



NEMHANDEL

OIORASP Java - Release Notes

Danish Business Authority

Version 3.0.0

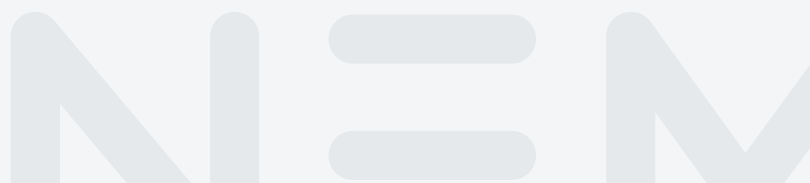


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1. Introduction

The OIORASP Library for Java is a Java based toolkit for implementation of OIORASP business applications.

This distribution is version 3.0.0

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

The framework can be downloaded from <http://digitaliser.dk/group/405442/resources> or <https://nemhandel.dk/opdateringer-releases>

2. Release Content

This release comprises the following artifacts:

Documentation:

- OIORASP_Java_ReleaseNotes.pdf (this document)
- OIORASP_Java_InstallationGuide.pdf
- OIORASP_Java_Tutorials.pdf

Samples in GIT repository: <https://rep.erst.dk/git/openebusiness/library/java/-/tree/master/dk.gov.oiosi.examples.client> :

- dk.firma.klient.webservice.TestCertificate Test certificates using RASP functionality
- dk.firma.klient.webservice.OiosiRaspClient Send a test document
- dk.firma.klient.webservice.TestUddiLookup Test UDDI lookup

Source code and binary release (jar file).

3. What is changed?

In the following part of the document, some issue numbers are mentioned. These numbers are internal numbers used by Nemhandel and 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

- Fix bug related to timeout settings for LDAP-client [NH-675].

3.1.3. Changes

Related to support for MitId (NH-675)

- The OIORASP Java library is now compiled using Java 8 (previous Java 6).
- Structure for LdapSettings in RaspConfiguration.xml is updated to be able to add new LDAP host for MitID certificates (NH-675).
- RaspConfiguration has been updated
- Element `SearchClientTimeoutMsec` in LdapSettings in RaspConfiguration.xml is renamed to `SocketTimeoutMsec`.
- BouncyCastle library has been updated to version 1.68 (from 1.47) (NH-757).

Other

- Saxon-HE library has been updated to version 10.3 (from 9) (NH-851).
- Improved error codes/messages (NH-801)
- Log4j library has been updated to version 2.14.1 (from 1.2.17).
- RaspConfiguration has been split into two different versions:
 - 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.
- Class `EndpointAddressHttp` has been merged into the parent class `EndpointAddress`.

3.1.5. How to upgrade

How to upgrade project from OIORASP Java 2.1.0 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://digitaliser.dk/group/405442/resources> or <https://nemhandel.dk/opdateringer-releases>
2. File changes:
 - Replace your old JAR file with the new (dk.gov.oiosi.library-3.0.0.75988d3a.jar)
 - Replace BouncyCastle library files with new files version 1.68.jar
 - Replace Saxon library file with new version (net.sf.saxon-Saxon-HE-10.3.jar).
 - Replace log4j library files with new files (eg. log4j-core-2.14.1.jar + log4j-api-2.14.1.jar + log4j-jcl-2.14.1.jar).
 - Migrate your current log4j.xml configuration to log4j2.xml format (see <http://logging.apache.org/log4j/2.x/manual/migration.html> section "Configuring Log4j 2").
 - In general the dependencies for OIORASP can be found in IVY-format in the file: <https://rep.erst.dk/git/openebusiness/library/java/-/blob/master/dk.gov.oiosi.library/ivy.xml>
3. 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

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 Katalog (Peppol) Applikationsmeddelelse (Peppol) Kreditnota (Peppol) Faktura (Peppol) Ordre (Peppol) Faktura (Peppol BIS Billing)
----------------------------	---

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>
  <XPathExpression>/root:Invoice/com:SellerParty/com:ID/@schemeID</XPathExpression>
    <Mappings>
      <!-- Can be removed entirely -->
    </Mappings>
  </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 RASP 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 be removed entirely from version 3.0.0.

```

<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`:

```

<ConfigurationSection xsi:type="UddiConfig">
  <LookupRegistryFallbackConfig>
    <PrioritizedRegistryList>
      <Registry>
        <UddiLookupTimeoutSeconds>30</UddiLookupTimeoutSeconds>
        <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"> -
    <Host>crtdir.certifikat.dk</Host>
    <Port>389</Port>
  </CertificateInfrastructure>
  <CertificateInfrastructure id="MitID"> -
    <Host>ldap.cal.gov.dk</Host>
    <Port>389</Port>
  </CertificateInfrastructure>
  <ConnectionTimeoutMsec>5000</ConnectionTimeoutMsec> -
  <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 to the keystore.

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>

Remember the label/prefix used in the keystore (defined using `KeyLabel`).

3.2. RASP version 2.1.0

Main purposes of this release have been:

- Update code to enable Peppol BIS documents in Danish Nemhandel.

3.2.1. New features

- Support multiple schematron validations per document type.
- It is now possible to send a document, having a Sender part with other KeyType than the valid Danish receiver KeyTypes (to support Peppol received documents, having e.g. a

SE:ORGNO as sender keyType).

- ConfigurationHandler#initEnvironment now check for presence of JCE.
- 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.
- saxon9he.jar must be added to project to be able to schematron validate Peppol files (because it uses XSLT 2).

3.2.2. Fixes

- SchematronValidatorSAXHandlerConfig has been updated to allow dash (-) as part of an xpath (needed for DespatchAdvice xpath).
- An active UddiLookupResponse from NHR, having an expireTime later same date, was interpreted as expired [1530].
- Minor fixes to logging and internal calls.

3.2.3. Changes

- Misc. renaming of internal calls.
- In constructors for LookupParameters the acceptedTransportProtocols part can now be Null.
- In RaspConfiguration.xml it was previous the value in `//DocumentTypeConfig/EndpointType/ProfileIdXPath` that was used in RASP Java. This has been streamlined with .NET, so from now, the value must be located in `//DocumentTypeConfig/ProfileIdXPath`

3.2.4. Removals

- Classes removed: ITimedCache, CertificateChecker, QuantityCache (deprecated since 1.3.0).
- Other deprecated methods removed.
- Removal of unused Exception classes.
- Useless EndpointAddressTypeCode removed (https, email, other) [1348].
- Unused property UddiLookupResponse.termsOfUseUrl removed.
- Identifier subclasses removed, and main Identifier class refactored.
- Removed code internally for configuring mail/SMTP as transport.

3.2.5. How to upgrade

How to upgrade project from RASP Java 2.0.1 to version 2.1.0

This file should be seen as a guide for migrating own code to OIORASP library version 2.1.0

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://digitaliser.dk/group/405442/resources>
2. File changes:
 - Replace your old JAR file with the new (dk.gov.oiosi.library-2.1.0.xxxx.jar)
 - Remove smtpfault.mar
 - Replace rasp*.mar with rasp-2.1.0.mar
 - Add saxon9he.jar to project (to be able to work with xslt 2.0 files used in Peppol schematron files)
3. RaspConfiguration.xml must be updated! See RaspConfiguration-update-2.1.0.pdf
4. Code updates:

DocumentTypeConfig.getSchematronValidationConfig() is replaced by DocumentTypeConfig.getSchematronValidationConfigList() because Peppol documents has multiple schematron files.

Wrap your normal use of DocumentTypeConfig.getSchematronValidationConfig() with:

```
for (SchematronValidationConfig schematronValidationConfig :
documentTypeConfig.getSchematronValidationConfigList()) {
}
```

MissingCredentialsException and other Exceptions has been removed - please use other suitable exception.

Identifier.getKeyTypeValue() has been removed - please use Identifier.getType() now.

enum EndpointAddressTypeCode has been cleaned for unusable values (https, email, ftp and other)

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

3.2.6. NHR UDDI lookup URL's

The purpose of this update is to change the Discovery lookup URL's: * Main: Make the DiscoveryBackup host name lookup route more robust * Second: Phase out the binding to the gov.dk domain. It is recommended to make the change as soon as possible.

UddiConfig

In RaspConfiguration.xml, in the section identified by:

```
<ConfigurationSection
xsi:type="UddiConfig"/>/LookupRegistryFallbackConfig/PrioritizedRegistryList
today have values like:
```

```
<Registry>
  <EndpointCollection>

  <Endpoint>http://discoverypublic.uddi.ehandel.gov.dk/uddi/services/inquiry</Endpoint>

  <Endpoint>http://discoverybackup.uddi.ehandel.gov.dk/uddi/services/inquiry</Endpoint>
  </EndpointCollection>
</Registry>
```

These values must be updated to:

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

3.2.7. RASPConfiguration.xml update

The purpose of the RASP version 2.1.0 is to allow Peppol BIS documents to be exchanged via the Nemhandel infrastructure + remove trivial KeyType mappings.

DocumentType identification

Prior, a DocumentType was identified inside the <DocumentTypeConfig> using:

```
<RootNamespace>urn:oasis:names:specification:ubl:schema:xsd:Invoice-2</RootNamespace>
<RootName>Invoice</RootName>
<IdentifierDiscriminators>
  <XPathDiscriminatorConfig>
    <XPathExpression>/root:Invoice/cbc:CustomizationID</XPathExpression>
    <XPathExpectedResult>OIIOUBL-2.0(1|2)</XPathExpectedResult>
  </XPathDiscriminatorConfig>
</IdentifierDiscriminators>
```

By utilizing the existing <XPathDiscriminatorConfig>, it is possible to discriminate the OIOUBL Invoice from the Peppol BIS Invoice.

Schematron validation

Prior, RASP only supported one Schematron/XSLT file per DocumentType using:

In Peppol documents, multiple schematron files are provided per DocumentType.

This section must therefore now be wrapped in a container class called <SchematronValidationConfigs>:

```

<SchematronValidationConfigs>
  <SchematronValidationConfig>
    <SchematronDocumentPath>path/to/file/Schematron.xsl</SchematronDocumentPath>
    <ErrorXPath>/Schematron/Error</ErrorXPath>
    <ErrorMessageXPath>/Schematron/Error/Description</ErrorMessageXPath>
  </SchematronValidationConfig>
</SchematronValidationConfigs>

```

This allows for multiple <SchematronValidationConfig> elements. These elements are validated in the listed order.

KeyTypeMappingExpressions

The Identifier KeyType inside each DocumentTypeConfig is now directly supported in the NHR UDDI Inquiry interface.

Therefore many of the old mappings inside //MappingExpressions/KeyTypeMappingExpressions/Mappings can be removed. Examples of standard mappings that should be removed now:

```

<Mapping>
  <Value>ean</Value>
  <MapsTo>ean</MapsTo>
</Mapping>
<Mapping>
  <Value>cvr</Value>
  <MapsTo>cvr</MapsTo>
</Mapping>
<Mapping>
  <Value>IBAN</Value>
  <MapsTo>iban</MapsTo>
</Mapping>

```

For backward compatibility when sending to RASP Java 2.0.x endpoints, 6 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>
<Mapping>
  <Value>DK:P</Value>
  <MapsTo>p</MapsTo>
</Mapping>
<Mapping>
  <Value>DK:SE</Value>
  <MapsTo>se</MapsTo>
</Mapping>
<Mapping>
  <Value>DK:VANS</Value>
  <MapsTo>vans</MapsTo>
</Mapping>

```

In general, the exchanged KeyType value must be one of the following: EAN/GLN, DK:CVR, DK:SE, DK:VANS, DK:P, IBAN, DUNS and DK:CPR. Depending on exchanged document types, other mappings might be needed in customer specific setups.

4. System Requirements

See OIORASP_Java_InstallationGuide.adoc

5. Installation

See OIORASP_Java_InstallationGuide.adoc

6. Compatibility

This OIORASP 3.0.0 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.

7. Known issues

Processing large sized documents will consume large size of RAM and CPU. The RASP 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.

8. Licenses

Some source code is licensed under the Mozilla Public License Version 1.1. The used license is stated below.

```
/*
 * The contents of this file are subject to the Mozilla Public
 * License Version 1.1 (the "License"); you may not use this
 * file except in compliance with the License. You may obtain
 * a copy of the License at http://www.mozilla.org/MPL/
 *
 * Software distributed under the License is distributed on an
 * "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express
 * or implied. See the License for the specific language governing
 * rights and limitations under the License.
 *
 *
 * The Original Code is OIORASP Java toolkit.
 *
 * The Initial Developer of the Original Code is Lenio. Portions
 * created by Lenio are Copyright (C) 2007 Danish National IT and
 * Telecom Agency (http://www.digst.dk). All Rights Reserved.
 * */
```

Licenses for external dependencies distributed with the RASP library can be found under the /lib folder.