

***BOS-xchange 1.2***  
***Interfaces specifications***

## Document

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### Modifications

Version	Date	Description
0.1	21/11/2012	Initial Version
0.2	21/12/2012	Modify the definition of the InstanceID's value
1.0	21/12/2012	validated
1.1	18/12/2013	TXChange has been replaced by BOS-xchange
1.2	22/07/2014	BOS-xchange will send back signed document to the source

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- Draft: draft document
- Final: final version waiting validation
- Validated: approved by CIRB
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# 1 Introduction

## 1.1 Document description

This document describes BOS-xchange interfaces and how to integrate client Back Office to BOS-xchange 1.2.

## 1.2 Scope

### 1.2.1 Project description

BOS-xchange is a platform allowing « Region instances » to exchange and sign (EID) bundle of documents. This exchange can be automatic between Back Offices or manual through the BOS-xchange web interface.

### 1.2.2 Document goals

This document should describe BOS-xchange interfaces and how to integrate client Back Office to BOS-xchange 1.2.

## 1.3 References

Document name (+ <i>hyper-link</i> )	Description	Vs	Date	Writer

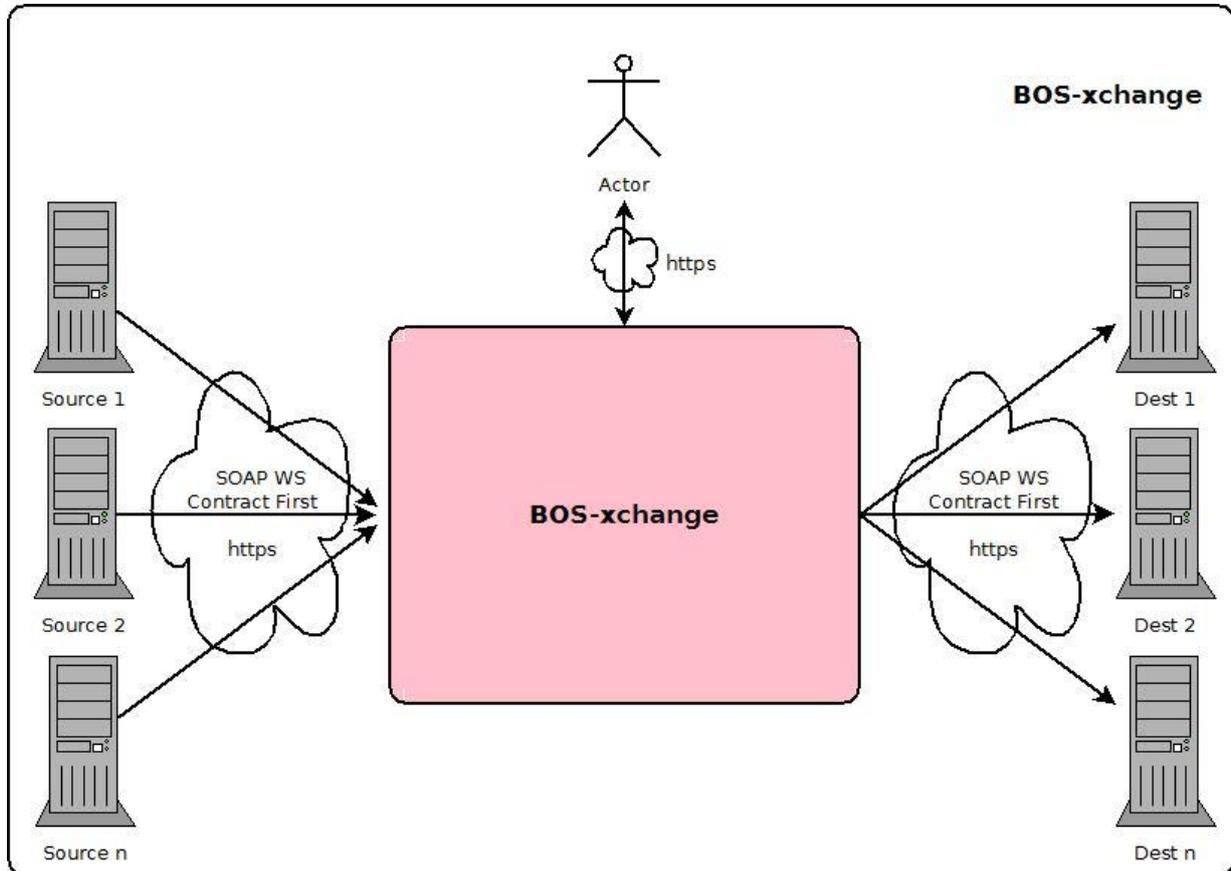
## 1.4 Keywords

APL	Administration des Pouvoirs Locaux
BSA	Berchem-Sainte-Agathe
CPASB	CPAS de Bruxelles
VBX	Ville de Bruxelles

## 2 Introduction

### 2.1 Global use case

Source Back Offices and destination Back Offices exchange bundle of document through BOS-xchange platform.



We can describe the process like:

1. One Source Back Office pushes a bundle of documents (one push for each document) on BOS-xchange.
2. Source actor (Role Creator) logs in on BOS-xchange platform, validates the bundle and sends it to signature.
3. One or two signer logs in on the platform and signs the bundle.
4. The signed bundle will be pushed to one or two destination Back Offices.
5. A notification with the sent date for each document will be pushed to the Source Back Office.

A destination can send a response document to the source. For response, the destination becomes a source and the source becomes a destination.

Each exchange is a push:

- Source pushes documents to BOS-xchange
- BOS-xchange pushes documents to Destination
- BOS-xchange pushes notifications to Source

This implies that each Back Office has to expose a web service with two methods:

- sendDocRequest : to receive documents
- sendNotifRequest : to receive notifications

The implementation of this web service is not supported by the CIRB. (Except for Back Offices maintained by the CIRB, e.g.: BOSecretariat)

## **2.2 *BOS-xchange Technologies***

BOS-xchange 1.2 is built on the Spring stack. Queuing is managed by a MOM (Message Oriented Middleware). Web services are using Spring WS with WSS4J. Documents are stored in an ECM (Enterprise Content Management) system.

Web services are synchronous, but the injection of documents in the application will be asynchronous.

## 3 Specifications

### 3.1 Overview

Protocol	https
Web service	SOAP 1.2
Encoding	UTF-8
Security	User/password (Digest method)
Encryption	No (https only)

### 3.2 One generic Web Service

Document types and associated metadata's will be different depending context<sup>1</sup>, procedure types<sup>2</sup>, instances<sup>3</sup> ... The purpose is to avoid having a new web service for each different type of document<sup>4</sup>. We try to keep our web service as generic as possible in order to have limited number of web services.

#### 3.2.1 sendDoc method

The first method will send a document to BOS-xchange or a Destination Back Office.

##### 3.2.1.1 Schema

See wsdl or xsd in annex.

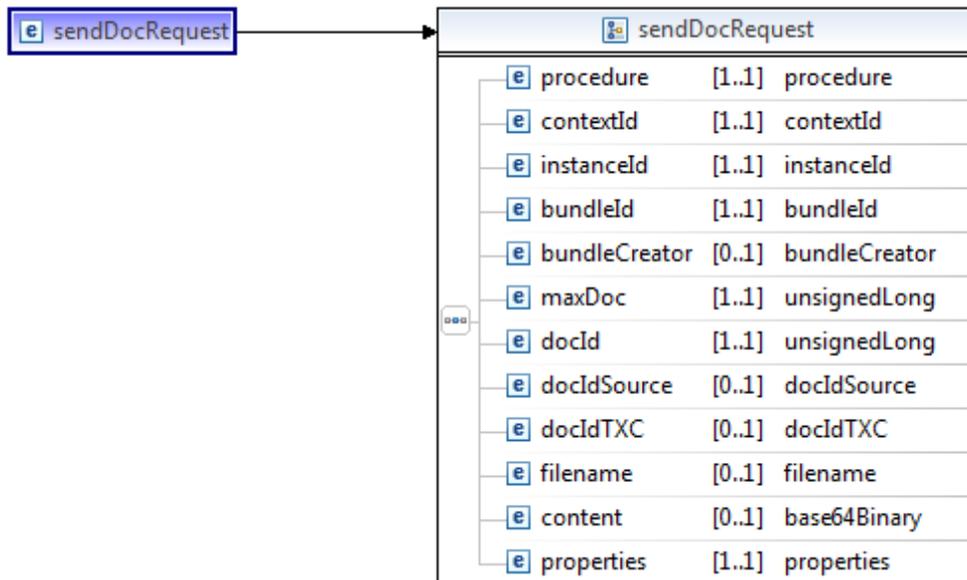


Figure 1 - sendDocRequest Schema

<sup>1</sup> Examples of context: CPASB-VBX-APL, BSA-APL, ...

<sup>2</sup> Examples of procedure: Tutelle CPAS, Tutelle communes, ...

<sup>3</sup> Examples of instance: APL, CPASB, VBX ...

<sup>4</sup> Examples of document type: Délibération, Annexe, Liste, ...

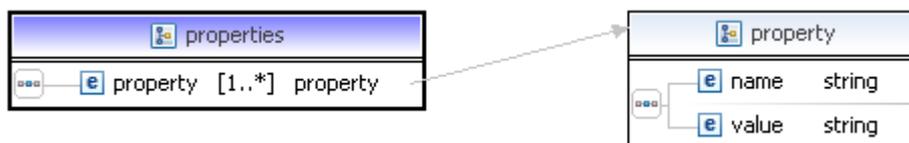


Figure 2 – Generic property list Schema

### 3.2.1.2 Description

Key	Type	Values(s)	Description
<i>procedure</i>	String(50)	TUTELLE   TUTELLE_COMMUNES	Procedure type
<i>contextId</i>	String(50)	Ex :003_500 for BSA-APL in TUTELLE_COMMUNES procedure	Unique context reference
<i>instanceId</i>	String(50)	Cfr. APL's institution's code. e.g. : 003 for the Berchem municipality	Unique instance reference (source) <b>If the instanceId is equal to the receiver id, the document is the signed version going back to the source</b>
<i>bundleId</i>	String (50)	N.A.	Bundle reference – generated by the source
<i>bundleCreator</i>	String (200)	NAME Firstname	Name of the bundle creator Empty if the bundle is created by a Back Office Empty for incoming documents in BOS-xchange
<i>maxDoc</i>	UnsignedLong	N.A.	Number of documents in the bundle
<i>docId</i>	UnsignedLong	[1-maxDoc]	Document number in the bundle
<i>docIdSource</i>	String(50)	N.A.	Unique document reference managed by the source
<i>docIdTXC</i>	String(50)	N.A.	Unique document reference on BOS-xchange platform Empty for incoming documents in BOS-xchange
<i>filename</i>	String(100)	N.A.	Document name Displayed in document lists in BOS-xchange web interface
<i>content</i>	Base64Binary	N.A.	Binary content serialized in Base64 Can be empty for physical documents
<i>properties</i>	Sequence	N.A.	Generic property list. One property is a « name » and a string « value » (see xsd)

### 3.2.1.3 Generic Properties

Generic properties depend on the procedure type. (see annexes for more information)

In addition to these "generic properties" depending on document type, three custom fields will be available for all types of documents. They may be used by source and destination Back Offices. There will be no control by BOS-xchange over these fields. They will appear in the screens in read-only if they are not empty.

<i>custom1</i>		Free text
<i>custom2</i>		Free text
<i>custom3</i>		Free text

### **3.2.1.4 Exemple**

## BOS-xchange 1.2 – Interfaces specifications

```
<?xml version="1.0" encoding="UTF-8"?>
<txchange:sendDocRequest xmlns:txchange="http://www.cirb.be/txchange/1.1"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.cirb.be/txchange/1.1 TXCHSchema.xsd">
  <txchange:procedure>TUTELLE_COMMUNES</txchange:procedure>
  <txchange:contextId>009_500</txchange:contextId>
  <txchange:instanceId>009</txchange:instanceId>
  <txchange:bundleId>00000000000001</txchange:bundleId>
  <txchange:bundleCreator>CIRB</txchange:bundleCreator>
  <txchange:maxDoc>3</txchange:maxDoc>
  <txchange:docId>2</txchange:docId>
  <txchange:docIdSource>00000000000005</txchange:docIdSource>
  <txchange:filename>Delib_AC_01/01/2013</txchange:filename>
  <txchange:content>MA=</txchange:content>
  <txchange:properties>
    <txchange:property>
      <txchange:name>docType</txchange:name>
      <txchange:value>DELIB_AC</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>version</txchange:name>
      <txchange:value>1</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>meetingDate</txchange:name>
      <txchange:value>2012-02-01</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>decisionLead</txchange:name>
      <txchange:value>A</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>meetingTitle</txchange:name>
      <txchange:value>2012-03-01 - extraordinaire</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>agendaNum</txchange:name>
      <txchange:value>1</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name> sujetFR</txchange:name>
      <txchange:value> sujet FR</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name> sujetNL</txchange:name>
      <txchange:value> sujet NL</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>language</txchange:name>
      <txchange:value>FN</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>dest1</txchange:name>
      <txchange:value>true</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>dest2</txchange:name>
      <txchange:value>false</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>sign1</txchange:name>
      <txchange:value>true</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>sign2</txchange:name>
      <txchange:value>false</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>custom1</txchange:name>
      <txchange:value>delibAc custom1</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>custom2</txchange:name>
      <txchange:value>delibAc custom2</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>custom3</txchange:name>
      <txchange:value>delibAc custom3</txchange:value>
    </txchange:property>
  </txchange:properties>
</txchange:sendDocRequest>
```

**Figure 3 – sendDocRequest example**

**3.2.1.5 Returns error codes**

This method returns nothing.

Soap client fault:

- Security Error
  - No/wrong login/password
  - Wrong procedure, context, instance, document type
- Invalid Request
  - Missing required property
  - Invalid pdf file

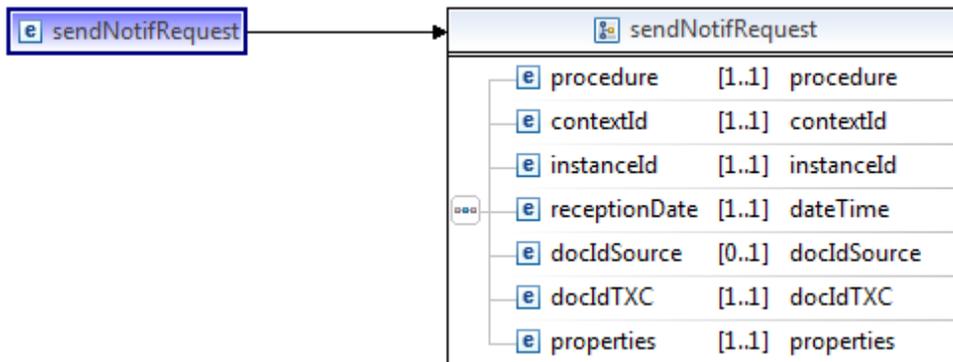
**3.2.2 sendNotif method**

The second method allows BOS-xchange to push the send-to-destination date (which is considered as the destination reception date) to the source Back Office. In the rest of this document and all its annexes, we will use the terminology “destination reception date” for send-to-destination date.

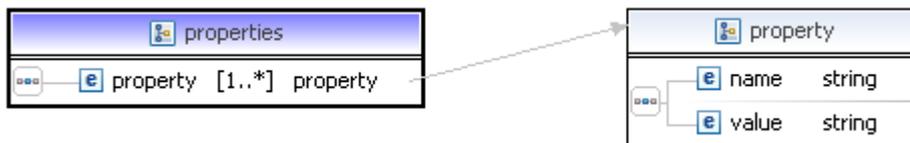
This notification will be sent to the source, just after the last signature of the bundle. It will contain destination reception date. This date will be used by the source Back Offices for calculating different delays.

**3.2.2.1 Schema**

See wsdl or xsd in annex.



**Figure 4 - sendNotifRequest Schema**



**Figure 5 - Generic property list Schema**

**3.2.2.2 Description**

Key	Type	Values(s)	Description
<i>procedure</i>	String(50)	TUTELLE   TUTELLE_COMMUNES	Procedure type
<i>contextId</i>	String(50)	Ex :003_500 for BSA-APL in TUTELLE_COMMUNES	Unique context reference

		procedure	
<i>instanceId</i>	String(50)	Cfr. APL's institution's code. e.g. : 003 for the Berchem municipality	Unique instance reference (source)
<i>receptionDate</i>	DateTime	yyyy-mm-ddThh:MM:ss(+ -)hh:mm	Destination reception date (ex : 2001-12-31T12:00:00+02 :00)
<i>docIdSource</i>	String(50)	N.A.	Unique document reference the notification is concerning
<i>docIdTXC</i>	String(50)	N.A.	Unique document BOS-xchange reference the notification is concerning
<i>properties</i>	Sequence	N.A.	Generic property list. One property is a « name » and a string « value » (see xsd)

### 3.2.2.3 Generic properties

Generic properties depend on the procedure type. (see annexes for more information)

### 3.2.2.4 Exemple

```

<?xml version="1.0" encoding="UTF-8"?>
<txchange:sendDocRequest xmlns:txchange="http://www.cirb.be/txchange/1.1"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.cirb.be/txchange/1.1 TXCHSchema.xsd">
  <txchange:procedure>TUTELLE_COMMUNES</txchange:procedure>
  <txchange:contextId>009_500</txchange:contextId>
  <txchange:instanceId>009</txchange:instanceId>
  <txchange:receptionDate>2013-01-01T12:00:00</txchange:receptionDate>
  <txchange:docIdSource>000000000000005</txchange:docIdSource>
  <txchange:docIdTXC>000000000000010</txchange:docIdTXC>
  <txchange:properties>
    <txchange:property>
      <txchange:name>docType</txchange:name>
      <txchange:value>DELIB_AC</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>version</txchange:name>
      <txchange:value>1</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>meetingDate</txchange:name>
      <txchange:value>2012-02-01</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>decisionLead</txchange:name>
      <txchange:value>A</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>meetingTitle</txchange:name>
      <txchange:value>2012-03-01 - extraordinaire</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>agendaNum</txchange:name>
      <txchange:value>1</txchange:value>
    </txchange:property>
    <txchange:property>
      <txchange:name>language</txchange:name>
      <txchange:value>FN</txchange:value>
    </txchange:property>
  </txchange:properties>
</txchange:sendDocRequest>

```

Figure 6 – sendNotifRequest example

### 3.2.2.1 Returns

This method returns nothing.

## 4 Annexes

### 4.1 Others

#	Name	Writer	Date
1	txchin-test.wsdl	Gabriel WILLEMS	10/04/2012

## 5 Signature

### 5.1 *Project Board*

Approved,

Date :  
Name  
Function

Date :  
Name  
Function