Informational Session
Semantic Model Information Elements
Request for Industry Comment

October 1st, 2020
Agenda

• Introductions
• Who Is the Business Payments Coalition
• What Is the e-Invoice Exchange Framework
• What Is the e-Invoice Semantic Model
• Information Model – Overview and Instructions on the Industry Comment Form
• Question and Answer Session
• BPC Activities and Timeline
• Overview of the Data Model and Flow
• Resource Links
Introductions

• Overview
  • Todd M. Albers, Federal Reserve Bank of Minneapolis

• BPC Subject Matter Experts
  • Michael Jasper, Director, Velocity Procurement (USA)
  • Ken Holman, CTO, Crane Softwrights, Ltd (Canada)
  • Jesus Pastran, CEO, ATEB (Mexico)
Who Is the Business Payments Coalition?

Internationally recognized group of industry volunteers who are leading efforts to promote greater adoption of electronic business-to-business (B2B) invoices, payments and remittance data exchanges

https://businesspaymentscoalition.org
What Is an e-Invoice Exchange Framework?
What most connection models look like amongst businesses
What a new connection model could look like
What a new connection model could look like

Exchange framework that enables a standardized way to connect
The exchange framework is a set of standards, policies, and guidelines enabling businesses to connect once, and trade invoices with anyone.

**Legal** – Addresses contractual, policy and legislative requirements

**Business** - Addresses processes, identifiers and discovery mechanisms

**Semantic** - Enables trading parties to understand the information they exchange

**Technical** - Enables the concept of an open, federated network of access points
What is the e-Invoice Semantic Model?

Creates a common understanding of the information exchanged between parties ensuring *semantic interoperability* between corners 2 and 3 in a 4-corner model.

**Semantic Model Components**

- Business Processes
- Business Functions
- Actors and Roles
- Information Model
- Data Model
Instructions on the Industry Comment Form
Industry Comment Form

Section 3.0 – Steps for Providing Feedback

Find the industry comment form and definition document on the BPC website: https://businesspaymentscoalition.org/e-invoicing/

• Step 1 - Save and retitle the document
• Step 2 – Go to section 6.0 Information Elements – Request for Comment – Interactive Form
  • Review each information element, related information rules, and cardinality, and determine if you suggest a change and/or have comments
  • In the Suggest a Change column, click on the “Choose an item” dropdown list and select the appropriate item, as applicable
  • Indicate related feedback in the Comments field, as applicable
  • Add additional information element requirements in section 7.0 Additional Suggested Information Elements
• Note: The BPC recommends that both business and technical subject matter experts review and jointly provide feedback
## Industry Comment Form

### Section 4.0 – Invoice Information Elements

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NABT -ID</strong></td>
<td>• The identifier used for cross referencing information elements and business groups in the North American semantic model with other models, such as EN 16931. Identifiers beginning in the 900s indicate additional elements that support the North American model.</td>
</tr>
<tr>
<td><strong>Information Element</strong></td>
<td>• The data associated with each component of an invoice (e.g. business term, cardinality, or description) that can be defined independent of the syntax.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> <em>Elements with a ‘0..n’ or ‘1..n’ designation may exist more than once.</em></td>
</tr>
<tr>
<td><strong>Information Rules</strong></td>
<td>• Rules associated with each information element to ensure successful message delivery in corners 2 and 3 of a 4-corner model.</td>
</tr>
</tbody>
</table>
| **Assigned Cardinality (M or O)** | • Mandatory (M) - A core set of information elements that are required.  
                               | • Optional (O) – A core set of information elements that are not required.                                                                                                                                   |
|                               | **Note:** *Some optional elements are mandatory when another element is present, as noted in the Information Rules.*                                                                                       |
| **Suggested Change**          | • Dropdown options include:  
                               | o Information element data not needed  
                               | o Information rule has an error or is missing  
                               | o Cardinality should change                                                                                                                     |
| **Comments**                  | • Field for providing any additional feedback.                                                                                                                                                    |
Section 5.0 – Invoicing Business Processes

1. Invoicing with reference to a blanket or standard purchase order based on a contract
2. Invoicing with reference to a blanket or standard purchase order without a contract
3. Invoicing without reference to a contract or purchase order
4. Credit memo pre-payment
5. Credit memo post-payment
6. Invoicing the delivery of goods and services against a pre-payment
7. Invoicing the delivery of goods and services against a spot payment
8. Payment in advance of delivery
9. Invoices with references to a dispatch advice
10. Invoices with references to a dispatch advice and a receiving advice
11. Cancellation/corrective invoicing
12. Partial and final invoicing
13. Self-billing
Section 5.0 – Key Questions

• Consider the following questions when reviewing and providing feedback on each information element.
  • Is the information representative of the invoices that you send/receive to support the business process?
  • Is the information rule sufficient to support the business process?
  • Are there any information elements not present that should be added to the model to support your business processes?
  • Are any of the information elements not a part of your invoicing process?
# Industry Comment Form

## Section 6.0 – Key Questions

Each row has a dropdown field to select a Suggested Change.

### Invoice Information

<table>
<thead>
<tr>
<th>NABT-ID</th>
<th>Information Element</th>
<th>Information Rules</th>
<th>Assigned Cardinality</th>
<th>Suggested Change</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Invoice Number</td>
<td></td>
<td>M</td>
<td>Choose an item.</td>
<td></td>
</tr>
<tr>
<td>999</td>
<td>Copy Indicator</td>
<td></td>
<td>O</td>
<td>Choose an item.</td>
<td></td>
</tr>
<tr>
<td>998</td>
<td>Universally Unique Identifier (UUID)</td>
<td></td>
<td>O</td>
<td>Choose an item. Info Element is not needed</td>
<td></td>
</tr>
<tr>
<td>002</td>
<td>Invoice Date</td>
<td></td>
<td>M</td>
<td>Choose an item. Info Rule has an error or is missing</td>
<td></td>
</tr>
<tr>
<td>997</td>
<td>Invoice Issue Time</td>
<td></td>
<td>O</td>
<td>Choose an item. Cardinality should change</td>
<td></td>
</tr>
<tr>
<td>003</td>
<td>Invoice Type Code</td>
<td>Invoice Type Code</td>
<td>M</td>
<td>Choose an item.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Code value must be Commercial Invoice (380) or Credit Note (381)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each row has a Comments field for providing additional context to a suggested change or provide additional information on the information element.
Question and Answer Session
BPC e-Invoice Exchange Framework Initiative

Foundational Work

- Develop framework specifications, standards and conduct governance model assessment
- Conduct framework validation exercise

2019 ← 75% complete → 2021

Go-to-Market Strategy

- Governance body identification
- Conduct in-market pilot
- Develop adoption strategy

2021 ← → 2023
Overview of the Data Model and Flow

- The Data Model represents the informational elements and data integrity constraints laid out in a conformant UBL ISO / IEC 19845 XML schema.
- The tool that is made available has samples of Corner 3 data flow validating incoming XML instances from Corner 2.

Source: Business Payments Coalition
Resource Links

Artifacts Repository
• https://drive.google.com/drive/folders/1n-bNQu8sG5ZRATc7JLzDtzY9JzQ5qCuC
• File Name: bpc-semantics-0.1-CCYYMMDD-HHMMSSz.zip

Semantic Model Information Elements
• https://docs.google.com/spreadsheets/d/1qAz_aAbJ99ikA4zUk97FyjyDLcsQ3B3vqjEK-b3C_h8/view

Business Process Diagrams
• https://drive.google.com/file/d/1tGHNafzMnJPLJ3G5NOE4LzVTq1yeiUAc/view

Submit completed forms and questions at:
• business.payments.smb@mpls.frb.org
Thank You!