

SupplyOn eInvoicing Integration Guide for Suppliers

Transforming Supply Chains into Collaboration Networks



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Document History

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Index of Abbreviations

ABBREVIATION	DESCRIPTION
ASN	Advance Shipping Notification
AS2	Applicability Statement 2
CSV	Comma Separated Values
EDI	Electronic Data Interchange
EDIFACT	Electronic Data Interchange for Administration, Commerce and Transport
HTTP	Hypertext Transfer Protocol
M2M	Machine to Machine
OCR	Optical Character Recognition
Odette	Organization for data exchange by teletransmission in Europe
P2P	Purchase to Pay
PDF	Portable Document Format
PO	Purchase Order
S/MIME	Secure / Multipurpose Internet Mail Extensions
UBL	Universal Business Language.
VAT	Value-added Tax
VDA	Verband der Automobilindustrie (association of the automotive industry in Germany)
XSD	XML Schema Definition

1 Introduction

This document describes the technical possibilities for the integration of suppliers' systems (for example billing or ERP systems) with SupplyOn eInvoicing, as an alternative to manually entering the invoice data using the web interface.

Target group are persons with a technical background, for example in the IT-department of the supplier companies, which want to implement an integration of SupplyOn eInvoicing with their companies system.

This document is available in English language only.

This document is structured as follows:

- Chapter 2 "Process Overview" provides an overview of the overall business processes supported by SupplyOn eInvoicing, which may be helpful for a better understanding of the business context.
- Chapter 3 "Message Content" describes the requirements regarding the content of the exchanged messages or data files, i.e. the invoice data to be provided by the supplier's system. Suppliers should first check, whether their system can provide the required content before taking any further action.
It is also recommended, that suppliers first use SupplyOn eInvoicing via the web interface before starting a technical implementation. In general, the same requirements regarding invoice content apply when using SupplyOn eInvoicing via the web interface compared with the options for technical integration described in this document.
Generally, an implementation of an integration of the supplier's system to SupplyOn eInvoicing is recommended only for suppliers with a high transaction volume, e.g. with more than 500 invoices to the respective SupplyOn customer(s) per year.
As most SupplyOn customers have individual requirements regarding the invoice content, customer-specific addendums are available for some customers with additional information specific to that customer.
- Chapter 4 "Channels for SupplyOn eInvoicing" explains the different technical integration options (= channels). Following channels are currently available:
 - CSV Upload
 - PDF
 - EDI (using EDIFACT or UBL XML format)

Based on the information in this chapter, suppliers should first determine which channel they want to use, if this is not decided already.
Note that not all customers support all channels. The respective customer-specific addendum explains which channels the respective customer supports.
After the supplier has selected the appropriate channel, the sub-chapter for the respective channel provides information regarding the technical implementation by the supplier, in order to use that channel. For each channel, following information are provided:

 - Prerequisites: Preconditions, which the supplier must fulfilled in order to use the channel.
 - Restrictions: Any restrictions the channel may have.
 - File Format: Format (structure, syntax, ...) of the message or data file to be generated by the supplier's system, as mandated by the respective channel.
 - Uploading or transmitting the file: How the file is uploaded into SupplyOn eInvoicing or transmitted between the supplier's system and SupplyOn eInvoicing.
 - Error Handling: Information on error handling for the channel.
- Chapter 5 "Error handling process" explains how to correct invoices for which an error has been detected during processing at SupplyOn or at the customer.
- Chapter 6 "Invoice Compliance, Original Invoice and Archiving" provides information regarding regulatory aspects, which should be considered as a framework.
- Chapter 7 "Training and Support" provides information, how SupplyOn can help suppliers during the implementation or the usage of a technical integration.

NOTE: In the following, the term “invoice” is also used for other types of financial documents created by the supplier, like a credit note or a price variation debit/credit, unless stated otherwise.

2 Process Overview

This chapter provides an overview of the business processes supported by SupplyOn eInvoicing.

2.1 Financial Documents Created by the Supplier

The supplier creates an invoice, credit note, or other type of financial document supported by SupplyOn eInvoicing for the respective customer. This is typically done in the supplier's billing or ERP system.

Provided an integration with SupplyOn eInvoicing exists, the invoice is transferred from the supplier's system to SupplyOn eInvoicing.

Depending on the customer and the tax-relevant country, SupplyOn eInvoicing performs certain validations in order to ensure that the invoice content complies with the respective country's regulations and the customer's business requirements.

If the invoice passes the validation successfully, it is transferred from SupplyOn eInvoicing to the customer's system, where it is processed. Some customers return a status message regarding the processing of the invoice on their side. This status information is currently not transferred to the supplier. This means, that suppliers need to log on to SupplyOn eInvoicing to check the invoice status via the web interface. (View the **customer status** column in the **Sent** tab of the **Invoice list**. The column may need to be selected via the link **Show/hide columns**.)

2.2 Financial Documents Created by the Customer

Some customers also transfer financial documents created on their side (for example self-billing invoices, credit notes) to the supplier via SupplyOn eInvoicing.

Such documents can be transferred from SupplyOn eInvoicing to the supplier for processing in their internal system.

The process is currently only supported via the EDI channel (see section 4.3 "EDI") in the EDIFACT format. Otherwise, the supplier needs to retrieve the documents via the SupplyOn eInvoicing web interface, where a PDF file (including the original EDI file from the customer attached) and a CSV file are available for download.

3 Message Content

Some requirements exist regarding the content of the messages sent by the supplier to SupplyOn eInvoicing (or data files uploaded to SupplyOn eInvoicing), in order to ensure that the information can be processed by SupplyOn eInvoicing and that it complies with the customer's business requirements and the respective country's legal requirements. This chapter describes these requirements.

3.1 Routing Data

The supplier needs to provide following identifiers in all financial documents in order to identify the sender and the receiver of the document:

- Buyer Org Code: Identifier for the customer's organizational unit.
- Buyer Plant Code: Identifier for the customer's plant.
- Seller Number: The customer's identifier for the supplier or supplier's plant.

Leading zeros have to be taken into account.

These identifiers relate to following fields on the eInvoicing user interface and the relevant channels:

	Buyer Org Code	Buyer Plant Code	Seller Number
Label in SupplyOn eInvoicing	OrgID (under "Customer Information")	Plant Code (under "Customer Information")	Supplier Number (under "Supplier Information")
CSV	BuyerOrgID	BuyerID1	SellerID1
EDIFACT	NAD+BY - C058 - 3124 ¹	NAD+BY - C082 - 3039	NAD+SE - C082 - 3039
UBL XML	cac:BuyerCustomerParty. Party.PartyLegalEntity. CompanyID	cac:BuyerCustomerParty. cbc:CustomerAssigned AccountID	cac:SellerSupplierParty.cbc: CustomerAssigned AccountID

If the IDs to be used for the routing data are not known to the supplier, they can be identified as described in the following sections.

3.1.1 Routing Data from an Invoice

If an invoice already exists in SupplyOn eInvoicing (for example when previously created manually), the routing data can be derived from there by opening the invoice.

¹ Contrary to the declaration in the VDA guideline, the segment NAD C058 / 3124 is used for the statement of Org Code. This segment is listed as "not used" in the guideline.

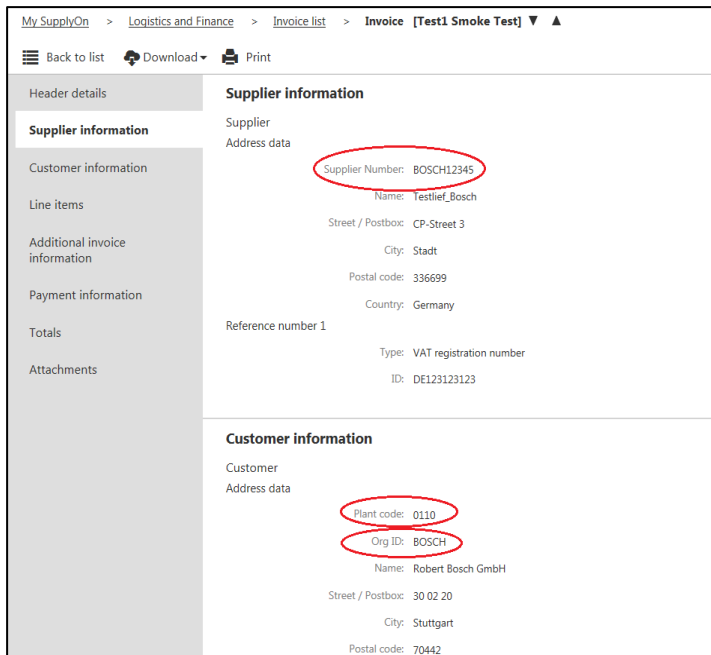


Figure 1: Routing data on an invoice

If no invoice exists which contains the required routing data, the supplier can create an invoice within SupplyOn eInvoicing. This invoice does not need to be sent to the customer; it can be saved as draft and/or deleted.

3.1.2 Routing Data from a Demand Document

If the invoice relates to a Purchase Order in SupplyOn Logistics and Finance (WebEDI) or AirSupply, the routing data can alternatively be derived from there:

3.1.2.1 Logistics and Finance (WebEDI)

The figure below shows, where the routing data can be found on a Purchase Order within SupplyOn Logistics and Finance (WebEDI).

Line items	Header Details	Parties	Attachments
Customer			
<u>Name and Address</u> Robert Bosch GmbH 30 02 20 70442 Stuttgart DE		Buyer Plant Code Buyer Org Code	<u>References</u> Partner No.: 0110 Plant Code: 0110 Vat No.: DE811128135 Organization: BOSCH
Consignee			
<u>Name and Address</u> 2050_DS SAP0x87011-DS Wernerstraße 51 70442 Stuttgart DE			<u>References</u> Partner No.: 0110 Unloading Pt.: ZUFFENHAUSEN
Invoicee			
<u>Name and Address</u> Robert Bosch GmbH Business Unit Diesel Systems 1615 70442 Stuttgart DE			<u>References</u> Partner No.:
Supplier			
<u>Name and Address</u> BALLUFF GmbH Schurwaldstr. 73765 Neuhausen DE		Seller Number	<u>References</u> Partner No.: BOSCH12345

Figure 2: Routing data on a Purchase Order in SupplyOn Logistics and Finance (WebEDI)

In order to access Purchase Orders:

- After logging on to SupplyOn, click **SupplyOn-Services** and select **WebEDI/VMI**
- Click on link **Orders**
- You may search for a specific Purchase Order
- Click on the corresponding row to open a Purchase Order
- Select tab **Parties**

3.1.2.2 AirSupply

In order to retrieve the routing information from a Purchase Order in AirSupply, download the Purchase Order:

- Navigate to **Purchase Orders**
- Select the relevant Purchase Orders and click **Download**, then select **PO Schedule Lines (full)**
- The routing information can be derived from the downloaded file:

Routing information	Colum in Download
Buyer Org Code	Customer Group Short Name
Buyer Plant Code	ERP Plant
Seller Number	Supp. No.

3.1.3 Routing Data from the Partner File

The allowed routing data configured on the SupplyOn Platform can be downloaded in the SupplyOn eInvoicing application via the Invoice list by clicking **Download**, choosing **Reports** and then selecting **Partner File**.

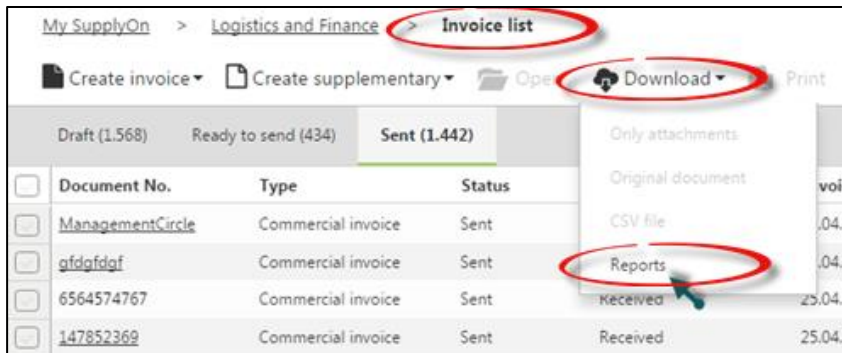


Figure 3: Downloading a partner file

Partner File - Seller													Report Generation Date:
Report Interval													25.04.2016
From: 01.04.2016 To: 25.04.2016													
Seller Role	Seller Company	Seller Name	Seller Street	Seller Postal Code	Seller City	Seller Country	Seller No.	Buyer Plant No.	Buyer Org Code	Buyer Role	Buyer Company	Buyer Name	Buyer Role
Invoice Issuer	April-16CN	April-16CN	Dao	50599	HuaChen	CN	5033204	P_Inp-BLE 1	TRGORG	Invoice Receiver	Inp-BLE 1	BLE-CP07	Lud
Invoice Issuer	April-16DE	April-16DE	Romer	50599	Frankfurt am Main	DE	5033222	P_Inp-BLE 1	TRGORG	Invoice Receiver	Inp-BLE 1	BLE-CP07	Lud
Invoice Issuer	April-16DE	April-16DE	Romer	50599	Frankfurt am Main	DE	5033222	P_Inp-BLE 1	TRGORG	Invoice Receiver	Inp-BLE 1	BLE-CP08	Lud
Invoice Issuer	April-16FR	April-16FR	Banjour	50599	Paris	FR	5033226	P_Inp-BLE 1	TRGORG	Invoice Receiver	Inp-BLE 1	BLE-CP07	Lud
Invoice Issuer	April-16DE	April-16DE	Romer	50599	Frankfurt am Main	DE	5033246	P_Inp-BLE 1	TRGORG	Invoice Receiver	Inp-BLE 1	BLE-CP03	Lud
Invoice Issuer	April-21CN	April-21CN	HuaWei	50599	DaoWao	CN	5033254	P_Inp-BLE 1	TRGORG	Invoice Receiver	Inp-BLE 1	BLE-CP02	Lud
Invoice Issuer	April-15CN	April-15CN	DaoWao Str	CHAA1AA	Peijing	CN	5033230	P_Inp-BLE 1	TRGORG	Invoice Receiver	Inp-BLE 1	BLE-CP05	Lud
Invoice Issuer	April-15CN	April-15CN	DaoWao Str	CHAA1AA	Peijing	CN	5033230	P_Inp-BLE 1	TRGORG	Invoice Receiver	Inp-BLE 1	BLE-CP06	Lud

Figure 4: Example of a partner file

3.1.4 Routing Data from an Inbound EDI Message

For the channel EDI (see chapter 4.3 “EDI”):

If the supplier receives EDIFACT documents from SupplyOn via EDI (for example document types “self-billing invoice” and “remittance advice”), the routing information can be derived from there:

<p>Sender ID (UNB.S002.0004) + Recipient ID (UNB.S003.0010)</p>	<p>The Sender ID of the customer has to be copied out of the inbound message and sent back as Recipient ID in the outbound message to SupplyOn (see example).</p> <p>From SupplyOn to supplier: UNB+UNOC:3+BUYER-XY+RecipientID+031003:1947+0471104812'</p> <p>From supplier to SupplyOn: UNB+UNOC:3+SenderID+BUYER-XY+031003:1947+0471104812'</p>
--	--

Buyer Ord Code (NAD.C058.3124#1)	<p>The buyer org code has to be copied out of the inbound message and sent back in the outbound message to SupplyOn (see example).</p> <p>From SupplyOn to supplier: NAD+BY+2222::91+Buy01:Buyer GmbH+Buyer GmbH & Co.KG+Schlossallee 100+Neustadt++12345+DE'</p> <p>From supplier to SupplyOn: NAD+BY+2222::91+Buy01:Buyer GmbH+Buyer GmbH & Co.KG+Schlossallee 100+Neustadt++12345+DE'</p>
Buyer Plant Code (NAD.C082.3039)	<p>The buyer plant code has to be copied out of the inbound message and sent back in the outbound message to SupplyOn (see example).</p> <p>From SupplyOn to supplier: NAD+BY+2222::91+Buy01:Buyer GmbH+Buyer GmbH & Co.KG+Schlossallee 100+Neustadt++12345+DE'</p> <p>From supplier to SupplyOn: NAD+BY+2222::91+Buy01:Buyer GmbH+Buyer GmbH & Co.KG+Schlossallee 100+Neustadt++12345+DE'</p>
Seller number (NAD.C082.3039)	<p>The seller number has to be copied out of the inbound message and sent back in the outbound message to SupplyOn (see example).</p> <p>From SupplyOn to supplier: NAD+SU+009999875::92++Supplier GmbH & Co.KG+Kastanienweg 12+Bremen++45678+DE'</p> <p>From supplier to SupplyOn: NAD+SU+009999875::92++Supplier GmbH & Co. KG+Kastanienweg 12+Bremen++45678+DE' NAD+SE+009999875 (for message type invoice)</p>

3.2 Types of Financial Documents

SupplyOn eInvoicing supports different types of financial documents, which are described in the following sections.

As the (commercial) invoice is the most commonly used type, the term “invoice” is also used in this document as a generic term to denote all types of financial documents.

3.2.1 (Commercial) Invoice

A (commercial) invoice is used for the billing of goods or services created by the supplier. It may relate to a demand document (Purchase Order, ASN), or not (“Invoice from scratch”).

3.2.2 Credit Note

A credit note is used for the correction of a quantity-based invoice. Therefore, the quantity to be subtracted must be entered as a positive value. SupplyOn eInvoicing reduces the invoiced quantity as follows:

Current invoiced quantity = previous invoiced quantity – corrected invoiced quantity via credit note

3.2.3 Price Variation Credit

A price variation credit is used for the correction of a price-based invoice if the previous invoiced price was too high. Therefore, the price to be credited must be entered as a positive value. SupplyOn

eInvoicing reduces the invoiced amount as follows:

Current invoiced value = previous invoiced value – invoice value difference via price variation credit

3.2.4 Price Variation Debit

A price variation debit is used for the correction of a price-based invoice if the previous invoiced price was too low. Therefore, the price to be added must be entered as a positive value. SupplyOn eInvoicing increases the invoiced amount as follows:

Current invoiced value = previous invoiced value + invoiced value difference via price variation debit

3.2.5 Prepayment

A prepayment invoice can be used to request an advance payment of an invoice amount from the customer.

Prepayment invoices do not reduce the billable amount or quantity; this is only done by the commercial invoice (final invoice).

3.3 Field Description

The field description is a separate Excel file which is provided together with the customer-specific addendum. It describes which eInvoicing fields are available for the respective customer, including additional information for each field.

The file shows for different types of financial documents following information:

- Field name: Label of the field (in English language) as shown in the web interface of SupplyOn eInvoicing
- Mandatory: Whether field is
 - Mandatory in every case,
 - Mandatory if another field is used (“Conditional”), or
 - Optional
- Max. length: Maximum allowed length, as defined by SupplyOn eInvoicing. In case of EDI channel, additional restrictions regarding the field length may result from the respective XML Schema or EDI Guideline.
- Max. repetitions: Maximum number of repetitions of the respective field.
- Allowed values: If only specific values are allowed, these values are listed, together with an explanation or their meaning.
- Additional requirements: Additional requirements regarding the content of the field.
- Mapping to the different formats (EDIFACT, UBL XML, etc.).
 Note, that the fields are sorted according to the structure of eInvoicing. Column “Sort Key” within the respective format can be used to sort the fields according to the structure of the respective format.

3.4 General Topics

This section describes some general requirements regarding the message content.

3.4.1 Country and Currency Codes

3.4.1.1 Countries

Countries need to be specified with a code according to ISO 3166 ALPHA-2 (see https://en.wikipedia.org/wiki/ISO_3166-1).

3.4.1.2 Currencies

For each amount, a currency has to be provided as 3-letter ISO code (ISO 4217 ALPHA-3 Code). If different currencies are being used, the currency has to be provided multiple times (currency of customer and supplier country).

3.4.2 Total Values

Unlike manually entering invoices via the web interface, SupplyOn eInvoicing does not perform any calculation of totals (for example tax total, invoice total) when uploading or transferring invoices via data files. Therefore, the supplier needs to provide all totals be provided in the invoice message or data file.

Rounding differences in VAT calculations on the totals level is only allowed within certain limits:

- On totals level: Allowed rounding differences in VAT calculations is 0,01 EUR maximum.
- On items level: No rounding differences are allowed.

3.4.3 Taxes

- Surcharges on a header level are only permitted if the tax rate at the items level is the same for all items.
- A tax category (e. g. "Reverse Charge") is required if the tax rate is zero.

3.4.4 Invoice from Demand

Unlike the manual entry of invoices "from demand" via the SupplyOn eInvoicing web interface, no "switching" of demand data is performed when uploading or transferring invoices via data files, which refer to a demand document from SupplyOn Logistics and Finance or AirSupply, like a Purchase Order or ASN (Advance Shipping Notification). The invoice message must contain all relevant invoice data. The invoice data must match the corresponding data on the demand document with respect to the following information, depending on the customer's requirements:

- Price Unit
- Price per Unit
- Unit of Measure
- Currency
- ...

The line item quantity (in case of a quantity based order) or amount (for example, in the case of value-limit orders) - including other invoices already created - must not exceed the quantity or amount on the referenced demand document's line item, considering a tolerance range, if applicable.

The spelling of the number of the referenced demand document and the line item has to be identical to the one provided by the customer.

3.4.5 Invoice Correction

In case of the correction of invoices (Credit Note, Price Variation Debit/Credit; see chapter 3.2 "Types of Financial Documents"), the following requirements apply:

- Document number and item number of the referenced invoice document are mandatory.
- Customer and supplier data, including reference numbers (for example VAT number) have to be the same as in the invoice being corrected.
- In general, item data have to be the same as in the invoice being corrected. Exceptions are:
 - Quantity and amounts in case of credit note
 - Amounts in case of price variation debit/credit

3.4.6 Attachments

Type, size and number of the attachments must comply with following general restrictions, which may deviate for individual customers; see chapter 3.6 “Customer-specific Requirements”.

- Attachment Types:
bmp, csv, doc, docx, gif, jpg, jpeg, pdf, png, ppt, pptx, rtf, tif, tiff, txt, xls, xlsx, xml, zip, BMP, CSV, DOC, DOCX, GIF, JPG, JPEG, PDF, PNG, PPT, PPTX, RTF, TIF, TIFF, TXT, XLS, XLSX, XML, ZIP
- Maximum number of attachments per invoice: 5
- Maximum size of one attachment: 5 MB
- Maximum size of all attachments for one invoice: 10 MB

3.5 Country-specific Requirements

Different countries have different legal requirements regarding the content of the invoice. These requirements are reflected in country-specific rulesets configured by SupplyOn. These rulesets control, which of the invoice fields are available (on a mandatory or optional basis). In some cases, the field content is also checked for allowed values.

The relevant country is determined based on:

- the VAT number of the supplier (first two characters) or
- the country of the supplier or
- the VAT number of the tax representative (first two characters)

Country-specific requirements (in addition to customer-specific requirements – see chapter 3.6 “Customer-specific Requirements”) are documented in the field description; see chapter 3.3 “Field Description”.

3.6 Customer-specific Requirements

In addition to country-specific requirements, each customer has specific requirements regarding the content of an invoice, which are reflected in customer-specific rulesets configured by SupplyOn. Customer-specific requirements (in addition to country-specific requirements – see chapter 3.5 “Country-specific Requirements”) are documented in the field description; see chapter 3.3 “Field Description”.

Important customer-specific requirements are also explained in the addendum for the respective customer. (See respective document “SupplyOn eInvoicing Integration Guide_Addendum ...”)

4 Channels for SupplyOn eInvoicing

SupplyOn offers different technical approaches for the integration of the suppliers' systems with SupplyOn eInvoicing ("channels"), in order to allow as many suppliers as possible to integrate their systems with SupplyOn eInvoicing.

The following sections describe the available channels. For suppliers who have already decided which channel they want to implement, only the corresponding sub-section is relevant.

Note that not all channels are supported by all customers; see respective customer-specific addendum for information on the channels supported by that customer.

4.1 CSV Upload

CSV² files are text files, in which a delimiter separates the different fields, for example "," or ";". Many systems support the generation of CSV files. However, note that the format of the CSV file must correspond to the SupplyOn standard as described below in chapter 4.1.3 "CSV File Format". SupplyOn eInvoicing users can create invoices by uploading such a CSV file within the application.

4.1.1 Prerequisites

In order to use the CSV upload, following prerequisites need to be fulfilled:

- The CSV upload can be used by all suppliers using SupplyOn eInvoicing.
- A SupplyOn user with access to SupplyOn eInvoicing and authorization to create invoices is required in order to perform the CSV upload.
- The business relationship to the respective customer's plant must be set up for SupplyOn eInvoicing by the customer.
- During the CSV Upload or when sending the uploaded invoice in a second step, the user must confirm the "eInvoicing Terms and Conditions", which you also can find here:
https://supplyon.com/img/help/download/eInvoicing/EN_eInvoicing_Terms_Conditions.pdf

4.1.2 Restrictions

File attachments are currently not supported during CSV upload. However, when choosing the "Upload" option (versus "Upload and send"), file attachments can be added to the invoice manually.

4.1.3 CSV File Format

The structure of the CSV file needs to conform to the SupplyOn format as described in this section. Requirements regarding the content of the CSV file are described in chapter 3 "Message Content".

4.1.3.1 General CSV Format Requirements

- The first row of the CSV file needs to contain the CSV field names, separated by a delimiter (";" or "," – see chapter 4.1.3.2 "Format of Dates, Numbers and Delimiters"). The CSV field names must exactly match the names used by SupplyOn eInvoicing. They can be derived from the format description (see section 3.3 "Field Description"); or by using a downloaded CSV file (see 4.1.3.3 "Downloading a CSV File") as an example file. The sequence of the fields is not relevant; but it must be consistent for all rows of the file; i.e. the subsequent rows must contain the fields in the same sequence as the first row.
- All fields need to be separated by a delimiter (see chapter 4.1.3.2 "Format of Dates, Numbers and Delimiters"). If the field value contains a delimiter, it needs to be encapsulated by quotation marks (for example "A,B,C").
- CSV fields ending with a "1" in the name can occur multiple times in columns within the CSV file. (Exceptions: "...Name1", "...ID1")

² CSV = comma separated values

In such cases, the number needs to be increased for subsequent occurrences, e.g.:
 “BuyerRefNumberType1, BuyerRefNumberType2, BuyerRefNumber1, BuyerRefNumber2, ...”
 (Numbers must be consecutive. E.g. “BuyerRefNumberType1, BuyerRefNumberType3,
 BuyerRefNumber1, BuyerRefNumber3, ...” would lead to an error.
 Column “max. repetitions” in the field description (see chapter 3.3 “Field Description”) contains
 the maximum number of allowed repetitions.

- The CSV upload file can contain data of one or multiple invoices or invoice line items. In case of multiple invoice line items, the fields on the header level must be repeated in each row.
- The CSV file must be UTF-8 encoded.

4.1.3.2 Format of Dates, Numbers and Delimiters

The date and decimal format as well as the delimiter (“;” or “,”) to be used in the CSV file are dependent on the country of the SupplyOn user performing the upload (as set in the user profile under **Administration -> My User Account**).

Following table shows the formats to be used for some countries:

Country	Date Format	Decimal Separator	Delimiter
Australia	d/MM/yyyy	.	,
Austria	dd.MM.yyyy	,	;
Belgium	d/MM/yyyy	,	;
Brazil	dd/MM/yyyy	,	;
Canada	dd/MM/yyyy	.	,
China	yyyy/M/d	.	,
Czech Rep.	d.M.yyyy	,	;
Denmark	dd-MM-yyyy	.	;
Finnland	d.M.yyyy	,	;
France	dd/MM/yyyy	,	;
Germany	dd.MM.yyyy	,	;
Hong Kong	d/M/yyyy	.	,
Hungary	yyyy.MM.dd	,	;
Ireland	dd/MM/yyyy	.	,
Italy	dd/MM/yyyy	,	;
Japan	yyyy/MM/dd	.	,
Netherlands	d-M-yyyy	.	;
Poland	yyyy-MM-dd	,	;
Portugal	dd-MM-yyyy	,	;
Romania	dd.MM.yyyy	,	;
Singapore	d/MM/yyyy	.	,
South Africa	yyyy/MM/dd	.	,
Spain	dd/MM/yyyy	,	;
Sweden	yyyy-MM-dd	,	;
Switzerland	dd.MM.yyyy	.	;
U.S.A.	M/d/yyyy	.	,
United Kingdom	dd/MM/yyyy	.	,

4.1.3.3 Downloading a CSV File

It is recommended to download an existing invoice in SupplyOn eInvoicing as a CSV file in order to obtain an example, based on which you can generate a CSV file. If no invoices exist yet, you can create an invoice using the invoice web form. The invoice can be saved as draft and deleted later, and does not need to be sent to the customer.

Validate the invoice before you download it without errors, in order to ensure that all required data are available and entered correctly. (Click **Check** in the invoice web form to validate the invoice.)

Steps to perform a CSV download in SupplyOn eInvoicing:

- Select the documents to be downloaded in the corresponding tab of the invoice list.
- Click **Download** and then click **Data file**.
- Select the file format **CSV**.
- Click **Download**.

Please be aware that the downloaded CSV file might contain some fields, which are not required for the upload, as they will be ignored by the system. These fields include:

- GUID (Header)
- countrySource (Header)
- Status (Header)
- CustomerStatus (Header)
- Channel (Header)

Only relevant for invoices to customer Airbus:

- CFTPLLevel1 (Header)
- CompanyCode (Header)
- FactsCode (Header)
- InvoiceImageFilename (Header)
- NumberOfAttachments (Header)
- SAPClientNumber (Header)
- SAPSystemName (Header)
- UniqueInvoiceIdentificationNumber (Header)
- archivingProviderBuyside (Header)
- archivingProviderSellside (Header)
- archivingSectionBuyside (Header)
- archivingSectionSellside (Header)
- signatureProvider (Header)
- Basis1NetPrice (Item)

4.1.3.4 Using Excel to edit CSV Files

Note the following when using Microsoft Excel to edit CSV files:

- Excel deletes zeros at the beginning of entries by default and sets the data format according to the language settings of the user's computer. To avoid errors when uploading CSV files, entries starting with zero must be entered with an apostrophe (for example '0110) or the cells formatted as "text". Furthermore, the regional data format standards have to be considered (for example English: dd/mm/yyyy). The language setting of the user's computer may need to be adapted to the language settings of the corresponding user.
- CSV files generated by SupplyOn eInvoicing use UTF-8 encoding; and eInvoicing expects UTF-8 encoding for CSV files to be uploaded. In order to ensure that special characters (for example äöü) are processed correctly with Excel:

- Before opening a CSV file generated by eInvoicing with Excel, you need to convert it to ANSI encoding. This can, for example, be done with a text editor like the Windows Editor (**File** -> **Save as**, and set Encoding to ANSI).
- Before uploading a CSV file edited with Excel, convert it to UTF-8 encoding correspondingly.

4.1.4 Uploading a CSV File

In order to upload a CSV file (containing one or multiple invoices) within SupplyOn eInvoicing:

- Click **Upload** and then click **Upload CSV File**.
- In the **Create document - upload CSV** dialog window, you can either select one or multiple CSV files via the file selection dialog window (“Browse”); or you can drag and drop files into the grey box.
- Following options are available for uploading CSV files:
 - **Upload and send:** The invoice is immediately sent to the customer, if it does not contain any errors. It can be found in the **Sent** tab of the **Invoice list**.
 - **Upload:** The user can edit the data via the web interface or add attachments before the invoice is sent to the customer. After successful uploading, the invoice is available in the **Ready to send** tab of the **Invoice list**. The final sending to the customer has to be initiated manually by the user in one of the following ways:
 - Select the relevant row in the **Ready to send** tab of the **Invoice list** and click **Send**.
 - Open the invoice by clicking on the document number and then click **Send**. You may edit the data or upload attachments before sending the invoice.

4.1.5 Error Handling

If the format of the uploaded CSV does not conform to the SupplyOn standard as described above, or its content does not comply with the requirements described in chapter 3 “Message Content” an error message is displayed:

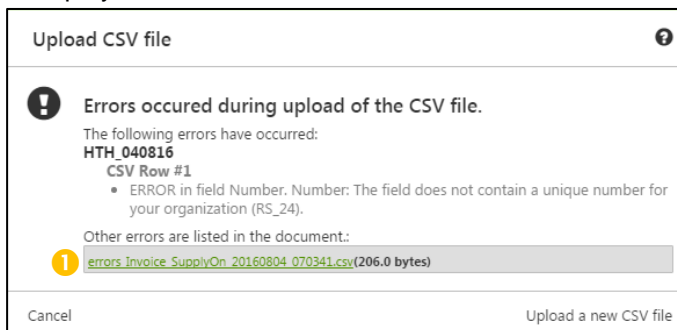


Figure 5: Error message for CSV upload.

If multiple error messages occur, they are listed in a separate file that you can download. You can use this file to communication the problem with the CSV file upload to the SupplyOn customer support (see chapter 7 "Training and Support").

See chapter 5 “Error handling process” for general information on how to correct invoices for which an error has been raised by SupplyOn or the customer.

4.2 PDF Interface

The PDF upload can be used to upload invoices and supplementary documents (credit notes, etc.) as PDF files or to send them via e-mail as an alternative for entering the data via the web form or the CSV upload in SupplyOn eInvoicing.

The process is performed as follows:

- The invoice is created in the supplier's internal system (billing system, ERP system, etc.), and generated as a PDF file.
- The PDF file must match an existing PDF Layout (see 4.2.3.1 "PDF Layouts") and must meet certain requirements (see 4.2.3.2 "Requirements for PDF Files") before it can be used for the PDF upload.
- The supplier logs on to SupplyOn eInvoicing and uploads the PDF file or sends the PDF document via e-mail.
- SupplyOn eInvoicing extracts the information from the PDF file according to the selected PDF Layout and converts it to the SupplyOn standard invoice format. Rules for validation of the invoice, as configured for the respective customer and country, are checked.
- SupplyOn eInvoicing sends the invoice to the customer's system.

4.2.1 Prerequisites

In order to use the PDF interface, following prerequisites need to be fulfilled:

- All suppliers using SupplyOn eInvoicing can use the PDF upload. However, this function needs to be activated for the supplier. Please contact SupplyOn customer support (see chapter 7 "Training and Support") in order to activate this function for your company.
- In addition, the respective customer needs to allow the usage of the PDF Interface. (See the customer-specific addendum for information, whether the customer supports the PDF Interface.)
- A SupplyOn user with access to SupplyOn eInvoicing is required, in order to perform the PDF Upload or send documents via e-mail.
- The business relationship to the respective customer's plant must be set up for SupplyOn eInvoicing by the customer.
- Creation of custom PDF Layouts (4.2.3.1.2 "Custom PDF Layouts") are only possible for suppliers with a Connect or Professional contract.
- During the upload or when sending the uploaded invoice, the user must confirm the "eInvoicing Terms and Conditions", which you also can find here:
https://supplyon.com/img/help/download/eInvoicing/EN_eInvoicing_Terms_Conditions.pdf

4.2.2 Restrictions

See section 4.2.3.2 "Requirements for PDF Files".

4.2.3 PDF File Format

4.2.3.1 PDF Layouts

In order to be able to upload an invoice as a PDF file, first a PDF layout must be activated by SupplyOn so that SupplyOn can read the data.

The following types of PDF layouts are available:

- **Standard PDF Layout:** This PDF layout is provided by SupplyOn by default. However, it requires that the layout of your invoices is adjusted to the Standard PDF Layout accordingly. See chapter 4.2.3.1.1 "Standard PDF Layout"
- **Custom PDF Layout:** As a supplier with a *Connect* or *Professional* contract, you may alternatively define your own Custom PDF Layouts, which reflect the layout of your

company's invoices.

→ See chapter 4.2.3.1.2 "Custom PDF Layouts"

Regardless of whether you use the Standard PDF Layout or a Custom PDF Layout, the content and/or format of your company's invoices generally need to be modified in order to include all data in the PDF file that are required by the customer. This may require support from your company's IT department. Alternatively, you can enter the missing data manually after uploading the PDF file. The manually added data does not change the uploaded PDF file, but it is used as additional data for the processing of the invoice.

4.2.3.1.1 Standard PDF Layout

SupplyOn provides a Standard PDF Layout, which you can use to upload PDF files. However, this requires that you adjust the layout of your invoice to the Standard PDF Layout accordingly. The field descriptions, i.e. labels, of the modified supplier invoice need to match with the field descriptions of the Standard PDF Layout

NOTE: Not all fields contained in the Standard PDF Layout are actually needed for the uploaded PDF files. The required fields depend on the customer.

4.2.3.1.2 Custom PDF Layouts

Suppliers with a *Connect* or *Professional* contract can create a Custom PDF Layout request. This requires at least 5 PDF sample files to be uploaded, which are exclusively used to define and activate the corresponding Custom PDF Layout.

NOTE: The uploaded PDF sample files are not processed as invoices in SupplyOn eInvoicing and will not be sent to the customer!

PDF sample files must be representative examples of your company's invoices and contain all variations of structure and content of invoices that will be sent via SupplyOn in the future. SupplyOn analyzes the uploaded PDF sample files and defines based on them a PDF layout, so that PDF files subsequently uploaded or sent via e-mail can be processed automatically.

Different PDF layouts need to be created, for example, in following cases:

- **Different types of invoices**

If your company uses different fields or different layouts for invoices (e.g. for services versus materials or for invoice versus credit note), one Custom PDF Layout needs to be created for each type of invoice.

- **Different customers**

If different fields or different layouts are used for different customers (or geographic regions, etc.), a separate Custom PDF Layout needs to be created for each customer.

The PDF sample files must meet the following requirements:

- The PDF sample files for one PDF Layout can include invoices with labels in different languages. However, for each language, at least 2 PDF sample files need to be included. The following languages are currently supported: English, Dutch, French, German, Spanish, Portuguese, Italian, Flemish, Norwegian, Finnish, Danish, Swedish, Czech, Hungarian, Slovakian, Romanian and Polish.
- Naming and position of the fields needs to correspond to the PDF files, which you upload later as an invoice.
→ See [Requirements for PDF Files](#).
- The uploaded PDF sample files need to contain the entire set of fields contained in your invoices.
- Invoices with multiple items and with multiple pages should be included in PDF samples, if such invoices are actually sent to the customer.

Refer to <https://cms.application.prd.supplyon.com/en/info-portal/pdf-upload-layouts-custom> on information, how to create a custom layout request

In order to change an existing Custom PDF Layout, please contact the SupplyOn customer support (see chapter 7 "Training and Support").

You can also ask the SupplyOn customer support to have additional fields populated automatically with fixed values defined by you (e.g. mandatory fields requested by your customer, which are not contained in your invoice layout).

4.2.3.2 Requirements for PDF Files

The supplier's system needs to create an invoice as PDF file.

NOTE: Most systems support the generation of PDF files. If your system does not support the generation of PDF files, there are numerous, free to install, PDF software on the internet. After download and installation, the PDF software supports you to convert an invoice into a PDF file.

Examples of PDF software include:

- <http://www.bullzip.com/products/pdf/info.php>
- <http://www.cutepdf.com/products/cutepdf/writer.asp>

The PDF files uploaded or sent via e-mail as invoices must meet the following requirements:

- PDF files must be in text format. No scanned documents are possible. Text files generated by OCR (Optical Character Recognition) are not supported.
- PDF files must not be password-protected.
- The structure of the PDF files must match the selected PDF Layout.
→ See PDF Layouts

This means:

- The spelling of the labels in the PDF file needs to match exactly the spelling in the used PDF Layout.
A label is a phrase which denotes the content of a field, e.g.:
“Invoice no.: 12345” (“Invoice no.” is the label).
- Fields in the PDF file without a label are ignored.
- Position of fields in the PDF file should be as close as possible to the selected PDF sample.
- If a label is used in the PDF file which is not contained in the PDF Layout, it is ignored.
- Layout elements like boxes and lines are ignored. Text font and size is not relevant, as long as they do not lead to a discrepancy against the general layout of the PDF Layout (e.g. due to an extremely large font size).
- Embedded pictures (e.g. logos containing the company's address) are ignored.
- Space and punctuation characters are ignored.
- The language of the labels needs to be included in the selected PDF Layout.
- Files embedded in the PDF file as attachments are ignored.
- Date and numerical format needs to be used consistent throughout the PDF file.
- The content of the invoice needs to match to the validation rules as configured for the respective customer and country (same as when you are entering invoices directly within SupplyOn eInvoicing).
Specifically, all fields required by the customer must be included in the PDF files. Also, note that for invoices referencing a Purchase Order, some fields contained in the Purchase Order must have the same value in the invoice.

4.2.4 Uploading PDF Files

In order to upload PDF files, log on to SupplyOn eInvoicing and click **Upload**, then click **PDF Files**.

You can find more details under:

<https://cms.application.prd.supplyon.com/en/info-portal/pdf-upload-files>

4.2.5 Sending PDF Files via e-mail

<https://supplyon.com/en/info-portal/pdf-send-files>

4.2.6 Error Handling

In case **Upload and Send** is used during the upload of the PDF file:

If an error occurs during processing, the error status is assigned to the invoice. You can correct the errors within SupplyOn eInvoicing and resubmit the invoice.

In case **Upload** is used during the upload of the PDF file:

In case of errors, the invoice is available in the Draft tab, where it can be edited.

An e-mail is sent from the address el invoicing@supplyon.com to the e-mail address of the user having performed the upload or the address from which the PDF document was sent with information about the processing of the PDF document. It is recommended to configure the SupplyOn e-mail domain (supplyon.com) on the supplier's e-mail whitelist in order to avoid that the mails from SupplyOn are rejected as spam mails.

See chapter 5 "Error handling process" for general information on how to correct invoices for which an error has been raised by SupplyOn or the customer.

4.3 EDI

EDI (Electronic Data Interchange) refers to the electronic exchange of business information in a standardized way.

SupplyOn currently supports following EDI message formats:

- EDIFACT Global Invoice standard based on the VDA guideline 4938 part 2 version 2.2 from July 2016.
- UBL XML V2.1 Invoice from November 2013

Following communication protocols are supported for both message formats:

- OFTP2 via TCP/IP
- AS2 via HTTPS

4.3.1 Prerequisites

In order to use the EDI channel, following prerequisites need to be fulfilled:

- The supplier needs a Connect contract for the corresponding customer and P2P (Purchase-to-Pay), or a Professional contract with SupplyOn.
- A contract for the joint integration project with SupplyOn is required; see chapter 4.3.6 "Integration Project". Fees will incur for the project.
- The business relationship to the respective customer's plant must be set up for SupplyOn eInvoicing by the customer.
- The respective customer needs to allow the usage of the EDI channel. (See respective customer-specific addendum.)
- A SupplyOn user with access to eInvoicing is not a mandatory requirement, but may be helpful for trouble shooting, verification or viewing of invoices, checking customer status of invoices, etc.

4.3.2 Restrictions

For UBL XML, only the document types (see section 3.2 "Types of Financial Documents") Invoice and Credit Note are supported.

4.3.3 EDI Message Format

SupplyOn currently offers the following EDI formats for SupplyOn eInvoicing, which are described in more detail in the following sections:

- EDIFACT
- UBL XML

Requirements regarding the content of the EDI messages are described in chapter 3 "Message Content".

4.3.3.1 EDIFACT

EDIFACT Global Invoice standard based on the VDA guideline 4938 part 2 version 2.2 from July 2016 is supported. (See <https://www.vda.de/en/services/Publications/global-invoic-implementation-guideline.html>) The EDIFACT message needs conform to this standard. This implies, that in addition to fields which are mandatory due to customer's or legal requirements (chapter 3 "Message Content"), all fields need to be provided which are mandatory due to the UBL standard.

Suppliers need to send invoices via message type GlobalINVOIC D07.A . If attachments are transmitted, the VDA Container needs to be used.

In addition, following rules apply:

- Multiple messages within one transmission file are NOT allowed, i.e. each transmission file may only contain one UNH segment.

- Line breaks (CRLF = Carriage Return Line Feed) at the end of segments.
You can send EDIFACT messages with or without CRLF to SupplyOn. In case CRLF is used, it has to be used at the end of every segment.
- Requirements regarding the content of the EDIFACT message are described in chapter 3 "Message Content".
- Not all fields of the EDIFACT standard are supported by eInvoicing. The fields supported by the respective customer and the requirements of the customer regarding the content of the invoice can be derived from the field description; see chapter 3.3 "Field Description".
- Note, that the field description is sorted based on the structure of the eInvoicing application. Please refer to the EDIFACT guideline for the correct structure of the EDIFACT file.

4.3.3.2 UBL XML

SupplyOn currently supports UBL XML V2.1 (November 2013) for document types Invoice and Credit Note:

- <http://docs.oasis-open.org/ubl/os-UBL-2.1/UBL-2.1.html#T-INVOICE>
- <http://docs.oasis-open.org/ubl/os-UBL-2.1/UBL-2.1.html#T-CREDIT-NOTE>

Following needs to be considered for the UBL XML files sent to Supplyon eInvoicing:

- The UBL XML file needs conform to the respective UBL schema (XSD), which describes the structure and syntax of the UBL XML file. This implies, that in addition to fields which are mandatory due to customer's or legal requirements (chapter 3 "Message Content"), all fields need to be provided which are mandatory due to the UBL standard. It is necessary to respect also fields which become mandatory if the higher-level element is provided. (E. g. for UBL, the segment `cac:TaxScheme` within `cac:PartyTaxScheme`.)

It is recommended, that the supplier validates the XML file generated on his side against the schema. The schemas can be found under following links:

- Invoice: <http://docs.oasis-open.org/ubl/os-UBL-2.1/xsd/maindoc/UBL-Invoice-2.1.xsd>
- Credit Note: <http://docs.oasis-open.org/ubl/os-UBL-2.1/xsd/maindoc/UBL-CreditNote-2.1.xsd>

In addition to the schemas for the respective document types above, the schemas of the common UBL library needs to be downloaded, as they are referenced in the document type-specific schema.

Also see:

- <http://docs.oasis-open.org/ubl/os-UBL-2.1/UBL-2.1.html#S-SCHEMA-DEPENDENCIES>
- <http://docs.oasis-open.org/ubl/os-UBL-2.1/UBL-2.1.html#S-UBL-2.1-COMMON-SCHEMAS>
- Requirements regarding the content of the UBL XML message are described in chapter 3 "Message Content".
- Not all fields of the UBL standard are supported by eInvoicing. The fields supported by the respective customer and the requirements of the customer regarding the content of the invoice can be derived from the field description; see chapter 3.3 "Field Description".
- Note, that the field description is sorted based on the structure of the eInvoicing application. Please refer to the UBL schema for the correct structure of the UBL XML file.

4.3.4 Transferring EDI Messages

For both formats - EDIFACT and UBL XML - the technical connection to SupplyOn EDI can be alternatively set up via two communication protocols:

- OFTP2 via TCP/IP
- AS2 via HTTPS

4.3.4.1 OFTP2 via TCP/IP

OFTP2 (Odette File Transfer Protocol version 2) is an enhancement of the Odette File Transfer Protocol. OFTP2 can be set up on different transport layers: ISDN, X.25, TCP/IP. SupplyOn only supports OFTP2 via TCP/IP (Internet).

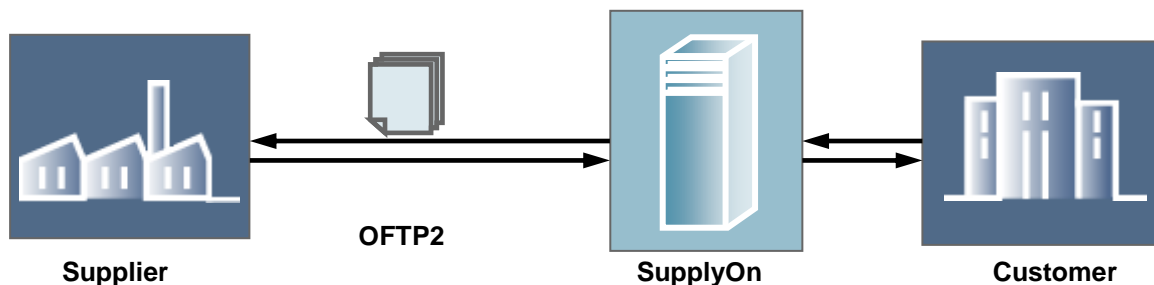


Figure 6: Overview of OFTP2

4.3.4.1.1 Communication Process

One of the partners initiates the communication. After the exchange of Odette IDs and passwords, files can be exchanged in both directions. The files receive a pre-configured virtual file name for the transmission. Files can be transmitted via OFTP2 either encrypted or unencrypted. SupplyOn allows only an encrypted transmission. After the transmission, a confirmation in form of an *End to End Response* (EERP = positive acknowledgment of receipt, EERN = negative acknowledgment) takes place. This *End-to-End Response* can take place either immediately after the transmission within the same connection, or the receiver can independently dial the original sender for transmission.

Strengths of OFTP2:

- OFTP2 allows a restart to the connection after an abort. It is not necessary to send the entire file again.
- The implicit *End-to-End Response* guarantees a correct transmission and a processing of the file through the receiver.
- Secure data and connection due to encryption.

4.3.4.1.2 OFTP2 Encryption

SupplyOn uses the maximal security settings with OFTP2, including the latest cryptographic algorithms:

- symmetrical encryption using the AES/256 algorithm,
- SHA1 digital signature algorithm,
- data compression and only a signed and encrypted receipt.

4.3.4.1.3 OFTP2 Parameters

OFTP2 Parameter		SupplyOn Communication	Explanation
Security	Communication Certificate	trusted	<p>One certificate for communication and signature</p> <p>Trusted: Certificate Authority assigns, administrates and controls certificates. There are Class 2 and Class 3 certificates.</p> <p>Certificates have to be updated at least after 5 years.</p>
	Digital signature	SHA1	<p>Before the data is dispatched, a signature is generated and attached to the transmission. With the receipt of the message, the receiver verifies the signature. This guarantees that the message really comes from the sender. SHA1 is an option of the signature algorithm and is recommended.</p>
	Encryption	AES/256	<p>Advanced Encryption Standard is a symmetrical encryption method that is considered to be the new encryption standard.</p> <p>It is used to encrypt data and the transmission connection.</p>
Transport layer	Internet connection	<ul style="list-style-type: none"> - permanent internet connection - fixed and public URL or IP address mandatory 	A permanent internet connection has to be granted.
	Transport Protocol	OFTP2 via HTTPS	HTTPS is a special form of the HTTP Protocol offering increased security via SSL (128-Bit encryption). HTTPS is used to prevent „monitoring“ during the transmission of sensitive data.
Client Authentication	Authentication	HTTPS Basic authentication with username and password	Authentication of the sending interface system during the receipt.

4.3.4.2 AS2 via Internet (HTTPS)

AS2 (Applicability Statement 2) is a communication protocol for secure data transfer via the Internet. Electronic business documents in any format, which are sent to the business partners, are compressed and, if necessary, provided with an electronic signature.

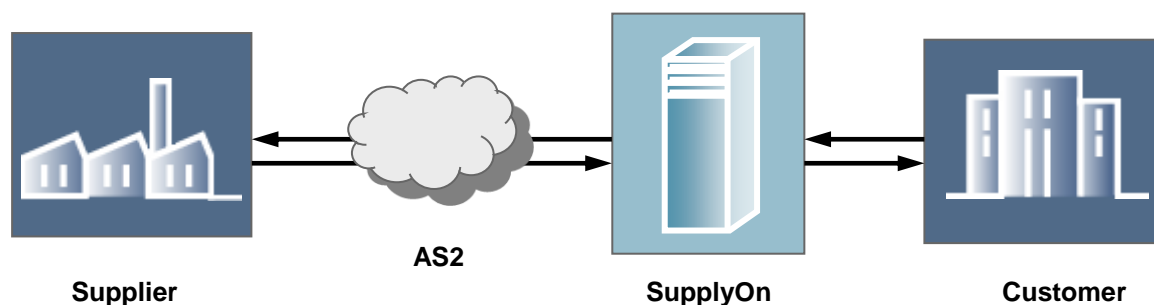


Figure 7: Overview of AS2

4.3.4.2.1 Communication Process

AS2 works with an "envelope" in which the EDI data is embedded. The data is transmitted with the Hypertext Transfer Protocol (HTTP), the core technology of the World Wide Web.

The server of the receiver waits for messages that are addressed to it. As soon as the server recognizes that a message addressed to it arrives, the server checks the certificates/Authorization of the message. After the check, it lets the message enter.

Similar to a telephone without a mailbox, the server acquires the message only if the server is available. Therefore, the server has to keep a permanent connection to the internet.

4.3.4.2.2 Strengths of AS2

AS2 enables the user to send and receive data securely and reliably with the Internet protocol HTTPS. The cost advantage, which results from the use of the Internet, is passed on directly to the AS2 user. If you have decided to use an AS2 software solution, no additional costs will arise, even when sending a larger data volume. Due to the rising number of EDI messages this is, apart from the security aspect, the decisive factor to implement AS2 for many companies.

Digital certificates ensure for example, that messages only reach the desired receiver and that the sender can be verified. AS2 works with encryption and signature algorithms, so that the security of the documents is ensured.

4.3.4.2.3 Prerequisites for the AS2 Communication

A prerequisite for the data exchange with other AS2 compatible companies is an Internet access and AS2 compliant software. Ensure that your AS2 software supports HTTP Basic Authentication for data transmission to SupplyOn.

4.3.4.2.4 AS2 Parameters

AS2 Parameter		SupplyOn Communication	Explanation
Security	Communication Certificate	- trusted or self-signed - maximum validity 5 years	One certificate for communication and signature Trusted: Certificate Authority assigns, administrates and controls certificates. There are Class 2 and Class 3 certificates. Self-Signed: Self-Signed certificates reduce the administration effort. Certificates have to be updated at least after 5 years.
	Digital signature	SHA1	Before the data is dispatched, a signature is generated and attached to the transmission. With the receipt of the message, the receiver verifies the signature. This guarantees that the message really comes from the sender. SHA1 is an option of the signature algorithm and is recommended.
	Encryption	_	No additional encryption of the data is necessary, since the communication is already SSL encrypted (HTTPS)!
Transport layer	Internet connection	- permanent internet connection - fixed and public URL or IP address mandatory	A permanent internet connection has to be granted.
	Transport Protocol	AS2 via secure HTTP (HTTPS)	HTTPS is a special form of the HTTP Protocol offering increased security via SSL (128-Bit encryption). HTTPS is used to prevent „monitoring“ during the transmission of sensitive data.
Client Authentication	Authentication	HTTP Basic authentication with username and password	Authentication of the sending interface system during the receipt.
Message Disposition Notification=MDN	MDN	Mandatory	The MDN is an instrument for transaction security. The MDN is sent back by the recipient. It confirms the message receipt and provides proof that the correct recipient was reached, since he was in the possession of the private key.
	MDN signed	Synchronously signed if necessary	Signing of the message receipt
	MDN encryption	_	No additional encryption of the data is necessary, since the communication is already SSL encrypted (HTTPS)!

4.3.5 Error Handling

If at least one error occurred during processing of the invoice, SupplyOn sends an e-mail with the error description to the supplier.

The original message that caused the error is attached to this e-mail.

Sender address of the e-mail is WebEDIAdmin@SupplyOn.com.

Recipient address of the e-mail is the e-mail address as stated along with the UNB sender ID in the parameter sheet, as defined during the Integration Project.

It is recommended to configure the SupplyOn e-mail domain (supplyon.com) on the supplier's e-mail whitelist in order to avoid that the mails from SupplyOn are rejected as spam mails.

See chapter 5 "Error handling process" for general information on how to correct invoices for which an error has been raised by SupplyOn or the customer.

4.3.5.1 Error Message for EDIFACT

For suppliers using EDI format EDIFACT, SupplyOn eInvoicing can return the error status via an EDIFACT message for easier processing in the supplier's system. The message is of type APERAK based on UN/EDIFACT APERAK message release 15A. (See

https://www.unece.org/trade/untdid/d15a/trmd/aperak_c.htm)

Details of the message format are provided in a separate EDIFACT guideline.

4.3.5.2 Error Message for UBL XML

For suppliers using EDI format UBL XML, SupplyOn eInvoicing can return the error status alternatively via an UBL message of type Application Response (see <http://docs.oasis-open.org/ubl/os-UBL-2.1/UBL-2.1.html#T-APPLICATION-RESPONSE>), in order to allow easier processing in the supplier's system.

This message is based on UBL schema <http://docs.oasis-open.org/ubl/os-UBL-2.1/xsd/maindoc/UBL-ApplicationResponse-2.1.xsd>.

Description of important elements of Application Response message:

UBL XML element	Description
cbc:ID	SupplyOn message ID of the Application Response message
cbc:IssueDate	Date of the Application Response message
cbc:VersionID	Version ID
cac:SenderParty/cbc:EndpointID	Org Code of the Buyer (Routing Triple)
cac:SenderParty/cac:PartyIdentification/cbc:ID	Plant Code of the Buyer (Routing Triple)
cac:ReceiverParty/cac:PartyIdentification/cbc:ID	Supplier Number (Routing Triple)
cac:DocumentResponse/cac:Response/cbc:Description	ERROR in case of overall error status, or OK otherwise.
cac:DocumentResponse/cac:Response/cac:Status/cbc:StatusReasonCode	Error code
cac:DocumentResponse/cac:Response/cac:Status/cbc:StatusReason	Error description
cac:DocumentResponse/cac:DocumentReference/cbc:ID	Unique identifier for the invoice, as provided by the supplier in inbound message in element /cbc:ID
cac:DocumentResponse/cac:DocumentReference/cbc:UUID	Unique identifier for the message, as provided by the supplier in inbound message in element /cbc:UUID
cac:DocumentResponse/cac:DocumentReference/cbc:IssueDate	Date of the invoice, as provided by the supplier in inbound message in element /cbc:IssueDate

cac:DocumentResponse/cac:DocumentReference/cbc:IssueTime	Receiving time stamp of the inbound message
cac:DocumentResponse/cac:DocumentReference/cac:Attachment/cac:ExternalReference/cbc:FileName	SupplyOn Message type of the inbound message
cac:DocumentResponse/cac:DocumentReference/cac:Attachment/cac:ExternalReference/cbc:Description	SupplyOn Creation time stamp of inbound message
cac:DocumentResponse/cac:DocumentReference/cac:IssuerParty/cac:PartyIdentification/cbc:ID	Seller Number of inbound message (Routing Triple)
cac:DocumentResponse/cac:DocumentReference/cac:IssuerParty/cac:PartyName/cbc:Name	Sender Info
cac:DocumentResponse/cac:DocumentReference/cac:RecipientParty/cbc:EndpointID	Buyer Org Code of inbound message (Routing Triple)
cac:DocumentResponse/cac:DocumentReference/cac:RecipientParty/cac:PartyIdentification/cbc:ID	Buyer Plant Code of inbound message (Routing Triple)

4.3.6 Integration Project

The following diagram shows the process for an EDI integration project with SupplyOn. For additional information, please contact EDI-Connect@SupplyOn.com.

M2M integration project by stream

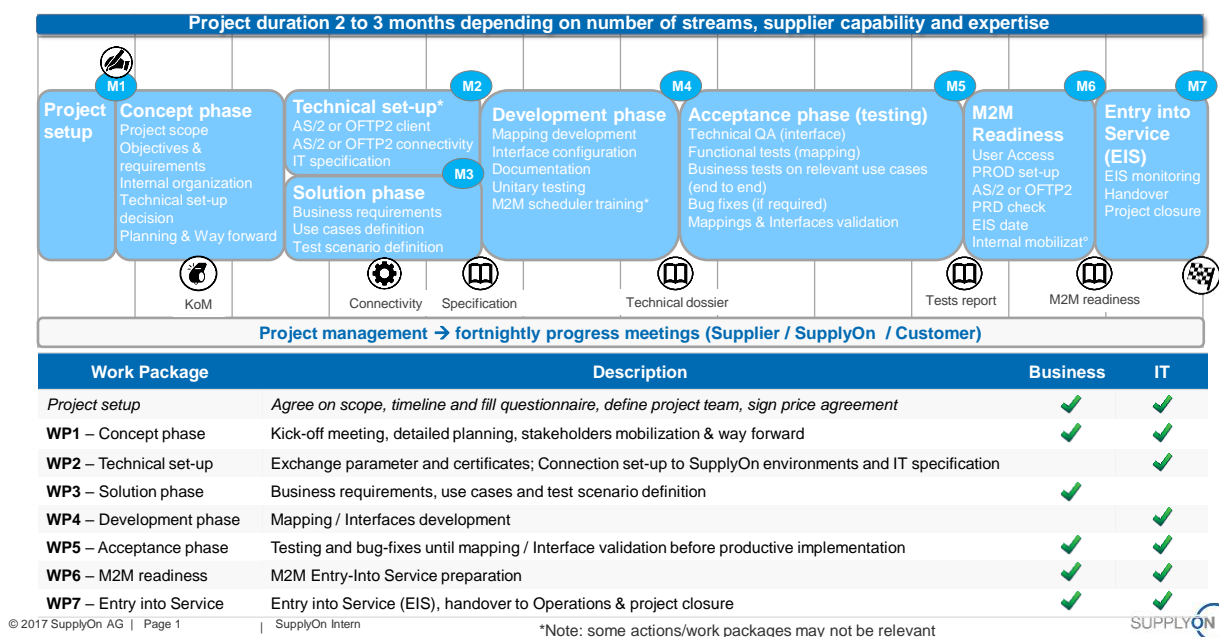


Figure 8: Process of an EDI integration project

5 Error handling process

This chapter describes what type of errors can occur during the processing of an invoice within SupplyOn eInvoicing. In addition, it describes how errors can be handled which are reported by the customer.

5.1 Errors raised by SupplyOn

Before an invoice created by the supplier is sent to the customer, SupplyOn eInvoicing performs several checks of the invoice data.

There are three types of errors:

- **Syntax Errors:**
The content or structure of the message does not comply with the rules defined for the respective channel.
In case of a syntax error, the invoice is not saved in SupplyOn eInvoicing.
- **Routing Errors:**
The routing contained in the message (see chapter 3.1 "Routing Data") is not correct.
In case of a routing error, the invoice is not saved in SupplyOn eInvoicing.
- **Validation errors:**
The message does not comply with the content requirements, as configured for the respective customer and/or country (see chapter 3 "Message Content").
In case of a validation error, the invoice can be found in the **Sent** tab of the **Invoice list** in SupplyOn eInvoicing with the status "error". (Column **Status** may need to be selected under **Show/hide columns**.)
If the invoice references a Purchase Order or another demand document (for example an ASN – Advance Shipping Notification) within SupplyOn Logistics and Finance or AirSupply, the invoice does not reduce the respective billable quantity of the demand document.
The supplier has the following options:
 - Correct the initial invoice in the supplier's internal system and re-send it to SupplyOn eInvoicing with the same invoice number.
 - Cancel the initial invoice in the supplier's internal system, and create a new, corrected invoice and send it to SupplyOn eInvoicing with a different invoice number. The initial (erroneous) invoice will remain in the **Sent** tab of the **Invoice List** with the status "error".
 - Create a credit note in the supplier's internal system referencing the initial invoice and send it to SupplyOn eInvoicing. However, this credit note will be set with the status "error" to SupplyOn, as it refers to an invoice, which is also in the status "error".
Then create a new, corrected invoice and send it to SupplyOn eInvoicing.

Aspects of error handling specific to the different channels are described in section "Error Handling" in chapter 4 "Channels for SupplyOn eInvoicing".

If the supplier cannot solve the error on his own, he needs to contact SupplyOn (see section 7 "Training and Support").

5.2 Errors raised by the Customer

If no error was raised during the validation of the invoice by SupplyOn, it will be transferred to the customer's system. If the customer subsequently identifies an error within the invoice during the processing on his side, he will:

- notify the supplier outside of SupplyOn eInvoicing (for example via e-mail) and/or
- set the customer status to "document rejected" for the invoice in SupplyOn eInvoicing.
The status is visible in the tab **Sent** of the **Invoice List** of SupplyOn eInvoicing.

(Column **Customer Status** may need to be selected under **Show/hide columns**)

Corrections are not possible for an invoice, which has already been sent successfully by SupplyOn eInvoicing to the customer. Therefore, the supplier needs to create a credit note with reference to the invoice and send it to SupplyOn, so that the billable quantity of the referenced demand document (for example a Purchase Order or an ASN) within SupplyOn Logistics and Finance or AirSupply is reduced. If applicable, the supplier then needs to create a second, corrected invoice and send it to SupplyOn eInvoicing.

In case of questions regarding the rejection of the invoice by the customer, the supplier needs to contact the corresponding department at the customer.

6 Invoice Compliance, Original Invoice and Archiving

The supplier, as the creator of the original document, has the responsibility to provide content consistent to tax-relevant information and which complies with all legal requirements. SupplyOn only assists the invoice creation. For further information, please refer to the SupplyOn eInvoicing Terms & Conditions (https://supplyon.com/img/help/download/eInvoicing/EN_eInvoicing_Terms_Conditions.pdf).

Based on legal requirements of the supplier's home country, the supplier is responsible for the archiving of the original invoice. Depending on the used channel, the original invoice is stored by the supplier, by SupplyOn, or by a 3rd party service provider:

- CSV Upload: SupplyOn eInvoicing
- PDF Interface: Supplier
(Or SupplyOn, if the supplier changes tax-relevant data on the Web interface; or in case of digital signing by SupplyOn)
- EDI: Supplier
(Or SupplyOn, if EDI message is modified by SupplyOn on behalf of the supplier e.g. format mapping; or in case of digital signing by SupplyOn)

Regardless of the used channel, when sending an invoice to the customer via SupplyOn eInvoicing, an "original document" is generated by SupplyOn eInvoicing. The original document is a PDF file, which includes:

- the invoice printout
- attachments (if available)
- message provided by the supplier, if applicable
 - EDI: EDIFACT/UBL XML message
- electronic signature, if applicable (based on the customer-specific configuration)

Specifically for channels in which the original invoice document is stored by SupplyOn, it is recommended that the supplier downloads the original invoice document from SupplyOn for archiving.

The original document is available for downloading in the eInvoicing application a few minutes after the invoice has been sent to the customer. Select a submitted invoice in the **Sent** tab on the **Invoice List** page and click **Download**, then click **Original document**.

Please note that this document is only available for a limited period – at least three months - on the SupplyOn platform.

7 Training and Support

You can use the following contact information in case of operational problems:

- Regarding SupplyOn:
 - for users of eInvoicing: <https://www.supplyon.com/en/contact/support-contact/>
 - for users of AirSupply: <https://www.supplyon.com/en/contact/support-contact-airsupply/>

SupplyOn offers advanced training support (online or as enhanced package) for the CSV upload or PDF. Please get in contact via <https://www.supplyon.com/en/contact/support-contact/>.

In case of an integration project for the channels EDI, see chapter 4.3.6 “Integration Project” (EDI) regarding contact information.