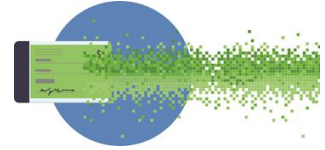


Business Payments Coalition Meeting Recap Sunday, April 29, 2018, 2 – 4 p.m. At the NACHA Payments Conference



The second quarter 2018 BPC in-person meeting was held at the San Diego Convention Center, location of the NACHA Payments 2018 conference. Guy Berg of the Federal Reserve Bank of Minneapolis opened the meeting and attendees introduced themselves.

In attendance: Todd Albers (Minneapolis Fed), Roger Bass (Traxiant), Guy Berg (Minneapolis Fed), Mike Bilski (North American Bank), Larry Buettner (Deluxe), Chris Colson (Atlanta Fed), Donald Cook (Goodfundsgateway.com), Leigh Cook (Goodfundsgateway.com), Doug Daggett (Iliad Solutions), Matt Davies (Dallas Fed), Ernie Fiore (JPMorgan), Glenn Fromer (Treasury Software), Cassandra Gordon (TD Bank), Judy Grussing (US Bank), Regina Williams Hendrick (Levvel), Kevin Hill (Reliafund), Chris Huppert (Wells Fargo), Sharon Jablon (TCH), David Jackson (Marketcy), BC Krishna (MineralTree), Erin McCune (Glenbrook Partners), Holly Mensendiek (Imperial PFS), Scott Miller (ECCHO), Rebecca Parke (Payments Canada), Jason Prince (Finexio), Booshan Rengachari (SwapsTech), Greg Rettinger (US Bank), Patti Ritter (Minneapolis Fed), Kathleen Shea (NEACH), Anna Tujunen (Dooap), Rob Unger (NACHA), Karen Wojciechowski (Chicago Fed)

BPC Initiatives Update

Patti Ritter of the Minneapolis Fed gave updates on current BPC initiatives.

Simple Remittance Requirements

The narrow, targeted goal of the workgroup was to define data needs for simple remittance information that can be easily adopted by SMBs. Status:

- The workgroup identified minimum data elements needed by SMBs to successfully apply payments. It developed three levels of increasing complexity to suit SMB needs, the lowest of which has 4 data elements and the highest is the existing STP 820 data.
- The work is completed and the documentation will be published shortly and distributed to the BPC. There will be additional publicity and awareness efforts.
- The intent of the publication is to highlight the needs of the SMB market segment and provide guidelines for minimum remittance data. It is a foundational building block for other remittance efforts.

Virtual Card Remittance Requirements

The objective of the work group is to identify the business requirements for delivering remittance information between buyers and suppliers for buyer-initiated and virtual card payments. Status:

- The group has completed process flows
- They will begin looking at gaps in the process where remittance information passes between systems along the way.

SMB Accounting Software APIs

The SMB Accounting Software APIs initiative is a limited-scope effort to create a catalog of APIs and providers. The first objective is to research and compile a list of APIs that can be used with SMB accounting software to automate both electronic payment initiation and cash application to receivables. The list will be published and publicized to educate SMB providers about available electronic payment integration tools. The second objective is to compile a list of banks and payment providers that integrate specific APIs for payment execution and receipt. Status:

- The group will look at 27 accounting packages that serve the SMB market
- The group has documented where APIs come into play in the process flows for sending and receiving payments
- Research on APIs is beginning

Several members at the meeting expressed interest in contributing to the work group.

ISO 20022 Capabilities

The ISO 20022 Capabilities work group will develop a registry of US banks and service providers that have ISO 20022 capabilities for payment and cash management operations. The goal is to establish a query able online directory that can be queried, with consistent format and content. The directory will be a resource to end users and will publicize availability of ISO 20022 for payment and cash management operations. Status:

- The group is currently determining content and format for information to be collected.

2018 BPC webinar series

Suggested topics for webinars:

- Banking APIs, open banking APIs
- Research and survey results
- e-Invoicing (further discussion)
- Open banking
- ISO 20022 testing

There was a suggestion to survey members to find out topics of interest.

B2B Directory

Larry Buettner gave an update on the B2B Directory, which is now led by the non-profit Business Payments Directory Association (BPDA). In 2017, BPC members helped complete the Directory requirements to prepare for a Request for Information. There were 4 responses to the RFI. The BPDA subsequently did a Request for Proposal and is in discussions with a provider to develop the Directory.

The BPDA now has funding for the Directory, and they are recruiting payers, payees, providers and FIs for a Proof of Concept this year. They are looking to 2019 to offer a “software solution in a box” to the industry. They have an innovative design with a private blockchain for the backbone of the directory. The directory is payment channel agnostic and will provide a routing mechanism. There will be federated databases and all information in the directory will be validated.

The BPDA is looking for BPC member participation in this year's efforts to help get the Directory off the ground. The BPC has been instrumental in the development of the directory, and they want broad participation, especially from corporates, who are the beneficiaries of the Directory.

Volunteer Recognition

Guy Berg thanked volunteers who helped with two large initiatives in 2017. Achieving results on worthwhile projects takes time, and volunteers are making a difference. In the past the BPC has selected one or two volunteers of the year but this past year we had the good fortune of increased engagement by many BPC members and felt it appropriate to acknowledge the contribution of a broader group of members.

There were two B2B Directory work groups that helped the Business Payments Directory Association complete requirements and a governance model to prepare for their Request for Proposal for a directory. Volunteers that made significant contributions in 2017 are:

Larry Buettner, Deluxe
Attila Csutak, Fiserv
Tracy Dalton, State Bank & Trust
Dan Ellecamp, retired treasury professional
(CSAA)
Paula Epstein, TD Bank
Michael Jasper, Basware
Micah Kerr, Discover
Kathy Levin, NACHA

Karen Moss, TD Bank
AJ Nathan, Discover
Anita Patterson, retired treasury professional
(Cox Enterprises)
Rosanne Rosenberger, Key Bank
Eileen Schwed, CIT Bank
George Throckmorton, NACHA
Scott Volmar, InterComputer

The e-Invoicing work group continued with e-Invoicing work following the publication of *U.S. Adoption of Electronic Invoicing: Challenges and Opportunities* in 2016. In 2017, the group completed and published the *Catalog of Electronic Invoice Technical Standards*. Volunteers that made significant contributions in 2017 are:

Robert Blair, X9
Cassandra Gordon, TD Bank
Roger Hatfield, Cloud-Trade, Inc.
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Travis Lachinski, US Bank
Candace Marton, Boost Payments Solutions

Elaine Nowak, High Radius
Chris Pfeiffer, Federal Reserve Bank of St. Louis
Sandra Roth, J&J
Rich Urban, IFX, Inc.
Ken Virgin, iPayables
Tom Womble, CedarDocs

The level of engagement in 2018 is once again high and the BPC thanks and appreciates the time, effort and thought leadership of the volunteers that are already contributing to a very productive 2018.

e-Invoicing Interoperability Framework

The objective of this part of the meeting was to build awareness of some of the Interoperability Framework assessment work thus far this year and to stimulate dialogue on potential benefits and challenges with establishing an e-invoice Interoperability Framework in the U.S. similar and compatible with what has been implemented both in the EU and Australia.

Todd Albers gave an overview of the e-Invoicing Interoperability Framework (refer to the PowerPoint presentation at the end of this recap). The Framework enables a secure, open network that allows companies to exchange electronic invoices using established standards. It broadens the reach of companies to send and receive invoices (1) without disrupting existing relationships between suppliers, buyers and providers and (2) without requiring companies to change their invoice format or adopt new standards.

A BPC assessment team looked at what the European Union and Australia have done with their e-Invoicing interoperability frameworks, focusing on four areas: technical interoperability, semantics interoperability, governance and adoption. The group just completed the initial assessment. Themes that emerged include:

- An interoperability framework is technically feasible for the U.S.
- An e-Invoice semantics model is important and valuable to the market independent of the existence of an interoperability framework
- Security, trust and confidentiality (data privacy) are important
- An impartial third party should lead any industry effort
- A governance organization is needed to maintain standards and credential participants; this should be an independent group
- It will be important to enumerate the costs and benefits for service providers
- Adoption is key: with no mandate, it will be important to get several established service providers on board initially, and government participation could help create critical mass

Much of the discussion in the meeting centered on the need for an e-Invoicing semantic model in the U.S. and adoption considerations.

Semantic Model

There was discussion about syntax and semantics, as there is confusion over the terms. Syntax is the “grammar” and semantics is the “meaning”. There are many standards, such as ISO 20022, with defined data dictionaries, but the U.S. doesn’t have a semantic model for an e-Invoice. The question posed to the group was: Can the US develop a core semantic model? Why or why not?

- The attendees generally agreed that it is possible and has to be done
- Figure out the semantics, how to code it, how to deliver it, and how to drive adoption
- The paper invoice process is cumbersome today and it’s hard to have automation
- We need a standard for FIs to communicate information to and from accounting providers, where the invoicing resides
- There won't be a standardized invoice in the U.S. A semantic model doesn't require a standard invoice; it assures common meaning and allows extensions for specialized needs.
- Electronic invoices don't solve for controls needed in the invoicing process

Adoption

There was general agreement that semantics isn't the big problem, adoption is.

Business Payments Coalition

Recap of April 29, 2018 meeting

- When is the right time?
- How does it differ from EDI?
- It is possible with the right dynamics. If you have governments do it you might get a network effect.
- Look at the industry verticals such as health care and insurance that have done this.
- Include economics in the analysis. What are the economic incentives, how do providers monetize it? Who will pay for the network?
- There are ancillary benefits such as the time aspect, paying sooner, and taking advantage of discounts. There is a high cost to process manual invoices.
- Right now the payee and payer not aligned; you need to incent both sides to participate.
- What are the business aspects in the U.S. that are barriers or make it work? Is there a niche market to pursue?
- Australia has no government mandate and adapted the EU model for B2B purposes. Singapore and New Zealand are looking at interoperability frameworks.
- Address adoption concurrently with other project efforts.
- There are enough large billers and payers that give it some impetus.
- We don't want an academic exercise.

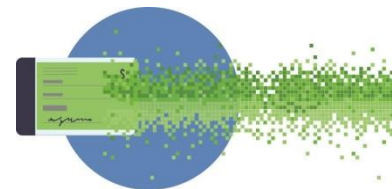
Cross-Border Payments

Is there an interoperability connection with cross border payments? ISO 20022 is making interoperability much easier for cross-border payments, but migration is difficult. There will be translation for a time until everyone has adopted ISO 20022 for payments. Governance is a consideration. The U.S. should move with the rest of the world. From a service provider perspective, cross-border payments are very painful. There are learnings for e-Invoicing in what has evolved with payments.

Next Steps

The next phase of the assessment will be a technical assessment to “peel the layers of the onion” to better understand the gap between the frameworks and what would be required to meet the technical needs within the U.S. It also will assess the technical requirements to establish access points.

The BPC is calling for member participation in the next phase. A number of members have signed up for the e-Invoicing efforts. Contact Todd Albers (todd.albers@mpls.frb.org) if you want to participate. It is best to have all perspectives heard at this early stage of the assessment.

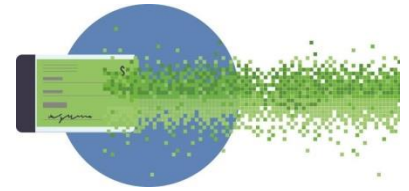


Business Payments Coalition e-Invoice Interoperability Framework Concept

NACHA 2018 Payments Conference

4/29/2018

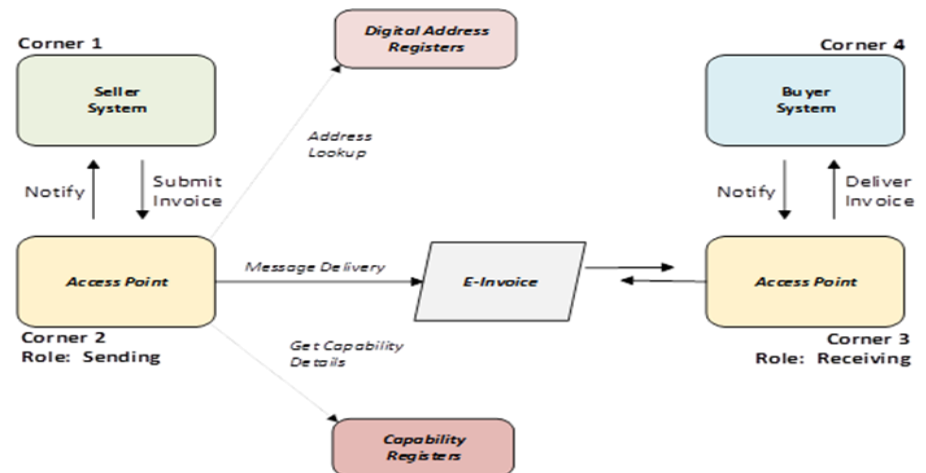
Concept – e-Invoice Interoperability Framework



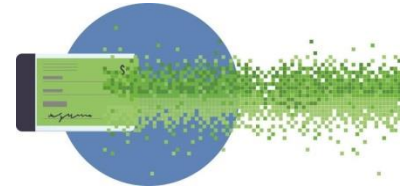
Email - Uses established internet communication standards, end users can communicate across various email platforms



The Interoperability Framework
Similarly, using established standards over an open network, trading partners can exchange documents

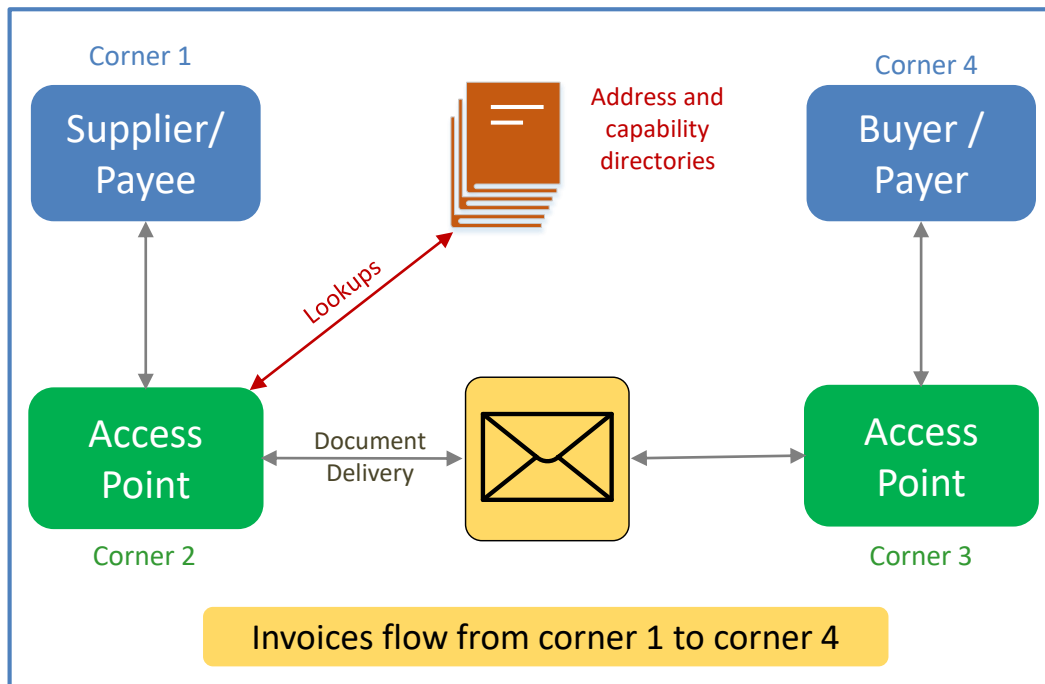


How an Interoperability Framework Works



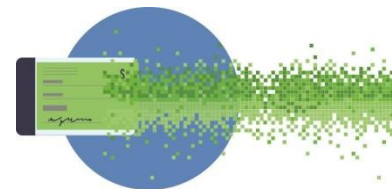
The Interoperability Framework standardizes the interconnections between trading partners by using a “**four corner model**”

Globally, the trend is toward the use of 4-corner models



- Standardized interconnections deliver documents and messages through an open network over the internet
- Allows multiple types of documents and messages
- A delivery mechanism only; no documents or messages are stored
- Operates outside of the payment system; does not clear or settle payments
- Does not disrupt existing relationships between supplier/buyer and providers

Guiding Principles



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



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



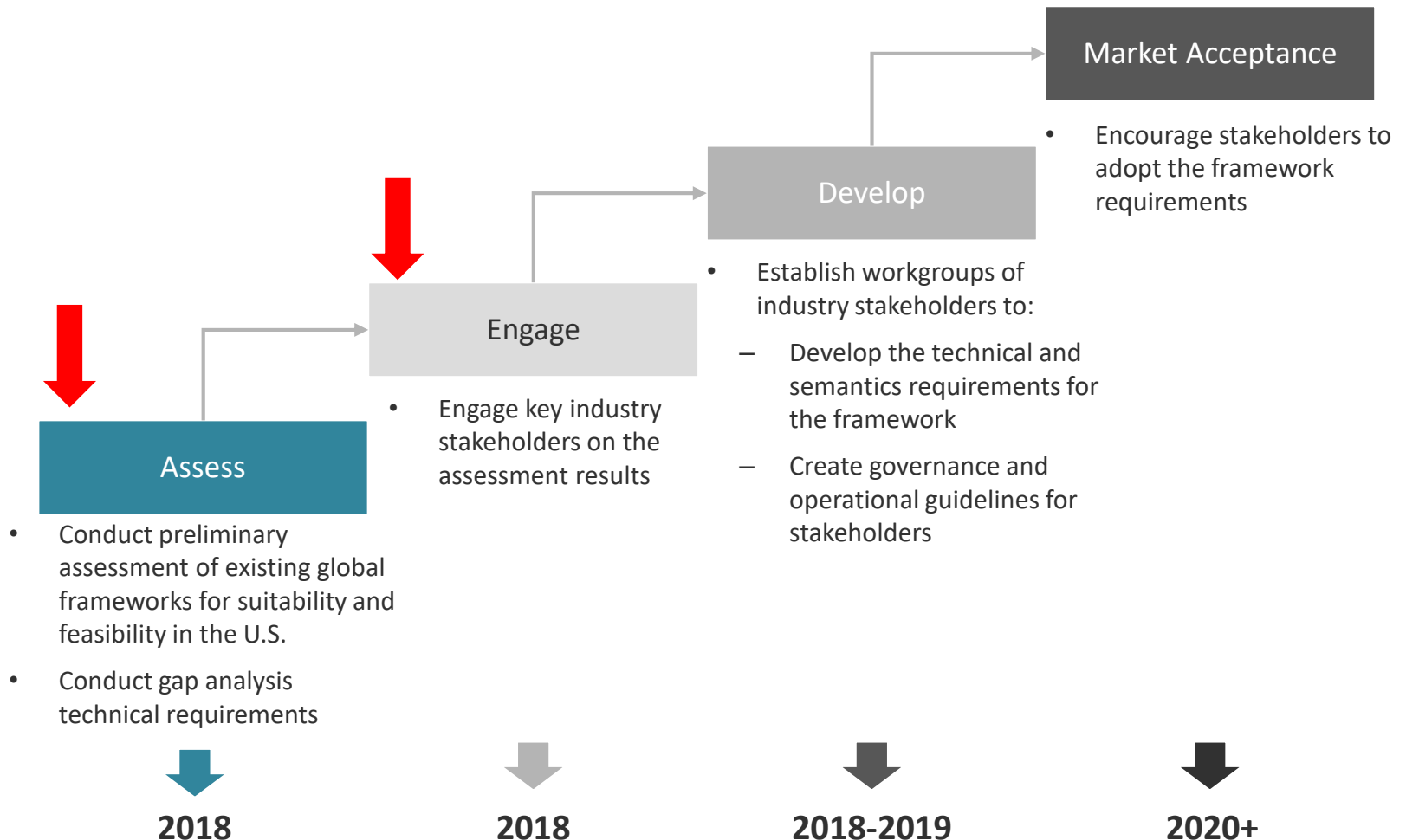
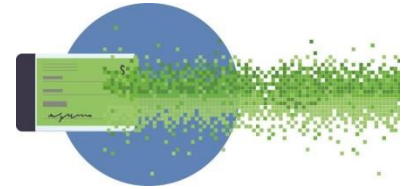
Open, standards-based approach to enable straight-through-processing



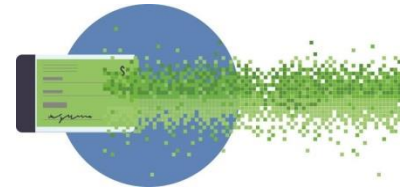
Complementary to and should easily link to existing processes

Business Payments Coalition

3 Year Plan

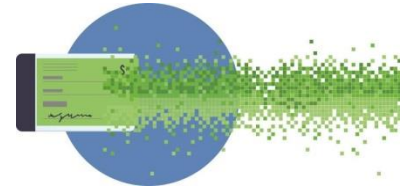


Preliminary Framework Assessment



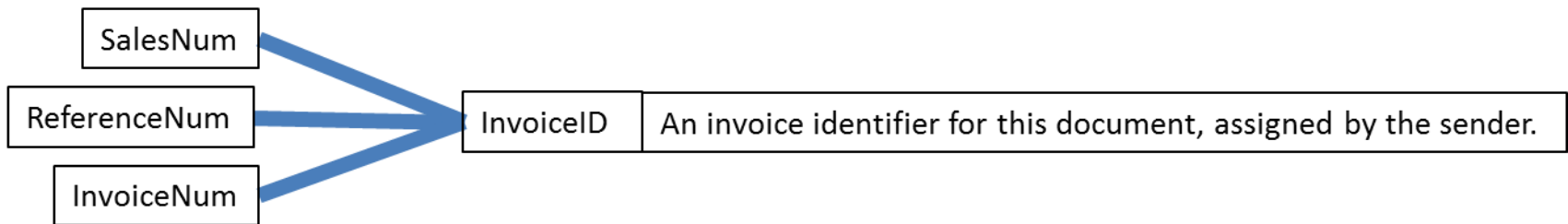
- An assessment team was assembled and has spent two hours on each of the following areas:
 - Technical Interoperability
 - Semantics Interoperability
 - Governance
 - Adoption
- The sessions focused on providing the assessment team strong foundational understanding of the European Union and Australian e-invoice interoperability frameworks. Material was provided in advance along with questions for the team to consider relative to the material.
- The assessment work group has been highly engaged and provided valuable feedback on each topic.
- The next phase will be a technical gap assessment to better understand the differences between the frameworks and what would be required to meet the technical needs within the U.S. It also will assess the technical requirements to establish access points.

Semantics Interoperability

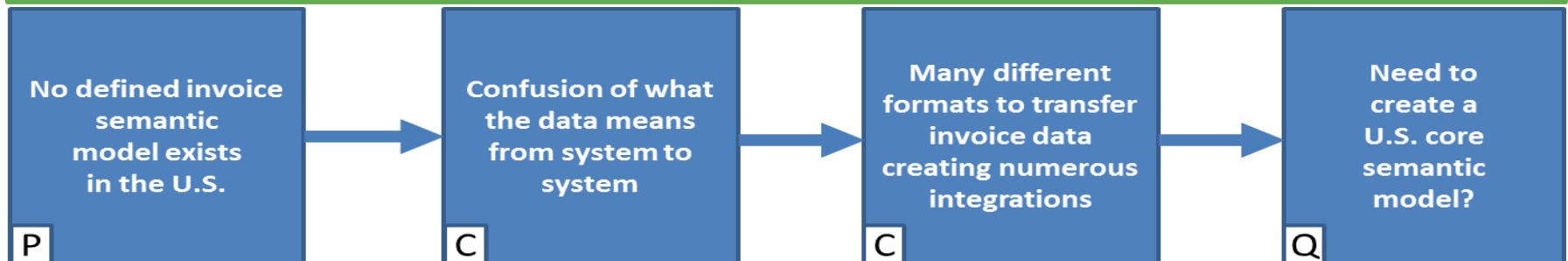


Semantics interoperability ensures the ability for business applications of buyers and sellers to recognize, comprehend and process information they exchange across the framework

Current Situation: What is a Invoice Number?

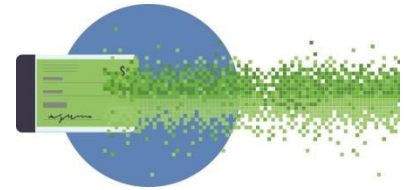


Initial Assessment for Discussion



P=Problem, C=Complication, Q=Question

Semantics Interoperability

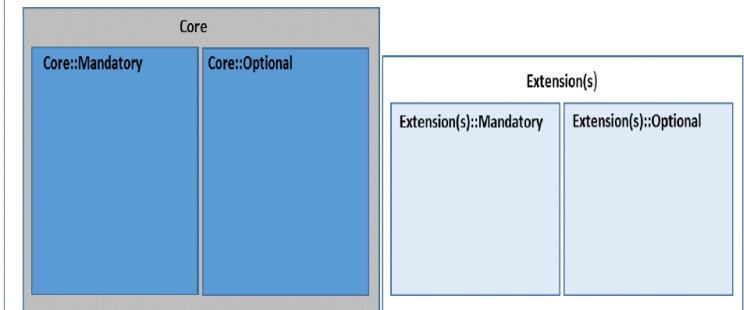


Semantics interoperability ensures the ability for different business applications of buyers and sellers to recognize, comprehend and process information they exchange across the framework

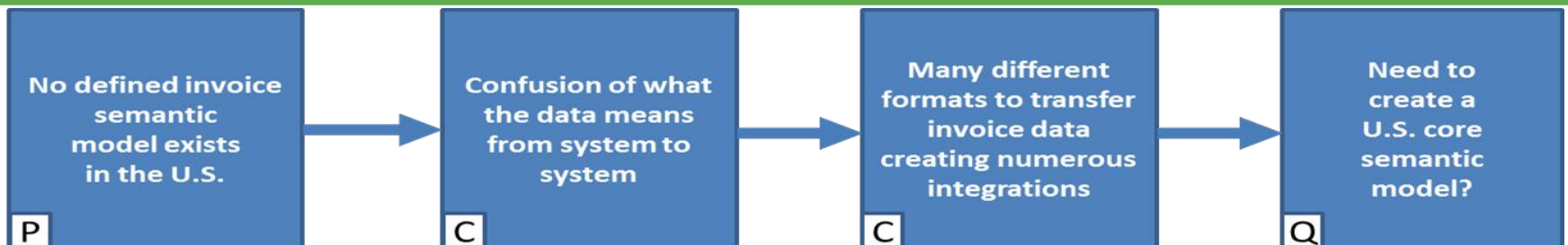
Current Situation: What information is required for a valid invoice? How do I handle additional data?

High Level Components:	Information Elements:
Document References	Invoice Number, Orders, delivery information, contracts
Supplier Details	Identifiers, address and contact details
Buyer Details	Identifiers, address and contact details
Payment Information	How payments may be made
Allowance and Charges	Discounts, penalties, and additional charges
Monetary Totals	Invoice totals and actual amount due
Tax Totals	Details of Sales and Use Tax
Invoice Line Details	Individual transactions within the invoice
Item Details	Identifiers, prices, descriptions, unit of measurements

Message Package: Core and Extensions

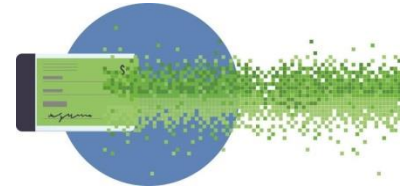


Initial Assessment for Discussion



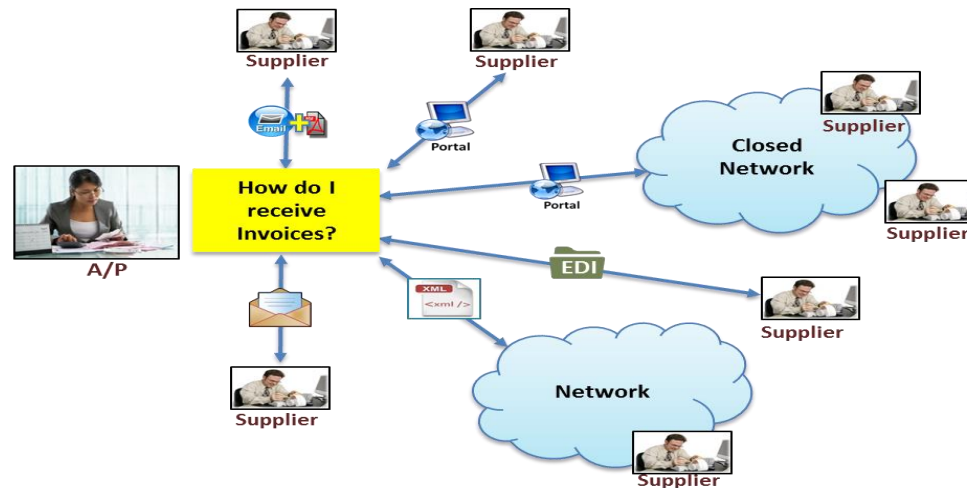
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Technical Interoperability

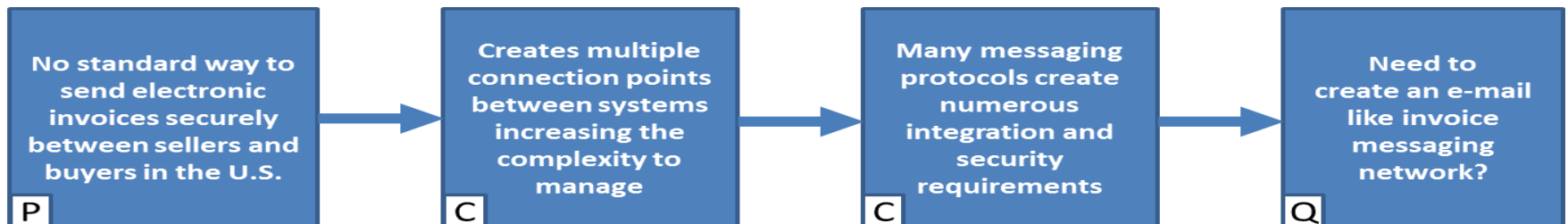


Technical interoperability ensures that invoices can be securely and reliably transmitted from one party to another across the network

Current Situation: How do I connect with my trading partner?

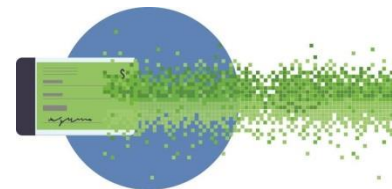


Initial Assessment for Discussion



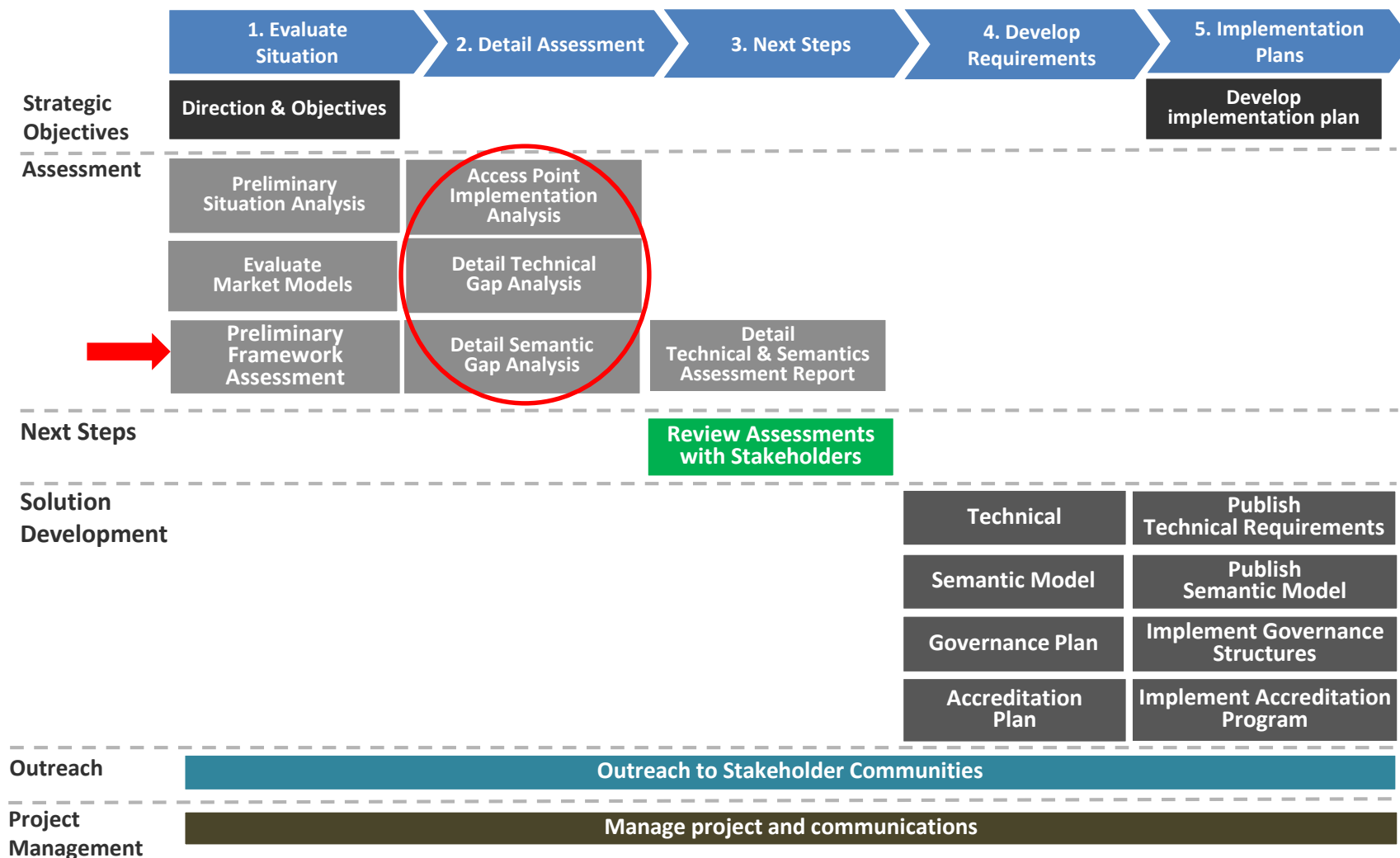
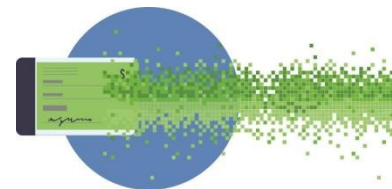
P=Problem, C=Complication, Q=Question

Key Themes that Emerged

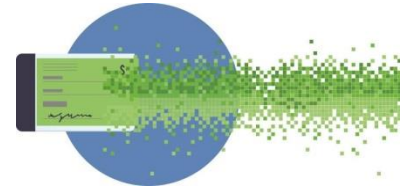


- An interoperability framework seems technically feasible for the U.S.
- An e-Invoice semantics model is important and valuable to the market
- Security, trust and confidentiality (data privacy) are important
- An impartial third party should lead any industry effort
- A governance organization is needed to maintain standards and credential participants; this should be an independent group
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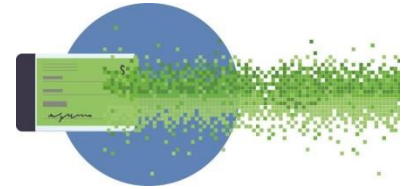
e-Invoice Interoperability Framework Activity Plan



Appendix



Preliminary Framework Assessment



Mission:

- Evaluate operational feasibility of standards and guidelines of existing interoperability frameworks
- Evaluate the suitability of an Interoperability Framework within the U.S.
- Provide recommendation on whether the Business Payments Coalition should move forward with an industry call to action

Scope:

- Evaluate the Pan-European Procurement Portal On-Line (PEPPOL) and the Australia Digital Business Council eInvoice Interoperability Framework
- Review market adoption opportunities and challenges for a framework
- Provide recommendations on participants needed for potential workgroups

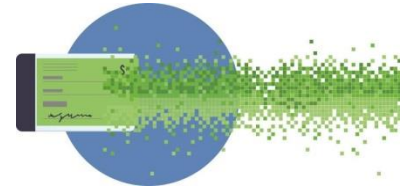
Deliverables:

- Develop assessment methodology and conduct the assessment
- Document the results of the assessment
- Recommendation and considerations for next steps

Target Stakeholders:

- The assessment work group consisted of 13 individuals representing the following stakeholder groups:
 - Subject matter experts in global e-Invoicing, including representatives from vendors and service providers
 - Payment service providers
 - Financial institutions
 - Corporate/Practitioners

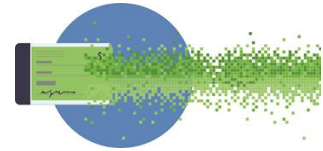
Participants



- Bob Blair, X9
- Cassandra Gordon, TD Bank
- Charles Ellert, Verizon
- Chris Welsh, OFS Portal
- Ernest Fiore, JP Morgan Chase
- Herman Man, Xero Inc
- Ken Virgin, iPayables
- Lynne Herrman, Bottomline Technologies
- Matthew Shanahan, Globys, Inc
- Michael Jasper, Basware
- Nicholas Schmidt, JP Morgan Chase
- Pam Rhoads, Accenture
- Phillip Schmandt, McGinnis Law

BPC Volunteer Recognition - 2017

B2B Payment Efficiency Thought Leadership



The BPC would like to recognize and thank the volunteers who went above and beyond in 2017 to help with two important initiatives: the B2B Directory and preparation of the Catalog of Electronic Invoicing Standards. The BPC relies on the thought leadership and work efforts of volunteers to achieve its objectives to promote adoption of electronic payments, remittance information, and invoices to enable end-to-end straight through processing.

There were two B2B Directory work groups that helped the Business Payments Directory Association complete requirements and a governance model to prepare for their Request for Proposal for a directory. Volunteers that made significant contributions in 2017 are:

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Sandra Roth, J&J
Rich Urban, IFX, Inc.
Ken Virgin, iPayables
Tom Womble, CedarDocs

The BPC appreciates the volunteers who are contributing to the 2018 initiatives:

- Simple Remittance Requirements
- Virtual Card Remittance Requirements
- SMB Accounting Software APIs
- ISO 20022 Capabilities
- e-Invoicing Interoperability Framework Assessment