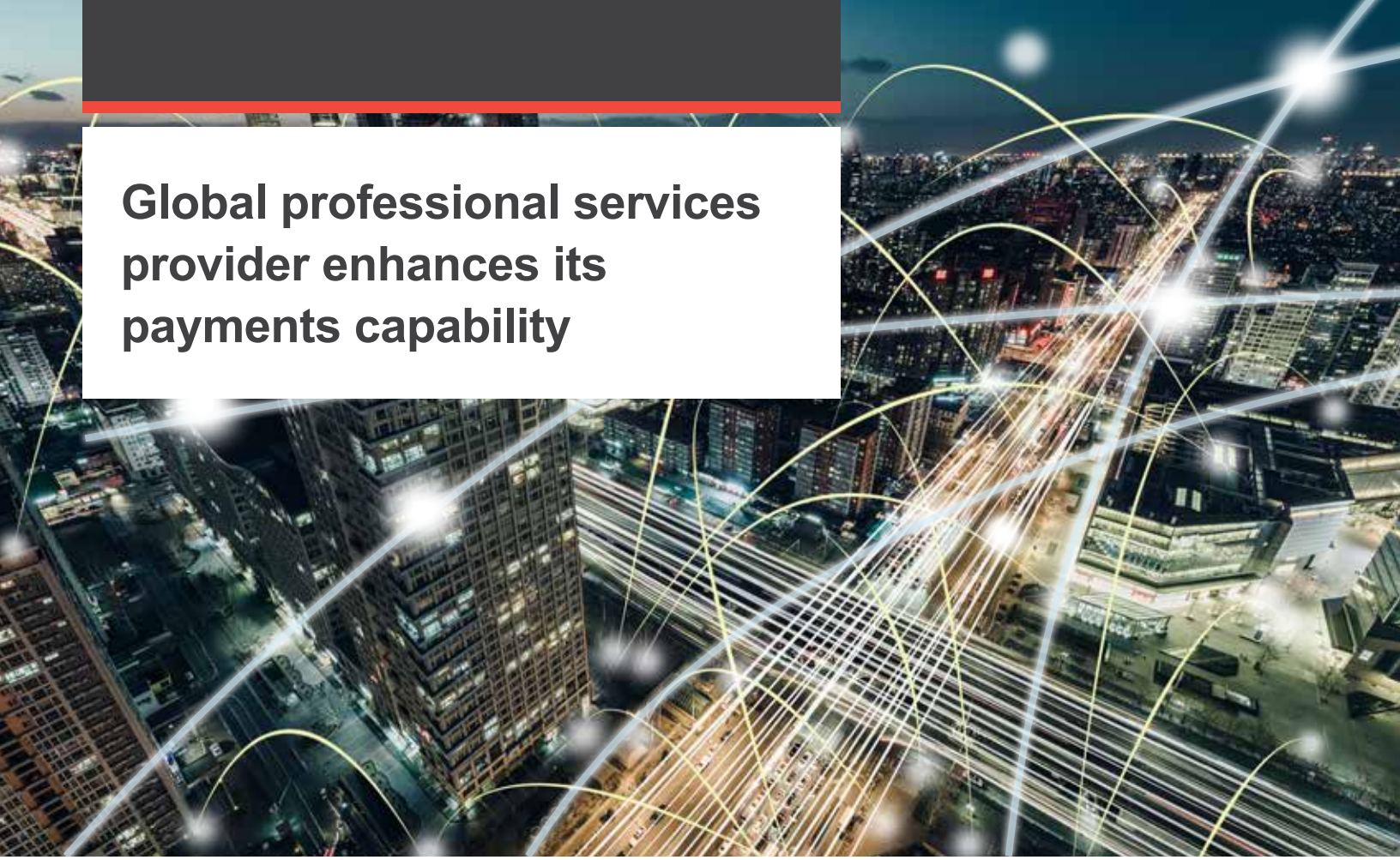
Global professional services provider enhances its payments capability



PAYMENTS CANADA

EY Building a better working world

Key themes explored in this case study

1. How can companies leverage transformational changes to take advantage of payments modernization?
2. What restrictions might global organizations face when deploying local changes required to adopt payments modernization?
3. What type of technical changes may be required to enhance payments capabilities in an organization?

The organization in this case study is a professional services provider. It has invested significantly in its technical infrastructure and is currently undergoing a large scale Enterprise Resource Planning (ERP) system implementation across its global footprint to streamline processes and integrate financial and resource management tools. It has successfully completed implementation in Canada and is currently preparing for ERP deployment in the US and UK, its largest markets. As a result of this investment, the organization has gained significant payments processing capabilities through enhancements in invoicing, payment runs and reconciliation processes.

The organization has some awareness of the payments modernization program through participation in information sessions provided by its primary bank and through involvement in industry consultation with Payments Canada. It is at the early stages of contemplating the full scope of requirements and potential use cases arising from upcoming changes. The organization has dependencies on internal ERP deployment releases from a global team to enable capabilities in Canada, which drive a need for advanced planning and prioritization of activity against other required deployments both in Canada and other markets.

This case study focuses on understanding the types of changes that are needed in order to prepare an ERP to accept changes triggered by payments modernization. It also explores the types of governance and execution models that global companies may need to set up in order to execute the changes.

EXECUTIVE SUMMARY

Drivers of change

- Globally funded program.
- Engagement with banking providers.
- Engagement in consultation with Payments Canada.

Potential benefits from modernization

- $1.1M to $1.7M over a five year period from payment modernization efforts; benefits from ERP implementation have already been accrued.
- $210K to $340K on an annual basis.

Source of benefits

- Cost reduction and productivity gains from increasing auto-match rates from 45% to 85% as a result of ISO 20022 adoption.
- Simplification of processes required to submit payments.
- Increase in the number of payments processed in accordance to terms.

Projected effort

- Cost to implement expected to exceed $1.5M, which includes costs associated with licensing technology, ERP upgrades and internal project teams.
- Time to implement to range from 12 to 18 months depending on internal prioritization.

Accelerators

- Sound understanding of current payments capabilities recently enabled by the introduction of a new ERP.
- Ability to leverage learnings and regulatory mandated change in other jurisdictions.
- Understanding of global trends in payments.

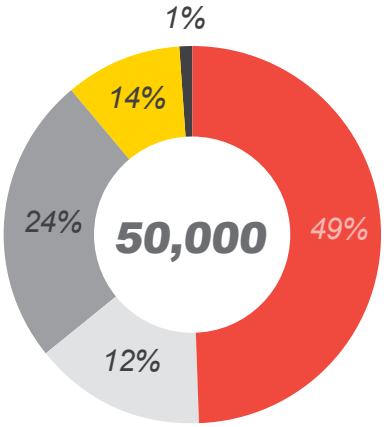
Lessons learned

- Internal prioritization of compliance requirements over capability enhancements may slow down approval to implement changes.
- Competing for resources against larger markets can create dependencies and scheduling constraints on upcoming releases of ERP updates.

This organization operates as a partnership in over 150 countries worldwide. In Canada, it operates in multiple locations across the country. Each country has autonomy over its payments policies; it may choose to participate in the organization's global payment policies or opt-out in order to comply with local regulations. This can sometimes result in implications on how inter-company payments are processed across geographies as payments that adhere to many interoperable global policies simultaneously can be approved and processed in an expedited manner.

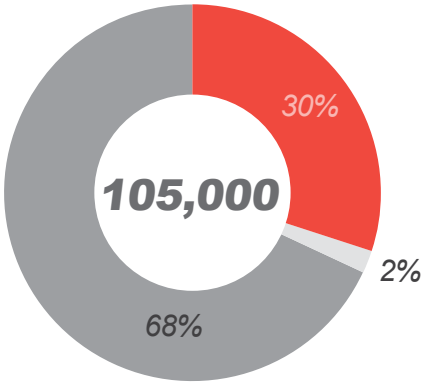
A global cross-border team exists to support all jurisdictions with technology projects and is responsible for locally allocating the necessary resources with this international end goal in mind. This means each country's ability to modernize its infrastructure is dependent both on its own capacity and on the global governance structure.

In Canada, 50,000 incoming payments are processed per year of which 49 per cent are cheques via lock box, 12 per cent are wires, 24 per cent are Automated Funds Transfer (AFT), fourteen per cent are credit card and one per cent are Electronic Data Interchange (EDI). In turn, 105,000 payments are remitted per year of which 30 per cent are cheques, 68 per cent AFT and two per cent are a combination of wires and money orders.



Distribution of incoming payments

- *Cheque payments*
- *Wire transfer payments*
- *AFT payments*
- *Credit card payments*
- *EDI payments*

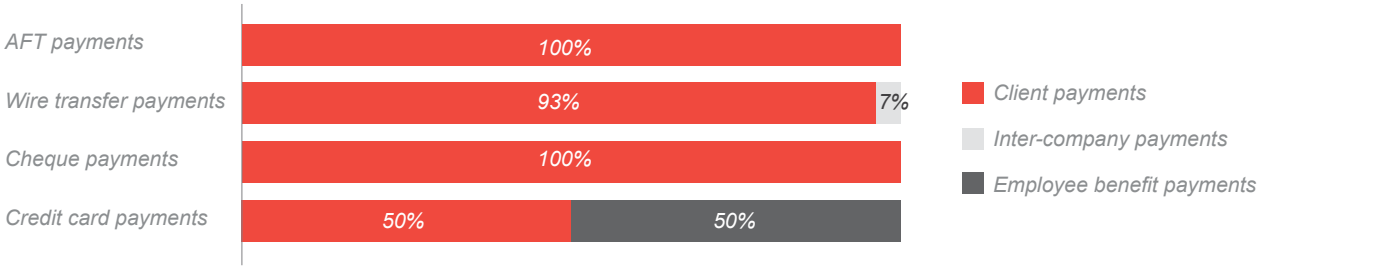


Distribution of outgoing payments

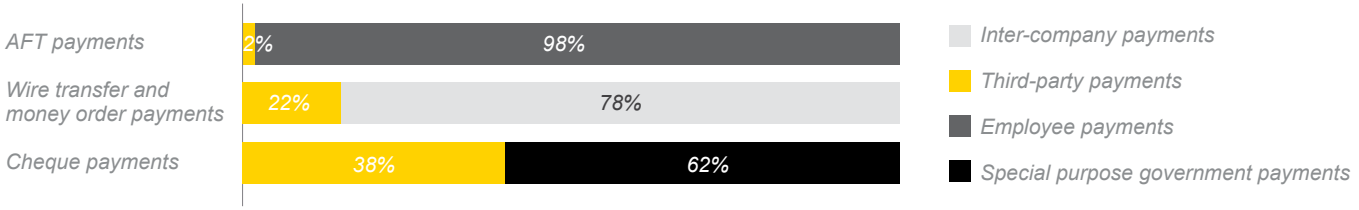
- *Cheque payments*
- *Wire transfer and money orders*
- *AFT payments*

ORGANIZATION BACKGROUND

Distribution of incoming payments by use case



Distribution of outgoing payments by use case



The organization sends and receives two primary types of payments; third-party and intercompany. For third-party payments, incoming payments are largely from clients for services provided while outgoing remittances are primarily for payments to suppliers. Inter-company payments are composed of payments to and from other countries for the use of resources including a global network used to outsource some common functions off-shore and aid with business operations. Key organizational processes supported by payments processing include:

- **Accounts Payable (AP):** A team of five Full Time Equivalent (FTE) employees performs AP processes in Canada, and is supported by an off-shore team of fourteen FTE. This group processes payments for external contractors, vendors, employee expense re-imbursements and inter-company payments. Some inter-company payments have to be processed as a third-party when the recipient does not adhere to global payment policies and therefore require additional work effort and approval. Wire payments are made in batches twice a week; employee expense reimbursements are made via AFT batches twice a week.
- **Accounts Receivable (AR):** A team of two FTE performs AR processes in Canada, and is supported by an off-shore team of five FTE. The group conducts the reconciliation and collection of payments from clients and other countries. There is no automated method for collecting payments currently; therefore the business is responsible for manually collecting against past due invoices directly from clients. The organization uses bank lock boxes to process client cheque payments, which is outsourced by the bank to a third-party.
- **Procurement:** The procurement process is completely manual in Canada, although there are plans to integrate it with the new ERP system in the near future. The procurement team works with AP to on-board vendors and set them up for payment according to agreed-upon terms. Procurement collects the vendor's banking information by requesting a form to be filled out, which is then passed onto the AP team for entry into the system. Procurement would like to increase the amount of vendors paid by AFT, however the default set up is to pay by cheque due to the fact that it has a simpler set-up process. Currently, 86 per cent of third-party payments are made via cheque as the organization primarily leverages AFT for payroll and employee expense reimbursements.
- **Treasury Management:** The treasury function is independently run in each country and is supported by monthly settlement reports that are created in Excel and distributed manually. A fully integrated treasury module is not in scope for the current ERP implementation.
- **Payroll:** Employees are paid twice a month through a payroll provider. Each country has autonomy in the selection of the vendor and terms are negotiated locally. Payroll exceptions can be common and often require manual intervention.

HOW IS THE ORGANIZATION FAST-TRACKING ITS PAYMENTS CAPABILITIES THROUGH AN ERP IMPLEMENTATION?

The organization's goal is to deploy its ERP system across its global footprint in order to integrate business processes and inter-company operations. Once the project is completed in all jurisdictions, it is anticipated to be one of the largest deployments of a single ERP instance globally. The organization has already launched the new system in three pilot countries, including Canada, and is actively executing implementation in more than ten. For each initial country implementation, the global governing body needed to cooperate with the country to determine what functions were in scope for inclusion in the ERP. This allowed the global team to prioritize delivery of requirements across multiple geographies and also to identify unique requirements for each country. Any regulatory requirements were deemed high priority for initial execution. Throughout the implementation, "blackout" periods that limited access to data and functionalities were designated in order to successfully execute migration of data from one system to another. For Canada this was a major project requiring five years from concept to launch, and the support of a program team composed of over 100 people. A new internal release is currently scheduled for 2019 to enable additional functionality and higher automation.

The organization's investment in an ERP has enhanced its source-to-pay, record-to-report and service-to-invoice business processes. This was facilitated by enhancing key payments activities in accounts payable and accounts receivable through the automation of:

- Invoice matching to purchase orders
- Payment runs
- Incoming payment reconciliation

In 2016, the ERP's bolt-on payments module was deployed in an effort to automate payments processes. The implementation of the module was unsuccessful due to errors encountered with the cheque printing service and also with its tax calculation logic. After several attempts at fixing defects in these areas, the organization decided to abandon the payments module in favour of commercially available technology that could be integrated with the ERP. The organization used the payments module for two years while the new payments solution was configured and integrated. Key features of the new payments solution include:

- Optical Character Recognition (OCR) software which automatically uploads invoices by reading invoice characters, extracting the characters and uploading the data to the ERP.
- Automated output file creation when payment runs are initiated. The solution can create files that are transferred into a bank portal for upcoming AFT transmissions as well as a separate file that is created for cheques and loaded into printing software.
- The ability to read specific identifiers used to automatically reconcile payments to invoices including invoice number, client code and project number and/or descriptor.

The enhanced functionality has reduced the work effort required for the organization's AP and AR teams, allowing the organization to bank some operational savings through attrition and move manual processes to offshore centres, allowing for some labour rate arbitrage.

A considerable amount of configuration and testing is still underway to train the OCR software to recognize variability in invoice contents and formats, delaying the speed of automation. The organization is also currently piloting the use of Commerce Extensible Markup Language (cXML) files to automatically upload rent invoices into the ERP. cXML files are generated from its internal rent management system and are used alongside the OCR software as a distinct solution to automate management of rent payments.

A summary of key changes and benefits to payments processes delivered or planned for future ERP releases in Canada are outlined in Figure 5.

Figure 5: Summary of payments capabilities enabled by ERP implementation

	CHANGE	EXPECTED BENEFITS
AP	A character recognition software automatically uploads invoices to the ERP system	• Reduces the manual invoice processing effort, especially in inter-company payments by as much as 90 per cent • Real-time transaction posting to the general ledger (GL) upon scanning of the invoice • Automated line matching of invoices received with corresponding purchase orders and receipts
	Automated AP runs are processed through a scheduled batch cycle	• Payment team no longer needs to complete payment runs manually • Increased rate of payments executed in accordance to terms • Real-time cash position reporting provides account balances after AP run completed
	Immediate and automated notifications of current cash position funds are provided to the treasury team prior to approving payments	• Reduces bank fees and streamlines interactions with banking providers
AR	A new journal entry process to post payments to the GL enables automatic reconciliation	• Reduces the manual reconciliation processing effort by as much as 75 per cent • Data validation at point of entry reduces discrepancies

HOW IS THE ORGANIZATION FAST-TRACKING ITS PAYMENTS CAPABILITIES THROUGH AN ERP IMPLEMENTATION?

The introduction of the ERP fundamentally evolved the way in which business processes are conducted in the organization, driving the need for changes across all dimensions of its operating model. Below are some of the most salient changes as viewed from the lens of payments.

	The organization's employees were impacted by changes in the way in which they needed to process payments. Extensive training was required for employees in the AR and AP teams to work on the new ERP system in order to fully leverage the newly automated processes. The organization described a substantial decrease in work effort driven by automation of key manual steps in these processes. While the organization had to temporarily expand the size of their offshore AP and AR teams during the implementation in order to cope with exceptions and manual workarounds, both off-shore teams are expected to be reduced to lower FTE levels than pre-implementation as the volume of manual effort continues to decrease. A significant change management effort was also required given changes in the process to submit business expenses for reimbursement.
	Business processes supporting execution of payments were fundamentally changed by increased automation. For AP, process changes were required with the introduction of auto-matching of invoices to purchase orders. Payment runs were also automated; both changes streamlined payment processes to increase adherence to specified terms and reduced the need for manual intervention to trace status of payments for specific items. For AR, payment identifiers, including client codes, invoice numbers and project numbers, are uploaded into the system in order to enable automatic reconciliation with incoming payment files as clients are asked to include those fields with their remittance information. The success of reconciliation has been tangible and has even greater potential as remittance information does not always accompany incoming payments.
	Major technology changes were required to consolidate multiple local applications within one ERP. This required extracting data from many source systems and centralizing it within the ERP. Data mapping and conversion from legacy applications to the new ERP environment was also required to support full integration. The integrated data enables a more holistic view of payments transactions as unique identifiers can be leveraged to map payments, both from AP and AR perspective, to suppliers and clients that often have complex corporate structures and operate across multiple jurisdictions.
	The change required implementation of new policies for approval and disbursement of payments; since not all jurisdictions have migrated to the ERP, guidelines for co-existence between the legacy systems and the new platform had to be implemented for teams delivering in a cross-border environment. The policies outline the mandatory fields that inter-company invoices need to contain in order to be eligible for expedited payment. They include for example the creation of unique identifiers that can be traced both by the new ERP and legacy systems in order to provide a collated view of transactions and financial entries.

South Africa payments modernization: Benefits from ERP enhancements and reduced cheque usage

The organization's South African unit deployed an upgrade to its ERP in 2018 to enhance payments capabilities, which are now one-touch and automated. The upgrade included the integration of a payments solution offered by its banking provider. The integration process took three months and required heavy testing between the organization and the bank. A host-to-host connection with the bank ensures that once payments are released they are sent directly to the bank for processing.

Benefits observed after the implementation of this streamlined system include:

- A 95 per cent auto-match rate
- A 50 per cent reduction in payment processing time
- An increase in FTE time for value-add activities like client relationship management

These were made possible through South Africa's payments modernization initiative to reduce cheque usage. Currently, 98 per cent of the payments processed by the South Africa business are electronic funds transfers (EFT); less than 50 cheques are issued on an annual basis. Only EFT payments can be processed through the one-touch system, driving a natural preference to move away from cheques; those are only issued and received in rare exceptions given costs associated with the manual effort to print and handle cheques.

HOW IS THIS ORGANIZATION APPROACHING PAYMENTS MODERNIZATION?

The organization is well positioned to deploy changes required to support payments modernization in Canada by leveraging their newly acquired capabilities enabled by the ERP implementation and centralized global technology team. While they do not currently have a formalized payments modernization program in place, the finance group has begun contemplating use cases for ISO 20022 and real-time payments.

ISO 20022

The organization is actively pursuing ISO 20022 discussions with its banking provider to better understand the specific nature of the changes ahead. There will be a need for a minimum six month advance notice to allow for the global team to understand the requirements of the project and appropriately prioritize it amongst other in-scope deliverables across specific releases. The organization's primary bank recommends that the implementation of the ISO 20022 data standard be part of the scope for the next ERP update window if possible; however the internal triaging and prioritization process has not yet been initiated.

The finance team has been proactively considering the implications and potential benefits of a faster and more data-rich payments infrastructure. They are currently analyzing data points to drive increased operational efficiencies and considering what applicable use cases may drive process changes in the organization. They are particularly interested in the ISO 20022 data standard with a mind to help increase internal auto-match rates and facilitate a more streamlined wire payment process. As part of Payments Canada's Modernization plan, the current wire transfer system known as the Large Value Transfer System (LVTS) is being replaced by Lynx. Lynx will be ISO 20022 enabled and will comply with a revamped risk management framework.

The organization has been able to increase its overall auto-match rate from zero per cent to 45 per cent in the last 18 months. However, manual work required to match payments to invoices remains and is often triggered by clients not providing remittance information, including specific identifiers laid out in invoices, when submitting their payments. The organization is enthusiastic about additional remittance information included in ISO 20022 messaging as a source to further increase automation rate. For example, in the past year the auto-match rate for wire payments increased from zero to 20 per cent. This was achieved by working with its banking provider to enhance the file transfer process to account for information included by the clients currently adhering to the organization's payment instructions. The organization is expecting ISO 20022 to offer the potential to increase overall auto-match rate from 45 percent to 85 per cent by being able to track unique identifiers throughout the payment's lifecycle.

The organization also identified current inefficiencies in its process for remitting wire payments. Two internal systems are used to create required payment instructions; first an employee needs to input the payment information into the ERP, and then they have to use the banking provider's portal to send the payment. This is a common pain point observed by other organizations that have not directly linked their payments platform to banking portals. In order to enable this functionality, middleware development is needed to take the file generated by the ERP and transmit it directly to the bank. The format of these files can be different depending on the recipient's banking provider, creating additional effort in order to ensure true inter-operability across multiple banking providers. The organization anticipates that a standardized ISO 20022 file format would enable a reduction in the number of wire transfer file formats enhancing the level of automation while reducing complexity.

Real-time payments

The organization is currently contemplating potential applications for real-time payments and has identified one use case for time sensitive payments. Currently, payments to employees made outside of the standard payroll cycle are made by cheque only. For example, if a payroll processing error occurs, a cheque is manually created and issued to the impacted employee directly. Payroll errors can be common whenever an employee changes their bank account and the payroll is sent before the organization can update its records. In addition, when an employee is terminated, a final salary payment may be issued by cheque in order to pay the person immediately. As these cheques are manually typed, the organization anticipates that real-time payments can provide an alternative method which may require less manual intervention and provide payment finality. The organization explored the usability of email money transfers to support this use case but found out that transaction limit restrictions were not sufficient to accommodate its needs. However, the introduction of real-time offerings may in fact help manage these exceptions in a more expedited manner and will support removal of a very fragmented process.

Automated Funds Transfer (AFT) Enhancements

The organization is considering how enhancements to the AFT system, which include the addition of a third-batch exchange and two-hour fund availability, impact its business.

Ninety-eight per cent of AFT payments submitted are for employee expenses, which are processed in batches twice a week. The remaining two percent of AFT batches are remitted to third-party vendors on a daily basis. The organization is looking to increase the amount of vendors that can be paid through AFT from current estimate of ten per cent to at least 50 per cent within the next year. The addition of a third exchange window may provide some benefits to the organization given its anticipated volume growth, however those are not expected to be material at this point in time.

Another potential benefit for the organization from AFT enhancements would have been derived by delaying the need to transmit payroll files early in order for payments to settle prior to final disbursement to its employees, allowing the organization to hold onto cash for two to three days longer. The organization has however already capitalized on that benefit as it negotiated an arrangement with its payroll provider earlier in the year that allows the organization to pay the provider on the day of required payroll disbursements. The provider pays the employees out of its trust account while it awaits settlement on the payroll file transmitted that day.

KEY CONSIDERATION

The organization's global body would give priority attention to a government mandated payments modernization project. As there are no current regulatory mandates enforcing payments modernization in Canada, the project could be deemed to have a lower priority in the organization's portfolio.

What steps will the organization take to enable changes?

The next release for Canada's Enterprise Resource Planning (ERP) system is scheduled for 2019; it will be led by the global technology team. For that release, the organization can request features to be included and prioritized against other items in scope for that release. Adoption of ISO 20022 can be included in the proposed scope for that release. That inclusion however requires a clear definition of the business case to support the changes as well as detailed specifications for the build based on published guidelines from Payments Canada and specified detail from its banking provider. The business case would then need to be approved by the global technology team in order to mobilize resources to execute the change. If approved, a detailed estimation would be initiated by the technology team to understand the scope and complexity of the implementation. The estimation effort alone could consume as much as 40 hours of analysis.

Furthermore, as ISO 20022 standardizes the structure of cross border payment files, the estimation would have to be reviewed and approved by all other impacted countries to ensure compliance with local regulations on the transmission of financial data, specifically reporting and encryption requirements.

The work effort required for an ISO 20022 implementation project in Canada depends on which type of Data Medium Exchange (DME) file and ERP instance the organization uses. A DME file is used to send payment information to a bank and contains encrypted financial information. DME files come in two types; flat files and Extensible Markup Language (XML) files. As ISO 20022 is supported by XML files and the organization currently remits flat files, it expects the following technical changes may be required to support ISO 20022:

- The ERP workbench would be used to modify existing fields and create new fields required for ISO 20022. The ERP would continue to produce flat files.
- A robust data mapping engine implemented to transform the ERP's flat files to XML files would need to be licensed.
- The XML files would then be encrypted and transmitted to the organization's banking provider.

Implementing ISO 20022 and configuring the ability to remit payments in real-time into the organizations ERP system is estimated to require up to 12 months of effort. This includes three months for ensuring compliance with all geographies, six months for design, infrastructure development and testing, and up to three months for piloting while monitoring the system's stability.

The organization believes the implementation cost of ISO 20022 will be heavily dependent on the licensing agreement reached with software providers of the data mapping engine and could be material. The fee for licensing has not been included in the overall cost projections for the purposes of this case study.

Given the organization's approval and funding process to execute changes to its ERP solution, advanced notice is also required in order to ensure the right priority is assigned to the request, especially in light of continued delivery in other countries that may have a higher internal priority.

Furthermore, requests motivated by regulatory requirements are usually prioritized over non-government mandated changes, so the organization is also competing for resources and funding with other jurisdictions who may be responding to their local regulatory changes.

KEY CONSIDERATION

As the organization has a large global presence, changing the file structure of cross border payments requires the approval of every impacted country's compliance team. This is to ensure adherence with local laws involving the transmission of financial data.

The subject of this case study has recently undergone a large ERP transformation as part of a global program to enhance its business processes, including payments. As a result of this program, the organization has developed significant capability in a number of payments functions. The organization is motived by opportunities to further simplify operations and increase straight through-put; to that end it has offered faster payment turnaround for vendors that submit payments electronically. The organization will however continue to rely heavily on cheque usage as some of this volume is required for payments made to government organizations in support of mobility and immigration.

- **Increased productivity:** The ISO 20022 standard could enhance the organization's automated matching of payments to invoices and reconciliation process.
- **Increased efficiency:** The ISO 20022 standard could enable the creation of a streamlined system for transmitting wire payments by linking the ERP to banking portals through middleware.
- **Improved options for faster payments:** Real-time payments can provide an alternative to cheques for remittance of time sensitive payments.

These benefits are expected to be incremental to those already accrued from implementation of the ERP. As the impact and potential benefits of modernization materialize, the organization will face decisions on the need to maintain or discontinue some of the capability gains derived from the global ERP rollout.

Based on the model used in Payments Canada and EY's 2018 report *"How can payments modernization benefit Canadian businesses? Evaluating the cost of payments processing"* we estimate that the organization can derive benefits in the range of $1.1M to $1.7M over five years or $210K to $340K on an annual basis from its modernization efforts. This is primarily based on enhanced operational efficiencies and increased productivity.

For more information on payments modernization or to understand how ISO 20022 can benefit your organization, please email Payments Canada at modernization@payments.ca

CONTACTS

Edgar Barbosa

Canadian Payments Leader, EY
416 943 2138
Edgar.barbosa@ca.ey.com

Lauren Fleming

Financial Services Advisor, EY
416 943 3405
Lauren.fleming@ca.ey.com

PAYMENTS CANADA

info@payments.ca

EY | Assurance | Tax | Transactions | Advisory

About EY
EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients.

For more information about our organization, please visit ey.com/ca.

2715313
ED MMYY

ey.com/ca

About Payments Canada'
Payments Canada ensures that financial transactions in Canada are carried out safely and securely each day. The organization underpins the Canadian financial system and economy by owning and operating Canada's payment clearing and settlement infrastructure, including associated systems, bylaws, rules and standards. The value of payments cleared by Payments Canada's systems in 2017 was approximately $50 trillion or $200 billion every business day. These encompass a wide range of payments made by Canadians and businesses involving inter-bank transactions, including those made with debit cards, pre-authorized debits, direct deposits, bill payments, wire payments and cheques. Payments Canada is a proud supporter of the Catalyst Accord and the 30% Club. For more information about Payments Canada, please visit payments.ca