Ocean Freight Industry EIPP Standards Advisory Board
Guideline 5 Version 1.0 Revision 1
Payment Advice Message Model for EIPP

PUBLIC REVIEW DRAFT

<table>
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<tr>
<th>Business Domain</th>
<th>Ocean Freight Industry</th>
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<td>Business Process</td>
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<td>OFI-SAB-EIPP-5-PaymentAdviceMessageModel-MOD-v1.0-prd1</td>
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<td>Message Structure &amp; Codes</td>
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Revision History

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<th>Date</th>
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<tr>
<td>2012-06-01</td>
<td>1.0 d1</td>
<td>Initial version</td>
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1 Introduction
This guideline establishes a logical model for an electronic payment advice sent from a customer to an ocean carrier when paying for ocean transportation services.

The model is independent of any implementation in any technology or format. It specifies the information which shall be communicated and which of these information are required. The model shall be used as a reference for implementations of electronic invoice messages in the ocean freight industry.

2 Background
In 2010 carriers, freight forwarders and other players in the ocean freight industry established the EIPP Standards Advisory Board as a forum for discussing and designing collaborative processes for carriers, freight forwarders and others in the ocean freight industry. The Ocean Freight Industry EIPP Standards Advisory Board will advise on the standards that will shape electronic invoicing for the ocean freight industry. Its purpose will be to

• Understand and influence standards and regulations for electronic invoicing and to provide a roadmap for service and product development;
• Determine the implementation of current standards used in the industry;
• Determine and prioritize the adoption of future standards used by the industry;
• Allow ocean freight industry participants to take advantage of electronic business and preserve their investments in systems development and operations;
• Collaborate with colleagues, customers, and leaders with foresight in the field;
• Learn from experience and best practices in related field (e.g. other transport modes, banking, public sector);
• Provide a framework for the ocean freight Industry to influence international standards activities.

The overall vision is to establish a set of guidelines for best practices based on international standards that will ensure the adoption and long term sustainability of electronic invoicing for our industry.

For this purpose the board establishes several work teams including the work team Message Structure & Codes. First line target of this work team is to

• Develop a common structure for the data elements
• Define EDIFACT implementation standards
• Define how cancelation scenarios shall be reflected in the message
• Get a common understanding of accepted code lists.
3 Scope

3.1 Functional Definition
The payment advice is a message by which a party responsible to pay for ocean transportation announces his decision to pay certain invoices. The message is used for any kind of payments but is not intended for other kinds of settlement.

The payment advice shall be sent in the moment where the payer instructs the payment. It describes which invoices are paid.

It can be used in addition to communicate why a payment amount differs from a billed amount. Such differences are called adjustments.

3.2 Principles
The message model describes what an electronic payment advice shall comprise in general in the ocean freight industry.

The model is specific. Each field has a specific meaning. Use of generic fields like ‘role’ is avoided.

The rationale for this approach is as follows:

• easier to understand for any business person
• less ambiguity
• more meaningful description of the fields
• clear description when to use which field
• easier to map to different formats

The model is described by the following key notions: message, segment and data element.

3.2.1 Messages
The message is the header notion. The message is an electronic, structured document sent from a sender to a receiver with potential use of intermediaries. A message consists of segments which relate to each other. The definition of the message comprises the segments it contains and the relation between the segments. The message does not define any order of segments.

3.2.2 Segments
A Segment is a set of related data elements. Segments relate to each other. Some relationships between segments are explicitly indicated by data elements, others are implicit. The model does not stipulate any specific order of segments.

Example: The message model comprises the segments payment advice header and paid invoice. The payment advice header can occur only once. Paid invoices occur many times and since they all belong to the one payment advice, there is no need to indicate their relationship to the payment advice header explicitly.
The segments of a message and their relationships are defined graphically in a diagram. In this diagram rectangles are used to show segments, lines establish relationships between segments and a crooked foot indicates cardinality.

The above example shows a message with a segment called ‘Payment Advice Header’. This segment is
implicitly (dashed line) related to none, one or more (crw foot) ‘Paid Invoice’ segments. The ‘Paid Invoice’
  segment comprises amongst others a data element ‘Reason’ (see dashed rectangle).

3.2.3 Data Elements
A segment consists of data elements. All data elements are defined in Guideline 1 Data Elements Dictionary for EIPP. For each data element of a segment all parent data elements are listed and only those sub elements, which are part of the segment. Not explicitly listed data elements are not part of the segment. The model does not define any particular sequence of data elements within a segment. To identify a particular data element in a particular segment the segment code and the data element code are used together separated by a dash.

Example: I-010.04 Paid Invoice-Reference-Purchase Order#

I : Paid Invoice Segment
010 : Reference
04 : Purchase Order#

The element I-010.04 is the Purchase Order# in the Paid Invoice segment.

The generic description of a data element is given in Guideline 1 Data Elements Dictionary for EIPP. This guideline may add description specific to the message. Such description will particularly identify conditions under which a data element must be present (see Cardinality and Optionality).

3.2.4 Cardinality and Optionality
The segment defines which data elements belong to a it. It does not describe which one is required and whether they occur multiple times.

Usually a data element occurs once in a segment. However some data elements are allowed to show up multiple times. This is indicated. The model does not say anything about the order of data elements in a segment or the ordering within multiple instances of the same data element. However there are very few cases, where the order of multiple instances of a data element is important and requires consideration. Whether a data element can have multiple instances within a segment and whether for these the order is relevant is explicitly stated in the model.

This guideline describes the cardinality and optionality of data elements. For this purpose it makes use of what we call CardOpt codes

<table>
<thead>
<tr>
<th>CardOpt Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>If the segment is present, then this data element must be present in this scenario. If this is a sub element, it must be present if the parent element is present.</td>
</tr>
<tr>
<td>O</td>
<td>The data element is optional in this scenario. Presence is subject to the sender’s decision or a bilateral agreement.</td>
</tr>
<tr>
<td>C</td>
<td>If the segment is present, then the data element must be present under conditions defined in the description. If this is a sub element it must be present under the defined</td>
</tr>
</tbody>
</table>

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conditions, if the parent data element is present.

<table>
<thead>
<tr>
<th>M1</th>
<th>This data element is one out of a couple of data elements having the marker ‘M1’. It means that at least one out of these must be present.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr, Or, Cr</td>
<td>The lower case ‘r’ indicates that the data element is repeatable. It may occur multiple times in a segment and the order is meaningless and not defined. In case of ‘Mr’ or ‘Cr’ minimum one occurrence is required under the conditions mentioned above.</td>
</tr>
<tr>
<td>Mro, Oro, Cro</td>
<td>As before but the ordering of the occurrences is important.</td>
</tr>
<tr>
<td>na</td>
<td>The data element is not applicable in this scenario.</td>
</tr>
</tbody>
</table>
Examples:

<table>
<thead>
<tr>
<th>Code</th>
<th>Data Element</th>
<th>Specific Description</th>
<th>Card Opt Code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-039</td>
<td>Payment Advice Number</td>
<td></td>
<td>M</td>
<td>The payment advice number must always be present</td>
</tr>
<tr>
<td>P-043</td>
<td>Payment Advice Remark</td>
<td></td>
<td>O</td>
<td>Whether this data element is used or not is left to the sender of the message.</td>
</tr>
<tr>
<td>P-013</td>
<td>Exchange rate</td>
<td>Only if the payment is done in a different currency than any of the invoices</td>
<td>C</td>
<td>This data element must be present if the payment is done in a different currency than any of the invoices</td>
</tr>
<tr>
<td>A-045</td>
<td>Adjustment reason</td>
<td></td>
<td>M</td>
<td>If the parent segment A Adjustment is present (above line shows that it is not necessarily present), then this data element is required</td>
</tr>
<tr>
<td>I-001</td>
<td>Invoice number</td>
<td></td>
<td>M1</td>
<td>One of both data elements must be present</td>
</tr>
<tr>
<td>I-001.01</td>
<td>B/L number</td>
<td></td>
<td>M1</td>
<td></td>
</tr>
</tbody>
</table>

3.3 **URIs and Namespaces**

For the purpose of referencing this guideline in other works the following naming rules must be used to identify a specification and can be applied to URIs and Namespaces that may be required:

\[
\text{OFI-EIPP-SAB-[Document\_name]-[Artifact\_type]-[Specification\_status]-[Version]}
\]

These are all the URI components:

- OFI = Ocean Freight Industry
- SAB = Standards Advisory Board
- EIPP = Electronic Invoicing Presentment and Payment
- 5 (Guideline Number)
- Document\_name = Payment Advice Message Model
- Artifact\_type = MOD (Model)
- Specification\_status:
  - Draft (Internal Draft)
  - PRD (Public Review Draft)
  - Standard
- Revision

**Examples:**

**FILE NAMES:**

EIPP Standards Advisory Board
OFI-SAB-EIPP-5-PaymentAdviceMessageModel-MOD-Draft-1.*

URIs:

urn:X-ofi-sab:eipp:5- PaymentAdviceMessageModel

www.ofi-sab.org/eipp/5- PaymentAdviceMessageModel /
4 Payment Advice Message Model

4.1 Graphical Model

4.2 Segments

The payment advice message model comprises the following segments.

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Payment Advice Header</td>
<td>Data elements unique for the complete payment advice. Each payment advice has one header segment only.</td>
</tr>
<tr>
<td>I</td>
<td>Paid Invoice</td>
<td>Data elements which identify a single invoice to be fully or partially settled and the amount to be settled</td>
</tr>
<tr>
<td>A</td>
<td>Adjustment</td>
<td>In case of any deviation of the paid amount from the billed amount the reason for this deviation.</td>
</tr>
</tbody>
</table>

4.3 Segment Definition

See attachment 1 to this guideline: http://www.ofi-sab.org/eipp/model/v0.1/ OFI-EIPP-SAB-5-PaymentAdviceMessageModel-MOD-Draft-1.xlsx
## 5 References

<table>
<thead>
<tr>
<th>Citation</th>
<th>Full Reference</th>
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<tr>
<td><strong>Guideline 1 Data Elements Dictionary for EIPP</strong></td>
<td>Ocean Freight Industry EIPP Standards Advisory Board Guideline 1 Data Elements Dictionary for EIPP</td>
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