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# e-Contracts Web Service Specifications

Version 0.2.0

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## Abstract

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## 1. Introduction

Via the e-Contracts service you can easily manage the signing of PDF contracts by multiple parties. Next to the portal, we also provide a web service interface. This web service allows for easy integration of electronic contracts within your own business processes.

Before being able to use the e-Contracts web service, you have to register your application within the e-Contracts web portal. After this self registration of your application you will receive:

- An application identifier.
- An application secret.

It is important that you write down (or copy-and-paste) these application credentials for later usage within your client application.

### 1.1. Namespaces

The XML namespaces used in the following sections are described in [Table 1, "XML Namespaces"](#)

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**Table 1. XML Namespaces**

Prefix	Namespace
ds	<a href="http://www.w3.org/2000/09/xmldsig#">http://www.w3.org/2000/09/xmldsig#</a>
soap	<a href="http://www.w3.org/2003/05/soap-envelope">http://www.w3.org/2003/05/soap-envelope</a>
wsse	<a href="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd</a>
wsu	<a href="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd</a>
econtracts	urn:be:e_contract:e_contracts:ws:1.0:schema

## 1.2. References

The following specifications are references:

- [Base64] S. Josefsson, The Base16, Base32, and Base64 Data Encodings , The Internet Society, 2006 <http://tools.ietf.org/html/rfc4648> [<http://tools.ietf.org/html/rfc4648>]
- [Excl-C14N] J. Boyer et al., Exclusive XML Canonicalization Version 1.0 , World Wide Web Consortium, July 2002 <http://www.w3.org/TR/xml-exc-c14n/> [<http://www.w3.org/TR/xml-exc-c14n/>]
- [SOAP] W3C, SOAP Version 1.2 , [SOAP Version 1.2](http://www.w3.org/TR/soap12-part1/) [<http://www.w3.org/TR/soap12-part1/>] W3C Recommendation 27 April 2007
- [RFC 2246] T. Dierks, C. Allen, The TLS Protocol Version 1.0 , <http://www.ietf.org/rfc/rfc2246.txt> IETF (Internet Engineering Task Force) RFC 2246, January 1999.
- [WS-Sec] Kelvin Lawrence, Chris Kaler, OASIS Web Services Security: SOAP Message Security 1.1 , OASIS, February 2006 [OASIS WS-Security 1.1](https://www.oasis-open.org/committees/download.php/16790/wss-v1.1-spec-os-SOAPMessageSecurity.pdf) [<https://www.oasis-open.org/committees/download.php/16790/wss-v1.1-spec-os-SOAPMessageSecurity.pdf>]
- [XMLSig] D. Eastlake et al., XML-Signature Syntax and Processing , W3C Recommendation, June 2008 <http://www.w3.org/TR/xmldsig-core/>
- [XML-ns] T. Bray, D. Hollander, A. Layman, Namespaces in XML , W3C Recommendation, January 1999 <http://www.w3.org/TR/1999/REC-xml-names-19990114> [<http://www.w3.org/TR/1999/REC-xml-names-19990114>]

## 2. WS-Security policy

The e-Contracts web service is protected using WS-Security. An example SOAP header looks as follows:

```
<soap:Envelope>
  <soap:Header>
```

```

<wsse:Security soap:mustUnderstand="1">
  <wsu:Timestamp wsu:Id="timestamp">
    <wsu:Created>...</wsu:Created>
    <wsu:Expires>...</wsu:Expires>
  </wsu:Timestamp>
  <ds:Signature>
    <ds:SignedInfo>
      <ds:CanonicalizationMethod
        Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
      <ds:SignatureMethod Algorithm=
        "http://www.w3.org/2000/09/xmldsig#hmac-sha1" />
      <ds:Reference URI="#timestamp">
        <ds:Transforms>
          <ds:Transform Algorithm=
            "http://www.w3.org/2001/10/xml-exc-c14n#" />
          </ds:Transforms>
        <ds:DigestMethod
          Algorithm="http://www.w3.org/2000/09/xmldsig#sha1" />
        <ds:DigestValue>...</ds:DigestValue/>
      </ds:Reference>
      <ds:Reference URI="#body">
        <ds:Transforms>
          <ds:Transform Algorithm=
            "http://www.w3.org/2001/10/xml-exc-c14n#" />
          </ds:Transforms>
        <ds:DigestMethod
          Algorithm="http://www.w3.org/2000/09/xmldsig#sha1" />
        <ds:DigestValue>...</ds:DigestValue/>
      </ds:Reference>
    </ds:SignedInfo>
    <ds:SignatureValue>...</ds:SignatureValue>
    <ds:KeyInfo>
      <wsse:SecurityTokenReference>
        <wsse:Reference URI="urn:the-application-identifier" />
      </wsse:SecurityTokenReference>
    </ds:KeyInfo>
  </ds:Signature>
</wsse:Security>
</soap:Header>
<soap:Body wsu:Id="body">
  ...
</soap:Body>
</soap:Envelope>

```

As you can see the application identifier is used as `<wsse:Reference>` within the `<wsse:SecurityTokenReference>` element. Please note the `urn:` prefix, as the value of the URI attribute as to be an URI.

### 3. e-Contracts Web Service

The e-Contracts web service is rather straightforward to use. Below you'll find some examples without SOAP envelope.

#### 3.1. Listing all your contracts

The request looks as follows:

```
<econtracts:ListContractsRequest>
  <econtracts:FinalContractsOnly>>false</econtracts:FinalContractsOnly>
</econtracts:ListContractsRequest>
```

The response looks as follows:

```
<econtracts:ListContractsResponse>
  <econtracts:ContractIdentifier>1</econtracts:ContractIdentifier>
  <econtracts:ContractIdentifier>2</econtracts:ContractIdentifier>
  <econtracts:ContractIdentifier>3</econtracts:ContractIdentifier>
</econtracts:ListContractsResponse>
```

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