

Understanding ISO 20022:

A Resource Guide for Financial Institutions, Corporations, and the Public

***Authored by the ISO 20022 Education and Promotion Work Group
of the Business Payments Coalition Vendor Forum***

Many organizations currently use legacy X.12 Electronic Document Interchange (EDI) standards to enable automated, electronic exchange of key business information associated with payment processing – e.g., invoice and remittance information, deduction and adjustment codes, and more. EDI standards provide significant value to entities that have implemented them. However, these standards are based on dated technology and are expensive and difficult to implement – especially for smaller and newer businesses. Corporates can benefit from ISO 20022 as a means to simplify and standardize their treasury operations. Multinationals may benefit the most, especially those with operations in Europe given its pan-European SEPA payments system based on ISO 20022. Specific benefits cited by corporates that have adopted ISO 20022 include: lower information technology support costs; easier maintenance and troubleshooting; increased straight through processing and visibility into cash balances globally; and mobility of cash across banks and regions.

ISO 20022 is a standards framework that enables a common global "language" for messaging in payments, cash management reporting, securities, cards, foreign exchange and trade services. The standard defines the message structure and content. Within an ISO 20022 message, XML is the most common language syntax. Although the initial payments focus was on cross-border payments, ISO 20022 can help with expanded remittance information. Remittance information can be contained in an ISO payment message, similar to an addendum with an ACH payment. There are also standards for stand-alone remittance messages that can replace legacy EDI standards. Two ISO 20022 messages carry remittance information: REMT1 sends full remittance detail as a stand-alone message and REMT2 sends a link or other method to find the full remittance detail, also as a stand-alone message.¹

While ISO 20022 remittance formats hold promise for companies seeking to gain efficiencies in their payment processes, there is a distinct lack of understanding of the standard and its benefits. For this reason, the Business Payments Coalition, through its Vendor Forum subgroup, established a workgroup to collaborate with other industry groups to provide education about the ISO 20022 standard and encourage its adoption.

The Vendor Forum's ISO 20022 Education and Promotion work group identified resources available to drive a broader understanding of the ISO 20022 standard and its applications in the market. The work group then categorized and compiled the resources into a single location for public use. This guide encapsulates those resources.

¹ The Remit Info segment that was enhanced with the development the REMT messages can be included with payments using the updated versions of pain, pacs, camt and other ISO 20022 messages. For more information on stand-alone remittance messages, visit https://www.iso20022.org/display_news.page?dataitem=en/20140417_stand_alone_remittance_advice

This guide is intended to be a living document that can be updated as new resources become available. The most recent update is as of May 2017. If you have suggestions for additions to this guide, please direct them to business.payments.smb@mpls.frb.org

In May 2017 a companion document to this guide was published, a white paper entitled *U.S. Adoption of ISO 20022*. The white paper, available on the Business Payments Coalition website, summarizes findings from a corporate survey and shares secondary research. It demonstrates that ISO 20022 is being adopted in the U.S. for corporate to bank operations, explains why, and provides substantiating evidence. It summarizes corporate case studies and highlights best practices and lessons learned, along with identifying key drivers for and benefits from adopting ISO 20022.

The term “Market Infrastructure” (MI), used in various resource references, refers to a multilateral system among participating financial institutions (including the system operator) used to record, clear, or settle payments, securities, derivatives, or other financial transactions. Financial Market Infrastructures exist in many different markets.

Note: These materials have been created by the Business Payments Coalition and are intended to be used as resources. Views expressed here are not necessarily those of, and should not be attributed to, any particular Business Payments Coalition participant or organization. They are not intended to provide business or legal advice, nor are they intended to promote or advocate a specific action, payment strategy or product. Readers should consult with their own business and legal advisors.

RESOURCE LOCATOR

To help readers find the resources that would be most beneficial for them within this guide, we have developed the following resource locator, which includes basic topics about what readers might be looking for, with links to corresponding page and resource item numbers. [Text with this format will hyperlink to topic.](#)

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I am looking for general information on the ISO 20022 standard.

General Topic	Specific Reference(s)
GENERAL ISO 20022 RESOURCES:	<ul style="list-style-type: none"> • ISO 20022: The Official Site • ISO 20022 - Supporting Documentation • SWIFT MyStandards • ISO 20022 in Plain English
RESOURCES FOR USING ISO 20022 IN THE ACH NETWORK:	<ul style="list-style-type: none"> • NACHA ISO 20022 Resource Center • Introduction to ISO 20022
RESOURCES FOR USING ISO 20022 FOR WIRE TRANSFERS:	<ul style="list-style-type: none"> • ISO 20022 Section of the SWIFT Website • Standards Document Center

I am interested in understanding more about the basics of remittance information and I'm new to payments standards.

General Topic	Specific Reference(s)
GENERAL ISO 20022 RESOURCES:	<ul style="list-style-type: none"> • ISO 20022: The Official Site • Payments and ISO 20022 in the US Market • SWIFT MyStandards • Remittance Standards Inventory
RESOURCES FOR USING ISO 20022 IN THE ACH NETWORK:	<ul style="list-style-type: none"> • The Federal Reserve System's Resource Center for Adoption of ISO 20022 • ISO 20022 – Messages Specifications
RESOURCES FOR USING ISO 20022 FOR WIRE TRANSFERS:	<ul style="list-style-type: none"> • ISO 20022 – Payment Messages Specifications

I am looking for mapping tools to help move from legacy EDI standards to ISO 20022.

General Topic	Specific Reference(s)
GENERAL ISO 20022 RESOURCES:	<ul style="list-style-type: none"> Understanding the ISO 20022 Stand-alone Remittance Messages
RESOURCES FOR USING ISO 20022 IN THE ACH NETWORK:	<ul style="list-style-type: none"> ACH-ISO 20022 Mapping Guide XML-ACH Remittance
RESOURCES FOR USING ISO 20022 FOR WIRE TRANSFERS:	<ul style="list-style-type: none"> Mapping Table – Fedwire

I am looking for more information on the U.S.'s plans for implementing the ISO 20022 standard.

General Topic	Specific Reference(s)
GENERAL ISO 20022 RESOURCES:	<ul style="list-style-type: none"> ISO 20022 Assessment Report Research Results Summary Payments and ISO 20022 in the US Market
RESOURCES FOR USING ISO 20022 IN THE ACH NETWORK:	<ul style="list-style-type: none"> NACHA ISO 20022 Resource Center Introduction to ISO 20022 NACHA ISO 20022 Strategy
RESOURCES FOR USING ISO 20022 FOR WIRE TRANSFERS:	<ul style="list-style-type: none"> Adoption of ISO 20022 for Wire Transfer Considerations for U.S. Wire Transfer Systems

I am interested in ISO 20022 implementation around the world for my multi-national business.

General Topic	Specific Reference(s)
RESOURCES FOCUSED ON GLOBAL IMPLEMENTATION OF ISO 20022:	<ul style="list-style-type: none"> ISO 20022 - Implementation Best Practices Related to Payments Common Global Implementation-Market Practice ISO 20022 Adoption mApp

GENERAL ISO 20022 RESOURCES:

These resources provide an overview of the ISO 20022 standard, its history, challenges and opportunities. Any organization seeking to more thoroughly understand ISO 20022 and its applicability to their respective environment should benefit from review of the content provided.

1. **ISO 20022: The Official Site for the ISO 20022 Standard**

<https://www.iso20022.org/>

The ISO 20022 website contains various resources (technical and business) related to all financial domains covered by ISO 20022, including payments.

2. **ISO 20022 - Supporting Documentation, “101 booklet”, Adoption Reporting, Presentations and Newsletter:**

https://www.iso20022.org/about_iso20022.page

This area of the ISO 20022 site contains several tabs with general resources about ISO 20022, including: ISO 20022 for Dummies: A primer on ISO 20022 (this resource is an online book, not a pdf document), overview presentations on ISO 20022 organization and process, newsletters and FAQs.

There is information on Adoption Reporting, a catalog of communities (primarily market infrastructures) that have implemented or have plans to implement ISO 20022. The newsletter includes business and technical articles from schema submitters, implementers and others on various payment system implementations of ISO 20022.

3. **ISO 20022 Assessment Report: Extract and Discussion Document, 2013:**

<https://www2.nacha.org/iso-20022-assessment-report>

In 2013, a stakeholder group consisting of The Federal Reserve Bank of New York, The Clearing House Payments Company LLC, NACHA – The Electronic Payments Association, and the Accredited Standards Committee X9, Inc. engaged KPMG LLP to objectively evaluate the business case for or against adoption of ISO 20022 payment messages by U.S.-based financial institutions, payment clearing and settlement infrastructures, and corporate customers. This document outlined KPMG’s findings. No-cost registration is required to access this resource.

4. **Research Results Summary: ISO 20022 Business Case Assessment, 2015:**

https://fedpaymentsimprovement.org/wp-content/uploads/iso_20022_business_case.pdf

This report includes a summary with updates of a study jointly commissioned by the Federal Reserve, The Clearing House, NACHA, and X9 assessing the business case for use of ISO 20022 in the U.S. payment infrastructures. Information focuses on using ISO 20022 to improve the efficiency of cross-border payments, with some focus on domestic payments.

5. **Payments and ISO 20022 in the US Market, 2016**

<https://www.slideshare.net/SWIFTcommunity/payments-and-iso-20022-in-the-us-market>

This is a Power Point presentation that gives an update on ISO 20022 initiatives in the US as of May 2016.

6. **SWIFT MyStandards:**

<https://mystandards.swift.com/mystandards>

This is a link to the main SWIFT MyStandards site. MyStandards is a collaborative Web application used to manage standards definitions and industry usage more efficiently, driving community-wide harmonization and convergence.

<https://www2.swift.com/mystandards/>

This link provides registered users downloadable pdf documentation related to all of the current (and previous) versions of all ISO 20022 message suites. There is no cost to register.

7. **Remittance Standards Inventory - A Publication of the Business Payments Coalition (X9 TR-44-2013), 2013**

<https://x9.org/wp-content/uploads/2014/02/X9-TR-44-2013-Final.pdf>

This technical report published by ASC X9 is an inventory of payment and remittance information standards and includes information about ISO 20022 prepared by ASC X9 for the Business Payments Coalition.

8. **Understanding the ISO 20022 Stand-alone Remittance Messages, 2014:**

http://www.ifxforum.org/wp-content/uploads/Understanding_the_ISO_20022_Stand-Alone_Remittance_Messages-1.pdf

This white paper, available from IFX Forum, Inc. provides in-depth background about the ISO 20022 Stand-alone Remittance messages; why they were developed, how they were developed, the use cases they address, and the case for adoption of the messages by industry and financial service providers. Many examples are included in order to familiarize the reader with the structure and capabilities of the messages. IFX Forum developed the ISO 20022 remittance messages and the enhanced versions of the Remit Info segments that carry the same data directly in ISO 20022 payment messages.

9. **ISO 20022 in Plain English, 2017:**

This is the presentation from the February 2017 Business Payments Coalition webinar “ISO 20022 in Plain English”. It provides basics about the ISO 20022 standard and payment messages, along with an overview of governance and adoption.

RESOURCES FOR USING ISO 2022 IN THE ACH NETWORK:

The resources below are targeted to those seeking to understand the applicability and utilization potential of ISO 2022 within the ACH Network. Financial Institutions in particular should find these resources to be valuable. Corporations may benefit from understanding how those organizations supporting their ACH payment processes could capitalize on leveraging the standard.

1. **NACHA ISO 2022 Resource Center:**
<https://www.nacha.org/ISOresources>

This is the main page for NACHA resources and information on ISO 2022.

2. **Introduction to ISO 2022 for U.S. Financial Institutions, 2015:**
<https://www2.nacha.org/webform/introduction-iso-2022-US-financial-institutions>

The focus of this report is to shed light on the ISO 2022 practices and opportunities in the U.S. and global payments landscape, and to dispel myths surrounding what use of this standard can and cannot support. No-cost registration is required to obtain this document.

3. **ACH-ISO 2022 Mapping Guide & Tool, 2016:**
<https://www.nacha.org/iso-2022-mapping>

NACHA's ISO 2022 Mapping Guide & Tool enables financial institutions to support businesses that leverage the ISO 2022 standard by providing standardized guidance to facilitate translation of ISO 2022 pain.001 credit transfer and pain.008 direct debit payment messages into ACH transactions.

4. **XML-ACH Remittance Information** (link has accompanying fact sheet):
<https://www.nacha.org/programs/xml-ach-remittance-xml-ach>

NACHA's XML-ACH Remittance Opt-in (XML-ACH) Program allows participants to safely and securely transmit ISO 2022 approved payment remittance (remt.01/02) information for B2B transactions in a standardized XML format via the ACH Network.

5. **NACHA ISO 2022 Strategy for the ACH Network, 2015:**
<https://www.nacha.org/system/files/resources/NACHA%20ISO%202022%20Strategy.pdf>

This resource provides an overview of NACHA's support for integration of ISO 2022 in the U.S. ACH Network and considerations for conversion of ACH formats to ISO 2022.

6. **The Federal Reserve System's Resource Center for Adoption of ISO 2022 for Wire Transfers and ACH Payments:**
<https://fedpaymentsimprovement.org/payments-efficiency/iso-2022/>

This webpage includes documentation addressing U.S. wire payment systems' potential use of ISO 2022 for payments and remittance information. It contains links to additional documents and webinar recordings.

7. **ISO 20022 – Messages Specifications (schema) and Official Documentation:**
https://www.iso20022.org/payments_messages.page

This site includes a repository of all base payment message technical specifications (schema). It includes pacs (interbank and MI) as well as pain (corporate to bank) schema. The site also contains information about mandatory documentation – Schema, Message Definition (technical description of the schema), as well as sample messages, message usage Guides and variants where provided by the submitter.

8. **Case Study: Merck Optimizes Performance Employing ISO 20022 XML for ACH Payments, 2017**
<https://www2.nacha.org/webform/case-study-merck-optimizes-performance-employing-iso-20022-xml-ach-payments>

The case study, Merck Optimizes Performance Employing ISO 20022 XML for ACH Payments, showcases how a large company leveraged the ISO 20022 standard to reduce costs, streamline processes, and gain efficiencies. Today Merck is leveraging the international messaging standard ISO 20022 XML to execute all payment types – from ACH to wires and checks – for commercial transactions in the U.S. as well as for the rest of the world. However, moving away from proprietary formats is not the only way the company is deriving benefits. Merck is also generating savings with a combination of payments solutions and processes.

RESOURCES FOR USING ISO 20022 FOR WIRE TRANSFERS

The information included here is useful for those organizations supporting both domestic (U.S.) and international payments; it is geared toward those entities that utilize wire transfer systems for large value payments.

1. **The Federal Reserve System's Resource Center for Adoption of ISO 20022 for Wire Transfers and ACH Payments:**

<https://fedpaymentsimprovement.org/payments-efficiency/iso-20022/>

This webpage includes documentation addressing U.S. wire payment systems' potential use of ISO 20022 for payments and remittance information. It contains links to additional documents and webinar recordings.

2. **ISO 20022 Adoption Considerations for U.S. Wire Transfer Systems Presentation, 2015:**

https://fedpaymentsimprovement.org/wp-content/uploads/iso20022_adoption_considerations_presentation.pdf

This webinar presentation provides an overview of requirements of the U.S. wire payment systems (Fedwire and CHIPS) for using the ISO 20022 standard.

3. **ISO 20022 Section of the SWIFT Website:**

<https://www.swift.com/standards/about-iso-20022>

This section of SWIFT's website provides an overview of ISO 20022 (including a small video) related to using ISO 20022 as a methodology, or recipe, for creating financial messaging standards. There is a tab about SWIFT's role in standards, ISO 20022 and related market practices.

4. **Standards Document Center on SWIFT's Website (ISO 20022 documents):**

<https://www.swift.com/standards/standards-resources>

The SWIFT Document Center has a variety of downloadable documents about SWIFT standards, including ISO 20022.

5. **Mapping Table – Fedwire Business Remittance Information Mapped to ISO 20022 and STP 820:**

<https://www.frbervices.org/campaigns/remittance/index.html?id=58&loc=3>

This page has information about Extended Remittance Information (ERI) for wires and includes a link to a mapping table that cross references message specifications for remittance information: Fedwire ERI and CHIPS STP to ISO 20022.

6. **ISO 20022 – Payment Messages Specifications (schema) and Official Documentation:**

https://www.iso20022.org/payments_messages.page

This site includes a repository of all base payment message specifications (schema). It includes pacs (interbank and MI) as well as pain (corporate to bank) schema. The site also contains information about mandatory documentation – Schema, Message Definition (technical

description of the schema), as well as sample messages, message usage guides and variants where provided by the submitter.

RESOURCES FOCUSED ON GLOBAL IMPLEMENTATION OF ISO 20022

The resources contained in this section are intended for audiences with an interest in the global implementation of the ISO 20022 standard, including international best practices and interoperability issues.

1. ISO 20022 - Implementation Best Practices, 2014

<https://www2.nacha.org/webform/iso-20022-implementation-best-practices>

The International Council of Payment Association Chief Executives (ICPACE) asked Lipis Advisors to investigate the best practices for implementing ISO 20022 in early 2014. This document details lessons learned from communities that have completed adoption or are in the process of migrating to ISO 20022. No-cost registration is required to access this resource.

2. Implementation-Specific Information on ISO 20022 Related to Payments:

Canada:

<https://www.payments.ca/resources/iso-20022-resource-centre>

Europe

<http://www.europeanpaymentscouncil.eu/index.cfm/sepa-credit-transfer/iso-20022-message-standards/>

The above links provide information on ISO 20022 implementation in Canada and Europe.

3. Common Global Implementation-Market Practice (CGI-MP):

<https://corporates.swift.com/en/cgi-mission-and-scope>

This site outlines the work products of a market practice group working to harmonize use of the corporate-to-bank payment-related-standards across banks, countries and payment systems to increase the level of standardization. Resources include: CGI-MP specified schema, FAQs and mission statements (context).

4. ISO 20022 Adoption mApp (for iPads in the Apple App store)

The ISO 20022 Adoption mApp is a mobile application that provides an easy to use overview of 81 initiatives around the globe where ISO 20022 is being adopted as the standard. These 81 initiatives have chosen to participate and provided information to be published. The mApp content is periodically updated.

The same information is available from the ISO 20022 Introduction Maps and the Full Details Report (December 2016) using the links at:

<https://www.iso20022.org/adoption.page>

5. The Drive to Electronic Remittance Exchange in Business-to-Business Payment Automation, 2014:

<https://www.cgi.com/sites/default/files/white-papers/cgi-drive-to-electronic-remittance-b2b-payment-automation.pdf>

This is a white paper from CGI presenting comparisons in B2B remittance exchange processes in the U.S. and Europe, spotlighting certain economies, and highlighting recent developments with respect to extended remittance information and its future implications for stakeholders in the financial value chain.