



**NEM**HANDEL

## **OIORASP .NET - Release Notes**

Danish Business Authority

Version 3.0.0.0.72629c00b7449a831cb7a27f9366e6a7b022101f

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# 1. Introduction

The OIORASP Library for .Net is a C#/DotNet based toolkit for implementation of OIORASP business applications.

This distribution is version 3.0.0.0.72629c00b7449a831cb7a27f9366e6a7b022101f

The distribution is part of the OIORASP work for exchanging business documents in a secure and reliable way using the internet. See <https://nemhandel.dk/netvaerk-og-standarder> for more information.

The framework can be downloaded from <https://www.digitaliser.dk/group/405467/resources> or <https://nemhandel.dk/opdateringer-releases>

## 2. Release content

This release comprises the following deliverables:

- dk.gov.oiosi.library.sln Visual Studio 2019 solution

*Documentation:*

- OIORASP Library for .NET Release Notes.pdf (this document)
- OIORASP Library for .NET Installation Guide.pdf
- OIORASP Library for .NET Tutorials.pdf

*Samples*

- dk.gov.oiosi.samples.TestCertificate Test certificates using OIORASP
- dk.gov.oiosi.samples.httpEndpointExample Deployable test endpoint
- dk.gov.oiosi.samples.ClientExample A client example that can send a document
- dk.gov.oiosi.samples.consolesClientExample A console client, use to send a user specific document

*For testing (as sub-components of the RaspClientTests solution file):*

- dk.gov.oiosi.test.request Sending test project
- dk.gov.oiosi.test.extendedRequest Uddi, ldap and oasp test project
- dk.gov.oiosi.test.nunit.library Nunit test project
- dk.gov.oiosi.test.nunit.interop Nunit interoperability test project
- dk.gov.oiosi.integration Nunit integration tests

## 3. What is changed?



In the following part of the document, some issue numbers are mentioned these numbers are internal numbers used by the Erhvervsstyrelsen (Danish Business Authority), so please ignore these as external developer.

## 3.1. OIORASP version 3.0.0

### 3.1.1. New features

- Configure the timeout for NHR UDDI requests.

### 3.1.2. Fixes

*none*

### 3.1.3. Changes

*Related to support for MitID (NH-675)*

- The OIORASP .NET library is now compiled using .NET 4.6.2 (Previous 3.5).
- RaspConfiguration has been updated.
- Structure for LdapSettings in RaspConfiguration.xml is updated to be able to add new LDAP host for MitID certificates (NH-676).
- Element `SearchClientTimeoutMsec` in LdapSettings in RaspConfiguration.xml is renamed to `SocketTimeoutMsec`.
- BouncyCastle library has been updated to version 1.89 (from 1.81).

*Other*

- Saxon-HE library has been updated to version 10.3 (from 9) (NH-851).
- Improved error codes/messages (NH-802)
- RaspConfiguration has been split into two different documents:
  - RaspConfiguration (default) which contains OIOUBL and NKS document types.
  - RaspConfiguration\_Extended which contains OIOUBL, NKS and Peppol document types.

### 3.1.4. Removals

- From ConfigurationSection `LdapSettings`, then elements `MaxResults` and `SearchServerTimeoutMsec` has been removed. This element is legacy and has not been used in several releases. If multiple results are found in LDAP response, then code cannot decide which to use, so exactly one result is the only solution.
- From ConfigurationSection `UddiConfig`, then element `FallbackTimeoutMinutes` has been removed. This element is legacy and has not been used in several releases [NH-793].
- From ConfigurationSection `OcesX509CertificateConfig`, then elements `PersonalCertificateSubjectKey` and `EmployeeCertificateSubjectKey` has been removed.
- Mappings in RaspConfiguration is now obsolete. See OIORASP\_Library\_RaspConfiguration.adoc for details.

### 3.1.5. How to upgrade

How to upgrade project from OIORASP .NET 2.1.X to version 3.0.0.



The guide might not be 100% accurate, depending on your use of the library! Some steps might be unnecessary in your setup, and others might be as detailed as need in your setup!

Steps:

1. Download new release from <https://www.digitaliser.dk/group/405467/resources> or <https://nemhandel.dk/opdateringer-releases>
2. File changes:
  - Replace your old .dll files with the new .dll and .config files (From the zip-folder: dk.gov.oiosi-bin-3.0.0.72629c00b7449a831cb7a27f9366e6a7b022101f.zip).
3. Updated dependencies (Most external dependencies are now handled with Nuget, and can be found in the src.zip in the .packages folder):
  - Saxon-HE from 9 to 10.3
  - BouncyCastle from 1.81 to 1.89
  - Log4Net from 1.2.12 to 2.0.12 (See 2.1.1 Log4Net Hotfix)
4. RaspConfiguration.xml must be updated!
  - See [Section 3.1.6, “Configuration”](#) section.

That should be it...!

If you meet problems, that should be included in this guide, please post your comments to the following email address: [support@nemhandel.dk](mailto:support@nemhandel.dk)

### 3.1.6. Configuration

#### 3.1.6.1. RaspConfiguration.xml (OIORASP 3.0.0)

##### 3.1.6.1.1. Changes from 2.1.0 to 3.0.0

As OIORASP version 3.0.0 is not backwards compatible with earlier versions of OIORASP, the legacy mappings for 2.0.1 backwards compatibility has now been removed.

The RaspConfiguration has been split into two versions. A default containing the OIOUBL document types, and an extended version with both OIOUBL and Peppol document types.

File name	Document types
-----------	----------------

RaspConfiguration

Faktura v0.7  
Kreditnota v0.7  
Applikationsmeddelelse  
Katalog  
Katalogforespørgsel  
Opdatering af katalogelement  
Opdatering af katalogpriser  
Sletning af katalog  
Kreditnota  
Faktura  
Ordre  
Ordreannullering  
Ordrebekræftelse  
Ordreændring  
Simpel ordrebekræftelse  
Rykker  
Kontoudtog  
Forsyningsspecifikation  
Forsendelsesadvis  
NKS Betalings Ordre  
NKS Kvittering 0  
NKS Kvittering 1  
NKS Retursvar 2  
NKS Retursvar 5  
NKS Retursvar 7  
NKS Retursvar 8  
NKS Retursvar 9  
NKS PU Request  
NKS PU Response

RaspConfiguration_Extended	Faktura v0.7 Kreditnota v0.7 Applikationsmeddelelse Katalog Katalogforespørgsel Opdatering af katalogelement Opdatering af katalogpriser Sletning af katalog Kreditnota Faktura Ordre Ordreannullering Ordrebekræftelse Ordreændring Simpel ordrebekræftelse Rykker Kontoudtog Forsyningsspecifikation Forsendelsesadvis NKS Betalings Ordre NKS Kvittering 0 NKS Kvittering 1 NKS Retursvar 2 NKS Retursvar 5 NKS Retursvar 7 NKS Retursvar 8 NKS Retursvar 9 NKS PU Request NKS PU Response <b>Katalog (Peppol)</b> <b>Applikationsmeddelelse (Peppol)</b> <b>Kreditnota (Peppol)</b> <b>Faktura (Peppol)</b> <b>Ordre (Peppol)</b> <b>Faktura (Peppol BIS Billing)</b>
----------------------------	---

*DocumentTypeConfig (Removed mappings example)*

```

<DocumentTypeConfig>
  <Id>5a15a880-eef8-40c0-80f2-bb65226f50c2</Id>
  <FriendlyName>Faktura v0.7</FriendlyName>
  <RootNamespace>http://rep.oio.dk/ubl/xml/schemas/0p71/pie/</RootNamespace>
  <RootName>Invoice</RootName>
  <IdentifierDiscriminators />
  <ServiceContractTModel>uddi:bc99bb01-80f9-4f52-89dc-
edf7732c56f9</ServiceContractTModel>
  <SchemaPath>Resources/Schemas/OIOXML_v0.7/pieStrict.xsd</SchemaPath>
  <StylesheetPath>Resources/UI/OIOXML_v0.7/StyleSheets/html.xsl</StylesheetPath>
  <Namespaces>
    <PrefixedNamespace>
      <Namespace>http://rep.oio.dk/ubl/xml/schemas/0p71/common/</Namespace>
      <Prefix>com</Prefix>
    </PrefixedNamespace>
    <PrefixedNamespace>
      <Namespace>http://rep.oio.dk/ubl/xml/schemas/0p71/maindoc/</Namespace>

```

```

    <Prefix>main</Prefix>
  </PrefixedNamespace>
  <PrefixedNamespace>
    <Namespace>http://rep.oio.dk/ubl/xml/schemas/0p71/pie/</Namespace>
    <Prefix>root</Prefix>
  </PrefixedNamespace>
</Namespaces>
<EndpointType>

<RequestAction>http://rep.oio.dk/oiosi.ehandel.gov.dk/xml/schemas/2007/09/01/Invoice07Interface/SubmitInvoice07Request</RequestAction>

<ReplyAction>http://rep.oio.dk/oiosi.ehandel.gov.dk/xml/schemas/2007/09/01/Invoice07Interface/SubmitInvoice07Response</ReplyAction>
  <EndpointFriendlyName>
    <XPath>/root:Invoice/com:BuyerParty/com:PartyName[count(..../com:BuyerParty)=1 or translate(..com:Address/com:ID, 'FAKTUREING', 'faktureing')='faktura' or translate(..com:Address/com:ID, 'FAKTUREING', 'faktureing')='fakturering']/com:Name</XPath>
  </EndpointFriendlyName>
  <SenderFriendlyName>
    <XPath>/root:Invoice/com:SellerParty/com:PartyName/com:Name</XPath>
  </SenderFriendlyName>
  <Key>
    <XPath>/root:Invoice/com:BuyersReferenceID</XPath>
    <MappingExpressions>
      <KeyTypeMappingExpressions>
        <Name>EndpointKeyType</Name>
    </KeyTypeMappingExpressions>
  </MappingExpressions>
  <XPathExpression>/root:Invoice/com:BuyersReferenceID/@schemeID</XPathExpression>
    <Mappings>
      <!-- Can be removed entirely -->
    </Mappings>
  </KeyTypeMappingExpressions>
</MappingExpressions>
</Key>
  <SenderKey>
    <XPath>/root:Invoice/com:SellerParty/com:ID</XPath>
    <MappingExpressions>
      <KeyTypeMappingExpressions>
        <Name>EndpointKeyType</Name>
    </KeyTypeMappingExpressions>
  </MappingExpressions>
</SenderKey>
</EndpointType>
<XsltTransformStylesheetPath />
<SchematronValidationConfigs>
  <SchematronValidationConfig>

<SchematronDocumentPath>Resources/Schematrons/OIOXML_v0.7/ublinvoice.xsl</SchematronDocumentPath>
  <ErrorXPath>/schematron/error</ErrorXPath>
  <ErrorMessageXPath>/schematron/error</ErrorMessageXPath>
</SchematronValidationConfig>
</SchematronValidationConfigs>
<CustomHeaderConfiguration>
  <XPaths />
</CustomHeaderConfiguration>
<ProfileIdXPath>

```



```

    <XPath>string('OIOXML elektronisk handel')</XPath>
  </ProfileIdXPath>
  <DocumentIdXPath>
    <XPath>/root:Invoice/com:ID</XPath>
  </DocumentIdXPath>
</DocumentTypeConfig>

```

### 3.1.6.2. Mappings removal

In OIORASP version 2.1.X a few mappings was needed for backwards compatibility.

```

<Mappings>
  <!-- For backward compatibility when sending to OIORASP Java 2.0.x endpoints, 3 old
  mappings are essential to keep in relation to OIOUBL -->
  <Mapping>
    <Value>GLN</Value>
    <MapsTo>ean</MapsTo>
  </Mapping>
  <Mapping>
    <Value>DK:CVR</Value>
    <MapsTo>cvr</MapsTo>
  </Mapping>
  <Mapping>
    <Value>DK:CPR</Value>
    <MapsTo>cpr</MapsTo>
  </Mapping>
</Mappings>

```

These mappings can from 3.0.0 be removed entirely.

```

<Mappings>
  <!-- Mappings obsolete in 3.0.0 -->
</Mappings>

```

### 3.1.6.3. Timeout for NHR UDDI requests

The timeout value for NHR UDDI requests can be configured in the RaspConfiguration.xml file, by adding the new element `UddiLookupTimeoutSeconds` inside each `Registry` segment in the ConfigurationSection `UddiConfig`:

```

  <Registry>
    <UddiLookupTimeoutSeconds>30</UddiLookupTimeoutSeconds> ①
    <EndpointCollection>
      <Endpoint>http://discoverypublic.nemhandel.dk/uddi/services/inquiry</Endpoint>
      <Endpoint>http://discoverybackup.nemhandel-
      backup.dk/uddi/services/inquiry</Endpoint>
    </EndpointCollection>
  </Registry>

```

① The new element.

If element is not present, a default value of 120 seconds is used.

### 3.1.6.4. LdapSettings

New host and port elements are required for the MitID LDAP server, and it is required to be able to distinguish between NemID and MitID LDAP hosts.

The current ConfigurationSection `LdapSettings` needs to be restructured to the following syntax:

```
<ConfigurationSection xsi:type="LdapSettings">
  <CertificateInfrastructure id="NemID"> ①
    <Host>crtdir.certifikat.dk</Host>
    <Port>389</Port>
  </CertificateInfrastructure>
  <CertificateInfrastructure id="MitID"> ①
    <Host>ldap.ca1.gov.dk</Host>
    <Port>389</Port>
  </CertificateInfrastructure>
  <ConnectionTimeoutMsec>5000</ConnectionTimeoutMsec> ②
  <SocketTimeoutMsec>5000</SocketTimeoutMsec>
</ConfigurationSection>
```

- ① The host and port elements must be wrapped in a `CertificateInfrastructure` element holding the id value `NemID` or `MitID`.
- ② The timeout values are configured globally for both LDAP hosts/Certificate Infrastructures.

Both `CertificateInfrastructure` elements are mandatory.

### 3.1.6.5. Root certificates

The keystore containing root certificates (see ConfigurationSection `RootCertificateCollectionConfig`) must be updated: Add the new MitID root certificate as a new `RootCertificateLocation`.

```
<RootCertificateLocation>
  <StoreLocation>LocalMachine</StoreLocation>
  <StoreName>Root</StoreName>
  <SerialNumber>CERTIFICATE-SERIALNUMBER</SerialNumber>
  <Description>CERTIFICATE-NAME/DESCRIPTION</Description>
</RootCertificateLocation>
```

Remember to change `StoreLocation` and `StoreName` - depending on where you store your certificates in the Windows certificate store.

The new MitID root certificates can be downloaded here:

- PROD: <http://ca1.gov.dk/oces/root/cacert/root.cer> (not active until Q4 2021)
- TEST: <http://ca1.cti-gov.dk/oces/root/cacert/root.cer>

## 3.2. RASP version 2.1.1

Main purposes of this release have been:

- Make patch for NemHandel Referenceklient to avoid program stop on 2 Trust2408 root certs in Windows cert. store.

### 3.2.1. New features

*None*

### 3.2.2. Fixes

*None*

### 3.2.3. Changes

- Update `CertificateLoader.GetCertificateFromStore` to avoid `CertificateLoaderMultipleCertificatesFoundException()` based on more than one found cert (issue 1961).

### 3.2.4. Removals

*None*

## 3.3. RASP version 2.1.0

Main purposes of this release have been: \* Update code to enable PEPPOL BIS documents in Danish Nemhandel.

### 3.3.1. New features

- Support multiple schematron validations per document type.
- Send document, having a Sender part with other KeyType than the valid Danish receiver KeyTypes.
- XPath parsing of values in RaspConfiguration has been updated, so it's possible to set a fixed value instead of an xpath – eg. `string('EAN')`.
- RaspConfiguration: It now possible to set an empty string as value for `<SchemaPath>` to disable Schema validation for a single document type.
- Support schematron styling using XSLT version 2.0 (Peppol schematrons), by using IKWM and Saxon.

### 3.3.2. Fixes

- Minor memory improvement (release resource after use).

### 3.3.3. Changes

- Minor restricting of internal functionality
- BouncyCastle.Crypto.dll has been updated from version 1.7 to version 1.8.
- dk.gov.oiosi.xml.dll has been removed, as it was not used.
- Add several new required libraries (IKWM and saxon) for the XSLT version 2.0 styling.

### 3.3.4. Removals

- Functionality and classes that convert and KeyType to a specific Identifier implementation, using the enum EndpointKeyTypeCode.
- Removed lesnikowskiMailProvider and some code around mail sending and receiving.
- Removed invalid and not used enum EndpointAddressTypeCode values.

## 4. Compatibility

This OIORASP 3.0.0.0.72629c00b7449a831cb7a27f9366e6a7b022101f release has been tested OK with OIORASP 2.1.x for both Java and .NET when running with Foces2 certificates on both sender and receiver side.

## 5. Known issues

Calling Abort() on the request may occasionally crash if one tries to update configuration or shut down the application during sending. This is due to a bug in the WCF WS-RM implementation that Microsoft has recognized. [as reported: <http://forums.microsoft.com/MSDN/ShowPost.aspx?PostID=2189376&SiteID=1>]

Processing large sized documents will consume large size of RAM and CPU. The OIORASP library itself, should no longer be the obstacle for sending and handling large files, but the hardware must be well-equipped, as well as internet connection speed between sender and receiver

## 6. Licenses

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 *
 *
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 *
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