

Consultation



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Creating new opportunities in Canadian payments

*CPA's ISO 20022 Payments Standard Initiative -
Consultation Document*

August 2015

MESSAGE FROM THE PRESIDENT AND CEO

The Canadian Payments Association (CPA) underpins the Canadian financial system and economy by providing safe, efficient and effective clearing and settlement of payments. We are committed to meeting the evolving needs of payments system users and to ensuring continued innovation in Canada's national payments infrastructure.

The CPA has launched a [multi-year initiative](#) to modernize Canada's core payments infrastructure which will ultimately use a new internationally recognized payment messaging standard – ISO 20022. The transition to this standard, which is being adopted by a growing number of financial market infrastructures around the globe, will create new opportunities for financial institutions, payment service providers and businesses across the country, while ensuring the enhanced performance of our country's payments system well into the future.

While the current message standards supporting Automated Funds Transfers (AFT), Electronic Data Interchange (EDI) and wire payments, the backbone of business payments in Canada, have served Canada well, they are limited in their ability to effectively adapt to the needs of today's digital economy. For example, they only accommodate a limited amount of remittance data along with the payment. In today's information age, this is a barrier to end-to-end straight-through processing and automated reconciliation, which are key to allowing Canadian businesses, governments and financial institutions to initiate and receive electronic payments efficiently. Additionally, payments travelling across different national clearing and settlement systems fail to "speak the same language", therefore businesses, governments, payment processors and financial institutions that create, send and receive these payments need to maintain multiple payment standards, processes and business systems to support their payment operations. Often, manual intervention is required to "translate" a payment message across multiple technology platforms and as a result, there can be many costly stops and starts along a payment's journey to its destination.

In recent years, planning the evolution of Canada's payments system has certainly been the focus of regulators, the CPA, its members and payments system users through various review and consultation exercises. The growing global convergence towards a new standard for payment messages was quickly identified by many users as a key development when considering the future state for payments in Canada. In February 2013 the CPA Board of Directors resolved to establish the ISO 20022 Universal Financial Industry Message Scheme as the long term electronic payment standard for CPA payments.

Since then, working with members and stakeholders, our efforts have focused on mapping the current AFT, EDI and LVTS formats to the ISO 20022 message portfolio, and developing policies and rules that will support this new framework for AFT payments. The proposed approach to introducing the ISO 20022 payments standard in Canada is to release the ISO 20022 AFT payment messages and supporting rules in 2016 for immediate use and market-driven adoption by CPA member financial institutions. ISO 20022 payment messages for EDI and LVTS will be published for information concurrently with the release of ISO 20022 AFT messages, which will allow stakeholders to build for the future. A mandatory end-date for the existing AFT message standard and an adoption date for ISO 20022-enabled EDI and wire payment messages will be determined as part of the CPA's

broader modernization strategy to develop a new core clearing and settlement infrastructure. Looking forward to the outcome of this strategy, CPA Standard 005 will eventually be decommissioned and all CPA member financial institutions wishing to settle payments will be required to use ISO 20022 messages for all three payment schemes (AFT, EDI and LVTS).

What does this mean for the Canadian payments system? In short, it means creating new opportunities for payments. Our vision of ISO 20022-enabled payment message standards will bring tangible results for users across the system, from financial institutions to businesses, governments and consumers:

- Payment messages will carry enhanced remittance information;
- Increased end-to-end straight-through processing and automated reconciliation;
- Greater interoperability in both domestic and global markets;
- A common “payments language”;
- Reducing the number of payment standards used in Canada today, and the costs of managing these standards;
- Efficiencies in managing/supporting payment systems;
- Increased innovation and competition among financial institutions and third-party service providers; and
- New value-added services.

We are eager to leverage the full potential of the ISO 20022 payments standard for the benefit of Canadians. But to do so, we need your input.

Considering the interests of payments system users is a key public policy principle goal for the CPA. The initial roadmap for the CPA’s ISO 20022 initiative was released for public [consultation](#) in 2012. Today’s consultation paper is the culmination of a wider investigation and engagement process in 2014 and 2015 which has involved numerous outreach sessions with targeted organizations including CPA members and stakeholders; government, businesses and payment service providers. ISO 20022 has been a major theme in the last three CPA [Payments Panorama](#) conferences, in the form of education workshops, plenary sessions and discussion panels. This year we also held plenary sessions with CPA Indirect Clearers in both Calgary and Toronto. To accompany this consultation document, we have also developed an [ISO 20022 Survey](#) that is open to all corporate users during the consultation period.

We are now seeking feedback from Canadian payments system users on our proposed ISO 20022 message portfolio for AFT payments, including the policy considerations and message standards, our policy approach to the use and treatment of enhanced remittance data, and our proposed strategy for the adoption of the ISO 20022 payments standard in Canada. We look forward to reading your ideas and suggestions, and thank you in advance for helping us make this initiative a success.

Gerry Gaetz
President and CEO

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1. INTRODUCTION AND BACKGROUND

PURPOSE

The purpose of this consultation document is two-fold. Our first objective is to collect your feedback on specific consultation questions surrounding the following aspects of the CPA's ISO 20022 Payments Standard Initiative:

1. the design of the CPA's ISO 20022 payment messages developed for use in the Canadian landscape, specifically for AFT messages;
2. the CPA's strategy for implementing ISO 20022 messages for AFT payments in Canada; and
3. the CPA's policy positions related to travel, availability and retention that are being proposed for AFT payments, including which parties will be required to use ISO 20022 messages.

Secondly, we aim to raise awareness of the CPA's ISO 20022 initiative, and to inform Canadian payments system users of the CPA's plan for implementing the new standard for electronic payment messages in Canada.

In support of these objectives, this document outlines the key elements of the CPA's ISO 20022 messages for AFT payments in Canada, our strategy for the industry adoption of the ISO 20022 payments standard, as well as our policy positions for ISO 20022-enabled AFT payments. Appendices include a lexicon of standardized ISO 20022 and payment industry terms ([Appendix I](#)), an introduction to ISO 20022 ([Appendix II](#)), and a case study on the potential applications of enhanced remittance data ([Appendix III](#)).

KEY BENEFITS TO THE CPA ISO 20022 INITIATIVE

Modernizing Canada's core national clearing and settlement framework and infrastructure, so that they continue to meet the demands of users and deliver innovation, is a key strategic outcome of the CPA's multiyear strategic plan – and our ISO 20022 initiative will play a crucial role in this regard. In so doing, we are guided by the following drivers:

1. Enhanced remittance information

The payment messages currently in use are limited in the amount of remittance information they can support. The limited ability to include information along with the payment is an impediment to greater adoption of electronic payments. ISO 20022's ability to carry more remittance information will serve as the foundation to support enhanced straight-through processing and automated reconciliation in Canada.

2. Support for global interoperability

With the ever-increasing adoption of ISO 20022 worldwide, the adoption of the standard in Canada will allow for cross border payments to be aligned with international standards.

ISO 20022 is more than just a technical standard. It's a tool with which the CPA is creating new possibilities in Canadian payments.

See [Appendix III](#) for potential applications of enhanced payment remittance data through ISO 20022.

3. Efficiencies in managing/supporting multiple standards

In today's environment, financial institutions and their customers are required to manage three or more standards to support their payment needs. ISO 20022 allows the financial services industry in Canada to consolidate LVTS, AFT and EDI standards into one global standard. A single standard will enable third-party service providers and payments system users to ingest and generate both payment and remittance data in a single message.

1. The CPA has identified three main benefits to moving the Canadian payments system to ISO 20022. Are there any benefits to ISO 20022 implementation that you believe have been overlooked or over-stated by the CPA?

THE CPA ISO 20022 INITIATIVE

The CPA's ISO 20022 initiative aims to make ISO 20022 the payments standard for electronic payments in Canada. The initiative includes the development of ISO 20022 messages for AFT payments in Canada, the accompanying CPA Rules and Standards, a framework to support the maintenance and management of the ISO 20022 related standards within the CPA context, as well as an industry adoption strategy. All of which will be aligned with the CPA's multi-year endeavour to modernize Canada's core payments infrastructure.

To date, we have made significant progress in our strategy to bring ISO 20022 to Canadian payments. We have adopted a new portfolio of ISO 20022-enabled messages that will eventually replace current AFT, EDI and LVTS messages, in addition to the usage guidelines, policies and rules to support the shift to ISO 20022 for AFT payments. The proposed strategy for industry adoption of the ISO 20022 payments standard has also been finalized with the assistance of the ISO 20022 Standards Advisory Group. This advisory group was established to provide strategic feedback from various industry representatives, including CPA members, stakeholders and users of the payment system.

CPA OUTREACH

So that the CPA's ISO 20022 initiative, including our approach, policies and strategy for adopting the ISO 20022 payments standard, is successful in meeting the needs of Canadians and payments system users, we have developed comprehensive educational materials and have conducted extensive outreach and consultation sessions with CPA members and stakeholders.

The CPA has developed an [ISO 20022 webpage](#) containing various resources on the benefits and workings of ISO 20022, including videos, FAQs, presentations from industry events, relevant news articles and independent research.

ISO 20022 has also been a key theme throughout the last three CPA [Payments Panorama](#) conferences, held in 2010, 2012 and 2014, with the aim of educating members of the payments industry, and preparing them for the

implementation of ISO 20022 in Canada. This included standards workshops in which we partnered with [SWIFT](#) (the Society for Worldwide Interbank Financial Telecommunication) – the registration authority for ISO 20022 – as well as plenary sessions and panel discussions. Modernization and ISO 20022 will also be featured heavily at Payments Panorama 2016.

The CPA has also communicated and collaborated with Canadian and international members of the payments community through various speaking engagements at industry events, including the [SWIFT Business Forum](#), [SIBOS](#) and [NACHA Payments](#) conferences. A total of 37 one-on-one outreach sessions with Direct and Indirect Clearers, government organizations, international payment associations and corporate stakeholders, including vendors and payment service providers, have also been conducted over the past three years.

This paper is part of a wider engagement process that has involved targeted consultations with specific members and stakeholders, as well as plenary sessions with Indirect Clearers in Calgary and Toronto. The CPA has also developed an [ISO 20022 Survey](#), that all corporate stakeholders are invited to complete as part of this consultation.

CPA RESEARCH

The CPA's ISO 20022 initiative has also been influenced through research. In late August 2015, we will be publishing a paper entitled *The economic benefit of adopting the ISO 20022 payment message standard in Canada*. The study estimates that the economic benefit to Canadians from ISO 20022 adoption could be as high as \$4.5 billion over the 5 years of implementation.

To be notified when the paper is released, please [subscribe to CPA email notifications](#).

2. CPA ISO 20022 PAYMENT MESSAGES

CPA ISO 20022 AFT MESSAGE FORMATS

The CPA will supplement, and eventually replace, the current AFT Standard 005 with ISO 20022 payment message standards that will be published for use by payments system users in early 2016. The CPA's current AFT standard (Standard 005) is comprised of logical records used to deliver Direct Deposits and Pre-Authorized Debits, as well as to perform exception processing requests such as error corrections.

In building the portfolio of CPA ISO 20022 messages for AFT payments, we began by mapping the current AFT standard to the relevant ISO 20022 formats as close to *"like-for-like"* or *"equivalent"* as possible, while also providing for the inclusion of optional structured and unstructured remittance information. Elements from each of the ISO 20022 messages that had equivalent elements in the current standard were identified in order to ensure that current functionalities were being maintained. The portfolio was built in partnership with SWIFT, the registration authority for ISO 20022, and was then reviewed and validated by the CPA's ISO 20022 AFT Working Group. The Working Group consisted of representatives from CPA members and stakeholders with strong knowledge of the current AFT file structure and rules framework.

Table 1 provides a breakdown of the Standard 005 Logical Records and the ISO 20022 messages formats that were mapped against them.

Table 1: CPA ISO 20022 AFT Portfolio of Messages

| ISO Message Format | Message Type | Current Standard 005 Logical Record |
|--------------------|---------------------|--|
| PACS.008 | Customer Credit | Logical Record "C" – Direct Deposits |
| PACS.003 | Customer Debit | Logical Record "D" – Pre-Authorized Debits |
| PACS.004 | Payment Return | Logical Records "I" & "J" – Returns for credits and debits |
| PACS.007 | Payment Reversal | Logical Records "E" & "F" – Error Corrections for credits and debits |
| ACMT.022 | Modification Advice | Logical Record "S" – Notice of Change |

The complete catalogue of the CPA's ISO 20022 AFT payments message portfolio has been made available for your reference:

[ISO AFT Payment Reversal Message](#)

[ISO AFT Customer Credit Transfer Message](#)

[ISO AFT Customer Direct Debit Message](#)

[ISO AFT Identification Modification Advice Message](#)

[ISO AFT Payment Return Message](#)

[ISO AFT Payment Reversal Message](#)

THE BENEFITS OF ISO 20022 MESSAGES OVER STANDARD 005

The CPA's proposed ISO 20022 messages for AFT have several benefits over the existing Standard 005. They include:

- Rich messaging;
- Enhanced reference numbering;
- Enhanced payment chain; and
- Additional remittance information.

Rich Messaging

One of the key differences between the ISO 20022 message formats and Standard 005 logical records is the richness of data that is available within the ISO 20022 message formats. Where Standard 005 is one dimensional, there are a number of layers within the ISO 20022 message formats, which is immediately evident in the difference between the number of data elements in the credit logical record Standard 005 (21 data elements) as opposed to the number of elements in the corresponding ISO 20022 customer credit message (over 700 data elements and sub-elements). Further, the flexibility of the XML language allows for only the relevant information to be included in a payment while the structure of the Standard 005 file is such that all record lengths have to be of a specific length.

Reference Numbering

The ISO 20022 AFT debit and credit messages were defined to include a number of mandatory and optional elements that may need to be populated prior to the exchange of a payment message for the purposes of clearing and processing of a payment. Some of those mandatory components include a set of referencing options that are provided by the ISO 20022 message standard that have been enabled in the ISO 20022 AFT message to improve the exception process and tracing mechanisms.

These reference numbers were available in Standard 005 but some were optional and misused in the current AFT payment. In the new ISO 20022 AFT message, the Transaction Identification Number – which replaces the current Item Trace Number from Standard 005 – is a mandatory element that has been lengthened for the ISO 20022 AFT messages to take advantage of the full capacity of the ISO 20022 message. The most important reference number is the *End-to-End Identification* number, which replaces the Cross Reference Number in Standard 005. This number is a mandatory number that is defined by the ISO standard as a “Unique identification [number] as assigned by the initiating party, to unambiguously identify the transaction”. The intent for this reference number is for it to survive the payment chain unchanged to the sending or receiving financial institutions, if provided by the originator, and could be referred to by the originator in the event a trace is required.

Enhanced Payment Chain

ISO 20022 messages include numerous options for identifying various parties (Financial Institutions and non-Financial Institutions) within the payment chain. While most of these parties are not necessary in the Canadian clearing and settlement environment, the CPA's belief is that enabling a few of these parties as optional elements would add a level of transparency and benefit to the payments ecosystem.

Ultimate Debtor and Ultimate Creditor

The Ultimate Debtor and Creditor elements are examples of opportunities available in ISO 20022 that were considered enhancements to the scoped remittance requirement. These two elements were also enabled in the ISO 20022 AFT payment messages as optional elements. They provide the originator the opportunity to identify additional parties in the payment where these parties are different from the *Debtor* and *Creditor* of the payment. These elements ultimately identify the entity on whose behalf the payment is being made (by the named *Debtor*) and the entity on whose behalf the payment is being received (by the named *Creditor*).

Examples of payments that would benefit from the use of these elements are payments made by a corporate entity on behalf of one of its franchisees or a government payment made to a business such as a retirement residence, for the benefit of one of its residents. The two elements have been fully enabled to allow as little or as much detail as required by the payment originator to properly identify the party that is ultimately the sender or receiver of the payment. The details include name, address, and some form of identification for example, date and place of birth or other form of identification.

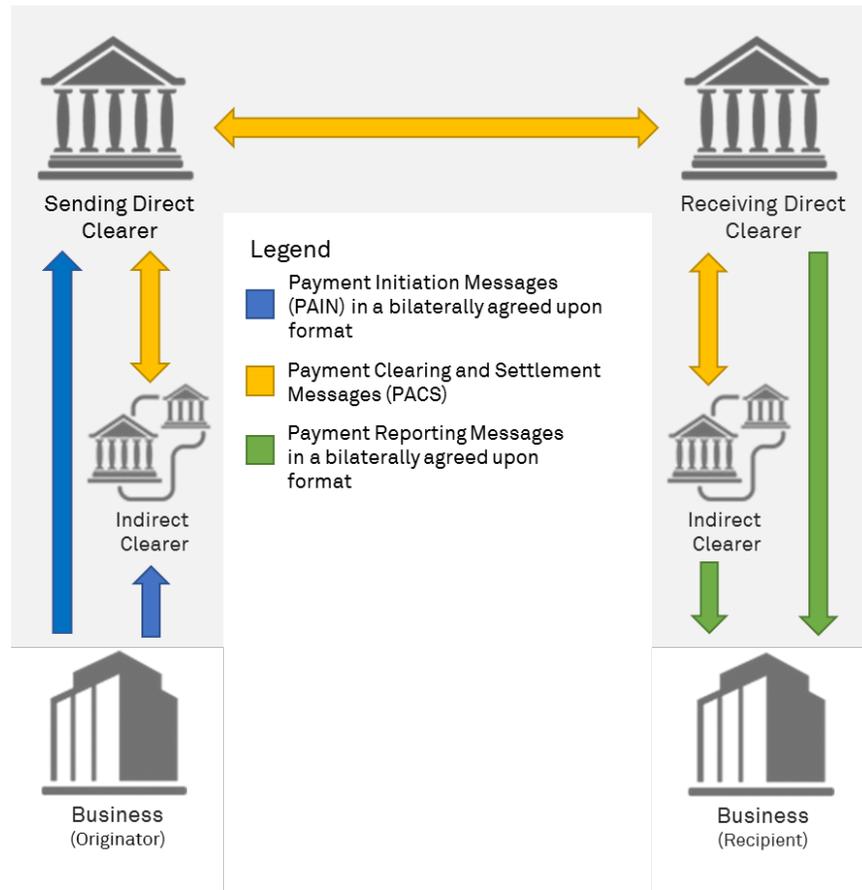
Initiating Party

This element shall be used to define the actual sender of the payment. An example of this would be if a financial institution uses a third party processor to send transactions into the clearing, that third party entity would be identified within this element. This element was identified to be useful not only from a remittance perspective but more so for the reporting of payments for AML.

ISO 20022 Message Suite

The ISO 20022 business model for payments contains a robust set of messages that cover all legs within the payment chain, not just those exchanged within the inter-financial institution (FI) space. The scope of the CPA's message development in Phase-I was to create Payment Clearing and Settlement (PACS) messages that are exchanged in the inter-FI space (see yellow arrows in the diagram below). There are separate (yet highly aligned) messages that cover the Payments Initiation (PAIN) leg and the Cash Management (CAMT) leg. The individual elements within each of the PAIN/CAMT messages are the same as the elements within the PACS messages (in structure and definition), therefore mapping from one message to the other is a straight-forward task. The differentiation between all the various ISO 20022 messages comes from which elements are used to construct each message and is necessary due to the various information flows required by each participant in each leg of the payment chain.

Figure 1. Payment Chain



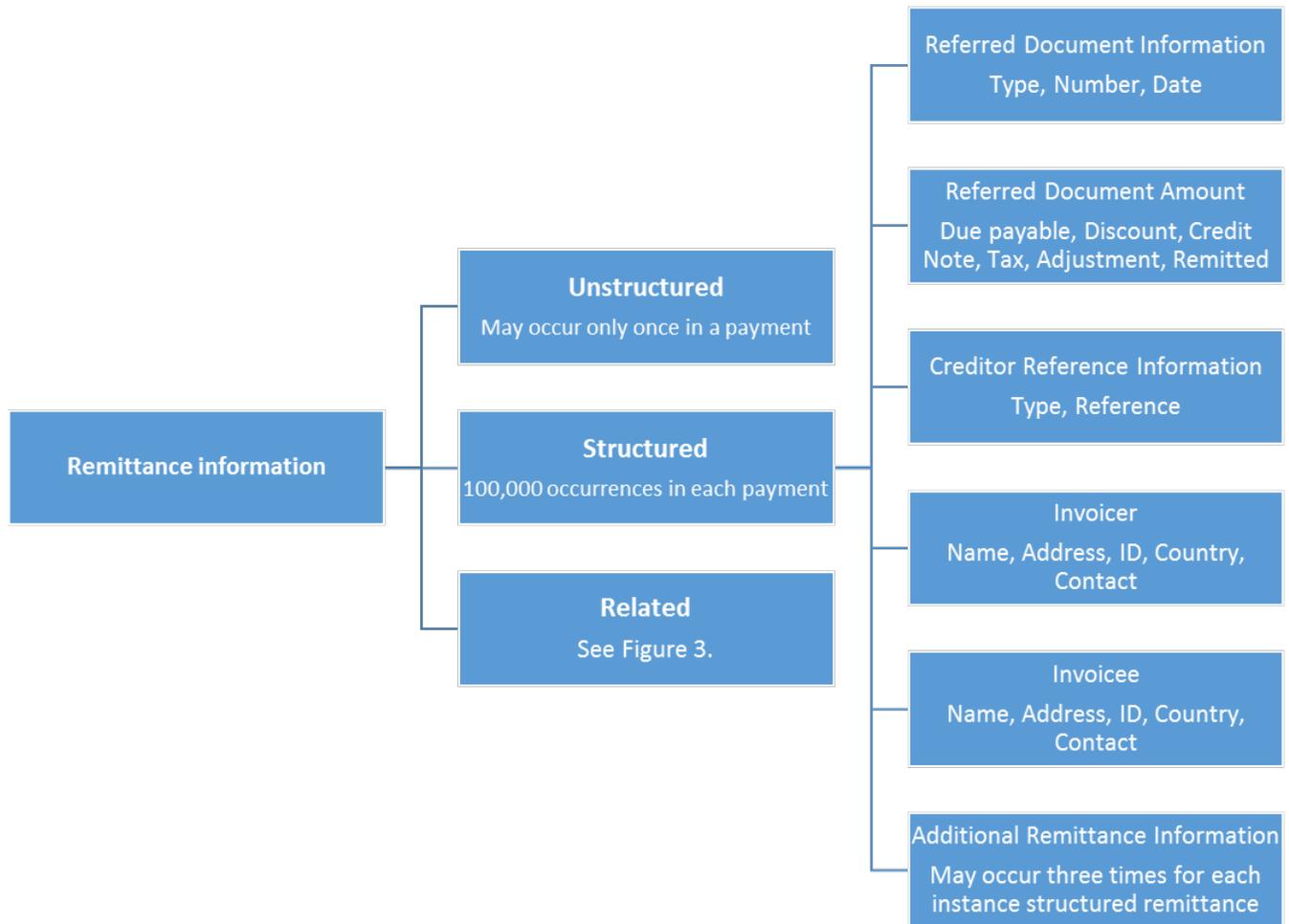
- The CPA believes minimum message standards for the Payment Initiation (PAIN) and Cash Management (CAMT) portions of the payments chain should be developed because they will provide an end-to-end model for ISO 2022 payments in Canada. Would developing these additional message standards provide significant benefit to payment system users? Can more be done to enhance end-to-end payment message standards?

Additional Remittance Information

ISO 2022 addresses a major issue in payment standards in Canada: the lack of remittance information within current payment message standards. This was identified as a key driver for the CPA's ISO 2022 initiative, which leverages the full potential of ISO 2022's capacity for remittance information for the benefit of Canadians, while ensuring remittance components are interoperable with global markets. This will allow for a reduction in the number of paper payment items and improve payment flows for business-to-business and business-to-consumer payments within Canada and abroad.

The structure of the Remittance Information component within an ISO 2022 payment message, including Unstructured, Structured and Related remittance information is outlined in Figures 2 and 3.

Figure 2. ISO 2022 Remittance Information Structure



Structured Remittance Information

The *Structured Remittance Information* element is comprised of sub-elements in which additional details related to each payment may be specified. The ISO 2022 Remittance Information component was developed by the International Organization for Standardization (ISO) in 2002. In 2009, the component was improved to be aligned with the STP 820 Standard developed by CHIPs (Clearing House Interbank Payments System) which identified the 10 basic elements of remittance information that they believe are necessary elements from a remittance perspective. These elements were incorporated into the ISO 2022 payment message and can be directly mapped into the *Structured Remittance Information* component.

The *Structured Remittance Information* component has been enabled in the CPA’s ISO 2022 AFT debit and credit messages to be repeatable up to 100,000 times for each payment message. This means, for example, that in the case of a business making a single payment of \$10,000 for the combined payment of 29 invoices, there can be 29 occurrences of the Structured Remittance Information component in that single payment transaction where each occurrence relates to one invoice.

It is also important to note that when business still has additional information to provide to its trading partner that cannot be included within the structured format, the *Remittance Information* element can be used to provide that additional detail. In fact, that element may be repeated up to three times for each occurrence of Structured Remittance (for a total of 420 characters of free text).

Figure 2 (above) highlights the form of the “Structured Remittance” component. For each invoice, the payment originator will be able to indicate the type of document being referred to (e.g., invoice, bill of lading, contract etc.), the document number, the date, the type of amount being paid (e.g., tax amount, remitted amount, adjusted amount etc.) and the amount that was due, any secondary reference document related to the invoice, the name and other pertinent details related to the entity that issued the invoice (the Invoicer) and the name and any pertinent details related to the entity that received the invoice (the Invoicee), and finally any additional information related to the payment that could not be included in any of the elements noted above.

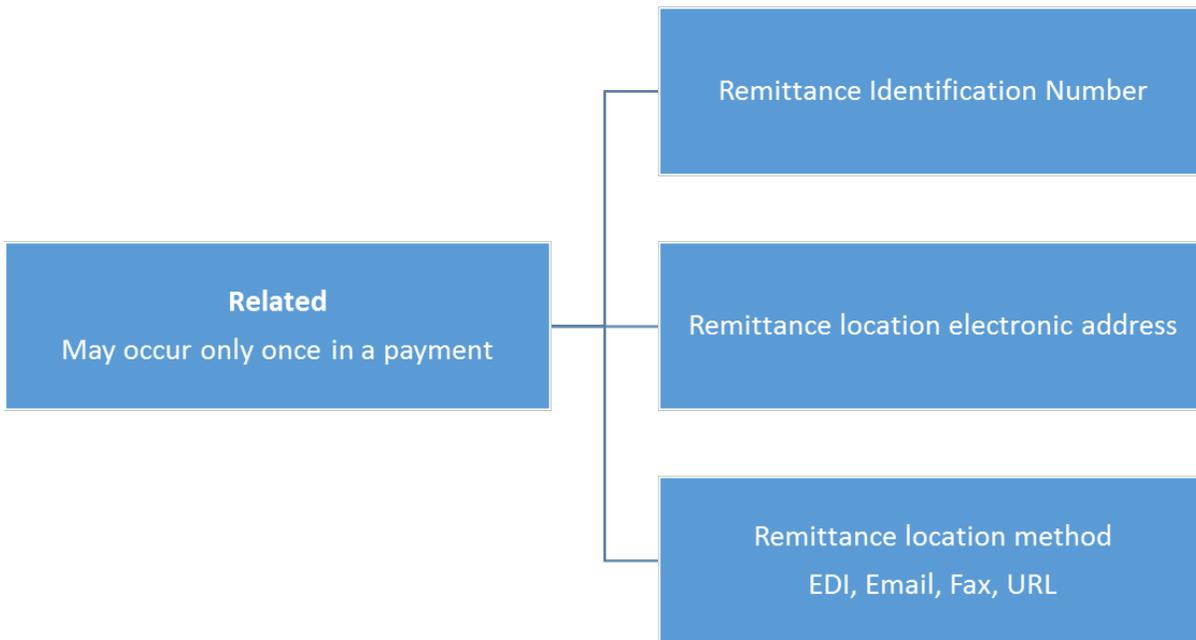
Unstructured Remittance Information

The second option for the delivery of remittance detail is a single occurrence of the *Unstructured Remittance* element (also depicted in Figure 2). This element is a text field in which the corporate may provide up to 140 characters of information related to the payment being made, in an unstructured manner. The CPA’s proposal to allow a single occurrence of this element was made in an effort to extend the benefits of ISO 20022 more broadly to Canadians (not just businesses and large billers) without encroaching on the use-case anticipated for corporates’ use of the more robust Structured Remittance element.

Related Remittance Information

The third option for remittance information within the ISO 20022 messages is the *Related Remittance Information* element (depicted in Figure 2). Using this element, a corporate making a business-to-business transaction may provide a payment that includes an electronic link or address indicating to the recipient where remittance details can be found or how these will be provided (for example, these may be retrieved or provided separately either via EDI, email, fax or URL). The Related Remittance information element gives payment originators the flexibility to provide their trading partners with access to remittance information without them needing to make major modifications to their systems. This feature, like the previous remittance option, was also enabled to encourage corporates to move to ISO 20022 sooner and to start reaping the benefits of this new process early. It also facilitates, through the payment message, processes already in place whereby trading partners are typically providing each other with the remittance detail separate from the payment, or outside of the clearing system.

Figure 3. ISO 2022 Related Remittance Information Structure



3. This section highlights the remittance information enhancements provided by ISO 2022 for AFT messages. Does the proposed message structure, including these optional remittance information elements meet the business needs of all payments system users? Are there specific issues related to this design? Can you describe them, and where and how they may impact users?

3. ADOPTION STRATEGY

ISO 20022 is an enabler capable of delivering a number of desired strategic outcomes. In Canada, these include improving efficiency in payments processing, enhancing payments systems interoperability on a domestic and global level and fostering innovation throughout the payments value chain. To achieve these outcomes, the CPA believes that ISO 20022 adoption must be integrated into the broader strategic framework for modernization; a coordinated and holistic industry strategy embodying a shared go-forward vision of the characteristics of the Canadian payments ecosystem.

Introducing modern payment message standards that better support the evolving needs of payment system users is an important element of the CPA's overall approach to future proofing Canada's payment system and the core national payments infrastructure under our responsibility. As such, we will establish ISO 20022 as the messaging foundation for Canada's payments ecosystem. This foundation will support the delivery of value to Canadians and accommodate future payment innovations.

In advance of full design and implementation time lines being established for changes to Canada's core payments infrastructure, the CPA is proposing a voluntary, market driven adoption strategy for the new ISO 20022 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 20022 message standards for AFT and provide supporting rule amendments and an operational support structure to assist CPA member financial institutions who chose to adopt the new ISO 20022 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 20022 into the clearing and settlement system.

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 and our core national payments infrastructure, we will revisit our market driven adoption strategy for ISO 20022 to determine the most appropriate time to decommission Standard 005 and to set adoption timelines for the remaining two payments schemes—EDI and LVTS.

3.1 WHY AFT FIRST?

The migration to the new ISO 20022 standard will begin with AFT payments for the following reasons:

- AFT has been identified as the payment stream with the greatest need for additional remittance information. Providing enhanced remittance information in AFT's would allow small, medium and large businesses to further automate their payment processes. Both EDI and LVTS currently have an acceptable level of remittance information capacity.

- Of the three current domestic payment schemes, AFT provides the greatest potential for the migration from paper (cheques) to electronic payments.
- AFT transactions are bilaterally exchanged between Direct Clearers with no central system (as is the case with LVTS), therefore a voluntary adoption approach is possible.

The AFT message standards will be published in the spring of 2016 and will be available for use by CPA members in a market driven approach. Direct Clearers will be required to adopt ISO 20022 at a future date to be set in the context of the CPA's broader modernization strategy.

3.2 WHY A VOLUNTARY MARKET DRIVEN AFT ADOPTION TO START?

As an initial Adoption Strategy, voluntary market-driven ISO 20022 AFT adoption will begin in 2016. The rationale for voluntary adoption is as follows:

- Knowing that the industry is at different points in their evolution of systems and business priorities and that FIs, businesses and third-party service providers are at varying states of readiness, voluntary adoption represents a balanced approach to introducing ISO 20022 as the new payments standard.
- While the CPA's modernization initiative is working to define, by the end of 2016, the go-forward vision for the Canadian clearing and settlement systems and resulting end dates for the existing standards, it should not delay bringing the benefits of ISO 20022, particularly enhanced remittance information, to those who recognize the value proposition today.
- A voluntary market driven adoption for AFT allows the market players to move forward at their own pace and allows early adopters to compete and innovate sooner while providing greater flexibility for the industry to prepare for the upcoming end date of the existing CPA payment standards.

3.3 CO-EXISTENCE

In the long-term, the desired end state is mandatory adoption of ISO 20022 at the inter-FI level. While the mandatory timing for adoption of each of the payment types is still to be determined, there will be requirements for existing standards, such as Standard 005 and the new ISO 20022 standard to coexist. As members begin to adopt and develop their ISO 20022 capabilities, they will have the ability to bilaterally exchange ISO 20022 formatted messages amongst adopters of ISO 20022 while continuing to send and receive payment messages using the existing standard to institutions that are not yet ISO 20022 enabled. The CPA will proactively monitor the rate of adoption of the new standard and the progress of modernization and adjust its ISO 20022 adoption strategy as necessary with the expectation that at some point a mandatory date will be imposed.

3.4 MESSAGE STANDARDS FOR LVTS AND EDI

The CPA has also developed ISO 20022 messages to replace the current EDI and LVTS message standards.

While adoption for AFT and the inclusion of enhanced remittance information represent the greatest potential benefits for the overall payments system, because LVTS is a systemically important system, adoption of ISO

2022 will require a system-wide, integrated approach, meaning that all users would need to adopt and migrate to the new standard at the same time.

Based on discussions with FIs and payment system stakeholders it is anticipated that significantly enhancing AFT remittance information may facilitate the movement of some EDI payments traffic to AFT. Over time, this may lead to the eventual elimination of the current EDI payment standard.

Any form of implementation that sees adoption of ISO 2022 for all three message schemes at the same (or relatively the same) time would be viewed as excessively risky by the CPA and, more broadly, the financial services industry. Therefore, choosing an adoption strategy that involves only one payment scheme allows the industry to move forward in more manageable steps with any lessons learned incorporated into future implementations.

4. What are the implications and impacts of the proposed adoption strategy, with regards to:
 - a. An initial market-driven approach for AFT;
 - b. Incorporating adoption of ISO 2022 for LVTS and EDI into CPA's modernization initiative;
 - c. Eventual adoption will be required for all three payment schemes;
 - d. The relationship between Indirect and Direct Clearers whereby Direct Clearers will need to adopt ISO 2022 in order for their Indirect Clearer customers to also adopt the new standard?
5. Do you foresee unintended consequences with the proposed adoption strategy? If yes, please explain.
6. What conditions would need to be present for you to be a voluntary adopter of ISO 2022 for AFT payments? Are there issues or concerns the CPA should manage or mitigate to successfully promote voluntary adoption?
7. As part of the release of ISO 2022 for AFT in 2016, what do you think is the earliest date by which the CPA should require adoption for AFT? What do you think is the latest date by which CPA should require adoption of ISO 2022 for AFT?
8. Does your organization already have plans to move towards AFT ISO 2022? If so, what do your plans entail? What are your business drivers?

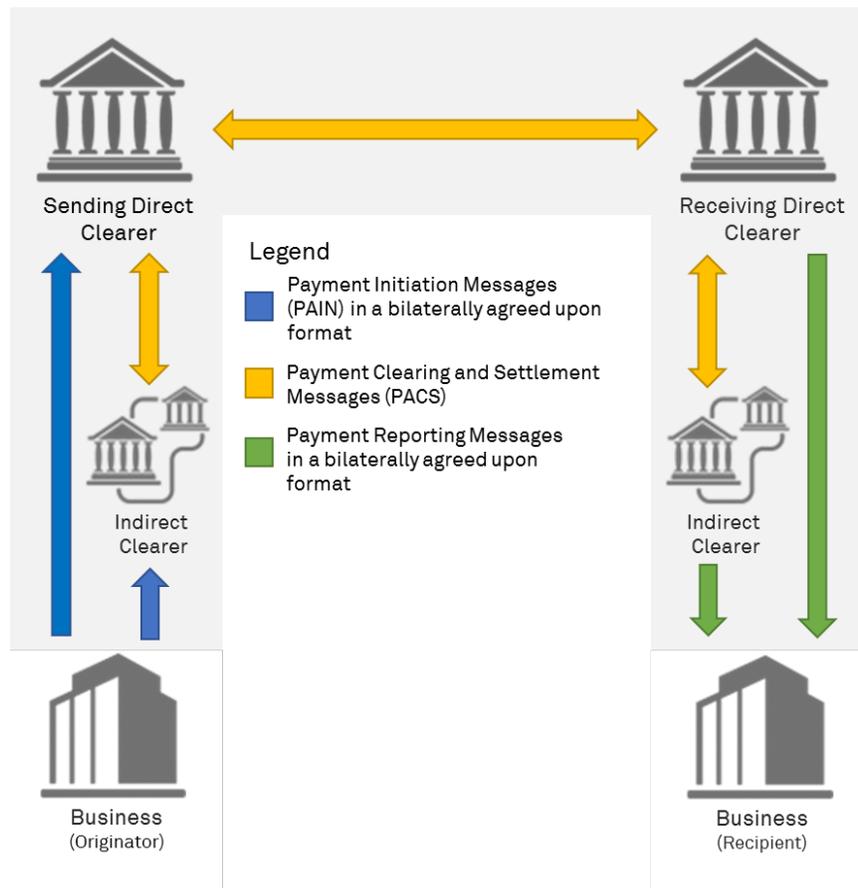
4. POLICY PROPOSALS

To achieve the full benefits of ISO 20022 adoption, a number of policy issues regarding the standard's implementation within the Canadian payments ecosystem must be effectively addressed by the CPA as it defines the rules and guidelines, in consultation with members and stakeholders, for ISO 20022 messages; most notably:

- The extent to which CPA rules should govern the end-to-end travel, availability and retention of remittance information, including requirements for making information available; and
- The privacy and security risks associated with holding and passing on remittance information, and measures to address these and other risks associated with the exchange of ISO 20022 payment messages. For example, the potential increase in information contained in payment messages may give rise to a corresponding increase in risk, particularly in relation to possible breaches of personal and/or confidential information or the inclusion of harmful content (malicious code, offensive/defamatory information, etc.) in payment messages. While these risks exist today, the additional information that may be exchanged under the ISO 20022 payment message standard may create additional exposure in these areas.

Figure 4 outlines the payment chain and the scope of CPA ISO 20022 messages for AFT.

Figure 4: The payment chain and scope of the CPA's ISO 20022 AFT payments messages



Based on consultation, research and outreach, the CPA is proposing the following policy recommendations to address these issues in the context of ISO 20022 message standards for AFT payments:

1. **Support Adoption** – To support early adopters of ISO 20022, require any CPA member that opts to participate in the ISO 20022 AFT Framework (Participating Members) to register with the CPA and to adhere to CPA rules for the exchange of ISO 20022 AFT debit and credit transactions.

 2. **Travel, Availability & Retention** – Require Participating Members, including any Indirect Clearers that opt to participate, to:
 - A. Have the capability to send and receive ISO 20022 messages, with the ability to include optional remittance information as agreed to between the originating customer and its financial institution.

 - B. Exchange ISO 20022 AFT debit and credit transactions between Participating Members using the ISO 20022 payment message standard. This includes the delivery and receipt of remittance information in full between Participating Members, if provided.

 - C. Provide or make available by any means chosen by the Participating Member, in full and no later than the next business day following the posting of the payment:
 - (i) Unstructured Remittance information to the Recipient, unless otherwise agreed with that Recipient. This places an active obligation on the receiving Participating Member to be able to share Unstructured remittance while enabling the Recipient to opt-out.
 - (ii) Extended Remittance information to the Recipient, if requested by the Recipient and agreed by its Participating Member (either on a one-time or continuing basis). This places an active obligation on both the Originator and Recipient of remittance information to ensure there is alignment in remittance needs.

For greater certainty, remittance information may be shared via email, online banking, URL, call centres, etc.

This obligation is on the CPA Participating Member that has the relationship with the Recipient.

The CPA will not prescribe the means or methods, nor the fees or costs of providing or making remittance information available to the Recipient, thereby enabling innovation and value-added services by Participating Members in the competitive space.

 - D. Retain remittance information for a minimum period of 90 days in order to fulfill obligations to the Recipient to provide or make such information available. Otherwise, as is the case today, CPA members must retain payment transaction records (e.g. date, account number, name, identification numbers etc.) for AFT debit and credit transactions for twelve months to satisfy tracing requests.
-
3. **Privacy & Security** – Implement the following measures to address the privacy and security risks associated with the exchange of ISO 20022:

- Require all Participating Members to employ security controls to protect the privacy and confidentiality of personal and financial information. For example, the Communications Security Establishment (CSE) Information Technology Security Guidance Publication 33 (ITSG-33), *IT Security Risk Management: A Lifecycle Approach*; and ISO/IEC 27002:2013, *Information technology -- Security techniques -- Code of practice for information security controls*.
 - As done in certain existing CPA Rules, place liability for ISO 20022 AFT payment items on the CPA Participating Member introducing the items into the clearings, and require those Participating Members to indemnify the CPA and other Participating Members for any direct loss, costs or damages incurred as a result of items it has introduced.
 - Place requirements on Participating Members to prohibit, through contract, their payment Originators from including harmful content in remittance elements, along with any personal information where necessary consent has not been obtained in accordance with privacy legislation.
 - Restrict the inclusion of URLs to the Related Remittance element of the ISO 20022 standard.
4. CPA rules will not address costs, fees or contractual terms that may be levied by Participating Members to their customers in relation to ISO 20022 implementation, including any fees to provide or make remittance information available. Participating Members will be free to choose how and at what price to offer such products or services. The provision of services to Originators or Recipients is conditional upon satisfactory contractual negotiations between Originators/Recipients and their FIs.

With these proposals, the CPA is moving forward with change, taking achievable and sustainable steps towards the full migration of ISO 20022 in Canada by:

- Enabling CPA members and stakeholders that are ISO 20022 ready to compete and innovate earlier.
- Permitting those that are not ready to adopt the standard within their current investment cycle to continue to use the Standard 005 and accompanying rules for AFT payments until a migration end-date is set and enforced by the CPA as part of the broader strategic framework for modernization.
- Strongly signaling CPA expectations that all payment system participants should be capable of handling remittance information in a standardized way and be responsible for making such information available to the Recipient.
- Providing, through industry collaboration, a common service to users, achieving a more efficient outcome in the longer term while providing the market with flexibility.
- Allowing all payment system users to build for the future, knowing there will be ISO 20022 payment messages for AFT, EDI and LVTS payments.

9. Should the CPA enforce minimum information security standards for ISO 2022 payments? Please explain.
9. Should Participating Indirect Clearers be required to exchange AFT payments in ISO 2022 format, similar to Direct Clearers? Please explain.
10. Are the requirements and timeframe placed on Participating Members to provide or make available Unstructured or Extended Remittance information adequate to support adoption of ISO 2022 by CPA Members and Stakeholders? Please explain.
11. Is the 90-day retention period for remittance information sufficient to support the expectations of Recipients and the obligations of Participating Members? Please explain?
12. What other measures, if any, are required to support the smooth implementation of ISO 2022 within the Canadian payments ecosystem?

ADDITIONAL QUESTIONS

Questions for CPA Member institutions

14. Has your institution received any communications from your Direct Clearer related to the CPA's ISO 20022 Initiative? (INDIRECT CLEARERS ONLY)
15. Does your organization have clients that you believe would benefit from ISO 20022?
16. What are the impacts to you opting in to ISO 20022 AFT messages?

Questions for Corporates (Small, Medium and Large)

See: ISO 20022 Survey for Corporates www.surveymonkey.com/r/ISO20022corporates

Questions for Software Vendors

17. Does your software already support ISO 20022?
18. Does your organization have plans to modify existing or introduce new software to implement the CPA ISO AFT message Standards?
19. What kind of lead time do you need?
20. What documentation do you need?

Questions for Government (Municipal, Provincial, Federal)

21. Do you plan to adopt ISO 20022 AFT messages?
22. Would the benefits of ISO 20022 apply to both your incoming and outgoing payments?
23. How would the constituencies you serve benefit from using ISO 20022 payments messages?

Questions for Consumer Organizations

24. Are there any benefits or unintended consequences of transitioning to ISO 20022 that you foresee for consumers?

5. NEXT STEPS – FEEDBACK ON CONSULTATION PAPER

The CPA is conducting this public consultation to generate feedback from all Canadian payment system stakeholders on the ISO 20022 Payments Standard Initiative, its progress to date and any future impacts and benefits. Input will assist us in finalizing the proposed payment messages, policies and adoption strategy for ISO 20022 AFT payments, and ultimately the ISO 20022 payments standard for use in Canada.

Responses to the consultation questions and any additional questions, comments or suggestions should be provided to the CPA in writing via ISO20022@cdnpay.ca. An optional [response template](#) is available for your convenience. Your feedback is welcomed and will be accepted during the consultation period ending **September 30, 2015**.

This consultation represents the final opportunity to provide feedback on the CPA's ISO 20022 Payments Standard Initiative, after which final versions of the ISO-AFT Standard and supporting rules will be prepared for formal approval. A summary of our findings, without attribution, will be distributed to Consultation participants.

Thank you in advance for your participation in this consultation. We look forward to bringing ISO 20022 to Canada.

25. Are there any other implications or impacts, beyond what we've outlined in this document, to implementing ISO 20022 that the CPA should consider moving forward?

APPENDIX I – LEXICON

This document contains many payment industry terms. In the spirit of standardization, we have developed the following definitions for your reference:

| Term | Definition |
|---|--|
| AFT ISO 20022 Framework | Framework for AFT payment transactions exchanged using ISO 20022 payment messages. |
| ANSI X12 | Standards for the exchange of financial data on EDI. |
| Automated Funds Transfer (AFT) | Electronic system for direct credit or debit transactions, commonly known in Canada as direct deposits or pre-authorized debits (PADs). |
| CHIPS | Clearing House Interbank Payments System . A private U.S. clearing house for large-value transactions. |
| Direct Clearer | “Direct Clearer” means a Member, other than the Bank of Canada that, on its own behalf or on behalf of an Indirect Clearer, Exchanges Payment items and makes entries into the ACSS. Direct Clearers have a direct interest in the implementation of ISO 20022 as the standard and its related policies and rules will directly impact their operations and way of doing business. In particular, they need to understand the financial and human resources costs of changing systems to become ISO 20022 compliant and will need to have a high level of confidence that the implementation will support payments and clearing operations |
| Direct Deposit | AFT Credit payments initiated by an entity for the disbursement of funds. Examples of this type of payment include salary payments, insurance payouts, pension disbursements, some bill payments, expense reimbursements etc. |
| Electronic Data Interchange (EDI) | The electronic exchange of data in a structured computer processable message format based on the ANSI X12. |
| Extended remittance information | All optional elements except unstructured remittance. |
| Indirect Clearer | “Indirect Clearer” means a Member on behalf of which a Clearing Agent/Direct Clearer Exchanges Payment Items and either effects Clearing and Settlement or makes entries into the ACSS. Indirect Clearers have a direct interest in the implementation of ISO 20022 as the standard and its related policies and rules may directly impact their operations and way of doing business. In particular, Indirect Clearers need to understand the financial and human resources costs of changing systems to become ISO 20022 compliant and will need to have a high level of confidence that the implementation will support payments and clearing operations. |
| Interoperability | Capability to easily exchange business information while using different message standards ¹ . |
| Large Value Transfer System (LVTS) | Electronic wire system used to facilitate the transfer of irrevocable payments in Canadian dollars. The LVTS allows for funds to be transferred between participating financial institutions instantaneously, allowing those funds to be credited to the recipient’s account on a timely basis. |

¹ SWIFT Standards Team, ISO 20022 for Dummies. 2nd Edition. 2013. England.

| | |
|--|---|
| Mandatory elements | Fields within the payment message that must be present for the inter-bank exchange of ISO 20022 payments. |
| MT Standards | Standards for the exchange of financial data for LVTS payments. |
| Optional elements | Information that may be included in the payment message. |
| Originator | Initiator of a payment item. |
| Participating Member | Any CPA member that opts to participate in the AFT ISO 20022 Framework for the purpose of clearing and settlement. |
| Pre-Authorized Debit | AFT Debit payments initiated on a periodic basis by a business entity for payment of goods and services rendered in accordance with an underlying agreement signed by the person whose account is being debited. Examples of PADs include mortgage payments, loan payments, insurance payments, gym payments etc. |
| Recipient | The beneficiary of a payment item. |
| Standard 005 | Standards for the Exchange of Financial Data on AFT files. |
| Straight-through processing | The movement of funds from originator to receiver with no manual intervention, in a timely manner. |
| Syntax | Physical format of a message used to identify and represent the conveyed pieces of information ² . |
| Unstructured remittance information | Provides unstructured, text remittance information. It is proposed that the Canadian usage guidelines allow for one iteration of 140 characters |
| XML | A syntax used to encode documents and messages on the internet. XML is short for eXtensible Mark-up Language ³ . |

² SWIFT Standards Team, ISO 20022 for Dummies. 2nd Edition. 2013. England.

³ SWIFT Standards Team, ISO 20022 for Dummies. 2nd Edition. 2013. England.

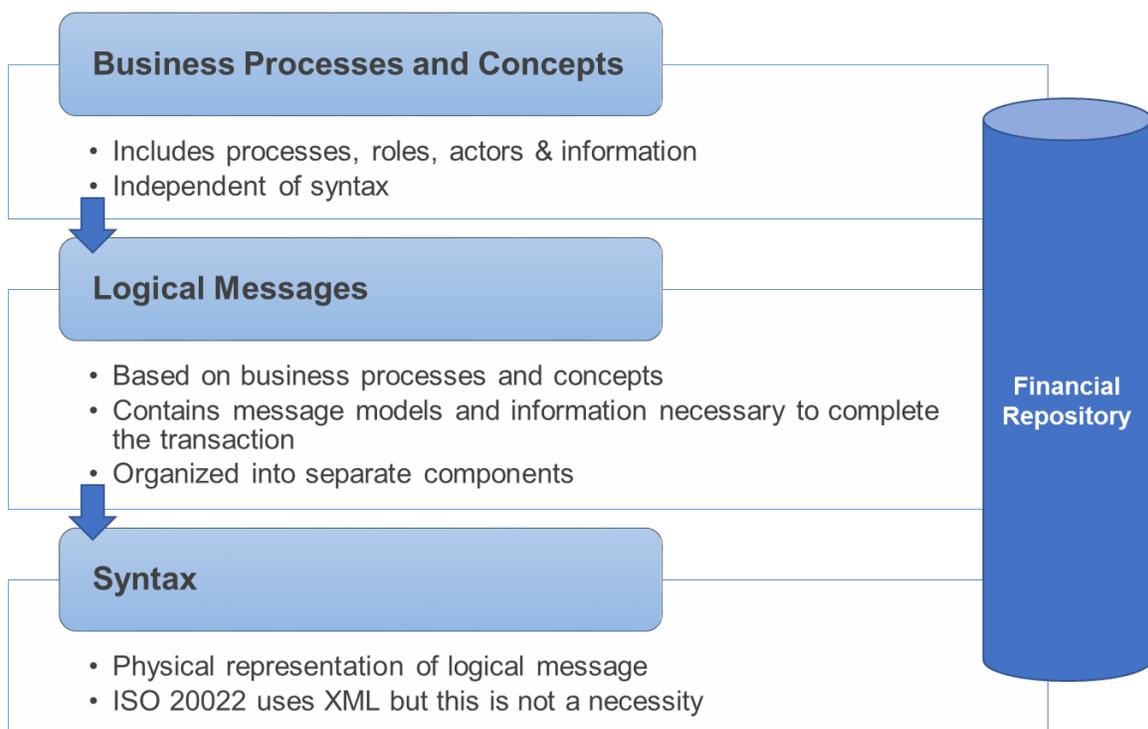
APPENDIX II – WHAT IS ISO 20022?

The *ISO 20022 - Universal Financial Industry Message Scheme* was developed by the International Organization for Standardization (ISO), the world’s largest developer of voluntary International Standards. The ISO 20022 Standard was designed to simplify global business communication. It enables efficient payments clearing and settlement among financial institutions globally through the use of a common set of messages and language that the institutions agree to use in a consistent way. It allows participants and systems across different financial markets (e.g. payments, securities, foreign exchange, cards) to communicate using consistent terminology or syntax, which supports domestic interoperability and more remittance information. ISO 20022 is an open standard that anyone can use, and to which anyone can contribute.

The ISO 20022 payment messages are managed on behalf of ISO by SWIFT, through a common dictionary known as the Financial Repository. The Repository consists of two parts: the Data Dictionary and the Business Process Catalogue. The Data Dictionary contains Business Concepts, Message Model and Data Types.

The Business Process Catalogue is organised in Business Areas. The communication requirements and the interaction requirements in the various Business Areas are supported by Business Transactions. The Catalogue of ISO 20022 messages is also part of the Business Process Catalogue. It gives access to the full documentation of the ISO 20022 messages. This diagram shows the high level structure of the ISO 20022 Model:

Figure 1. ISO 20022 Model



For information on how ISO 20022 payments messages are created and registered to the Financial Repository, please refer to the www.ISO20022.org FAQs.

You can also learn more about ISO 20022 on [CPA's website](#), or by requesting a copy of [ISO 20022 for Dummies](#), courtesy of SWIFT.

APPENDIX III – POTENTIAL APPLICATIONS OF ENHANCED PAYMENT REMITTANCE DATA

ISO 20022 is more than just a technical standard. It's a tool with which the CPA is creating new possibilities in Canadian payments.

For example, once sufficient data travels with a payment, businesses will have a data-rich electronic alternative to cheques, saving them time and money in their payment operations.

Financial institutions choosing to develop products and services to make the most of this enhanced remittance data could share the data with their business clients in an automated fashion. Business customers subscribing to such a service could export and import detailed payment information to and from their financial institution, linking directly to their own Accounts Payable and Accounts Receivable systems. This would support electronic invoicing for payments due and automated reconciliation of payments received.

Treasury departments using an ISO 20022 compatible Enterprise Resource Planning tool could then make this detailed payment information available across business units through enhanced reporting. This information could be of significant interest in terms of customer demographics and behavioural analysis.

Businesses could also integrate the detailed payment information into customer communications. For example, a business could set up its systems so that "payment received" notifications to customers also include details on how and when a payment was made, when it was received, and to which invoice number the particular payment had been applied. Thanks to automated reconciliation and integrated business systems, this information would be readily available.

Financial institutions could also choose to provide more detailed bank statements to their own customers. Say for example that a customer of ABC Health Insurance makes several claims during one month. Today, the customer's bank statement would likely show three deposits from "ABC". If ABC provided detailed remittance information to the financial institution in the form of an ISO 20022 payment message, a financial institution could develop software to include some of that information on the customer's statement. One of the deposits might show "ABC – Dental – John Smith – Invoice 123", while another could show "ABC – Medical – Susan Smith – Invoice 456."

Of course, it will be up to individual businesses and financial institutions to decide how they will take advantage of the possibilities created by ISO 20022. The availability of and responsibility for remittance information that travels with payment messages must also be carefully managed. This is one of the key policy concerns addressed in this consultation.