HubBroker iPaaS OAGIS 9.6.1 Invoice Specification

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Table of Contents

1. Introduction

The Open Applications Group Integration Specification (OAGIS) is a cross industry business standard free to download and to use via http://www.oagi.org. Customers can exchange business documents like Orders, Acknowledgements and Invoices with their suppliers using the OAGIS format for integrating with the HubBroker iPaaS.

Internally within the HubBroker iPaaS is using the xCBL 3.5 standard as canonical format. When processing customers' business documents each document is mapped to this canonical format and from there to the receiver's desired format which in this case is "OAGIS 9.6.1 Process Invoice". HubBroker iPaaS is using the global version of format and supports the majority of the elements.

2. Purpose

The purpose of this document is to provide information about the implementation of OAGIS 9.6.1 for Invoices in HubBroker iPaaS and how customers can receive Invoice documents from their suppliers via HubBroker iPaaS in this format.

In addition to this document there is comprehensive material about the OAGIS standard at http://www.oagi.org.

3. Schema Validation

Any OAGIS 9.6.1 document sent from HubBroker iPaaS will be valid according to its global OAGIS 9.6.1 schema.

The official OAGIS schemas can be downloaded from the oagis.org website:

- http://www.oagi.org/dnn2/DownloadsandResources/OAGIS961PublicDownloadPage.aspx

4. Invoice

The Invoice document serves as an itemized bill from a supplier to a buyer. The level of detail required for implementation of this document will be dictated by the trading partner business requirements and depends on the complexity of the e-Invoice service being used.

An invoice can be invoked at various points during the business cycle (e.g. after a purchase order has been created, after shipment processing, after goods receipt, etc.). This will influence the type of data that is referenced and required on the Invoice document.

The HubBroker iPaaS currently supports invoice documents specifying the billing requirements for a single order.

4.1.   Specifying Invoice Types

The type of invoice used will determine the functionality of the invoice. Whether it is a Debit Invoice, Credit Invoice or Prepayment Invoice will dictate what type of data that will be sent and which fields on the Invoice document are used.

This information has to be specified in the Invoice Header Type element on the Data Area: /ProcessInvoice/DataArea/Invoice/InvoiceHeader/Type.

There are many different forms of an invoice and it is important to communicate between trading partners what type of invoice will be used. Invoices generated by applications on the HubBroker iPaaS can currently be of type debit invoice, credit invoice or prepayment invoice.

4.2.   Specifying Invoice References

An invoice will usually be generated as a result of a previous transaction. Hence, it is very important for audit and reconciliation purposes to be able to link all previous transactions that resulted in the triggering of the Invoice document.
The mandatory references for certain business processes such as HubBroker iPaaS Invoice Matching, HubBroker iPaaS Invoice Enrichment and HubBroker iPaaS Procurement Intelligence are Purchase Order Number, Purchase Order date and in particular countries the Delivery Note Number.
In the OAGIS 9.6.1 format we are keeping these references in the Header Level.

- Purchase Order Number
  /ProcessInvoice/DataArea/Invoice/InvoiceHeader/PurchaseOrderReference/DocumentID/ID
- Purchase Order
  DateProcessInvoice/DataArea/Invoice/InvoiceHeader/PurchaseOrderReference/DocumentDateTime
- Other References
  ProcessInvoice/DataArea/Invoice/InvoiceHeader/DocumentReference/DocumentID/ID

4.3.   Specifying Currency Information

In most cases, the currency specified on the purchase order should be the same as the currency specified on the invoice and payment document. There are some business processes where this is not the case. To assist in the audit and reconciliation process for these types of invoices, users can explicitly specify the invoice currency and payment currency within the Invoice document.

This is done under the Invoice Header:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/TotalAmount/@currencyCode
- ProcessInvoice/DataArea/Invoice/InvoiceHeader/ExtendedAmount/@currencyCode

4.4. Specifying Details of an Item

In this section, the Item Details will be covered. They can be found in the Process Invoice under

- ProcessInvoice/DataArea/Invoice/InvoiceLine

The Line Item Identification number is found here:

- ProcessInvoice/DataArea/Invoice/InvoiceLine/LineNumber

4.4.1. Part Numbers

The /ProcessInvoice/DataArea/Invoice/InvoiceLine/Item element is used to provide the identification of the item being invoiced. The following lines can be used to provide further identifiers:

- Seller Part Number:
  /ProcessInvoice/DataArea/Invoice/InvoiceLine/Item
- Buyer Part Number:
  /ProcessInvoice/DataArea/Invoice/InvoiceLine/Item/CustomerItemID/ID
- Manufacturer Part Number:
  /ProcessInvoice/DataArea/Invoice/InvoiceLine/Item/ManufacturerItemID/ID

4.4.2. Specifying Quantities

The total quantity of the item being invoiced is specified in:
- ProcessInvoice/DataArea/Invoice/InvoiceLine/Quantity

In general, the quantity multiplied by the unit price located at:

- ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/PerQuantity

Should equal the value at:

- ProcessInvoice/DataArea/Invoice/InvoiceLine/TotalAmount

This may not always be the case if the invoicing currency is different from the order currency. It is recommended that the units of measure for the TotalAmount and the units of measure for the UnitPrice be the same.

4.5. Specifying Invoice Dates

Invoice document dates are often sensitive hence it is necessary to specify various date values to establish important time references:

4.5.1. Invoice Issue Date

The create date of an Invoice document is used in many business processes as a starting counter for various payment terms and for applying discounts. This field is mandatory and is specified in:

- ProcessInvoice/ApplicationArea/CreationDateTime
- ProcessInvoice/DataArea/Invoice/InvoiceHeader/DocumentDateTime

4.5.2. Invoice Due Date

At the header level of the Invoice document, there is an element found in:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/PaymentTerm/Term/DueDateTime.

This element used here will specify the date that payment is due. Additionally there is also a ListOfOtherInvoiceDate structure which can be used to specify other important dates.

Note: Currently we do not map an Actual Shipping Date, however this can be updated in out specifications.

4.6. Specifying Pricing

Pricing information within the Invoice works around simple pricing. The pricing information can be found in:

- ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/

Generally the pricing details between Order and Invoice should not change

To specify a basic price for an item you can use the following:

- ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/Amount
- ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/Amount/@currencyCode

Where you can specify the Amount and also the currency coded. The units of measure that the price applies to are specified by:

- ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/PerQuantity
- ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/PerQuantity/@unitCode

Here you can specify the Unit amount and the code of the Unit.

Example 1

Say we have 1 Unit priced at $3. We would have:

xPath Element	Value
ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/Amount	3
ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/Amount/@currencyCode	USD
ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/PerQuantity	1
ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/PerQuantity/@unitCode	EA

Example 2

We have a unit price for paint as $5 per 2 gallons. Then we would have

xPath Element	Value
ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/Amount	5
ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/Amount/@currencyCode	USD
ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/PerQuantity	2
ProcessInvoice/DataArea/Invoice/InvoiceLine/UnitPrice/PerQuantity/@unitCode	A76 (Gallon)

Note that the currency of the unit price is optional.

4.7. Specifying Tax Information

4.7.1. Taxes

Taxes that apply to the pricing of an item are specified in:

- ProcessInvoice/DataArea/Invoice/InvoiceLine/Tax

Here you can state the amounts and calculation rates that are used.

4.7.2. Tax IDs

Explicit tax identification information can be specified for the Customer and Supplier parties. This is found in the Invoice Header structure respectively in the Customer Party and Supplier Party structures.

To specify Customer or Supplier Tax ID's the following elements can be used:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/CustomerParty/CustomerAccountID
- ProcessInvoice/DataArea/Invoice/InvoiceHeader/SupplierParty/CustomerServiceContact/ID

4.7.3. Allowances and Charges

The overall allowance and charge information for the invoice is specified in:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/Allowance
- ProcessInvoice/DataArea/Invoice/InvoiceHeader/Charge

Here any discounts and additional charges can be stated as well as information regarding the type of the charge or discount.

4.8. Specifying Payment Instructions

Payment instructions are a crucial part of invoicing. This information is not always required in the Invoice document since it is oftentimes stated elsewhere. In many cases, the payment instructions related information is outlined in a partner agreement or contract before trading partners begin to transact. This information may also be explicitly outlined in the original Order document and may not need to be reiterated on the Invoice. In other cases, the trading partners have this type of information stored at the master data level where terms and discounts are associated with particular customers

4.8.1. Payment Terms

The payment terms are specified under the following elements:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/PaymentTerm

A trading partner may have multiple payment terms hence this structure may be repeated as needed. All payment terms are specified at the header level of the Invoice and hence will apply to the entire document.

4.8.2.   Discount Terms

Discount Terms can be stated under the following element:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/PaymentTerm/Discount

Here the condition of the discount can stated such as the Date the payment should arrive before in order to receive a discount.

The discount amount can also be specified under the allowances and charges information. See the Allowances and Charges section for more information.

4.8.3. Payment Method

The method of payment for the Invoice can be specified by using:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/PaymentTerm

The means by which the funds should be transferred is specified in the

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/PaymentTerm/Description.

If a bank transfer is to take place, then the banking and account details for the "transfer to" account can be specified in:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/Payment/ElectronicFundsTransfer

4.9.   Specifying Totals

In general, all invoice total values can be specified in the Invoice Header structure. The Totals segments are broken down below.

4.9.1. Handling Gross & Net Values

The Gross value represents the summation of all the line items before taxes are applied and this can be specified along with the currency coded:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/ExtendedAmount

The Net value holds the total amount to be paid on the Invoice by the stated Invoice Due Date not including taxes or charges.

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/TotalAmount

If the invoice includes taxes that have to be paid then the total net value in the invoice summary contains taxes.

4.9.2. Handling Tax Totals

The Tax value is the total value of the invoice that is taxable. This may not necessarily be the same as the Net value since some invoiced items may not be taxable and the currency of the Tax total should also be specified:

- ProcessInvoice/DataArea/Invoice/InvoiceHeader/Tax/Amount
- ProcessInvoice/DataArea/Invoice/InvoiceHeader/Tax/Amount/@currencyCode

The total of all tax levied on the Invoice including all rates and tax regimes, is specified in.

4.9.3.   Line Item Totals

The total amount for a given line item is specified in:

- ProcessInvoice/DataArea/Invoice/InvoiceLine/TotalAmount

It is recommended that the value be equal to the Quantity multiplied by the Unit Price Amount of the item along with any taxes, allowances, or charges calculated appropriately into the amount.

The currency code can also be specified here:

- ProcessInvoice/DataArea/Invoice/InvoiceLine/TotalAmount/@currencyCode

In general, usage of the line item total values will depend on the business requirements of the trading partners involved. It is important that these details be communicated and agreed upon between trading partners.

5. Example:

```xml
<?xml version="1.0"?>
<ProcessInvoice releaseID="9.6.1" languageCode="en">
 <ApplicationArea>
   <CreationDateTime>2011-08-26</CreationDateTime>
 </ApplicationArea>
 <DataArea>
  <Process acknowledgeCode="9.6.1"/>
  <Invoice>
   <InvoiceHeader>
    <DocumentID>
     <ID>Invoice_1234567</ID>
    </DocumentID>
    <DocumentDateTime>2011-08-26</DocumentDateTime>
    <Note>This document constitutes a TAX INVOICE where such are required by law.</Note>
    <DocumentReference type="DeliveryNoteNumber">
     <DocumentID>
      <ID>DeliveryNoteNumber</ID>
     </DocumentID>
     <DocumentDateTime>2011-08-30</DocumentDateTime>
    </DocumentReference>
    <DocumentReference type="GroupNumber">
     <DocumentID>
      <ID>PurchasingGroupNumber_123</ID>
     </DocumentID>
    </DocumentReference>
    <DocumentReference type="QuoteOrShoppingCartID">
     <DocumentID>
      <ID>0100997325</ID>
     </DocumentID>
    </DocumentReference>
    <DocumentReference type="HubBrokeriPaaSInboundChannel">
```

HUBTBROKER
AUTOMATIC, SECURE DATA TRANSFORMATION

```xml
<DocumentID>
  <ID>FTP Upload
</ID>
  </DocumentID>
</DocumentReference>
<Status>
  <Code>Original</Code>
  <Description>InvoicePurpose</Description>
</Status>
<Type name="InvoiceType">DebitInvoice</Type>
<ExtendedAmount currencyCode="USD">59.25</ExtendedAmount>
<TotalAmount currencyCode="USD">59.25</TotalAmount>
<SupplierParty>
  <PartyIDs>
    <ID type="AssignedByBuyerOrBuyersAgent">VendorID</ID>
  </PartyIDs>
  <AccountID>AccountCode</AccountID>
  <Name type="Name1">SellerName1</Name>
  <Location>
    <Contact>
      <Address>
        <StreetName>SellerStreet 12</StreetName>
        <CityName>SellerCity</CityName>
        <CountryCode>SE</CountryCode>
        <PostalCode>12345</PostalCode>
      </Address>
    </Contact>
  </Location>
  <Contact>
    <Name>SellerOrderContactName</Name>
    <TelephoneCommunication>
      <DialNumber> 4681234567</DialNumber>
    </TelephoneCommunication>
    <FaxTelephoneCommunication>
      <DialNumber> 4681234567</DialNumber>
    </FaxTelephoneCommunication>
    <EMailAddressCommunication>
```

```xml
        <EMailAddressID>SellerOrderContact@seller.com</EMailAddressID>
      </EMailAddressCommunication>
    </Contact>
  </SupplierParty>
  <CustomerParty>
    <PartyIDs>
      <ID type="AssignedByBuyerOrBuyersAgent">1619</ID>
      <ID type="CompanyCode">1234</ID>
    </PartyIDs>
    <Name type="Name1">BuyerName1</Name>
    <Name type="Name2">BuyerName2</Name>
    <Location>
      <Contact>
        <Address>
          <StreetName>BuyerStreet 12</StreetName>
          <CityName>BuyerCity</CityName>
          <CountryCode>SE</CountryCode>
          <PostalCode>12345</PostalCode>
        </Address>
      </Contact>
    </Location>
    <Contact>
      <Name>RequisitionerName</Name>
      <TelephoneCommunication>
        <DialNumber> 46081234567</DialNumber>
      </TelephoneCommunication>
      <EMailAddressCommunication>
        <EMailAddressID>Requisitioner@buyer.com</EMailAddressID>
      </EMailAddressCommunication>
    </Contact>
  </CustomerParty>
  <ShipToParty>
    <PartyIDs>
      <ID type="AssignedByBuyerOrBuyersAgent">8628</ID>
    </PartyIDs>
    <Name type="Name1">ShipToName1</Name>
    <Name type="Name2">ShipToName2</Name>
```

HUBTBROKER
AUTOMATIC, SECURE DATA TRANSFORMATION

```xml
      <Location>
       <Contact>
        <Address>
         <StreetName>ShipToStreet 12</StreetName>
         <CityName>ShipToCity</CityName>
         <CountryCode>SE</CountryCode>
         <PostalCode>12345</PostalCode>
        </Address>
       </Contact>
      </Location>
      <Contact>
       <Name>GoodsReceiverName</Name>
       <TelephoneCommunication>
        <DialNumber> 46081234567</DialNumber>
       </TelephoneCommunication>
       <EMailAddressCommunication>
        <EMailAddressID>GoodsReceiver@buyer.com</EMailAddressID>
       </EMailAddressCommunication>
      </Contact>
     </ShipToParty>
     <BillToParty>
      <PartyIDs>
       <ID type="AssignedByBuyerOrBuyersAgent">1619</ID>
      </PartyIDs>
      <Name type="Name1">BillToName1</Name>
      <Name type="Name2">BillToName2</Name>
      <Location>
       <Contact>
        <Address>
         <StreetName>BillToStreet 12</StreetName>
         <CityName>BillToCity</CityName>
         <CountryCode>SE</CountryCode>
         <PostalCode>12345</PostalCode>
        </Address>
       </Contact>
      </Location>
      <Contact>
```

```xml
        <Name>BillingContactName</Name>
        <TelephoneCommunication>
          <DialNumber> 46081234567</DialNumber>
        </TelephoneCommunication>
        <EMailAddressCommunication>
          <EMailAddressID>BillingContact@buyer.com</EMailAddressID>
        </EMailAddressCommunication>
      </Contact>
    </BillToParty>
    <PurchaseOrderReference>
      <DocumentID>
        <ID>Order_1234567890</ID>
      </DocumentID>
      <DocumentDateTime>2011-06-06</DocumentDateTime>
    </PurchaseOrderReference>
    <PaymentTerm>
      <Note>PaymentTerms freetext note</Note>
      <Term>
        <DueDateTime>2011-09-26</DueDateTime>
      </Term>
    </PaymentTerm>
  </InvoiceHeader>
  <InvoiceLine>
    <LineNumber>1</LineNumber>
    <Description>item description text</Description>
    <Note>line item freetext note ...</Note>
    <DocumentReference type="GroupNumber">
      <DocumentID>
        <ID>PurchasingGroupNumber_123</ID>
      </DocumentID>
    </DocumentReference>
    <DocumentReference type="QuoteOrShoppingCartID">
      <DocumentID>
        <ID>0100997325</ID>
      </DocumentID>
    </DocumentReference>
    <Item>
```

HUBTBROKER
AUTOMATIC, SECURE DATA TRANSFORMATION

```xml
          <ItemID>
            <ID>ALI0767000100</ID>
          </ItemID>
          <CustomerItemID>
            <ID>$G0248768</ID>
          </CustomerItemID>
          <ManufacturerItemID>
            <ID>0767 000 100</ID>
          </ManufacturerItemID>
        </Item>
        <Quantity unitCode="EA">1</Quantity>
        <UnitPrice>
          <Amount currencyCode="USD">59.25</Amount>
          <PerQuantity unitCode="EA">1</PerQuantity>
        </UnitPrice>
        <PurchaseOrderReference>
          <DocumentID>
            <ID>Order_1234567890</ID>
          </DocumentID>
          <LineNumber>1</LineNumber>
        </PurchaseOrderReference>
        <TotalAmount currencyCode="USD">59.25</TotalAmount>
      </InvoiceLine>
    </Invoice>
  </DataArea>
</ProcessInvoice>
```