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1. **Introduction**

1.1 **Purpose**

This document is intended to give suppliers who want to start communicating electronically with Roche (Ordering and/or invoicing) a high-level overview of the process.

This document will contain Roche specific requirements for electronic communication which have to be fulfilled prior to move to production. It also summarizes some technical information. However, for detailed technical documentation the latest Ariba guides should be consulted. These guides can be found under the help section on [https://supplier.ariba.com](https://supplier.ariba.com) or [https://supplier.ariba.com/help](https://supplier.ariba.com/help).

If you have any questions during your development, please contact the Global Supplier Integration Team, mailto: global.supplierintegration@roche.com at Roche. They will be able to guide you through your questions or log a case with Ariba if necessary.

This document contains several sections. The first section will be focused on cXML and EDI order integration while the second part of the document is focused on the cXML and EDI invoicing.
2. eOrdering - Introduction

2.1 eOrdering Process Overview

Ariba provides several options for suppliers to receive orders electronically via ASN (Ariba Supplier Network): cXML (preferred) or EDI.

1. End-User creates a requisition
2. Requisition is approved according to the Roche approval rules.
3. Order is created and forwarded to the ASN.
4. Supplier receives the order in his specified format (cXML, EDI, Fax, eMail).
   a. When EDI is specified the order will be routed through the different VAN’s (Currently Inovis for the Ariba EDI Gateway).
   b. For EDI and cXML, the supplier will have to send a technical acknowledgement that he has received the order (to prevent Ariba from resending the order or from putting the order status to “Failed”).
      - EDI: If the acknowledgment has not been received within 48 hours the order will be considered “Failed”.
      - cXML: Ariba will retry 10 times to resend the order.
   c. If necessary an order confirmation can be send to the requester, but this will happen outside of the ASN.

Goods are shipped to the requested location.

2.2 Specific Order Requirements

- Please configure your account correctly for the alternative ordering options:
  - Change / Cancel orders
  - Orders with attachments
  - Non-catalog orders
- Notifications:
  - In case an order fails, the ASN will send an email to your ASN account
administrator. Please configure your notification settings in your account in order to receive these notifications. (Configuration > Email Notifications)

- **Acknowledgments:**
  - When working with electronic documents (either cXML or EDI) the order document has to be technically acknowledged by your systems. If not, Ariba will try to push the document again or put the status to ‘Failed’ after several retries.

- **Confirmations:**
  - Confirmation of the order will currently happen outside of the ASN. In most cases no confirmation of ASN orders is required.

- **Shipping Information:**
  - If necessary Roche can provide you with a list of Ship To codes for the specific sites.
  - Each Shipping address contains 2 Deliver To sections, both will contain relevant data for the delivery of the order.

- **Billing Information**
  - A list of billing addresses can be provided to you.
  - Accounting information (Distribution section) can be ignored by the supplier.
  - Roche already has this information on the order and hence it has not to be specified by the supplier on the invoice or delivery note.

- **Roche Specific fields:**
  - The supplier should configure his system to be able to handle additional fields on the order. The order format is a generic format which might contain fields not used by each supplier.
  - Since Roche is expanding the systems to different countries, some additional fields might be added to the order format during the implementation. Therefore, suppliers should implement a flexible mapping. When new fields are added, they should not cause an exception at the supplier’s site. These fields should just be ignored by the supplier (Supplier’s who should map it, will be contacted individually by the Global Supplier Integration Team).

- **Additional Order Information**
  - Can your system handle comments (on header or on line level) on the orders?
  - Do you have specific order requirements?

### 2.3 cXML Orders

#### 2.3.1 cXML Order Example

Please discuss with your local Supplier Enablement person to receive some test orders over your ASN test account.

**IMPORTANT:**
Test orders are identified by a –T in the ASN number.

### 2.4 EDI Orders

#### 2.4.1 Roche EDI Order Requirements

Since the ASN is transforming the EDI messages to a standard cXML format, Roche is
indifferent in the EDI standard (ANSI or EDIFACT) being used by the supplier. The EDI standards need to be according to the ASN requirements. For both these formats it is important to note that Ariba provides a standard mapping between the EDI messages and the Ariba cXML messages. Fields cannot be customized or omitted. Ariba validates that all the mandatory fields are available.

The EDIFACT invoice version used is D98. For the standard invoices Roche requires a regular invoice type (specifying all the line item details) and not the summary type.

Please refer to the detailed Ariba documentation which can be found on [https://supplier.ariba.com](https://supplier.ariba.com). In addition to this documentation, Roche has created summary Excel files for EDIFACT orders and invoices (SE_EDIFACT_Invoice_Mapping.xls; SE_EDIFACT_Orders_Mapping.xls) which describe the minimal requirements for the EDIFACT 98A message. It also outlines the differences with the current standards used at Roche. The Ariba documentation will still be needed for the exact definition of the EDIFACT message.

**IMPORTANT:**
Ariba has implemented an EDI Gateway to improve the EDI communication with the suppliers. The advantages of this gateway are:

- Works with the Ariba SN order tester (test order routing, processing and functional acknowledgements)
- Better Error Messages
- Sends and receives documents more quickly

The mapping of the EDI messages stays the same. The only difference will be in the UNB Sender Identification.

The new EDIFACT Identification of Ariba will be ARIBAEDI. This identification is the same for Production and Test. This implies that the UNB11 segment will need to be used by the supplier to identify if the message is a test or production message (1 = Test).

### 2.4.2 EDI Order Example

Please discuss with your local Supplier Enablement person to receive some test orders over your ASN test account.

**IMPORTANT:**
Test orders are identified by in the UNB section data element (0035). All documents are routed through the same EDI box. The supplier will have to distinguish between them using the 1 in the UNB 0035.

### 2.4.3 EDI CONTRL Document

An acknowledgment (CONTRL Document) has to be sent back by the supplier for each EDI document he receives.
3. eInvoicing - Introduction

3.1 Purpose
This section will explain in detail the different eInvoicing options available for the supplier. For each of the options it will outline the functional process and the different steps that need to be followed in order to ensure proper configuration.

3.2 Invoice Publishing
There are several ways a supplier can deliver an electronic invoice to Roche. Depending on the location and the legal requirements, an electronic invoicing process might exist next to a paper based process. The paper based process will ensure that all legal requirements regarding VAT are fulfilled. The electronic process will ensure an easy data handling on both the supplier and Roche site.

You will find a detailed overview over all eInvoicing methods in the presentation “SE_Supplier_eInvoicing.pdf”. Following there are short descriptions of the processes:

- **ASN cXML Invoice:**
  The most optimal way of providing invoices over the ASN is using the cXML language. cXML gives the largest flexibility to the supplier for the creation and publishing of invoices. The cXML invoice transactions are free of charge as long as they are linked to a purchase order (PO) (for the moment non-PO cXML messages are also free of charge).

- **ASN EDI Invoices:**
  If a supplier is currently using EDI invoice transactions with Roche, a limited configuration of the ASN account will allow them to pass the EDI messages over the ASN.

- **Invoice Excel Tool:**
  The Invoice Excel Tool allows importing and validating of invoice data and sent them to your ASN account. Invoice details can be entered manually or imported from a file. That means, the tool provides a half-automatic way of invoice creation and can be used by suppliers who are able to export invoice data in a specific format, but not to implement the full integration process.

- **ASN PO Flip:**
  In case no automatic electronic invoice creator is available at the supplier’s side, the supplier can manually enter the invoice on the ASN using the PO flip functionality. The ASN will automatically transmit a cXML invoice to Roche with all necessary information.

- **CSV File:**
  For some suppliers the ASN might not be a feasible solution. Therefore, Roche has developed a flat file that can be provided outside the ASN to the Accounts Payables department. The AP department will then upload this file into the Ariba application.

**REMARK:**
Different invoice methods can be used by the same supplier. However, in order to avoid problems it is recommended to use only one technical solution. If necessary adjustments or exceptions can be handled through the use of paper based credit/debit invoices.
3.2.1 Legal Aspects
As stated in some countries there need to be a paper based process next to the electronic process in order to accommodate for legal and VAT elements.

In case paper based invoices or summary statements are going to be send they need to contain a clear marker on top stating something like “Original of Electronic Invoice”.

Please verify with your Global Supplier Integration Team the local invoicing processes.

3.3 General Invoice Requirements

In order to ensure proper matching the following invoice information should always be present on the invoice regardless of the invoice format:

- PO Number
- PO Line Item number
  The invoice should not re-group or split the line items of the PO. Also the PO Line Number must not be changed, but be exactly the same as on the order, e.g. correct would be “1”, wrong would be “001”.

Each supplier needs to specify the scope of eInvoicing with Roche. In general Roche assumes that:

- A supplier will send eInvoices for the standard invoices linked to electronic orders
- Invoice exceptions like errors and credit memo’s are handled to a paper base process
- Cancel invoices are not excepted since the invoice might already have been paid by Roche, this type of invoice should be treated through a paper based process.

Minimal invoice requirement for optimal matching in Ariba are:

- On Header Level:
  - Supplier Identification (using the sender Identification)
  - PO Identification Order Number of Payload ID (Preferred for cXML)
  - Order Date
  - Invoice Date and Invoice Number
  - Total Invoice Amount
  - Tax Amount - See Specific Requirement Section 3.4
  - Tax Percentage - See Specific Requirement Section 3.4
  - Taxable Amount - See Specific Requirement Section 3.4
  - Shipping or Discounted Amount – See Specific Requirement Section 3.4

- On Line Item level
  - Ariba PO Line Item Number
  - Unit of Measure
  - Quantity
  - Net Amount
  - Supplier Item Number
  - Supplier Item Description
  - Tax Amount - See Specific Requirement Section 3.4
  - Tax Percentage - See Specific Requirement Section 3.4
  - Taxable Amount - See Specific Requirement Section 3.4
3.4 Specific Invoice Requirements

3.4.1 Tax Specifications on the Invoice

- When there is only 1 Tax percentage for the invoice:
  In this case the tax amount and percentage can be mentioned on the header level and
  it is not necessary to specify on the line level.

- When there are multiple Tax percentages on the invoice:
  In this case the tax amount and percentage need to be mentioned on the line item
  level.

3.4.2 Shipping Amount on the Invoice

Preferably, there are no shipping or other costs specified on the invoice. Better would be
to include the additional costs in the unit price of the item.

In case there are shipping costs, these need to be specified on the header level:

```xml
<ShippingAmount>
  <Money currency="CHF">10.00</Money>
</ShippingAmount>
```

There are 2 possibilities for specifying the Tax for shipping costs on the invoice:

- Tax is specified on the header level (Preferred Option, especially for EDI)
  Tax percentage on shipping and line items are identical
  One tax percentage and amount on the header level, including the taxes for the
  shipping costs

- Tax is specified on the line item level
  Tax Total on the header should include the line item tax and shipping tax
  A separate Tax detail on the header should be available to display the shipping tax.
  This tax detail should have “Shipping” as a description
  (See specific cXML sample for more details)
4. cXML Invoice Process

4.1 cXML Process Overview

The eInvoicing process contains the following steps:

5. Send cXML invoice on ASN:
   - The supplier publishes the cXML invoice on the ASN.
   - If necessary the supplier sends paper based invoice to the Accounts Payables department.

6. Receive Invoice:
   - The invoice will be downloaded automatically from the ASN by the Ariba Buyer application of Roche.

6'. Invoice Matching:
   - Depending on the set-up (commodity, amount, supplier, ...) the invoice will be matched with the PO and, if available, with the receipt note.
   - Invoices which cannot be matched automatically will be sent for approval to the right person within the organization. If necessary this person will contact the supplier for regularization of the invoice (credit / debit).

7. Send Payment:
   - After approval (automatic or manual) the payment transaction will be sent to the SAP system. SAP will launch the payment module in the time period determined by Accounts Payables.
4.2 cXML Invoice Types

Different cXML invoice types are available to the supplier in order to configure all the possible options.

The minimal requirement imposed by Roche for suppliers selecting the cXML invoice routing method, is that Roche can receive a standard invoice:

- Standard cXML line item level invoice:
  - Each invoice refers to one specific purchase order and contains all the line item details of that purchase order.
  - Partial invoices can be sent using the standard invoice type.

- Commonly found mistakes during invoice reconciliation:
  - Please take into account that Ariba does not automatically delete spaces, they are considered as part of the ID and might cause mismatching.
  - The invoice date should be formatted properly invoiceDate="2004-01-22T10:20:47-08:00", if necessary the last part (-8:00) can be hard coded.

The invoicing method should approximately capture 95% of the invoice transactions with the supplier. All other types of invoices can be sent to the local Accounts Payable using a paper based invoice. The following types of cXML invoices are also available for the supplier:

- Summary Invoices (Not Preferred):
  The invoice can contain references to on or more POs, but is still containing all the line item details of the POs.

- Credit Memo (Do Not Use):
  Electronic credit memo sent to the client. Preferably the reason for issuing a Credit Memo is being specified in the comments fields, this will simplify the manual matching process. The credit memo should still make a reference to an underlying PO.

  Instead of sending a credit memo, you should send a standard invoice containing a negative quantity.

- Debit Memo (Do Not Use):
  Electronic version of a debit memo sent to the client. Preferably, the reason for issuing a Debit Memo is being specified in the comments fields. The debit memo should still make reference to the original PO.

- Cancel Invoice (Do Not Use):
  A cancel invoice will delete the previously sent invoice. This invoice type should not be used since, the invoice might already have been treated within Ariba and payment can already have been sent to the supplier. Instead of cancel invoices the supplier should work with a credit memo.
4.3 cXML Invoice Sample

4.3.1 Tax on the header level

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE cXML SYSTEM "http://xml.cxml.org/schemas/cXML/1.2.009/InvoiceDetail.dtd">
<cXML timestamp="2004-03-31T08:37:04-08:00" payloadID="qqJDABC1080751024200--
717542532608290733@216.109.111.44" version="1.2.009">

*** Payload ID (of the invoice) is a mandatory field and should be unique for each invoice ***

*** It is necessary to have the correct credentials in the header ***

<Header>
  <From>
    <Credential domain="NetworkID">
      <Identity>AN01000218164-T</Identity>
    </Credential>
  </From>
  <To>
    <Credential domain="NetworkID">
      <Identity>AN01000218159-T</Identity>
    </Credential>
  </To>
  <Sender>
    *** When pushing the invoice to the ASN, the sender is equal to the From credential ***
    <Credential domain="NetworkID">
      <Identity>AN01000218164-T</Identity>
      <SharedSecret>xxxx</SharedSecret>
    </Credential>
    *** Specify your Shared Secret as you have specified it on your ASN account ***
  </Sender>
  <UserAgent>Supplier</UserAgent>
</Header>

<Request deploymentMode="test">
  <InvoiceDetailRequest><InvoiceDetailRequestHeader invoiceDate="2004-03-31T08:37:03-08:00" operation="new" purpose="standard" InvoiceID="TaxonTotal">
    <InvoiceDetailHeaderIndicator />
    <InvoicePartner />
  </InvoiceDetailRequestHeader>
</InvoiceDetailRequest>
</Request>

*** Contact information is mandatory to have on the electronic invoice in order to align this invoice with the paper based invoice, however this information is not used by Roche for routing the invoice ***
```
to the correct payment address. The invoice will be linked to the specific order and through the order to the correct supplier as set-up in the backend system. In case the invoice needs to be paid to a different supplier the Roche Accounts Payable person needs to be contacted so that the information can be changed in the SAP system. At least two contact roles are mandatory, one identifying the supplier i.e. Remit To and one identifying the Buyer i.e. Bill To

***

<Contact role="from">
  *** Specify the Party from who the invoice is coming ***
  <Name xml:lang="de">F. Hoffmann-La Roche AG - TEST</Name>
  <PostalAddress>
    <Street>Grenzacherstrasse</Street>
    <City>Basel</City>
    <PostalCode>4070</PostalCode>
    <Country isoCountryCode="CH">Switzerland</Country>
  </PostalAddress>
</Contact>

<Contact role="soldTo">
  *** The party to whom the goods have been sold ***
  <Name xml:lang="de">F. Hoffmann-La Roche AG - TEST</Name>
  <PostalAddress>
    <Street>Grenzacherstrasse 124</Street>
    <City>Basel</City>
    <PostalCode>4070</PostalCode>
    <Country isoCountryCode="CH">Switzerland</Country>
  </PostalAddress>
</Contact>

<Contact role="remitTo">
  *** The Remit To address as agreed before with Roche ***
  <Name xml:lang="de">F. Hoffmann-La Roche AG - TEST</Name>
  <PostalAddress>
    <Street>Romergasse 2</Street>
    <City>Basel</City>
    <PostalCode>4079</PostalCode>
    <Country isoCountryCode="CH">Switzerland</Country>
  </PostalAddress>
</Contact>
<InvoicePartner>
  <Contact role="billTo">
    *** The Bill To address as specified on the order ***
    <Name xml:lang="de">F. HOFFMANN - LA ROCHE AG</Name>
    <PostalAddress name="default">
      <Street>Grenzacherstrasse, Bau 15</Street>
      <City>Basel</City>
      <PostalCode>4070</PostalCode>
      <Country isoCountryCode="CH">Switzerland</Country>
    </PostalAddress>
  </Contact>
</InvoicePartner>

<InvoiceDetailShipping>
  *** Shipping information is optional on the invoice, but when used then the 2 contact roles (shipFrom and ShipTo) are mandatory ***
  <Contact role="shipFrom">
    *** Mandatory - The location where the goods are shipped from ***
    <Name xml:lang="de">F. Hoffmann-La Roche AG - TEST</Name>
    <PostalAddress>
      <Street>Grenzacherstrasse 124</Street>
      <City>Basel</City>
      <PostalCode>4070</PostalCode>
      <Country isoCountryCode="CH">Switzerland</Country>
    </PostalAddress>
  </Contact>
  <Contact role="shipTo">
    *** Mandatory - The location where the goods are shipped to ***
    <Name xml:lang="de">F. HOFFMANN - LA ROCHE AG</Name>
    <PostalAddress>
      <Street>Grenzacherstrasse, Bau 57</Street>
      <City>Basel</City>
      <PostalCode>4070</PostalCode>
      <Country isoCountryCode="CH">Switzerland</Country>
    </PostalAddress>
  </Contact>
</InvoiceDetailShipping>

<InvoiceDetailOrder>
  <InvoiceDetailOrderInfo>
    <OrderReference orderID="DO173">
      *** The order can be identified either with the ordered or the PayloadID (preferred) ***
      <DocumentReference payloadID="1080750385589.302727.000000001@Sv1JY6UogrLqgFn2SNgn9Ehtdk="/>
    </OrderReference>
  </InvoiceDetailOrderInfo>
  <InvoiceDetailOrderInfo>
    <InvoiceDetailItem invoiceLineNumber="1" quantity="1">
      <UnitOfMeasure>EA</UnitOfMeasure>
      *** UOM should be identical to the UOM specified on the Order, being UNUOM ***
    </InvoiceDetailItem>
  </InvoiceDetailOrderInfo>
</InvoiceDetailOrder>
*** It is mandatory to mention the order line number of the order to have the invoice line match with the correct order line. It is absolutely necessary to send back the exact number. Please don’t add leading zeros or change the number to your system line number.***

<InvoiceDetailItemReference lineNumber="1">

*** The following accounting segment is not used by Roche. It can be deleted from the cXML. In case this segment is used, this should be specified in the <InvoiceDetailLineIndicator isAccountingInLine="yes"/> in the header section ***

</InvoiceDetailItemReference>
<Name xml:lang="en-US">Cost Center</Name>
<Description xml:lang="en-US">Cost Center Name</Description>

<Name xml:lang="en-US">ID</Name>
<Description xml:lang="en-US">ID</Description>

<Money currency="CHF">5.25</Money>

**********************************************************

<InvoiceDetailItem invoiceLineNumber="2" quantity="1">
<UnitOfMeasure>EA</UnitOfMeasure>
<UnitPrice>
<Money currency="CHF">2.85</Money>
</UnitPrice>
<InvoiceDetailItemReference lineNumber="2">
<ItemID>
<SupplierPartID>0650461120</SupplierPartID>
</ItemID>
<Description xml:lang="de">PEBRA Schlauchklemme HKV-HOLARO Klemmbereich 100 - 120 mm HOLARO</Description>
</InvoiceDetailItemReference>
</InvoiceDetailItem>

<InvoiceDetailItem invoiceLineNumber="2" quantity="1">
<UnitOfMeasure>EA</UnitOfMeasure>
<UnitPrice>
<Money currency="CHF">2.85</Money>
</UnitPrice>
<InvoiceDetailItemReference lineNumber="2">
<ItemID>
<SupplierPartID>0650461120</SupplierPartID>
</ItemID>
<Description xml:lang="de">PEBRA Schlauchklemme HKV-HOLARO Klemmbereich 100 - 120 mm HOLARO</Description>
</InvoiceDetailItemReference>
</InvoiceDetailItem>

<InvoiceDetailItem invoiceLineNumber="2" quantity="1">
<UnitOfMeasure>EA</UnitOfMeasure>
<UnitPrice>
<Money currency="CHF">2.85</Money>
</UnitPrice>
<InvoiceDetailItemReference lineNumber="2">
<ItemID>
<SupplierPartID>0650461120</SupplierPartID>
</ItemID>
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</InvoiceDetailItemReference>
</InvoiceDetailItem>

<InvoiceDetailItem invoiceLineNumber="2" quantity="1">
<UnitOfMeasure>EA</UnitOfMeasure>
<UnitPrice>
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</UnitPrice>
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<ItemID>
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</ItemID>
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</InvoiceDetailItem>

<InvoiceDetailItem invoiceLineNumber="2" quantity="1">
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<UnitPrice>
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<Distribution>
  <Accounting name="DistributionCharge">
    <AccountingSegment id="100">
      <Name xml:lang="en-US">Split Percentage</Name>
      <Description xml:lang="en-US">Percentage</Description>
    </AccountingSegment>
    <AccountingSegment id="">
      <Name xml:lang="en-US">GL Account</Name>
      <Description xml:lang="en-US">General Ledger Name</Description>
    </AccountingSegment>
    <AccountingSegment id="0012310100">
      <Name xml:lang="en-US">GL Account</Name>
      <Description xml:lang="en-US">ID</Description>
    </AccountingSegment>
    <AccountingSegment id="">
      <Name xml:lang="en-US">Cost Center</Name>
      <Description xml:lang="en-US">Cost Center Name</Description>
    </AccountingSegment>
    <AccountingSegment id="0061100108">
      <Name xml:lang="en-US">Cost Center</Name>
      <Description xml:lang="en-US">ID</Description>
    </AccountingSegment>
  </Accounting>
  <Charge>
    <Money currency="CHF">2.85</Money>
  </Charge>
</Distribution>
*** Total amount of the line items excluding taxes ***
<Money currency="CHF">8.10</Money>

*** Total Tax amount, including the taxes on the shipping costs ***
<Money currency="CHF">1.8100</Money>

*** Vat amount and percentage, for all the line items and the shipping costs ***
<Tax>
<TaxDetail category="vat" percentageRate="10" purpose="tax">
<TaxableAmount>
*** The taxable amount is mandatory. This amount should include the shipping costs ***
<Money currency="CHF">18.10</Money>
</TaxableAmount>
</TaxDetail>
</Tax>

*** The shipping cost for the total order ***
<Money currency="CHF">10.00</Money>

*** Total amount including taxes ***
<Money currency="CHF">19.9100</Money>

*** For the Roche invoice this amounts should equal the GrossAmount ***
<Money currency="CHF">19.9100</Money>

*** For the Roche invoice this amounts should equal the GrossAmount ***
<Money currency="CHF">19.9100</Money>
4.3.2  Tax on the line level

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE cXML SYSTEM
"http://xml.cxml.org/schemas/cXML/1.2.009/InvoiceDetail.dtd">
<cXML timestamp="2004-03-31T08:51:33-08:00" payloadID="111JDGHI11080751893912-8593939468075411946@216.109.111.44" version="1.2.009">

*** Payload ID is a Mandatory field and should be unique for each invoice ***

*** It is necessary to have the correct credentials in the header ***

<Header>
See Example of Tax on Header Level 2.4.1
</Header>

<Request deploymentMode="test">
<InvoiceDetailRequest>
<InvoiceDetailRequestHeader invoiceDate="2004-03-31T08:51:33-08:00" operation="new" purpose="standard" invoiceID="JD111_MultiTax">
<InvoiceDetailHeaderIndicator />
<InvoiceDetailLineIndicator isTaxInLine="yes" />
<InvoicePartner>
See Example of Tax on Header Level 2.4.1
</InvoicePartner>
<InvoiceDetailShipping>
See Example of Tax on Header Level 2.4.1
</InvoiceDetailShipping>
</InvoiceDetailRequestHeader>
</InvoiceDetailOrder>
<InvoiceDetailOrderInfo>
<OrderReference orderID="DO174">
*** The order can be identified either with the ordered or the PayloadID (preferred) ***
</OrderReference>
</InvoiceDetailOrderInfo>
<InvoiceDetailItem invoiceLineNumber="1" quantity="1">
*** UOM should be identical to the UOM specified on the Order, being UNUOM***
<UnitOfMeasure>
</UnitOfMeasure>
</InvoiceDetailItemReference>
</InvoiceDetailItem>
<Money currency="CHF">5.25</Money>
</UnitPrice>
<Description xml:lang="de">FIT-Topinox Schlauchklemme DIN 3017 Klemmbereich 260 - 280 mm</Description>
</Description>
<InvoiceDetailItemReference>
</InvoiceDetailItemReference>

<SubtotalAmount>
  <Money currency="CHF">5.25</Money>
</SubtotalAmount>

<Tax>
  *** Tax details for the line item ***
  <Money currency="CHF">0.5250</Money>
  <Description xml:lang="de" />
  <TaxDetail category="vat" percentageRate="10" purpose="tax">
    *** Percentage is mandatory ***
    <TaxableAmount>
      <Money currency="CHF">5.25</Money>
    </TaxableAmount>
    ***The taxable amount is mandatory. This amount should include the shipping costs ***
    <TaxAmount>
      <Money currency="CHF">0.5250</Money>
    </TaxAmount>
    <TaxLocation xml:lang="de">Suisse</TaxLocation>
    <Description xml:lang="de">VAT Tax</Description>
  </TaxDetail>
</Tax>

<GrossAmount>
  <Money currency="CHF">5.775</Money>
  *** Total amount of the line item, including taxes ***
</GrossAmount>

<NetAmount>
  <Money currency="CHF">5.775</Money>
  *** Total amount of the line item, including taxes ***
</NetAmount>

<Distribution>
  See Example of Tax on Header Level 2.4.1
  *** 
  The following accounting segment is not used by Roche, this can be deleted from the cXML. In case this segment is used, this should be specified in the <InvoiceDetailLineIndicator isAccountingInLine="yes" /> in the header section
  ***
</Distribution>

<InvoiceDetailItem invoiceLineNumber="2" quantity="1">
  <UnitOfMeasure>EA</UnitOfMeasure>
  <UnitPrice>
    <Money currency="CHF">2.85</Money>
  </UnitPrice>
  <InvoiceDetailItemReference lineNumber="2">
    <ItemID>
      <SupplierPartID>0650461120</SupplierPartID>
    </ItemID>
    <Description xml:lang="de">PEBRA Schlauchklemme HKV-HOLARO Klemmbereich 100 - 120 mm HOLARO</Description>
  </InvoiceDetailItemReference>
</InvoiceDetailItem>
<InvoiceDetailItemReference/>
<SubtotalAmount>
<Money currency="CHF">2.85</Money>
</SubtotalAmount>
<Tax>
<Money currency="CHF">0.57</Money>
</Tax>
<SubtotalAmount>
<Money currency="CHF">2.85</Money>
</SubtotalAmount>
<TaxAmount>
<Money currency="CHF">0.57</Money>
</TaxAmount>
<TaxLocation xml:lang="de">Suisse</TaxLocation>
<Description xml:lang="de">VAT Tax</Description>
</TaxDetail>
</Tax>
<GrossAmount>
<Money currency="CHF">3.42</Money>
</GrossAmount>
<NetAmount>
<Money currency="CHF">3.42</Money>
</NetAmount>
</NetAmount>
</Distribution>

See Example of Tax on Header Level 2.4.1

***
The following accounting segment is not used by Roche, this can be deleted from the cXML. In case this segment is used, this should be specified in the <InvoiceDetailLineIndicator isAccountingInLine="yes" /> in the header section

***
</Distribution>
</InvoiceDetailItem>
</InvoiceDetailOrder>
</InvoiceDetailSummary>
<SubtotalAmount>

*** Total amount of the line items excluding taxes ***
<Money currency="CHF">8.10</Money>
</SubtotalAmount>
<Tax>
<Money currency="CHF">2.095</Money>

*** Total tax amount of the invoice, including shipping taxes ***
<Description xml:lang="de" />

***Although, if taxes are defined on line level, they must be mentioned on header level, too.***
<TaxDetail category="vat" percentageRate="10" purpose="tax">
<TaxableAmount>
<Money currency="CHF">5.25</Money>
</TaxableAmount>
</TaxDetail>
</Tax>
<Money currency="CHF">0.525</Money>
</TaxAmount>
<TaxLocation xml:lang="de">Suisse</TaxLocation>
<Description xml:lang="de">VAT Tax</Description>
</TaxDetail>
<TaxDetail category="vat" percentageRate="20" purpose="tax">
*** When different tax percentages are used, they need to have a separate detail on the order ***
<TaxableAmount>
<Money currency="CHF">2.85</Money>
</TaxableAmount>
<TaxAmount>
<Money currency="CHF">0.57</Money>
</TaxAmount>
<TaxLocation xml:lang="de">Suisse</TaxLocation>
<Description xml:lang="de">VAT Tax</Description>
</TaxDetail>

*** The Tax Detail for the shipping line needs to be mentioned in the header ***
<TaxDetail category="other" percentageRate="10" purpose="tax">
*** For the category “other” can be used, “vat” is not allowed since this is used on the item level ***
<TaxableAmount>
<Money currency="CHF">10.00</Money>
</TaxableAmount>
<TaxAmount>
<Money currency="CHF">1.00</Money>
</TaxAmount>
<TaxLocation xml:lang="de">Suisse</TaxLocation>
<Description xml:lang="de">Shipping</Description>
*** The shipping taxes should have the description “Shipping” ***
</TaxDetail>
</Tax>
<ShippingAmount>
*** The shipping cost for the total order ***
<Money currency="CHF">10.00</Money>
</ShippingAmount>
<GrossAmount>
<Money currency="CHF">20.195</Money>
*** Total amount including taxes ***
</GrossAmount>
<NetAmount>
<Money currency="CHF">20.195</Money>
*** For the Roche invoice this amounts should equal the GrossAmount ***
</NetAmount>
<DueAmount>
<Money currency="CHF">20.195</Money>
*** For the Roche invoice this amounts should equal the GrossAmount ***
4.4 ASN Invoice Configuration

Ensure your ASN account has been configured for receiving and sending cXML messages.

4.4.1 Configure General cXML Setup

On the configuration dashboard please select the “Electronic Order Routing” > cXML Setup (“Configure cXML setup”).

Most important is that the Authentication Method is set up correctly. If you use the Shared Secret as authentication, please be aware that your test and productive ASN accounts must have different shared secrets.

IMPORTANT:
Don’t mix the shared secret with the login password of your ASN account.
4.4.2 Configure Invoicing Method

On the Configuration dashboard select “Electronic Invoice Routing” and here the cXML option:

![Ariba Spend Management](image)

**Electronic Invoice Routing**

Configure routing options for electronic invoices.

### Capabilities & Preferences

<table>
<thead>
<tr>
<th>Method</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>cXML</td>
<td>Yes</td>
</tr>
<tr>
<td>Office</td>
<td>No</td>
</tr>
</tbody>
</table>

**Notifications**

- Yes, I want to receive email when invoices are undeliverable or rejected.
- Yes, I want to receive email when invoice status has changed.

**Invoice Archival**

- Every Two Weeks
- Every Month

**Additional Information**

Expand to view the contents of this optional section.
5. **EDI Invoicing – Ordering Process**

5.1 **Roche EDI Requirements**

Since the ASN is transforming the EDI messages to a standard cXML format, Roche is indifferent in the EDI standard (ANSI or EDIFACT) being used by the supplier. The EDI standards need to be according to the ASN requirements. For both these formats it is important to note that Ariba provides a standard mapping between the EDI messages and the Ariba cXML messages. Fields cannot be customized or omitted. Ariba validates that all the mandatory fields are available.

However, Roche imposes an additional requirement for suppliers sending EDI Invoices. Roche does not accept summary invoices. When a supplier is sending electronic invoices, each invoice should contain the detailed line item level of the order.

In the format “ANSI X12” Ariba maps the 810 invoice type. From a Roche perspective only the “Single-Detailed” invoices are supported.

The EDIFACT invoice version used is D98. For the standard invoices Roche requires a regular invoice type (specifying all the line item details) and not the summary type.

Please refer to the detailed Ariba documentation which can be found on [https://supplier.ariba.com](https://supplier.ariba.com). In addition to this documentation, Roche has created a summary Excel file for EDIFACT orders and invoices (SE_EDIFACT_Invoice_Mapping.xls; SE_EDIFACT_Orders_Mapping.xls) which describes the minimal requirements for the EDIFACT 98A message. It also outlines the differences with the current standards used in Basel. The Ariba documentation will still be needed for the exact definition of the EDIFACT message.

**IMPORTANT:**

Ariba has implemented an EDI Gateway to improve the EDI communication with the suppliers. The advantages of this gateway are:

- Works with the Ariba SN order tester (test order routing, processing and functional acknowledgements)
- Better error messages
- Sends and receives documents more quickly

The EDIFACT Identification of Ariba will be ARIBAEDI. This identification is the same for Production and Test. This implies that the UNB11 segment (UNB Sender Identification) will need to be used by the supplier to identify if the message is a test or production message (1 = Test).
5.2 ASN EDI Configuration

The supplier’s ASN Test and Production accounts need to be configured in order to be able to send or accept EDI transactions. Please have a look at the Ariba EDI Set-up guide provided on your ASN account for more details. In short, the following steps should be followed:

1. Complete EDI configuration on the ASN (both test and production, these should have identical data).

   - Click Configurations -> Electronic Order Routing > New Orders > EDI. Here you can set up the EDI Interconnect configurations.

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value Added Network (VAN):</strong></td>
<td>05</td>
</tr>
<tr>
<td><strong>Interchange Control Number:</strong></td>
<td>100</td>
</tr>
<tr>
<td><strong>ANSI X12:</strong></td>
<td></td>
</tr>
<tr>
<td>* Application (GS) ID:</td>
<td></td>
</tr>
<tr>
<td>* Functional Group Control Number:</td>
<td>100</td>
</tr>
<tr>
<td><strong>Interchange (ISA) Qualifier:</strong></td>
<td>01 - Don &amp; Bradstreet</td>
</tr>
<tr>
<td><strong>Interchange (ISA) Identifier:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>EDIFACT</strong></td>
<td></td>
</tr>
<tr>
<td>* Syntax Identifier:</td>
<td>USOC - ISO 8559-1: Latin alphabet N. 1</td>
</tr>
<tr>
<td>* Interchange ID:</td>
<td>123456789T</td>
</tr>
<tr>
<td><strong>Interchange Qualifier:</strong></td>
<td>1-CNUS (Don &amp; Bradstreet)</td>
</tr>
<tr>
<td><strong>Routing Address:</strong></td>
<td>111</td>
</tr>
<tr>
<td><strong>Notifications:</strong></td>
<td></td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:dddens@dc.com">dddens@dc.com</a></td>
</tr>
<tr>
<td>Notify when an outgoing document is undeliverable or PA is overdue.</td>
<td></td>
</tr>
<tr>
<td><strong>Mapping:</strong></td>
<td></td>
</tr>
<tr>
<td>□ Map purchase order tax details to EDI.</td>
<td></td>
</tr>
<tr>
<td>□ Map payment terms.</td>
<td></td>
</tr>
<tr>
<td>□ Map order date with complete date, time, and zone.</td>
<td></td>
</tr>
</tbody>
</table>

- Additionally, you need to change the eInvoicing method on Configurations -> Electronic Invoice Routing to EDI, too. The configuration will be taken over from Order Routing configuration.
- Set-up a EDI contact person in your Test and Production Account:

  Please go to Administration -> Customer Contacts. Here you can define different kinds of contacts “Contact Personnel”, “Companywide Assignments” and “Customer specific Assignments”.

**Remark:**
- The Set-up for the EDI configuration has to be identical in test and production accounts
- You can have a mix of ordering and invoicing methods. A supplier can chose to receive his orders by email/Fax/cXML but to send his invoices by cXML.

2. Set-up the interconnect between Inovis:Access (Ariba’s VAN) and your VAN

3. Request an Interconnect from Ariba SN
   [https://supplier.ariba.com](https://supplier.ariba.com) > Support
   Category: EDI Interconnect Set-up

Please be aware that you need to subscribe the Ariba service “Supplier Premium Support (SPS)” to establish an Interconnect. That means, you will receive a technical supplier support. More information about this service you will find in your ASN account / My Services or on the Ariba Homepage [www.ariba.com](http://www.ariba.com).
4. Configure the mappings in your local system

**IMPORTANT:**
You need to set-up functional acknowledgements in order for Roche to know that order has properly arrived in your system.

5. Inform F. Hoffmann – La Roche AG that the EDI configuration has been completed. Your local Roche Supplier Enablement contact person will send you some test orders.

6. You should be able to receive the test orders via EDI or publish the test invoices via EDI.

7. After the Functional Acknowledgement the status of the order should be “Acknowledge”

8. Ensure the EDI Connection is also set-up for your production account
5.3 **Roche EDI Sample**

Following, you can find a Roche EDI invoice sample with the minimal fields which have to be mentioned on the EDI invoice.

```
UNA:+.?
UNB:UNOC:3+322974833:1:AN01000323851+ARIBAEDI:ZZZ:AN01000218159+040407:13
58+071358179++++1++1'
UNH+071358178+INVOIC:D:98A:UN'
BGM+380+90657829+9'
DTM+3:20040407085400CET:304'
RFF+ON:DO176'
DTM+4:20040406:102'
NAD+II++Supplier Name++Supplier Street 8+Basel++4002+CH'
RFF+VA:12345678'
NAD+BT++F. Hoffmann-La Roche AG - Kreditorenbuchhaltung+++Basel+++CH'
ALC+C++++TX'
MOA+8:6.18:CHF'
TAX+7+VAT+++AMOUNT+:7.6'
MOA+124:6.18:CHF'
LIN+10++1:PL'
PIA++5009556:VN'
IMD+F+++:Erweiterungsplatte 5880102 lichtgrau+en'
QTY+47:4:EA'
MOA+146:4.2:CHF'
MOA+66:16.80:CHF'
MOA+203:16.80:CHF'
LIN+20++2:PL'
PIA++5012751:VN'
IMD+F+++:Han Papierkorb 1841/14 Mondo Deckel blau+en'
QTY+47:2:EA'
MOA+146:10.9:CHF'
MOA+66:21.80:CHF'
MOA+203:21.80:CHF'
UNS+S'
MOA+340:44.78:CHF'
MOA+9:44.78:CHF'
MOA+289:38.60:CHF'
UNT+31+071358178'
UNZ+1+071358179'
```
6. **Flat File Invoice Format**

If the supplier needs to send accounting information in the invoices, ASN invoicing may not be a feasible option. To cover these cases, Roche has developed a flat file format that may be utilized by the supplier to capture and transmit all relevant invoice information for Ariba. The flat file could be easily created from an Excel spreadsheet.

6.1 **CSV File Process**

The process will need to be discussed with the Global Supplier Integration Team for the delivery of the CSV invoice. The standard process is:

Deliver the Excel spreadsheet on a monthly basis to your responsible purchasing agent by email. He or she will check the file and forward this to the Global Supplier Integration Team who will take care for a technical check and the upload of the files.

6.2 **Flat File Specifications**

Please refer to the SE_FlatFile_Structure.xls document to find the exact specifications of the flat file.

The flat file format will have different sets of information included for each invoice.

- **A header** set of details will include the header information for an invoice line item.
- **The header will be followed by line item detail information** (including special charges). Each flat file should have at least one detailed line item (with exception to a credit memo). The detailed line item will include the details of the invoice line items. All values on the line items, price, tax, and shipping, should be included in the total values on the purchase order header. It is expected that the tax and shipping will be associated to line items on electronic invoices to allocate properly accounting information as it is being processed.
- **A trailer** or closing section: A flat file can contain information for multiple invoices. However, each invoice will need to be clearly distinguished in the flat file by specifying a trailer line.
- **Special Handling or Shipping lines**: After the detail line some additional lines can be specified for Special Handling and Shipping charges. These lines are optional and do not need to be mentioned when no charges are needed on the invoice.

**IMPORTANT:**

The flat file invoice loader can handle simple and complex invoices. It can also handle different ways of specifying the tax percentages (line level / header level). Please discuss upfront with the Global Supplier Integration Team the combination you are planning to use. It is advisable to make a sample invoice according to the specifications. Once the sample invoice has been uploaded correctly into the Ariba system, the supplier can start configuring his system to automatically create the invoices.
6.3 Error Handling

- The file type extension can be .TXT or .CSV. The file will have to be comma separated. Next to comma a quote can be used to identify the fields. Quotes are used when the data in a specific field also contains a comma. When working with item descriptions, it might be safer to use the additional quotes to cover any comma being mentioned in the item description.
- When using Excel as the file creator leading zeros might be dropped. This can be avoided by formatting the column in Excel as a “string”.
- All the accounting data mentioned on the flat file is required for invoices against contracts.
- Please be aware that if you sent invoices against contracts, it is better to send single invoices instead of summary invoices.

6.4 File Creation

Any type of tool can be used to create the flat file according to the Roche requirements. Roche has developed a small Excel creator tool to assist suppliers in the initial creation of the flat file.

Please contact the Global Supplier Integration Team for more information around this tool.
7. Annexes

7.1 Reference Documentation
For detailed documentation around the configuration of cXML or EDI ordering and invoicing we refer to the documentation in the help section of the Ariba Supplier Network homepage (https://supplier.ariba.com). You will find the latest versions of:

- Documentations explaining how to use and configure your ASN account. This includes
  - ASN Account Management Guide
  - ASN Transaction Guide
  - ASN Catalog Guide
- cXML documentation
  - Ariba cXML Solutions Guide
  - cXML User Guide
- EDI Specific Documentation
  - Getting started with EDI
  - ANSI X12 Implementation Guides
  - EDIFACT Implementation Guides

And you will find there some more examples and documentations.

7.2 Glossary
Ariba Buyer eProcurement system from Ariba© which is implemented at F. Hoffmann-La Roche Ltd
ASN Ariba Supplier Network. Web based platform e.g. for order and invoice transactions between buying organizations and their suppliers.
ANSI X12 American National Standards Institute Accredited Standards Committee X12
Case-insensitive It is not important to capitals and small letters in writing.
Case-sensitive It is important to capitals and small letters in writing.
CSV file Comma Separated Value. File containing a list of data. Fields were separated by comma. Strings are marked by double quotes.
cXML Commercial eXtensible Markup Language. cXML is the standard way of Ariba to set up a full integrated order and invoice process via ASN. The structure is similar to HTML.
EDI Electronic Data Interchange.
EDIFACT Electronic Data Interchange For Administration, Commerce and Transport
eInvoicing Electronic Invoicing
eOrdering Electronic Ordering
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERP system</td>
<td>Enterprise Resource Planning System</td>
</tr>
<tr>
<td>Line item</td>
<td>Single order line within a purchase order</td>
</tr>
<tr>
<td>PO</td>
<td>Purchase Order</td>
</tr>
<tr>
<td>PO Flip</td>
<td>Tool on the ASN provided by Ariba to create manually invoices via a blank form or as an “answer” of a purchase order</td>
</tr>
<tr>
<td>Purchase Order</td>
<td>Order which has been fully approved and been sent to supplier. The purchase order ID starts with “EP”.</td>
</tr>
<tr>
<td>Requisition</td>
<td>Order which hasn’t been sent to supplier yet because it isn’t approved. The requisition ID starts with “PR”.</td>
</tr>
</tbody>
</table>