



Adoption of ISO 20022 for Payments and Extended Remittance Information in Canada

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Background

Global payments context

Within the global payments market, there is a continued focus on regulatory and supervisory demands for enhanced risk management, payments digitisation, globalisation, new industry participants, operational efficiency and user expectations for fast, ubiquitous, value-added services.

Countries around the globe, including Canada, are bringing about reforms to their payment systems in response to these market and regulatory forces, which are shaping the global payments landscape.

respond to ever-changing market and regulatory forces, the Canadian federal government has provided clear direction for governance and oversight changes and has highlighted the need to enhance its payments systems.

Within the Canadian payments system, key areas for change are the introduction of more robust data elements for processes like automated reconciliation between receipt / invoice remittance, modernising older infrastructure technologies and ensuring payment messages use open, flexible standards.

Canada

Canada continues to play a prominent role in the world economy. It is currently ranked 11th in terms of Gross Domestic Product (GDP). Its nearest country 'peers', with similar GDP, are Australia, Italy, India, South Korea and Russia. See Figure 1.¹

Canada's payments ecosystem has experienced forces similar to those observed globally, but at a macro-economic level, Canada's performance has been characterised by steady, stable growth, over a sustained period.

The strength and maturity of the Canadian economy and the position of prominence is further underscored by a high penetration of payment cards and digitised transactions. Outpacing its peers, Canada has one of the highest take-up rates of electronic cards and consumer payments, globally, behind only to the U.S., Korea, Australia and Sweden. See Figure 2.

To maintain this strong position and to

The purpose of this paper is to outline the adoption approach for the ISO 20022 standard within the Canadian payments landscape and, in particular, the importance of renewed messaging standards and Extended Remittance Information (ERI) to CPA members, stakeholders and users of the payments system.

(1) All figures are available in the Appendix of this document on page 13.

Canada's Existing National Payments Systems

The Canadian Payments Association (CPA) is one of Canada's main financial market infrastructures for payments. It underpins the whole Canadian financial system and economy by providing safe, efficient and effective clearing and settlement of payments with its 115 'Direct Clearing' members.

Headquartered in Ottawa, the CPA was created as a 'public purpose corporation' by the Canadian Payments Act² in 1980. It operates two national systems for the clearing and settlement of payments:

- The Automated Clearing Settlement System (ACSS), which clears low value, high volume retail payments
- The Large Value Transfer System (LVTS) wire transfer system, which settles high value (or urgent) low volume payments

Defining Clearing vs Settlement

- **'Clearing'** means the process of exchanging and reconciling payment information that results in a transfer of funds from one financial institution to another
- **'Settlement'** means the process of adjusting financial positions of individual financial institutions to reflect the net amounts due to, and from, them as a result of the inter-member exchange of payment items

Lower Value Retail Payments - Automated Clearing Settlement System (ACSS)

Launched in 1984, the Automated Clearing Settlement System (ACSS) is a retail payments system through which the vast majority of lower value payment items are cleared, in Canada.

ACSS Existing Electronic Message Standards

- Automated Funds Transfer (AFT) uses CPA's proprietary "standard 005" format for payments, reporting and status messages
- Electronic Data Interchange (EDI) uses the ANSI x.12 standard for payments, reporting and status messages
- All AFT and EDI messages are exchanged over the CPA Services Network

In terms of volume, ACSS settles nearly 7 billion payments per year with modest, but steady, growth. In terms of value, ACSS clears about CAD 6 trillion per year. See Figure 3.

Wire Payments - Large Value Transfer System (LVTS)

Launched in 1999, the Large Value Transfer System (LVTS) is an electronic wire system that facilitates the transfer of irrevocable higher value payments in Canadian dollars, across the country.

LVTS Existing Message Standards

- LVTS uses SWIFT MT payments, reporting and status messages
- The bulk of LVTS messages are MT 103 for wire payments and MT 205 for FI to FI settlement
- All LVTS messages are carried over the SWIFT network

In terms of volume, LVTS settles nearly 8 million payments per year, with steady growth. See Figure 4. In terms of value, LVTS settles nearly CAD 40 trillion per year. In context, this is about 20 times the countries' annual GDP. In this regard, Canada's settlement-to-GDP performance is similar to its country peers. See Figure 5.

(2) At the time of creation it was called Canadian Payments Association Act. It was renamed to Canadian Payments Act pursuant to legal changes in 2001.

Payments Remittance Process in Canada

Existing remittance process

Existing payment standards are limited in the amount of remittance information they can support. The inability to exchange remittance information is viewed as an impediment to greater adoption of electronic payments. As a result, businesses continue to rely on paper based payment methods, such as cheques³. The exchange of more remittance information with payments offers the potential for the automated reconciliation of incoming payments with outstanding invoices.

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“The main drivers behind CPA’s ISO 2022 initiative are to provide the Canadian financial community with enhanced, more robust remittance data, to enhance domestic and cross-border interoperability, and increase efficiency. This will provide downstream benefits for CPA’s members, stakeholders, and their customers by reducing the heavy reliance on integration, manual processes, and multiple, disparate payment standards.”

Mark Brule, Director, Payments Innovations at the CPA

In commercial transactions, the payer (debtor) sends the funds and the limited remittance information identifying the reason for payment, and subsequently receives an acknowledgement of payment. The payee (creditor) receives the funds and the remittance information, and then acknowledges that the payment has been made.

Today, the process of reconciling incoming payments against an invoice remains manual, time consuming and prone to error. Bank cash management IT packages — the platform of choice for processing wire payments — do not operate with a single, industry standard for sending and receiving this remittance information, and each bank relies on non-uniform and unstructured free-format text.

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“One of our company’s biggest challenges is in supporting the high number of its customers who are sending electronic payments with separate remittance data. Due to the variety of formats and the lack of integration, it is currently more efficient and requires less effort to process cheques than Electronic Funds Transfer (EFT) payments.”

Jack Fucale, Senior Manager, Credit & Payment Management, Canadian National Rail

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Across all markets, including Canada, because of the sheer scale of commercial payments, there is a significant demand for automated reconciliation between the invoice order, the payment transaction and the receipt confirmation, utilising Extended Remittance Information (ERI).

CPA’s existing low value payment standards are over 30 years old and are limited in the amount of remittance information they can support. The existing CPA legacy systems use concise, fixed-

length records to represent the movement of funds between accounts, and transmit only the most essential of remittance information. See breakout box.

Canada’s Existing Remittance Model

- ACSS allows a maximum of 34 characters of unformatted text to represent remittance information, in Standard 005 format
- LVTS allows a maximum of 140 characters of unformatted text to represent remittance information, in SWIFT MT format
- CPA clears 10,000 Business-to-Business and 15,000 Consumer-to-Business EDI payments per day

Faced with the lack of dedicated fields to place the data and limited tag options, users of these messages – especially the corporate banking segment – have either adapted the payment to fit the message format, or used free-format descriptive text.

The use of free-format, limited length text to store an agreed reference identifier for a payment can be effective for processing a single invoice, but becomes increasingly complex when paying several invoices.

Approaches for an efficient remittance process

Going forward, there are a number of different approaches for ERI that can be taken. See breakout box.

The remittance details should cover all the information required to automatically reconcile the invoice, the transaction and the receipt confirmation, but complexity arises when a single payment covers several invoices, or contains credit notes or discounts, or does not cover the full amount.

(3) See research paper: https://www.cdnpay.ca/fim15/pdf/pdfs_publications/2016_11_17_Understanding_benefits_of_ISO.pdf

Extended Remittance Information (ERI) Approaches

There are three broad approaches for implementing ERI:

1. Where the full **remittance information is carried with the payment** through the entire chain, from payment initiation to final reconciliation at the end-user. The remittance information can cover single or multiple invoices, on a 'one-to-one', 'one-to-many' or 'many-to-one' basis. Provision can also include credits, discounts and incomplete payments.
2. Where the structured **remittance information is separated from the payment details, and is delivered as a separate message**. In this model, the debtor would include the required extended remittance information in a separate ERI message, and the payment message would contain a unique reference to the ERI message. The creditor's bank would reconcile the payment with the separate ERI message.
3. Where the structured **remittance information is separated from the payment details, and is provided as a reference** to a separate **data repository** with a unique ID. In this model, a unique 'remittance creditor reference' would accompany the payment details in the message from end-to-end. The reference itself could be a URL hyperlink to a repository, provided by the debtor.

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“Cross-border markets, needing to address the lowest common denominator across the markets involved, may benefit most from a remittance model that separates the payment and remittance messages, directing the parties to the specific locations for the information.”

Michael Knorr, Head of Payments & Liquidity Risk,
Global Payment Services at Wells Fargo

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ISO 2022 Global Payment Standard

Multiple Message Formats

In Canada, as is commonly seen across mature markets, multiple message formats have been introduced and implemented to meet particular payment needs at specific points in time.

Currently, ACSS payments use one message format for automated funds transfers. High-value LVTS wire payments use another message format and Electronic Data Interchange (EDI) information, used for business-to-business transactions and bill payments, uses yet another message format.

Given the changing needs of the payments landscape in the digital age, these legacy formats lack the flexibility to adapt, lack the ability to support end-to-end Straight-Through Processing (STP) and lack the ability to integrate with Enterprise Resource Planning (ERP) systems, such as SAP and Microsoft, which reduce the need for manual intervention in the payment reconciliation process.

Emergence of ISO 2022

However, over the last few years a single standard - ISO 2022 - has emerged as the financial industry's preferred standard for new initiatives. ISO 2022 includes rich information that supports end-to-end payments processing, as outlined in Figure 7.

“ISO 2022 provides rich and granular remittance information, and can also cater for different models of exchanging remittance information, either with the payment or outside the payment and referenced.”

Stephen Lindsay, Head of Standards at SWIFT

“The benefit of ISO 2022 is that you start with modelling the business, identifying all processes and data requirements. Once you have the business defined, you then start to discuss the communication flows, the messages and fields needed for information exchange. It is only at this lowest level that any physical message formats are defined. With ISO 2022, if the syntax changes, the business model and message layer do not change, and new messages can simply be generated using the new syntax.”

Stephen Lindsay, Head of Standards at SWIFT

The uptake of ISO 2022 across major infrastructure initiatives is growing rapidly. Currently, there are over 200 major infrastructure initiatives around the world that have either implemented, or are planning to implement, ISO 2022. Of these, many are payments initiatives, being driven by similar demands for automated remittance reconciliation - see Figure 8.

“More than 90% of all payments data elements are already captured in the ISO 2022 Data Dictionary. For additional local requirements, a formal maintenance process has been put in place.”

Stephen Lindsay, Head of Standards at SWIFT

ISO 2022 is rich, structured, extensible, and can accommodate different remittance approaches.

This makes it an ideal choice for local markets as they upgrade their payments infrastructure.

“We took a business approach to developing the remittance messages for ISO 2022. We examined the payment flows, and looked at business practices for the industry. For example, the manufacturing industry has to address such matters as damaged goods and partially-filled orders. A major challenge is how we electronically convey and then track these items in financial messages. It's important, as industries such as ours, with strict on-demand inventories, have very aggressive credit terms and these needed to be carefully tracked and managed.”

Rich Urban, President of the IFX Forum

“CGI was conscious of cross-border trade while developing the payment messages. While some markets are more active than others, especially for direct debits and credit transfers, we harmonised the templates with a global view.”

Harri Rantanen, Co-Covonor of the Common Global Implementation (CGI) and Manager, Standards and Formats at SEB

As a result of the CPA research and the emergence of this singular, global standard, the adoption of ISO 2022 has become a foundational element of CPA's payments modernisation plan.

Expected Benefits of ISO 20022 and ERI Adoption for Canada

CPA Adoption of ISO 20022 and ERI

The CPA will adopt ISO 20022 and also adopt ERI through a mix of mandatory and optional data elements that will be included in the payment messages. This optional remittance information can be populated as either structured information, unstructured information, or as a unique reference, indicating where the detailed remittance information can be retrieved.

The proposed ERI data elements expected to be supported by CPA are outlined in Figure 9.

Expected Benefits

The adoption of ISO 20022 and ERI are both expected to promote the use of digitised commercial payments, with numerous specific benefits for the Canadian market.

Automated reconciliation for payment remittances – CPA's adoption of ISO 20022 will introduce additional, as well as enriched, information to the payment process. By using ISO 20022, the essential remittance data can be added to payment message layouts as standardised fields. The capability to establish automated remittance reconciliation of payments between debtors and creditors, across accounts payable systems and accounts receivable systems, without manual intervention, leads to optimised cash flows, improved financial forecasting, higher Straight-Through Processing (STP) rates as well as reduced exception handling and reduced investigation time and operational risk associated with manual errors. Increased STP rates and lower operational costs would ultimately reduce the cost-per-transaction.

Rationalisation of multiple formats –

Currently, financial institutions are required to manage multiple payment formats - ACSS AFT (Standard 005 format), LVTS (MTxxx format) and EDI (ANSI x.12 format). Implementing and supporting disparate formats is costly. Using a single standard decreases the complexity and cost associated with supporting multiple standards. ISO 20022 allows the industry

to consolidate these formats into one global standard. This rationalisation, and the subsequent consolidation or retirement of legacy applications required to support multiple formats, will streamline back-office operations. The result will be simplified integration, higher STP rates, lower operational and maintenance costs and reduced cost-per-transaction.

Support for cross-border interoperability –

Standards play an important role in the development and facilitation of business through the promotion of safety, quality and technical compatibility. The payment standards relied upon for domestic traffic in Canada are not consistently applied by all financial institutions and businesses. The different application of the standard results in inefficiencies in the marketplace and inconsistent user experience. Replacing existing legacy systems and adopting a single, global standard that supports Canadian Dollar and multi-currency transactions will increase domestic and cross-border settlement efficiency. With the ever-increasing adoption of ISO 20022 worldwide, the adoption of the standard in Canada will allow cross-border payments to be aligned with international standards, which increases Canada's competitiveness as foreign players will no longer have 'domestic proprietary formats' as a barrier to entry. In addition, a single standard allows participants across different financial market domains (payments, securities, foreign exchange and trade) to communicate consistently, which supports interoperability and creates a healthy, competitive environment.

Better data integrity –

Financial institutions, which have an obligation to deliver end-to-end finality of their customers' transactions, depend entirely on data integrity. However, the rigidity of legacy Canadian formats causes data problems such as truncation and misinterpretation of values in free-format fields, with associated delays in processing. With its comprehensive data dictionary, extensibility and capacity for message syntax validation, ISO 20022 addresses these data integrity issues. Once applications have been redesigned to accept, reference, and pass on validated

ISO 20022 data, the risk associated with manual processing and exception handling will be reduced, increasing operational efficiency.

Better regulatory transparency – By automating the reconciliation of invoice / payment remittance information through 'tagging' of payments data, a bank will be more able to comply with domestic and cross-border regulatory compliance and sanctions demands.

Better market efficiency – The increased efficiency within domestic markets will bring benefits to Small and Medium Businesses (SMBs) as they can more easily integrate with their larger trading partners and could take advantage of value-added services, and deeper reach, offered by their agent banks.

Potential new value-added services –

By adopting ISO 20022, Canadian financial institutions are in a position to streamline the current suite of payment products and potentially offer new value-added services. For example, a bank with robust cross-border trade finance activity may see opportunities for real-time updates of credit lines as a result of automated payment flows.

Faster time to market – The usage of a common set of terminology, the cross-domain data consistency, the transparent tagging and tracking of payments, the 'openness' of XML and the accessibility of integration tools all make interfacing payment messages with the corporate ERP systems, much simpler. This results in reduced development and implementation effort and reduced time to market.

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 “The design is intended to not only replace the current payment schemas, but to also allow for new payment and remittance message types in the future.”

Mark Brule, Director, Payments Innovations at the CPA

ISO 2022 Implementation Approach for Canada

Implementation approach

Implementation of CPA's broader ISO 2022 payments standard initiative is a complex, multi-year process, and CPA will take a central role. During the implementation, the CPA will:

- Be responsible for the design of the new ISO 2022 compliant payment messages that will be used between its member financial institutions and, optionally, by corporates
- Act as the ongoing custodian of the Canadian ISO 2022 standards and usage guidelines, while managing changes based on the needs of members and stakeholders
- Act as the expert on ISO 2022 in Canada, by sharing knowledge and support with its members and stakeholders, through education and training

The delivery of the project is separated into two distinct phases – the 'design phase' and the 'implementation phase' – see breakout box.

Phase 1 – Design

By the end of Phase 1, currently scheduled to be completed in 2016, the CPA will deliver:

- ISO 2022 message standards for AFT payments, for use by its members
- ISO 2022 message standards for LVTS wire payments, and EDI payments, for use at a later date
- Canadian ISO-AFT Rule amendments
- An operational framework that manages and supports the standard on an ongoing basis
- Ongoing outreach and communications with members and stakeholders
- An adoption strategy for ISO-AFT based on a market-driven approach

Phase 2 – Implementation

Phase 2 will focus on the multi-year task of implementing the new standard in Canada.

Implementation considerations

In advance of full design and implementation timelines being established for changes to Canada's core payments infrastructure, the CPA will launch a voluntary, market-driven adoption strategy for the new ISO 2022 enabled AFT message standard. This will enable early adopters to take advantage of the benefits of the new standard.

Beginning in 2016, the CPA will publish the ISO 2022 message standards for AFT and provide supporting rule amendments and an operational support structure to assist CPA member financial institutions that choose to adopt the new ISO 2022 messages. This operational support structure will include a message testing service, dedicated CPA personnel to assist in understanding the test results and an on-boarding process to facilitate successful implementation of ISO 2022 into the clearing and settlement system.

“As there is no single remittance format in place today, it’s ‘the sooner the better’ for Corporate Canada to implement and adopt the new standard.”

Jack Fucale, Senior Manager, Credit & Payment Management, Canadian National Rail

During the early stages of adoption, the CPA will monitor industry progress against target milestones for adoption and will communicate progress regularly.

“As we make progress in our drive to modernize the payment system, we will revisit our market driven adoption strategy for ISO 2022 to determine the most appropriate time to decommission Standard 005 and to set adoption timelines for the remaining two payments schemes—EDI and LVTS.”

Mark Brule, Director, Payments Innovations at the CPA

“While ‘big-bang’ implementation can be the right approach for RTGS projects, a phased approach with scaled adoption has been put forward for retail-based payment initiatives. Based on our experience with ISO 2022 implementation projects in many markets, SWIFT can provide a range of conversion options. This allows the market to evolve at its own pace – migration tools for the early adopters, and shielding for those institutions that want to wait.”

Juliette Kennel, Head of Market Infrastructures at SWIFT

Community support

For Canadian corporates and financial institutions, there will be associated costs in adopting and implementing ISO 20022 for payments. Investments will span additional resources, new hardware, and software changes needed to ensure that the enterprise architecture adheres to the new ISO 20022 data model and the implementation rules for the new remittance information.

Throughout the initiative, the CPA will continue to actively support the Canadian community to help minimise design and implementation efforts and ensure collaborative buy-in.

Design support

CPA will facilitate the design process by readily sharing business, functional and technical design information with impacted corporates and financial institutions through a centralised platform, e.g. project charter and goals, project plans and milestones, data models, new vs legacy data element mapping, business process flows, usage guidelines and detailed specifications.

In addition, the CPA will support impacted firms with the qualitative and quantitative advantages gained from enriched remittance data, the advantages of consolidating of the current legacy payments systems and the reduced expense of manual reconciliation.

Implementation support

XML, ISO 20022's underlying flexible modelling syntax, has become widely recognised by application providers. As such, commercial conversion tools, validation tools and testing portals, migration utilities and integration tools are readily available in the marketplace. SWIFT has two specific tools that support ISO 20022 implementation projects. See breakout box.

SWIFT Implementation Support Tools for ISO 20022

MyStandards – A collaborative web platform that helps customers manage global standards and ensure that their internal specifications and guidelines are in line with market practice. It is used to create, maintain, document, publish, share, compare and consume ISO 20022 and significantly reduces implementation costs and effort and drives community-wide harmonisation.

MyStandards Readiness Portal

– An extension of MyStandards that allows publishers of specifications, such as market infrastructures, to offer a web-based testing service to their customer community. The service validates test messages against ISO 20022 usage guidelines streamlining the on-boarding and testing of new customers and reducing time and cost.

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“A major component of the implementation process should be a clear and consistent communication from the CPA and its member banks, including the migration status for other major corporates.”

Jack Fucale, Senior Manager, Credit & Payment Management, Canadian National Rail

SWIFT's Role

SWIFT supports its customer community by standardising financial transactions, thereby lowering costs, reducing operational risk and eliminating inefficiencies from operations. It also acts as the catalyst that brings the financial community together to work collaboratively on shaping market practice and defining standards.

SWIFT has a wealth of ISO 20022 experience, having delivered 100+ standards consulting projects, supporting several hundred clients across multiple geographies. SWIFT has packaged this deep expertise into a unique combination of specialised tools, products and services that share best practice, increase automation and drive efficiencies, providing a one-stop-shop for all ISO 20022-related requirements.

For ISO 20022, SWIFT is driving the industry towards a more harmonised and consistent use of the standard, per market segment. SWIFT is collaborating with market infrastructures to ensure a cost-effective and seamless move to ISO 20022 through the ISO 20022 Harmonisation Charter (see breakout box). With the plethora of market infrastructure initiatives and flexibility of the standard, the Charter sets out a number of principles aimed to avoid fragmentation and the risk of multiple ISO 20022 versions being adopted across the different markets. The principles of this Charter are formally endorsed by the Bank of Canada and by the CPA.

ISO 20022 Harmonisation Charter

The Harmonisation Charter is based on four principles:

1. Share information between financial market infrastructures about ISO 20022 usage
2. Adhere to global market practice where it exists, and contribute to new global market practice initiatives
3. Introduce stricter message version control and release management process and timing
4. Publish up-to-date information about standards on a common platform (MyStandards), including market practice compliance, messages and versions used and message release timeline

For Canada, SWIFT is supporting the CPA and Canadian community with standards mapping, market practice definition and deep experience with ISO 20022 adoption projects.

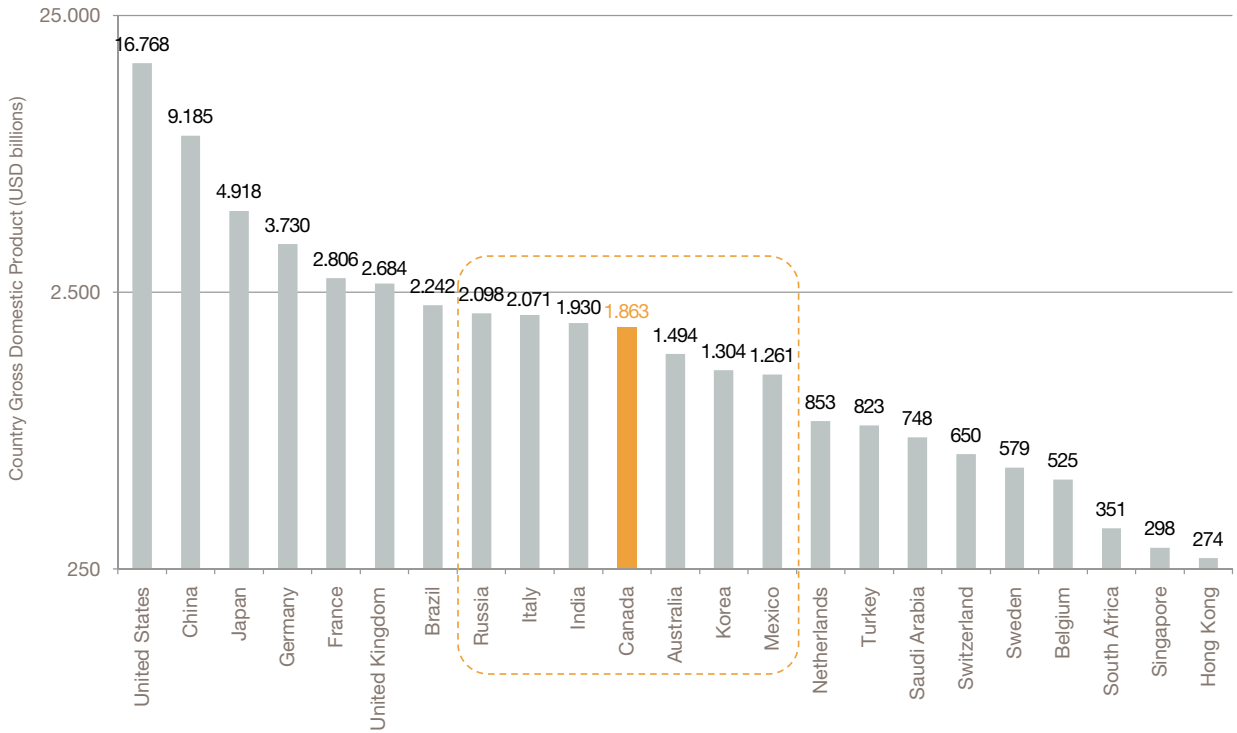
Conclusion

The adoption of ISO 20022 by major markets around the world demonstrates that it is the strategic direction for payments globally. Financial institutions and their corporate clients in the Canadian market not only have the opportunity to design an efficient payment messaging format for domestic needs, but to actively participate in the evolution of the global standard.

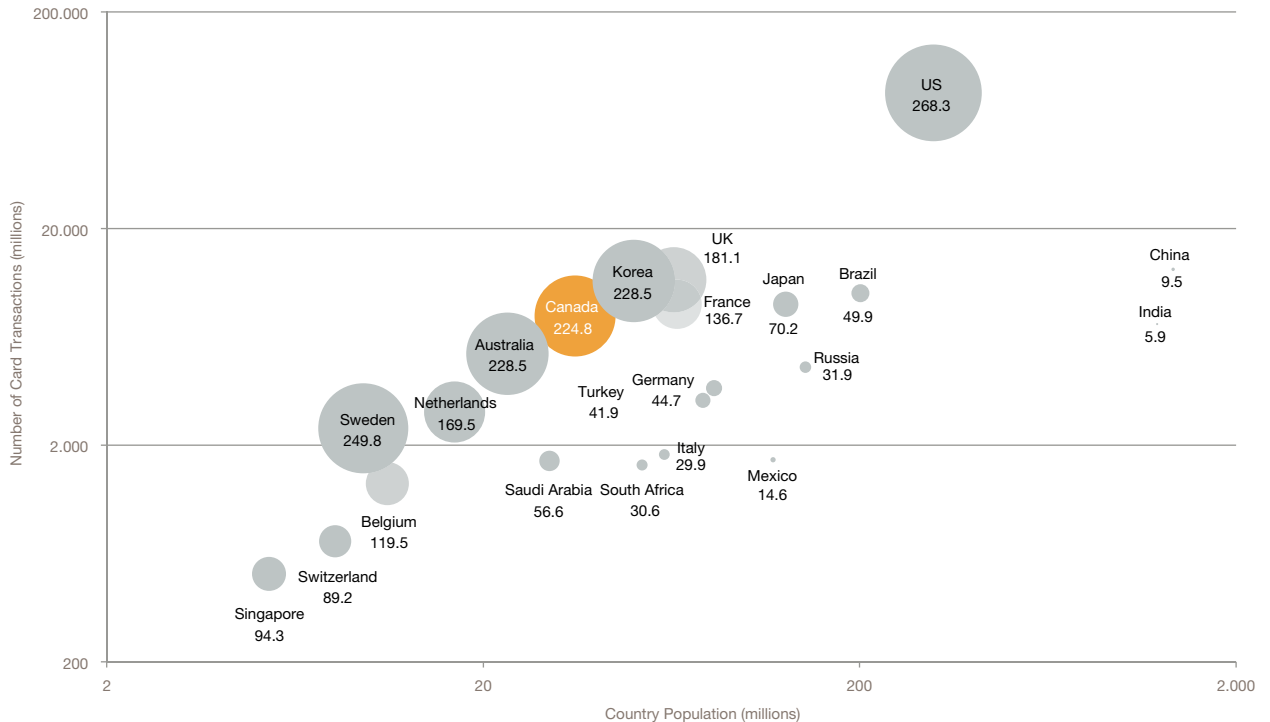
The adoption of ISO 20002 and the implementation of Extended Remittance Information across the Canadian payments landscape are expected to support domestic commerce, strengthen Canada's competitiveness as a trading nation and create new opportunities for financial institutions, payment service providers and business in Canada.

The CPA, supported by SWIFT, the Payments Market Practice Group (PMPG) and other industry best practice organisations are in a position to deliver these benefits for Canadian firms.

Appendix



▲ Figure 1 - Canadian Peer Ranking by Country Gross Domestic Product (GDP) - USD billions for 2013



▲ Figure 2 - Canadian Peer Ranking by Consumer Cards (size of bubble = number of transactions per person for 2013)

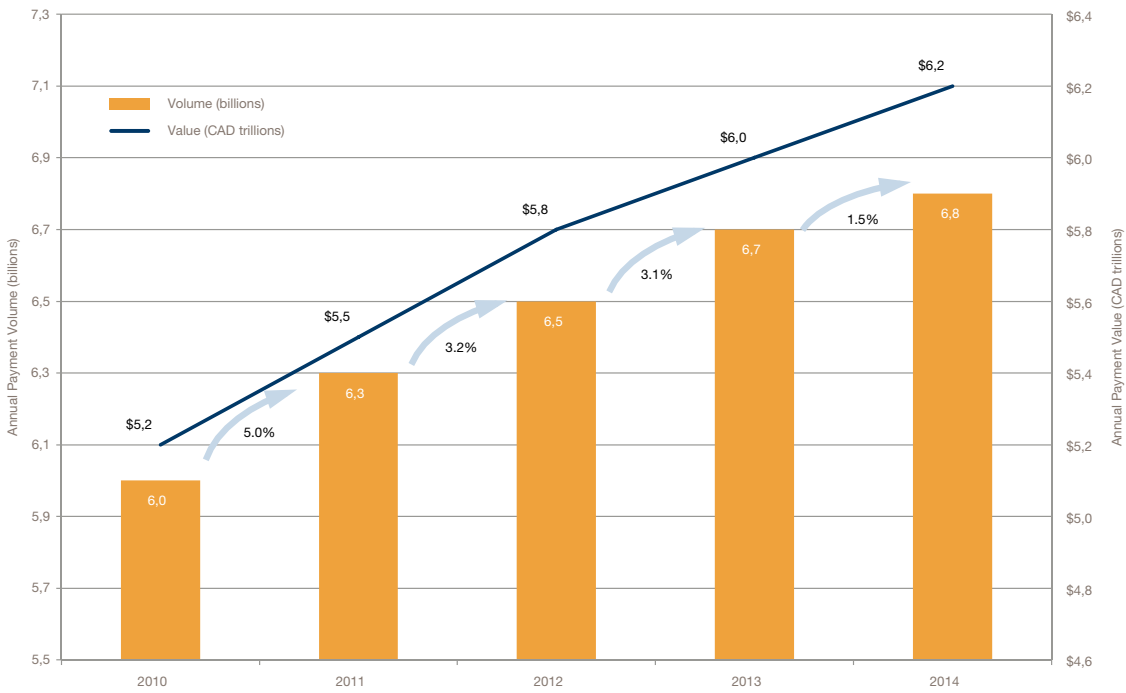


Figure 3 – Canadian Retail Payments - Automated Clearing Settlement System (ACSS)

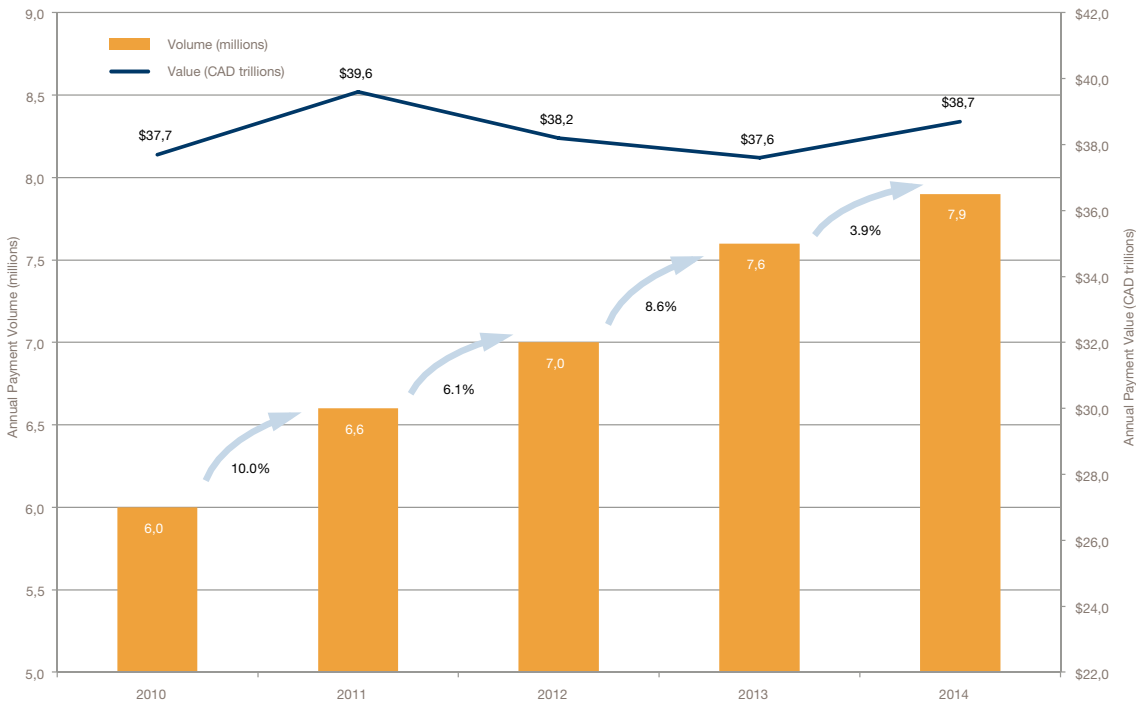


Figure 4 – Canadian Wire Payments - Large Value Transfer System (LVTS)

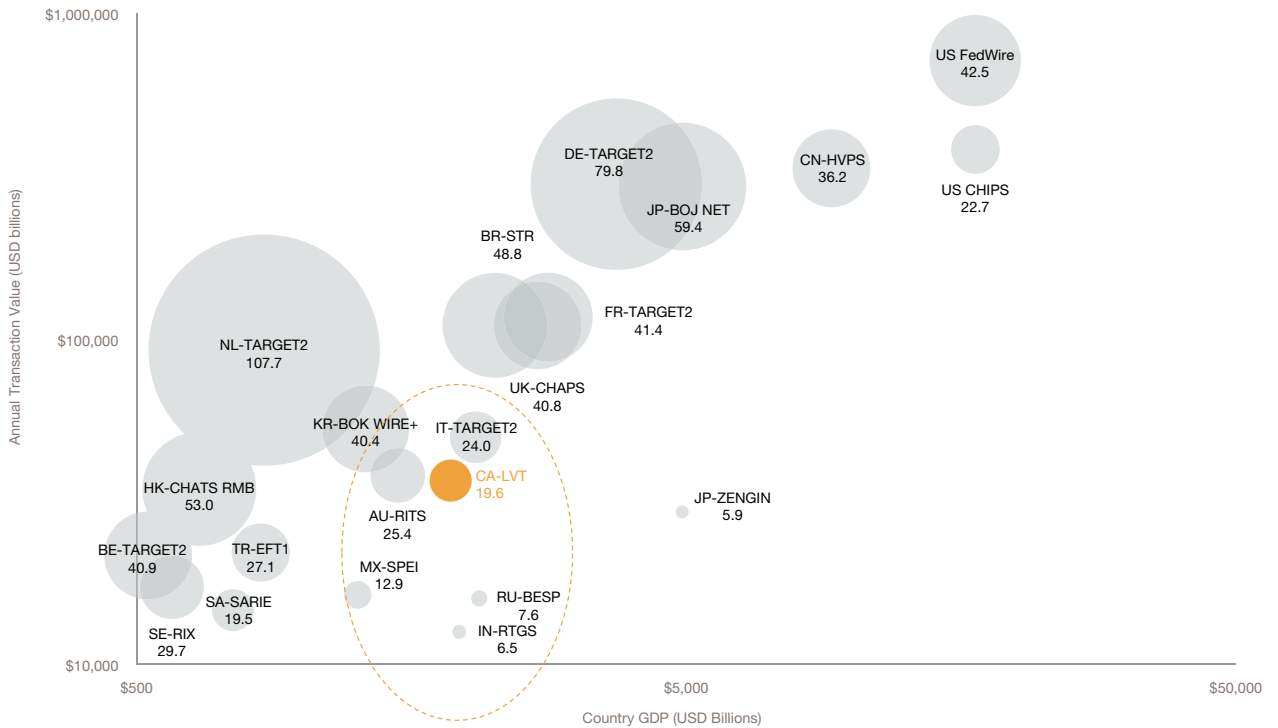


Figure 5 – Canada’s Payment Settlement vs GDP Performance (bubble size = ratio of payment transaction value vs GDP in 2013)

Payments Oversight and Governance in Canada

- CPA’s Board of Directors is comprised of 7 independent directors, 5 member directors and the CPA’s President and CEO, and participating CPA members fund the operating costs
- CPA administers the daily system operations and develops, implements, and updates the rules and standards that govern the clearing and settlement of payments between its members
- Legal foundation for payments systems operations is provided in the CPA By-laws and in the Payments Clearing and Settlement Act (PCSA)
- Bank of Canada is responsible for oversight, monitoring the flow of payments through the systems and the settlement positions of the participants at all times. Overall oversight is undertaken by the Canadian Minister of Finance

Figure 6 – Payments Oversight and Governance in Canada

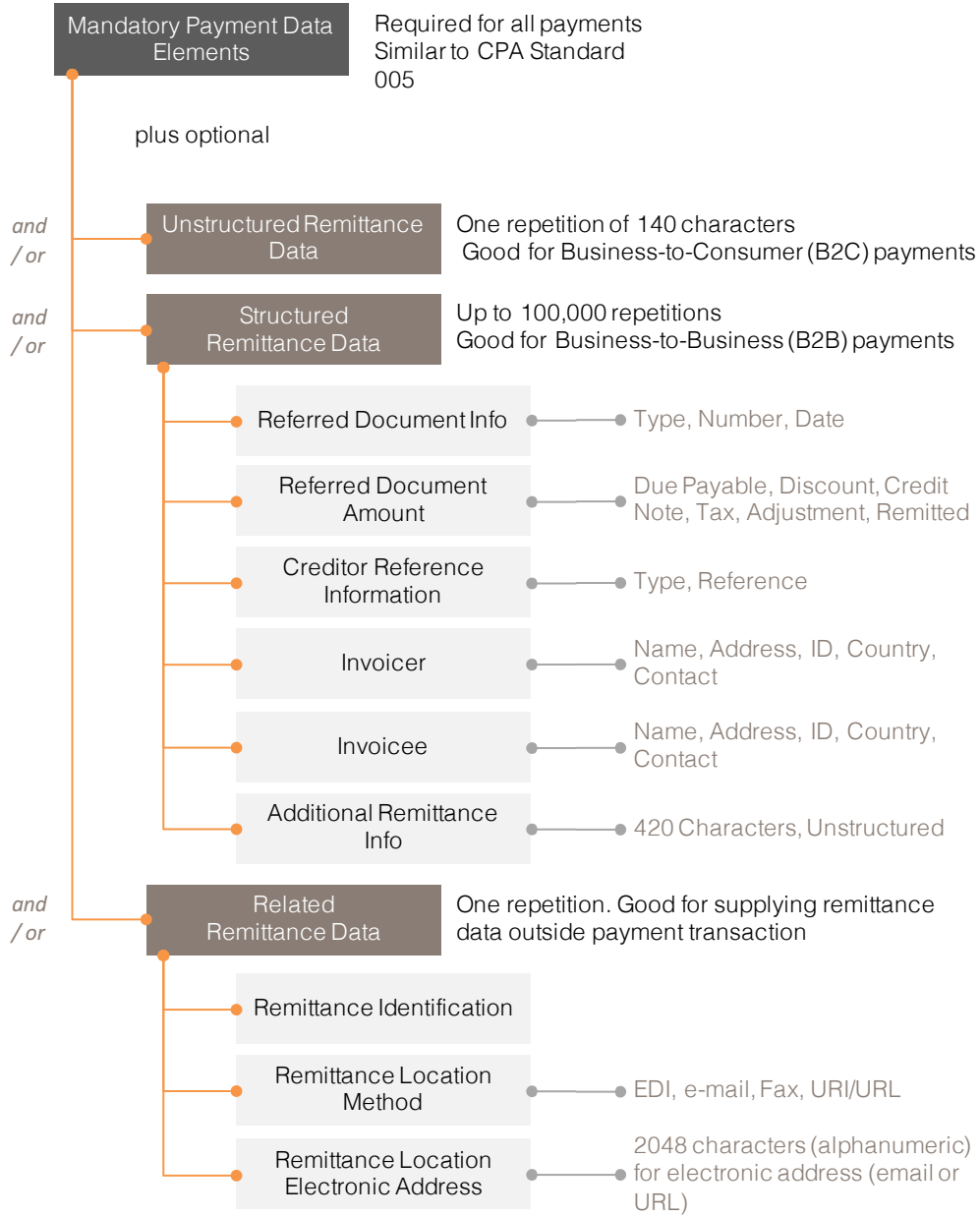
Explaining ISO 20022

- ISO 20022 is a financial messaging standard developed by the International Organisation for Standardisation (ISO), a worldwide federation of National Standards Bodies, and was first introduced in 2004. It is open to everyone, not controlled by a single interest.
- Utilising eXtensible Mark-up Language (XML) syntax, ISO 20022 uses a flexible modelling methodology to address financial messaging requirements.
- ISO 20022 uses a central repository of globally-agreed business terms that has evolved into a common global reference for the financial industry. It has already been applied to many financial processing areas, including trade finance, securities settlement, corporate actions, payments, remittance, and regulatory reporting.
- All ISO 20022 data elements are bundled into structured messages with additional rules that provide guidance on usage and interpretation, set by industry market practice groups. Each message has specifically defined functions and definitions, enabling automated field and syntax validation, and avoiding the non-validation and misinterpretation associated with free-format fields.
- ISO 20022 is not just a repository of standardised financial messages but also a method in which to develop standards.
- For payments, ISO 20022 takes into account the end-to-end data requirements of various stakeholders, including corporations, vendors, banks and clearing and settlement systems.
- For the reconciliation of invoice / receipt, ISO 20022 supports all necessary remittance data fields and remittance models (one-to-one, one-to-many, many-to-one and many-to-many) and implementation models (carry with the payment, refer to an external repository).
- The remittance information also allows financial institutions to meet regulatory payment 'screening' requirements, such as sanction lists and Anti-Money Laundering (AML).
- Is supported by modern, mainstream technology that facilitates efficient integration and allows for easy data consumption as its underlying syntax is based on structured XML.

Figure 7 – Explaining ISO 20022

ISO 2022-based Payment Remittance Initiatives in Other Markets

- **SEPA** - Supported by the European Payments Council (EPC), the goal of the Single Euro Payments Association (SEPA) is to harmonise customer credit transfers and direct debits across 37 disparate EU communities. The EPC has developed SEPA payment schemes described in the SEPA Credit Transfer (SCT) and SEPA Direct Debit (SDD) Rulebooks, using ISO 2022. The SCT schema supports the end-to-end carrying of optional remittance data in a structured or unstructured format, depending upon the specific requirements as an ‘Additional Optional Service’ (AOS) that can be offered as a value-added service by participant banks. It is estimated that more than 500 individuals and over 20 million corporations, as well as European public authorities can make and receive euro payments through SEPA.
- **Finland** - Finland has completed an ISO 2022 payments initiative, ACH Finland as a SEPA-compliant Clearing and Settlements Mechanism (CSM). ACH Finland now supports the SEPA SCT schemes, including the data formats which are based on ISO 2022 messages standard. ACH Finland also supports the optional remittance data used to provide structured remittance information for such processes as bundling of invoices and credit notes.
- **IFX Forum** - The International Financial eXchange (IFX) Forum is an organisation comprised of leading financial institutions, service providers, and software vendors dedicated to developing a messaging standard for financial services. In April 2014, the IFX Forum submitted two new messages to ISO for inclusion in ISO 2022. The ‘Remittance Advice’ message contains key elements pertaining to an associated payment, including discounts, disputed amounts and invoice details. The ‘Remittance Location Advice’ message specifies the location, such as a trading partner’s or third-Party solution provider’s web site, where the remittance information can be found.
- **United States** - In the U.S., the Federal Reserve and the National Automated Clearing House Association (NACHA) have conducted quantitative surveys to consider changes to their respective payments systems in the U.S. corporate marketplace. Similar to Canada, the studies revealed an increased demand for additional structured remittance data to enable more efficient processing and automated reconciliation. As a result, the Fedwire System and CHIPS introduced enhanced messaging layouts based on ISO 2022. In addition to containing all necessary data fields for payment and settlement, the new messages include remittance elements to explain the purpose of the payment. Based on customer requirements, a participating institution can choose from three methods of transferring remittance information to their customers, ‘unstructured’ (which allows originators to send beneficiaries a block of up to 9,000 characters of remittance data in a specified format supplied by the originator), ‘related’ (which contains a reference in the CTP to where the extended remittance information can be found, such as a URL address), or ‘structured’ (which allows originators to include the remittance data in pre-defined fields in the CTP messages).
- **CGI** - In response to demands from corporates, the Common Global Implementation (CGI) initiative, seeks to agree on a common implementation of ISO 2022 in the corporate-to-bank payment cycle, in order to simplify implementation for corporate users, and to promote wider acceptance of ISO 2022. CGI has examined the underlying local market requirements and created a CGI-MP (Market Practice) message template. This template contains the lowest common denominators for making a valid payment, and allows for additional data elements to be passed between those banks and corporations that agree to support such a service. The initiative extends beyond corporations and banks to include application vendors, service providers, and market infrastructure organisations.
- **SCORE** - The SWIFT for Corporates (SCORE) initiative harmonises the implementation approach for large corporates for implementing ISO 2022 payments. SCORE aligns with CGI for both payments and additional remittance elements. In addition, the International Payments Framework Association (IPFA) interlinks Automated Clearing Houses (ACHs) across the world for cross-border ACH payments, using ISO 2022 as common standard for mapping inbound and outbound traffic.



▲ Figure 9 – ERI data elements expected to be supported by CPA

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Our messaging platform, products and services connect more than 11,000 banking and securities organisations, market infrastructures and corporate customers in more than 200 countries and territories, enabling them to communicate securely and exchange standardised financial messages in a reliable way.

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