or list and a credit to their bank account. We asked for their file format for importing payments into their accounts receivable systems and generated our payments file in that format. Other barriers such as transmission methods had to be adapted to. One by one, the billers aligned to this new method of receiving their payments. Some were quick to adapt. Others were not so fast. One credit card company that was still insisting well into the new century on receiving a daily fax that amounted to 30 or 40 pages of payments that they keyed into their system, often with an unfortunate number of errors. With the help of Comcheq employees in our six branches we were soon remitting payments to most of the larger billers across the country. We established voice response systems in each city to minimize long distance costs. After five years we had nearly 1000 billers receiving telephone payments.



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Through the 1980's our customer base was entirely consumer based. About 1988 the Royal Bank and TD Bank advised us that we could no longer process credit card payments through them. They interpreted the CPA rules to mean that credit card payments were variable but utility bills were not. Because of our relationship with Comcheq, which also needed the services of those banks, we had to comply. Our customers that used those banks had to be advised accordingly. They complained to the banks that they were being unreasonable which only upset the banks more. The idea that some outfit would come along and upset their relationship with their customers was not something the banks would stand for no matter how much their customers appreciated that service. The other banks saw no reason to object. Nevertheless that put a damper on our consumer activities because we did not want to have to explain to the public that our service was being questioned by two of the banks. Eventually our complaints to the Department of Finance drew a strong rebuke to the CPA and the matter was resolved in our favour. But that took years. In the meantime the situation had changed.

In the late 1980's we were approached by the Credit Union Central of Manitoba to provide a bill payment system to their customers. We came to an agreement that we thought would protect our technology while allowing us to set up the bill payer interface on their computer. That immediately gave us access to all their customers and quickly increased our volumes of payments. Similar arrangements were made with other Centrals and individual credit unions. Unfortunately the computer development agency of the credit unions, CDSL, did not honour the agreement and we soon found ourselves competing with our own system in B.C. Meanwhile we enjoyed a long and mutually beneficial relationship with the majority of credit unions across the country. We had long recognized that the Centrals were a threat to that relationship. The tendency to centralize and "co-operate" was always there and has recently resulted in a loss of some of that business. As you will see we did not sit still and just let it happen.

In 1989 we entered into an agreement with CIBC to operate our system from a voice response system installation in London ON. The trial project was so successful that by 1995 we were processing 250,000 payments a month for them. At that point, contrary to our agreement with them, they took our biller file and some of our technology in house and operated it directly themselves. Very soon the other major banks had the same systems, again with our biller list. So in fact the banks did not get into the telephone bill payment business until 1995, ten years after Telpay's first payments, and did so with the lessons and information they had obtained from Telpay. Rather than devise a payment consolidation system as Telpay had done, the banks simply added their electronic remittances to what was already in place for paper bills. That required designating a lead bank for each biller. All other banks had to send their remittances to that bank for forwarding to the biller. That slowed the remittances to the billers but added to the float the banks retained. That remains the process today. It is part of the reason why electronic payments take longer to clear than paper cheques.

Knowing that Credit Union Centrals were a threat to a substantial part of our business, in the late 1990's we started work on expanding our system capabilities. Up to then all systems provided the billers with the customer account number and the amount of the payment. This was fine for utilities and credit card companies but insufficient for companies that also needed the invoice number or other reference data so they could properly post their accounts. Billers that required that added information were not and, for other services, still are not included among the billers paid electronically. Our objective was to make it possible for all businesses as well as individuals to pay their bills electronically. It had been a dream of mine since the 1970s that we could one day do the same for the accounts payable department as Comcheq had done for the payroll department. With our consumer service Telpay had created a big part of the infrastructure needed to support business payments. We set out to fill the missing gaps.



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Unlike individuals whose payment needs span a few easily enlisted billers, businesses have to be able to pay virtually anyone. Transitioning to a situation where customers could add new billers to the system “on the fly”, so to speak, was the biggest step facing us. We now have over 50,000 such billers and new additions come in daily. A greater range of information had to accompany the payments, the system had to integrate with the customer’s accounting system, and traditional payment authorization procedures had to be emulated, among the many other requirements. With this in place it was relatively easy to add a routine that would remit direct deposits of payroll payments. That led to handling preauthorized debits files. More recently we added the ability to make international payments. And more features are on the drawing board. Called Telpay for Business the system is currently well used and receives excellent reviews from our over 5,000 users. It saves businesses substantial amounts of money otherwise paid in cheque clearing charges, cheque forms, envelopes, postage and time. Volumes are quickly replacing lost revenue and our lead on potential competitors will make it hard for them to surpass us.

Although the Telpay offering satisfies many of the requirements of the business bill payer, there is lots more room for innovation. Electronic payments are not as attractive to the biller as they are to the bill payer unless you have volumes of payments arriving with each credit to your bank account. That has been easy to achieve for large volume billers but small volume billers have a long way to go to get their volumes up to the point where they receive multiple payments per day and even receive the payments in a form where they can be fed into their accounts receivable system. The billers themselves have a part to play in achieving that volume. At this point the payment process can be mainly electronic but the billing process needs to be electronic as well. End to end digital records with simple access to payment records will add appeal to both billers and bill payers. Telpay is working hard on overcoming these obstacles to achieving end to end electronic billing, bill payment and receipt processing for smaller volume billers just as we have done for the large volume billers. There are at least 500,000,000 paper cheques per year still to be converted to electronic payments. That is the job ahead of us.

Sometimes competing with banks has been a bit scary. In payroll Comcheq found its niche by constantly keeping ahead of the competition, being more responsive to customers and being more innovative. That is true of bill payments as well but an added factor has become apparent. Electronic bill payments can be processed for much less than paper payments. A payment service provider does not need to charge as much as a bank charges to process a paper cheque. As with personal payments, the banks will likely try to emulate our capabilities. But will they accept a reduction in revenue by emulating our prices?

We would actually welcome more direct competition. That would share the cost of opening up the market and spur more innovation as well. Regardless, business to business electronic payment processing is being sought after by more and more companies. Before long it should become the norm for this type of payment.

About W.H. (Bill) Loewen

Bill Loewen founded Comcheq Payroll Service in 1968. He was responsible for the formation of Telpay Bill Payment Service in 1985 and remains its chairman. He served on the CPA Bill Payment Task Force from 2008 to the present. He is currently serving on the Payment System Review Task Force. bloewen@telpay.ca.