Doffin Publication Service v3

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# Document history

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Date | Version | Comments |
| Abhiroop Gupta | 2016-02-25 | 0.1 | First draft |
| Madis Koosaar | 2016-10-25 | 0.2 | Updates in draft |
| Eduard Smirnov | 2017-05-24 | 0.3 | TED version update |

# Introduction

This document describes the Doffin Publication Service (DPS) version 3.

The purpose of the DPS is to enable third party procurement and publication systems (**dSenders**) to send their notices to Doffin, in order to get these notices published on the Doffin portal.

DPS will also forward and translate notices to Tenders Electronic Daily (**TED**). The notices that DPS V3 receives are based on TED Schema version 2.09.S02.

It is assumed the reader has detailed knowledge of the TED publication processes for notices, preferably the level of a TED eSender.

## Additional help

If the information supplied in this document is not sufficient for you there are several ways to contact Doffin support:

Email to the Doffin Servicedesk at doffin@eu-supply.com

*Note: a beta test environment will be made available for launching dSenders at https://epsapiv3-doffin.test.eu-supply.com. Contact EU-Supply for connection details and any further instructions for beta test environment.*

# Service API

The service is exposed as a RESTful [[1]](#footnote-1)web service API, implemented via ASP.NET web API, centred round the entity “Notice”. A notice is a Doffin publication form that is intended to be published or has already been published. The API can be used to publish, update, search and retrieve notices.

The service can receive and send messages in both XML and JSON formats. You choose the format to send or receive by specifying HTTP headers in your requests.

By using the header “Accept”, you specify which format to receive, see examples below:

Accept: application/xml

Accept: application/json

The content of the form are always XML-documents, the selection below is specifying how the data is serialized and sent to and from the server. The content is specified in the “Content-Type”

Content-Type: application/xml

Content-Type: application/json

## Connecting to the service

The service uses HTTPS + Basic authentication[[2]](#footnote-2) for authentication and authorization. Contact EU-Supply for SLA and get a login and password for your organization (one per integrator).

A beta test site is available for integration testing at <https://epsapiv3-doffin.test.eu-supply.com/help>. This site can be used both for implementing a client to the API and also for testing and validating of Doffin integration after go-live.

## Detailed API documentation

The API documentation can be accessed during testing on this URL: https:// epsapiv3-doffin.test.eu-supply.com/help, it will be an URL to the live site once in production. The documentation will describe each call with parameters and give examples of expected request and response-message formats, both for XML-serialized messages and JSON-messages.

The API has two entities, one for notices and one for translations, the notice entity is used for publishing and the translation can be used for allowing authorities to approve or disapprove a translation of a TED notice.

|  |  |
| --- | --- |
| **API** | **Description** |
| POST Doffin/validate | Validates the XML of a notice, which can be used for pre-validation before sending the notice |
| POST Doffin/notice | Submit a new notice to Doffin, it validates the received data and returns a Doffin reference number. The Doffin reference number should be saved by the integrator for later reference. |
| PUT Doffin/notice/{noticeId} | Updates an existing notice, updates can be done until the notice is fully published |
| GET Doffin/notice/{noticeId} | Returns approval and translation status of the notice |
| GET Doffin/notices/download/{when} | Returns a zipped file containing all published notices for the specified day |
| GET Doffin/translation/{noticeId} | Fetches a html of the translated notice |
| POST Doffin/translation/Approve | Approves a translated notice before forward to TED |
| POST Doffin/translation/Disapprove | Disapproves a translated notice before forward to TED |

## Example invocation using C#

The following code fetches information about a notice with a get-request.

using System;

using System.Net.Http;

using System.Net.Http.Headers;

using System.Text;

using System.Xml.Linq;

public class SimpleRestClient

{

public void FetchANotice()

{

var client = new HttpClient();

client.DefaultRequestHeaders.Authorization = CreateBasicHeader("USER", "PASS");

client.DefaultRequestHeaders.Accept.Add(

new MediaTypeWithQualityHeaderValue("application/xml"));

var task = client.GetStreamAsync("http://XYZ/Doffin/notice/2013-1234567");

task.Wait();

using (var stream = task.Result)

{

var xdoc = XDocument.Load(stream);

// XML document fetched, do something with it

Console.Out.WriteLine(xdoc);

}

}

private static AuthenticationHeaderValue CreateBasicHeader(string username, string password)

{

var byteArray = Encoding.UTF8.GetBytes(username + ":" + password);

return new AuthenticationHeaderValue("Basic", Convert.ToBase64String(byteArray));

}

}

# Forms

The Doffin publication forms are based on the TED Forms and schema, currently TED version 2.0.9. S02.

Minimal changes have been done from the TED schema. If it is not mentioned specifically in this document, the forms should behave exactly the same.

As a TED eSender you will be able to use your knowledge to generate valid the XML.

The full forms are divided into three parts root element, form section and Doffin appendix.

## Root element

The root-element for all forms has tag-name DOFFIN\_ESENDERS instead of TED\_ESENDERS, this root-element is common for all Doffin forms.

The root XSD document is DOFFIN\_ESENDERS.XSD. This XSD includes DOFFIN\_ESENDERS.XD, which in turn includes all the other XSD’s. The root-element is declared in the DOFFIN\_ESENDERS.XD, this file is a good starting point for navigating the XSD-structure.

*Note that it’s theoretically possible to validate a XML document with another root-element than DOFFIN\_ESENDERS, but it’s not allowed for the documents sent to Doffin. All documents sent to Doffin must have the correct, DOFFIN\_ESENDERS root-tag. All XSD files for separate forms have their own pseudo-root element, which can be useful to simplify internal testing.*

The root-elements has the following content:

<DOFFIN\_ESENDERS xsi:noNamespaceSchemaLocation="DOFFIN\_ESENDERS.xd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

## Defence and Security directive

Defence and Security directive forms F16, F17, F18 that were not updated by the new regulations will be valid against v2.0.8 version. Named forms need to be sent to DPS V2. Only F16, F17 and F18 are allowed to be sent to DPS V2. In this case amendment F14 need to be as well v208 compatible and sent to DPS V2.

Forms F08 and F15 under Defence and Security directive need to be sent to DPS V3. In this case amendment F14 need to be V209 compatible and sent to DPS V3.

## Form section

The form section is wrapping the TED schema and should be validated against the 2.0.9.S02 version of TED schemas.

There are also additional to-be-respected rules implemented from SIMAP, details of those can be found on CIRCA organization and there is also a copy in the online help.

## NUTS codes

All places containing Nuts code allow now to have choice between Nuts code OR Norwegian location. (For more details see schema). Object description element (*OBJECT\_DESCR*) allows now a combination of 20 nuts/location elements. Full list of location codes area available in the schema.

The list of allowed Nuts codes was changed in latest TED schema version 2.0.9. S02, however Doffin schema accepts both old and new Nuts codes. Old codes are automatically converted into new ones.

## Doffin Appendix

The DOFFIN\_APPENDIX section includes the fields which are required for Norwegian national publications, but not included in the TED forms, they are declared in the XSD file DOFFIN\_APPENDIX.XSD and have the following content.

|  |  |  |  |
| --- | --- | --- | --- |
| **XML Element** | **Description** | **Format** | **Occurrence** |
| AUTHORITY\_INVOICE | Section for invoicing information. Mandatory if publishing to TED and not pretranslated. |  | 0..1 |
| AUTHORITY\_INVOICE/AUTHORITY\_NAME |  |  | 1 |
| AUTHORITY\_INVOICE/INVOICE\_EMAIL | Email address to where the invoice for translations of TED notices should be sent. Mandatory to send in valid email, no invoices will be created for national notices. | A valid email address | 1 |
| AUTHORITY\_INVOICE/EINVOICE\_NR | Will be used for the EHF standard of invoicing. | free text field, limited to 128 characters. | 1 |
| AUTHORITY\_INVOICE/ATTENTION | Receiver (department/ human name) information |  | 1 |
| AUTHORITY\_INVOICE/ORGANISATION | Possibility to send the invoice to another organization than then one sending the notice. | 9 digits in the format “123 456 789” | 1 |
| AUTHORITY\_INVOICE/ADDRESS | Address |  | 1 |
| AUTHORITY\_INVOICE/POSTAL\_CODE | Postal code (“zip”) |  | 1 |
| AUTHORITY\_INVOICE/TOWN | Town |  | 1 |
| AUTHORITY\_INVOICE/COUNTRY | Country code, like “NO” for Norway. |  | 1 |
| AUTHORITY\_INVOICE/AUTHORITY\_REFERENCE | Container element for AUTHORITY\_REFERENCE  Should meet invoicing requirements of each customer’s respective accounting department. This cannot be skipped, an action must be taken to either provide a valid reference or to state “not applicable” |  | 1 |
| AUTHORITY\_INVOICE/AUTHORITY\_REFERENCE/REFERENCE\_NR |  |  | choice |
| AUTHORITY\_INVOICE/AUTHORITY\_REFERENCE/NOT\_APPLICABLE |  |  | choice |
| REFERENCE\_SECTION | Container element for a REFERENCE\_DOFFIN collection |  | 0..1 |
| REFERENCE\_SECTION/REFERENCE\_DOFFIN | A reference to another Notice, earlier sent to Doffin. Se detailed description of reference-handling below | A type enumeration, a possible date and the reference itself: year + seven digits, such as “2013-123456” | 0..1 |
| PUBLISH\_TO\_TED | Notice should also be published to TED. |  | 0..1 |
| EXPRESSION\_OF\_INTEREST\_URL | URL to express an interest to current publication | URL | 0..1 |
| URL\_DOCUMENT | URL to access the procurement documents. The value of this element is used when URL cannot be defined in section I.3 | URL | 0..1 |

### Authority invoice

The authority invoice section is used in the appendix for holding Invoicing related information when Doffin translates notice for you (and your clients).

### Notice references

The reference section used in the appendix for holding references to other notices on Doffin. If a notice is published to TED, the references to the proper TED publication should be specified in the Forms section (see TED documentation).

Rules for which references are allowed are assumed to be handled within the integrator system, no validation in the DPS are made to ensure the rules of proper references are used. The validations are limited to ensure the referred notice exists.

## Publish to TED

If a notice is marked to be published to TED, Doffin will forward the notice to TED, as an integrator you do not need to be TED eSender all publications to TED are made using the Service provider’s eSender-id.

Notices on TED cannot be in Norwegian, they have to be in English (or any other EU membership language). Doffin gives the option to translate the notice by yourself or let Doffin do the translation for TED notices.

### Doffin translates

If Doffin should translate the notice for you (and your clients), it is required to send in only one <FORM\_SECTION> without any special tags or descriptions, the LG attribute should NB as described the previous chapters.

When the notice is translated the client has the possibility to approve the translation, the notice will be automatically approved for translation and dispatched to TED after 24 hours. The state of a notice that is pending for customer approving is “AuthTranslationApproving”, see the online documentation for details on how to fetch a translated notice and Approve or Disapprove the translation.

It is required to fill in invoicing information for those notices that should be translated by Doffin. Doffin will invoice based on the invoicing information sent in the Doffin appendix.

### Send translated notice

If you (or your client) would like to translate the notice themselves you also have to send the Norwegian notice (for publication to Doffin) and a translated version (for publication to TED). The translated notice have to be sent in the same post with the two notices in the <FORM\_F\*>. See example below for a Contract Notice.

|  |
| --- |
| <DOFFIN\_ESENDERS xsi:noNamespaceSchemaLocation="DOFFIN\_ESENDERS.xd" xmlns:xsi="<http://www.w3.org/2001/XMLSchema-instance>">                  <FORM\_SECTION>                          <F02\_2014 FORM="F02" CATEGORY="ORIGINAL" LG="NB"> {……..}  </ F02\_2014 >                          <F02\_2014 FORM="F02" CATEGORY="ORIGINAL" LG="EN"> {……..}   </ F02\_2014 >                  </FORM\_SECTION>                  <DOFFIN\_APPENDIX>  {……..}  </DOFFIN\_APPENDIX>  </DOFFIN\_ESENDERS> |
|  |

The LG-value of the translated version have to EN, currently Doffin only supports translations to English for TED notices.

## Differences from TED schemas

### Common.xsd

Languages section is specified exactly as for TED schemas, there are one additional attribute added, languages\_limited.

<xs:simpleType name="languages\_limited">

<xs:restriction base="xs:NMTOKEN">

<xs:enumeration value="NB"/>

<xs:enumeration value="EN"/>

</xs:restriction>

</xs:simpleType>

The languages\_limited are validating the LG attribute in FORM\_SECTION. Languages are validating the <LANGUAGE> within the form according to the same rules for TED.

## Example

Following is a mocked Doffin Form 2 with all relevant sections, but faked data. It is valid XSD-wise, but not content-wise.

|  |
| --- |
| <DOFFIN\_ESENDERS xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="DOFFIN\_ESENDERS.xd" VERSION="V3.0.1">  <FORM\_SECTION>  <F02\_2014 FORM="F02" CATEGORY="ORIGINAL" LG="NB">  <CONTRACTING\_BODY>  <ADDRESS\_CONTRACTING\_BODY>  <OFFICIALNAME>Smirnov-Buyer</OFFICIALNAME>  <NATIONALID>911 680 491</NATIONALID>  <ADDRESS>Address 1</ADDRESS>  <TOWN>Tallinn</TOWN>  <POSTAL\_CODE>13913</POSTAL\_CODE>  <COUNTRY VALUE="EE" />  <CONTACT\_POINT>Eduard Contact Smirnov Person</CONTACT\_POINT>  <PHONE>+372 55577942</PHONE>  <E\_MAIL>Eduard.Smirnov.Contact.Person@eu-supply.com</E\_MAIL>  <NUTS CODE="EE" />  <URL\_GENERAL>http://linnamuuseum.ee</URL\_GENERAL>  <URL\_BUYER>https://dev.eu-supply.com/ctm/Supplier/CompanyInformation/Index/8764</URL\_BUYER>  </ADDRESS\_CONTRACTING\_BODY>  <DOCUMENT\_FULL />  <URL\_DOCUMENT>http://www.ww/3</URL\_DOCUMENT>  <ADDRESS\_FURTHER\_INFO\_IDEM />  <ADDRESS\_PARTICIPATION\_IDEM />  <CA\_TYPE VALUE="MINISTRY" />  <CA\_ACTIVITY VALUE="GENERAL\_PUBLIC\_SERVICES" />  </CONTRACTING\_BODY>  <OBJECT\_CONTRACT>  <TITLE>  <P>Contract title</P>  </TITLE>  <CPV\_MAIN>  <CPV\_CODE CODE="03000000" />  </CPV\_MAIN>  <TYPE\_CONTRACT CTYPE="WORKS" />  <SHORT\_DESCR>  <P>werwrw</P>  </SHORT\_DESCR>  <NO\_LOT\_DIVISION />  <OBJECT\_DESCR ITEM="1">  <CPV\_ADDITIONAL>  <CPV\_CODE CODE="03000000" />  </CPV\_ADDITIONAL>  <LOCATION CODE="010101" />  <SHORT\_DESCR>  <P>werwerwr</P>  </SHORT\_DESCR>  <AC\_PROCUREMENT\_DOC />  <VAL\_OBJECT CURRENCY="CHF">4324.00</VAL\_OBJECT>  <DURATION TYPE="MONTH">34</DURATION>  <NO\_RENEWAL />  <NO\_ACCEPTED\_VARIANTS />  <NO\_OPTIONS />  <NO\_EU\_PROGR\_RELATED />  </OBJECT\_DESCR>  </OBJECT\_CONTRACT>  <LEFTI />  <PROCEDURE>  <PT\_OPEN />  <NO\_CONTRACT\_COVERED\_GPA />  <DATE\_RECEIPT\_TENDERS>2015-11-27</DATE\_RECEIPT\_TENDERS>  <TIME\_RECEIPT\_TENDERS>12:00</TIME\_RECEIPT\_TENDERS>  <LANGUAGES>  <LANGUAGE VALUE="BR" />  </LANGUAGES>  <OPENING\_CONDITION>  <DATE\_OPENING\_TENDERS>2015-11-30</DATE\_OPENING\_TENDERS>  <TIME\_OPENING\_TENDERS>1:00</TIME\_OPENING\_TENDERS>  </OPENING\_CONDITION>  </PROCEDURE>  <COMPLEMENTARY\_INFO>  <NO\_RECURRENT\_PROCUREMENT />  <ADDRESS\_REVIEW\_BODY>  <OFFICIALNAME>3242</OFFICIALNAME>  <TOWN>32432</TOWN>  <COUNTRY VALUE="FI" />  <E\_MAIL>mm@mm.ee</E\_MAIL>  </ADDRESS\_REVIEW\_BODY>  <DATE\_DISPATCH\_NOTICE>2015-11-11</DATE\_DISPATCH\_NOTICE>  </COMPLEMENTARY\_INFO>  </F02\_2014>  </FORM\_SECTION>   <DOFFIN\_APPENDIX>      <AUTHORITY\_INVOICE>        <AUTHORITY\_NAME>werwer</AUTHORITY\_NAME>        <INVOICE\_EMAIL> mm@mm.ee </INVOICE\_EMAIL>        <EINVOICE\_NR>1234</EINVOICE\_NR>        <ATTENTION>werwer</ATTENTION>        <ORGANISATION>12342123</ORGANISATION>        <ADDRESS>werwer</ADDRESS>        <POSTAL\_CODE>12452</POSTAL\_CODE>        <TOWN>Stockholm</TOWN>        <COUNTRY VALUE="NO"></COUNTRY>        <AUTHORITY\_REFERENCE>          <REFERENCE\_NR>reference1234</REFERENCE\_NR>          <!--<NOT\_APPLICABLE></NOT\_APPLICABLE>-->        </AUTHORITY\_REFERENCE>      </AUTHORITY\_INVOICE>      <REFERENCE\_SECTION>        <REFERENCE\_DOFFIN>  2000-000000  </REFERENCE\_DOFFIN>      </REFERENCE\_SECTION>      <PUBLISH\_TO\_TED/>    </DOFFIN\_APPENDIX>  </DOFFIN\_ESENDERS> |

1. See <http://en.wikipedia.org/wiki/Representational_state_transfer> [↑](#footnote-ref-1)
2. See <http://www.ietf.org/rfc/rfc2617.txt> [↑](#footnote-ref-2)