



Business Payments Coalition

Business Payments Coalition e-Invoice Initiative



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- Support FRS mission in maintaining a stable financial system through supporting work in payment standards, research, and education
- Member of:
 - ISO 20022 Payments SEG
 - ISO 20022 RTGS Core Workgroup
 - W3C Web Payments Commerce Group
 - OASIS Universal Business Language (UBL) Technical Committee
 - OASIS BDXR Technical Committee

Role of the Federal Reserve Banks



Disclaimer

The opinions expressed are those of the individual presenters & not those of the Federal Reserve System or any Federal Reserve Bank



Agenda for Today

- Background on the Business Payments Coalition & 2019 Initiatives
- e-Invoice Interoperability Framework Initiative

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Who is the Business Payments Coalition?

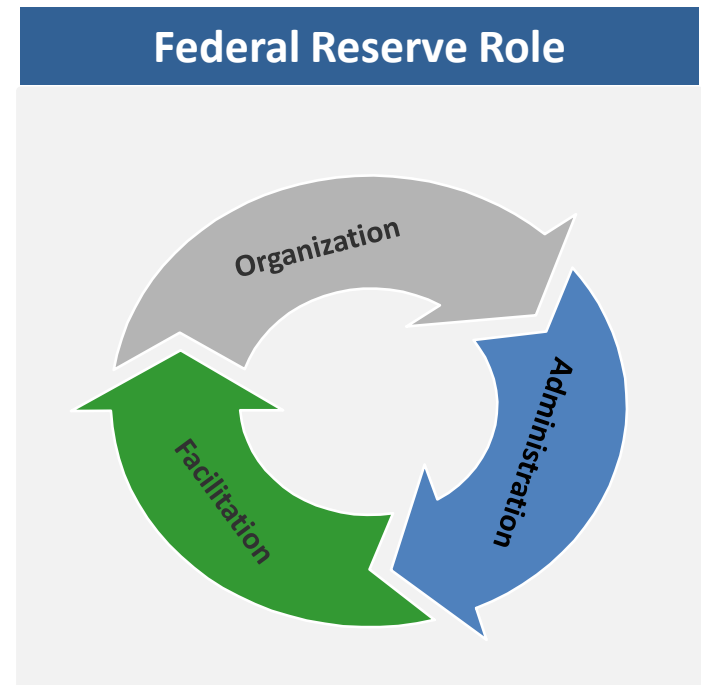
Mission

- Work together to solve problems related to processing information associated with B2B payments in order to promote use of electronic payments & straight through processing (STP).
- Formed in 2011, the coalition members consist of national group of associations, small & large businesses, financial institutions, technology & software vendors, standards development organizations & others.
- Not restricted to U.S. members only; members come from all corners of the globe!



How the BPC Operates

- Full BPC meets 4 times a year
 - 2 conference calls & 2 in-person meetings
 - In Person Meetings at NACHA Payments & AFP annual conferences
- No cost, members volunteer for work groups based on interests & expertise; work groups meet as needed
- All members stay informed via meetings, calls, email, & website -
<https://businesspaymentscoalition.org/>



2019 Initiatives

- e-Invoicing Interoperability Framework
- ISO 20022 Capabilities
 - Solicit & publish submissions for an online registry of US banks & service providers that have ISO 20022 capabilities.
 - The registry will be a resource to end users & will publicize the availability of ISO 20022 for payment & cash management operations.
- ISO 20022 Education
 - Develop ISO 20022 educational webinars & companion materials
 - Establish a speakers bureau & curriculum for a variety of ISO 20022 topics
 - Enlist industry groups such as X9, IFX, NACHA® & SWIFT® for content & speakers
- BPC meetings and webinars
 - Plan & offer in-depth meeting topics & webinars to build member engagement, provide education, & inform on hot topics.



E-Invoice Interoperability Framework Initiative



E-Invoice Interoperability Framework

Creating a multi-provider hub for electronic document exchange using open, non-proprietary standards

An interoperability framework is a set of **policies, standards and guidelines** that enable businesses to communicate irrespective of the system or standards they use

It enables an open network for document & message delivery

It is a standards-based, structured framework designed to be flexible to meet a variety of business needs

It is payment-method agnostic



Workgroup Guiding Principles



Successful adoption in other countries can guide approach in the U.S.



Industry stakeholders to vet & validate appropriateness for U.S.



Open, standards-based approach to enable straight-through-processing



Complementary to & should easily link to existing processes

Why address e-Invoicing?

- Enables faster payments
- Extends reach by facilitating a business to “connect once, trade with many”
- Simplifies connectivity and reduces integration costs
- Improves data quality with consistent meaning of the data
- Reduces time to access invoice information
- Reduces fees to exchange electronic invoices across networks



2019 e-Invoicing Initiative

- Listing of workgroup activities

- Develop & publish requirements for a U.S. e-Invoice semantic model
- Develop & publish recommendations for a messaging & delivery infrastructure
- Kick off a proof of concept & adoption assessment work groups
- Kick off governance framework assessment work groups

workgroup participants

- 50+ members
- 10 countries
- 37 companies

**Exchange Summit participants are welcomed
to join the BPC workgroups**



e-Invoicing Semantics Assessment Workgroup

- Assessed:
 - Committee for Standards Europe (CEN) European Norm (EN) 16931 Semantic Model
 - Digital Business Council – Trans-Tasman eInvoice Interoperability Framework Semantic Model
- Goal:
 - Gain an understanding
 - Evaluate for U.S. requirements
 - Determine if requirement is met or not
 - Document “gap” when requirement cannot be met for the U.S.
 - Create validation tools to support requirements development

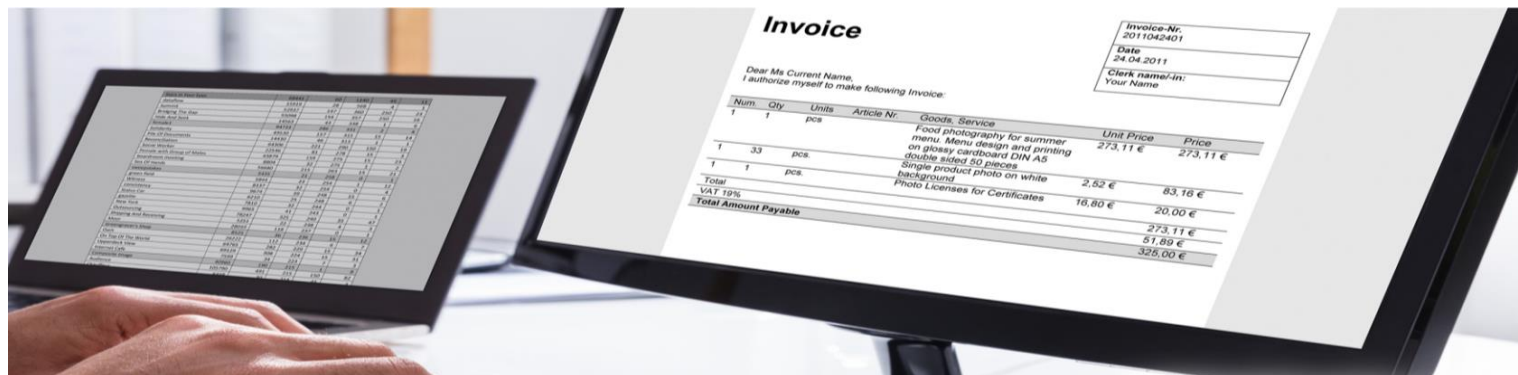
Semantic Models Defines

- Parties and Roles
- Business Functions
- Business Processes
- Business Rules
- Business Terms
- Cardinality & Data Types



Semantic Model Assessment – Results

- Summary of Key Findings
- U.S. requirements align closely to the EN-16931 e-invoice semantic model
 - Business rules for handling tax (sales and use tax vs. VAT)
 - Requirement to support cross border currency data
 - Requirement to support Non-PO / Non-Contract Business Process
 - Requirement for additional reference data elements
 - Requirement to remove VAT-specific data elements
 - Further validation of standards used in EN-16931 are applicable for the U.S.



Technical Assessment & Recommendations Workgroup

- Assessed:
 - OpenPEPPOL: e-Delivery Network
 - Connect Europe Facility (CEF) e-Delivery
 - European e-Invoice Service Provider Association (EESPA) Interoperability Framework
 - Digital Business Council: eInvoice Interoperability Framework
- Goal:
 - Gain an understanding
 - Evaluate solutions
 - Develop reasoning for rejecting / accepting approach
 - Summarize reasoning for recommendations
 - Identified “gaps” in current approaches

The “Technical Stack”

- Architecture Model
- Registry, Identifiers, & Metadata Directories
- Transport Protocol
- Messaging Envelopes
- Message Payload
- Security



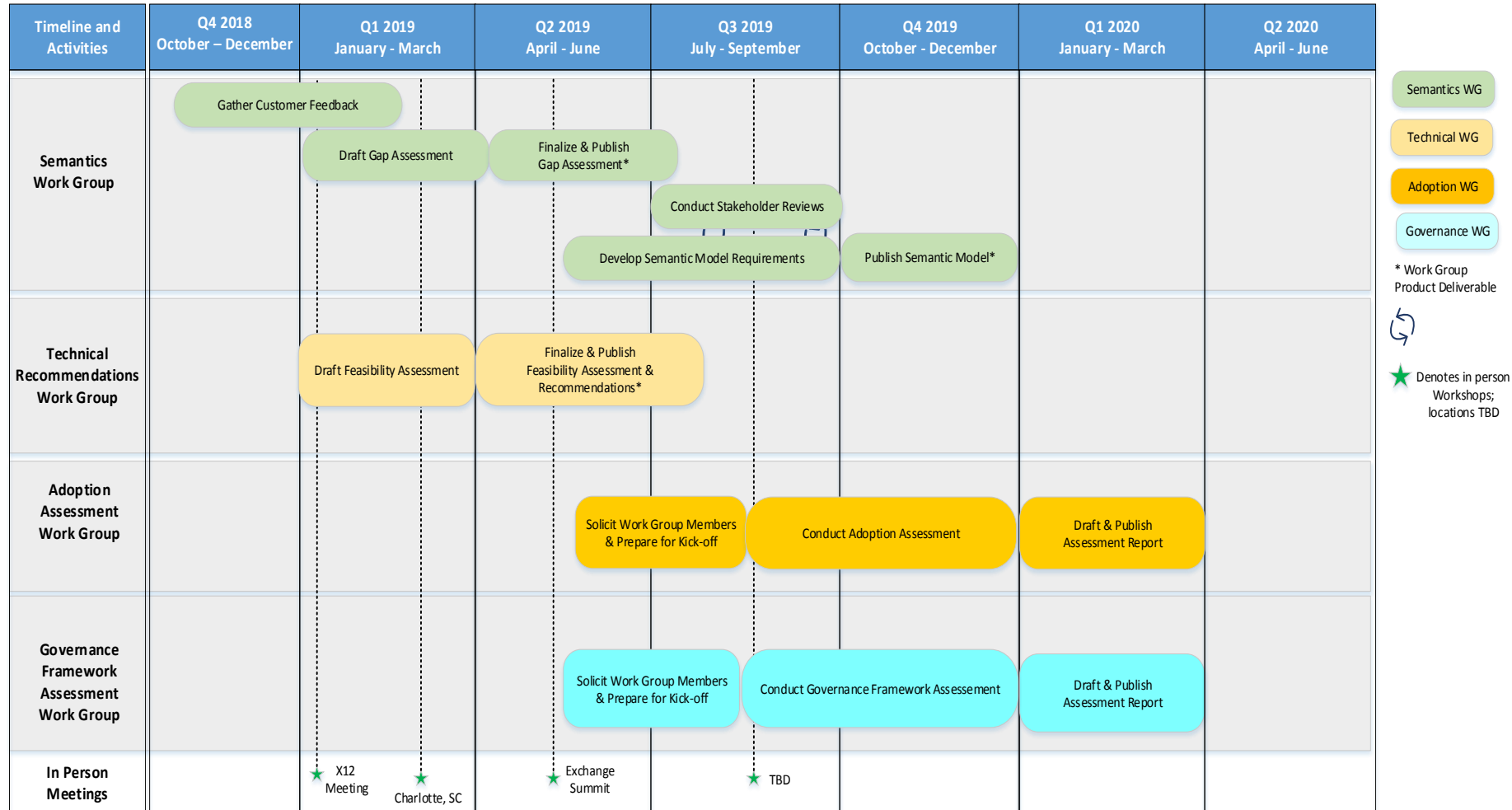
Technical Assessment & Recommendations – Results

- Summary of Key Findings & Recommendations
- Existing electronic delivery networks achieve desired interoperability, security, and scalability requirements for the U.S.
 - Overall architecture should be based on a 4 corner model
 - Messaging protocol should be the OASIS ebXML / AS4 WS* model
 - The envelope for messages should be either the UN/CEFACT SBDH or the joint UN/CEFACT and OASIS envelope XHE standard
 - A single semantic standard should be used for the “payload” within the message envelope
 - A single syntax standard should be used for formatting the invoices
 - A decentralized registry operating model should be explored to support dynamic discovery
 - 3 Levels of identifiers 1) Legal Entity, 2) Electronic Address Identifier, and 3) Electronic Routing Address should be supported
 - A Public Key Infrastructure (PKI) security model should be used for securing end points



2019–2020 e-Invoice Interoperability Framework Roadmap

2019-2020 Plan





Thank You!

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