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European eInvoicing Standard in Italy

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Glossary

|  |  |
| --- | --- |
| **B2B** | Business to Business |
| **B2C** | Business to Consumer/Citizen |
| **B2G** | Business to Government |
| **BII** | Business Interoperability Interfaces |
| **C2G** | Citizen to Government |
| **CCTS** | Core Component Technical Specification |
| **CEF** | Connecting Europe Facility |
| **CEM** | Certified Electronic Mail – Legal Mail (PEC Posta Elettronica Certificata in Italy) |
| **CEN** | European Committee for Standardisation |
| **CII** | Cross Industry electronic Invoice |
| **CIUS** | Core Invoice Usage Specification |
| **DSI** | Digital Service Infrastructures |
| **EDIFACT** | Electronic Data Interchange For Administration, Commerce and Transport |
| **EMSFEI** | European Multi-Stakeholder Forum on eInvoicing |
| **e-SENS** | Electronic Simple European Networked Services |
| **FatturaPA** | Public administration electronic invoice framework (FatturaPubblica Amministrazione) |
| **G2G** | Government to Government |
| **INEA** | Innovation and Networks Executive Agency |
| **OASIS** | Organization for the Advancement of Structured Information Standards |
| **PEPPOL** | Pan-European Public Procurement Online |
| **PEPPOL-BIS** | Pan-European Public Procurement Online Business Interoperability Specifications |
| **SDI** | Electronic exchange system in Italy (Sistema Di Interscambio) |
| **UBL** | Universal Business Language |
| **UN/CEFACT** | United Nations Centre for Trade Facilitation and Electronic Business |
| **UNTDID** | UN Trade Data Interchange Directory |
| **URI** | Uniform Resource Identifier |
| **URL** | Uniform Resource Location |
| **URN** | Uniform Resource Name |
| **XML** | Extensible Mark-up Language |

# Executive summary

This document explains the main components and interfaces exposed by the Chambers of Commerce Portal to transform the invoice from the Italian format to the Peppol format and send Cross Border eInvoice to the Peppol network.

Our service is currently ready to be to integrated with the transformation library (see WP4 Implementation - D4.1 eInvoice Mapper) that Infocert in going to release.

The Chambers of Commerce Portal uses the Italian SDI Network for managing domestic invoices.

# Introduction

In order to adapt the Chambers of Commerce Portal to the use of the Peppol network, a new component has been created which acts as a proxy between the Portal itself and the Peppol Access Point component.

The new component is called FEUR and the following document describes all the interfaces realized and their behavior.

# The FEUR Interface

## I/O Interfaces

The FEUR provides a clean and simple API that allows Portal Chambers of Commerce to quickly integrate it in their workflow.

FEUR provides REST services to the Chambers of Commerce Portal that offer the standard methods POST of the HTTP protocol

|  |  |  |
| --- | --- | --- |
| HTTP Method | URI | Description |
| POST | /convertFromPaToUbl | The service transforms the invoice from SDI to Peppol UBL Format.  The service receives as input the Italian eInvoice PA SDI Format and returns the Peppol Invoice.  The service is ready to be integrated with the eInvoice Mapper service of Infocert (see WP4-D4.1). |
| POST | /feur/sendToAccessPoint/{XXXX}:{AAAAAAAA} | The service sends the UBL invoice to the Infocamere Access Point for its sending in network Peppol.  The service returns the result of the operation and any errors in JSON format. |

## SDI to PEPPOL Convert Interface

|  |  |
| --- | --- |
| Method | POST |
| URL | /feur/convertFromPaToUbl |
| Header Request | content-type:application/xml;charset=UTF-8 |
| Body Request | SDI eInvoice XML Format |
| Success Response | HTTP 200 |
| Header Response | content-type:application/xml;charset=UTF-8 |
| Boby Response | Peppol BIS3 Order UBL Format |
| Error Response | All status codes defined by HTTP / 1.1 are possible, and in particular   * 500 Internal Server Error: FEUR Error |
| Example call | POST https://<server>/feur/convertFromPaToUbl  Content-Type: application/xml  Accept: application/xml;charset=UTF-8  Host: <server>  User-Agent: information about the agent who originates the request  <p:FatturaElettronica  xmlns:ds="http://www.w3.org/2000/09/xmldsig#"  xmlns:p="http://ivaservizi.agenziaentrate.gov.it/docs/xsd/fatture/v1.2"  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  versione="FPA12"  xsi:schemaLocation="  http://ivaservizi.agenziaentrate.gov.it/docs/xsd/fatture/v1.2 http://www.fatturapa.gov.it/export/fatturazione/sdi/fatturapa/v1.2/Schema\_del\_file\_xml\_FatturaPA\_versione\_1.2.xsd">  <FatturaElettronicaHeader>...</FatturaElettronicaHeader>  <FatturaElettronicaBody>...</FatturaElettronicaBody>  </p:FatturaElettronica>  HTTP/1.1 200 Created  Date: Mon, 12 Dec 2016 15:44:59 GMT  Server: information about the agent who originates the request  Location: *URL to find the order flow sent*  Content-Type: application/xml;charset=UTF-8  <Invoice xmlns:cbc="urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponents-2" xmlns:cac="urn:oasis:names:specification:ubl:schema:xsd:CommonAggregateComponents-2" xmlns="urn:oasis:names:specification:ubl:schema:xsd:Invoice-2">  <cbc:UBLVersionID>2.1</cbc:UBLVersionID> <cbc:CustomizationID>urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol4a:ver2.0</cbc:CustomizationID>  <cbc:ProfileID>urn:www.cenbii.eu:profile:bii04:ver2.0</cbc:ProfileID>  <cbc:ID>12345</cbc:ID>  <cbc:IssueDate>2012-11-21</cbc:IssueDate>  <cbc:InvoiceTypeCode listID="UNCL1001">380</cbc:InvoiceTypeCode>  <cbc:DocumentCurrencyCode listID="ISO4217">NOK</cbc:DocumentCurrencyCode>  ……  </Invoice> |

## Send to Infocamere Access Point Interface

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| --- | --- |
| Method | POST |
| URL | /feur/sendToAccessPoint/{XXXX}:{AAAAAAAA} |
| URL Parameter | Mandatory:  Partner Receiver Identification. Use the format XXXX:AAAAAAAA where:   * {XXXX} is the type of identifier (such as 9906 PIVA ITA) * {AAAAAAAA} the actual identifier (such as 11111111111 PIVA ITA) |
| Header Request | content-type:application/xml |
| Body Request | Peppol BIS3 Order UBL Format |
| Success Response | HTTP 200 |
| Header Response | content-type:application/json;charset=UTF-8 |
| Boby Response | {  “key”: “@XXXX@AAAAAAAA@YYYYY.xml”,  “status”: “OK”,  “message”: null  }  where {YYYYY} = system sequence unique of 5 chars |
| Error Response | All status codes defined by HTTP / 1.1 are possible, and in particular   * 500 Internal Server Error: FEUR Error   For HTTP 500 the body response contains:  {  “key”: “”,  “status”: “KO”,  “message”: “detail error”  } |
| Success Example Call | POST https://<server>/feur/sendToAccessPoint/9908:810418052  Content-Type: application/xml  Accept: application/json;charset=UTF-8  Host: <server>  User-Agent: information about the agent who originates the request  <Invoice xmlns:cbc="urn:oasis:names:specification:ubl:schema:xsd:CommonBasicComponents-2" xmlns:cac="urn:oasis:names:specification:ubl:schema:xsd:CommonAggregateComponents-2" xmlns="urn:oasis:names:specification:ubl:schema:xsd:Invoice-2">  <cbc:UBLVersionID>2.1</cbc:UBLVersionID> <cbc:CustomizationID>urn:www.cenbii.eu:transaction:biitrns010:ver2.0:extended:urn:www.peppol.eu:bis:peppol4a:ver2.0</cbc:CustomizationID>  <cbc:ProfileID>urn:www.cenbii.eu:profile:bii04:ver2.0</cbc:ProfileID>  <cbc:ID>12345</cbc:ID>  <cbc:IssueDate>2012-11-21</cbc:IssueDate>  <cbc:InvoiceTypeCode listID="UNCL1001">380</cbc:InvoiceTypeCode>  <cbc:DocumentCurrencyCode listID="ISO4217">NOK</cbc:DocumentCurrencyCode>  ……  </Invoice>  HTTP/1.1 200  Date: Mon, 12 Dec 2016 15:44:59 GMT  Server: information about the agent who originates the request  Location: *URL to find the order flow sent*  Content-Type: application/json;charset=UTF-8  {  "key": "@9908@810418052@UOGLG.xml",  "status": "OK",  "message": null  } |

# The FEUR Component

## SDI to PEPPOL Convert Component

The main purpose of the component is to make available to the Portal «Fattura elettronica – il servizio delle Camere di Commercio» a tool for converting the Italian eInvoice Format in Peppol BIS 3 Format.

The component performs a validation of the Italian format and then perform the conversion.

The component uses the libraries made available by Infocert (see WP4-D4.1) for the transformation.

## Send to Infocamere Access Point Component

The main purpose of this component is to create a proxy layer between the Portal «Fattura elettronica – il servizio delle Camere di Commercio» and the Infocamere Access Point to make the eInvoice files available to the Access Point to be sent to the recipients.

This component associates a filename to Invoice file received with a specific nomenclature that allows its following processing from the Access Point.

The nomenclature of the file name is as follows:

* Use Query String Parameter:
  + {XXXX} Agency Code in ISO15459 (such as 9906 PIVA ITA)
  + {AAAAAAAA} Receiver Participant identifier in Agency Code in ISO15459 (such as 11111111111 PIVA ITA)
* Nomenclature is:
  + “@<XXXX>” + “@< AAAAAAAA>” + “@<System unique key 5 alphanumeric chars>.xml”

The file is written to the outbound folder, **/nas\_int/var/opt/oxal/oxalis/oxalis-OUTBOUND/,** of the Infocamere Access Point to be sent. SBDH of the document to be sent is automatically generated by the Access Point. The Access Point reads the recipient identifier to the document filename.