UC Web Service

Technical description for UCs Swedish company-/ consumer information.

Version 2.1

UC and Web Services

UC can offer Web Services for most of our services and products and the intention is to facilitate integration of customers' internal IT systems with UC.

This document describes the service group UCOrders2 that assembles Web Services for ordering credit reports. At present in UCOrders2 UC can offer Web Services for ordering commercial reports for Swedish companies, business operator reports and personal credit reports as well as for checking names and addresses. All reports can be ordered together with a UC credit decision template. Set of credit rules.

All UC's Web Services are designed to be WS-I compliant (www.ws-i.org) and are tested in several different client environments, including Java and Microsoft dotnet.
All UC's Web Services support SOAP version 1.1.

Requirements for use

In order to use UC's Web Services a customer agreement is required whereby you obtain a customer number and password. Additional to this you also need a client certificate that you order separately.

Reservations concerning information on private individual

With regard to XML-formatted credit report information on private individuals the Personal Data Act (PUL) must be complied with. This means that information about natural persons may only be used if you deem this to be in accordance with this Act. The information may not be used for the purposes of carrying on unlawful credit information activities, such as using old credit report information for new credit decisions. Further, the information may not be used for purposes for which it is not intended, such as marketing (Swedish Data Inspection Board regulation).
For more information concerning PUL and the Swedish Data Inspection Board's regulations please visit www.datainspektionen.se.

Reservations concerning information in UC's Web Servivice

Changes in the contents of UC's Web Services normally take place through the publication of a new version of the services. UC reserves the right to introduce new data in the products supplied via Web Services even without a version change and without informing the customer. When using UC's Web Services in your own applications consideration must thus be given to the fact that new data may be added and that data are only supplied in the cases where they include some relevant information. If a information changes or may be deleted this will be notified by UC for at least one month before the changes will take place.

Security

UCs security standard for Web Services is HTTPS as well as traditional authentication with customer userId, password and certificate.

Contact UC

For further information about UC's Web Services please email UC by email kundservice@uc.se .
In case of technical problems please contact UC at phone + 46 8 670 90 00 or by email integration@uc.se.

Description of UC's Web Services

At present in the service group UCOrders2 UC are offering the following request:

- Ordering client certificates to UC
- **companyReport**. Commercial report for Swedish companies, with or without a decision template. Possible to order with UC's product UC4, UC41, UC410, UC91 and others.
- **businessReport**. Business operator report, with or without a decision template. Possible to order with UC's products UC4, UC410, UC91and others.
- **individualReport**. Personal credit report, with or without a decision template. Possible to order with UC's product UC3, UC90 and others.
- **identityCheck**. Name and address check.
- **IdentitySeekJur** ID number search legal entities
- **IdentitySeekFys** ID number search natural persons

All Web Services in UCOrders2 are stateless, which means that login data must be attached to each order.

ADDRESSES

The endpoint is shown by the service group's wsdl-fil and is
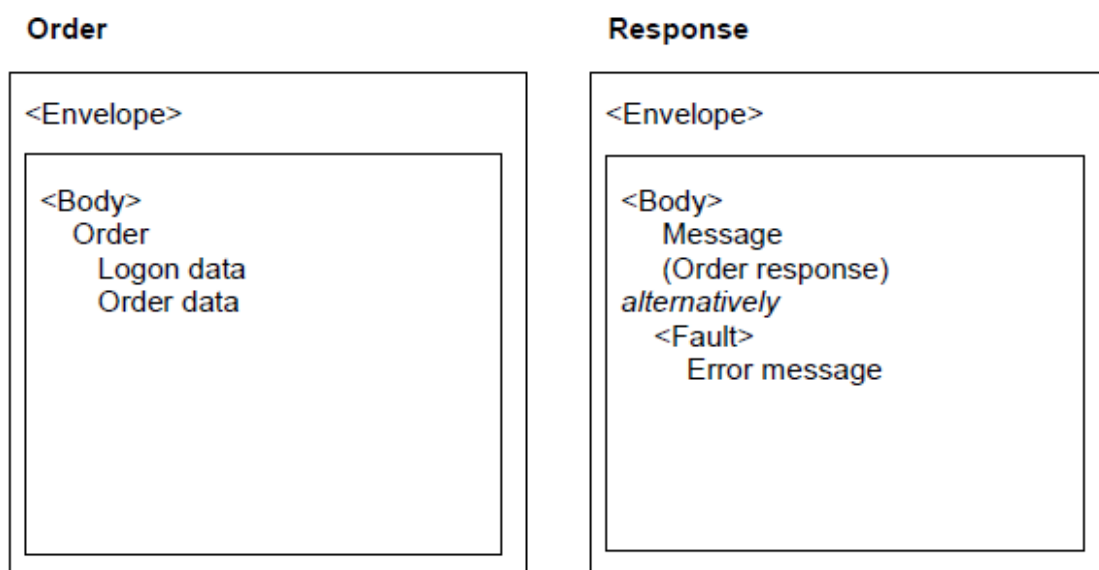https://www.uc.se/UCSoapWeb/services/ucOrders2

DOCUMENTS

The following documents for describing UC's Web Services are available from your contact person on UC and also information about the information that UC will deliver to you.

• UC Web Services – General information about the groups and terms of the information that you will get from UC regarding companies and consumers.

• UC Web Services - Technical description, this document

• UCOrders2.wsdl - Technical description of UC's Web Services in UCOrders2

• Error codes

• Test objects

THE SOAP MESSAGE

A principle structure of the SOAP message for ordering and responses is shown in the following image.

Order

```
<Envelope>

    <Body>
        Order
            Logon data
            Order data
```

Response

```
<Envelope>

    <Body>
        Message
        (Order response)
    alternatively
        <Fault>
            Error message
```

All data in the order is sent in the <Body>element and all data in the response message from UC is sent in the <Body> element or in the <Fault> element.

The SOAP part of an order or a response may appear as follows:

```
<?xml version="1.0" encoding="UTF-8" ?>
<SOAP-ENV:Envelope xmlns:SOAP-ENV="https://schemas.xmlsoap.org/soap/envelope/"
    xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="https://www.w3.org/2001/XMLSchema">
    <SOAP-ENV:Body>
    -
    -
    -    The order or response comes here
    -
    -
    </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

For a complete description of the format of the SOAP message please refer to the description in the file UCOrders2.wsdl

ORDERING

The request of a Web Service is put in the element of the same name as an ordered Web Service (<businessReport>, <companyReport>, <individualReport> or <identityCheck>). The element has the following attributes:

Element/Attribute	Explanation	Mandatory
product	UC product, e.g. 410. The Web Service identityCheck and identitySeek does not contain this element. For valid values please refer to the chapter on Value areas for element and attributes.	Yes
identifier	This only are used for identityCheck, here you specify the person-/ company´s corporate registration number on the person/company that you want to identify.	Yes
version	Version number of Web Service ordered. For valid values please refer to the chapter on Value areas for element and attributes.	Yes

Elements for the following data are placed in the order element:
- Logon data, mainly customer number and PIN code.
- Order data, including order of any query template

The ordering element is roughly as in the following example:

```
<businessReport product="410" version="2.2">
    <customer>
    -
    - logon data
    -
    </customer>
    <businessReportQuery>
    -
    - ordering data
    -
    </businessReportQuery>
</businessReport>
```

Logon data

The element for logon data is called **<customer>.** The element contains the following important elements.

Element/Attribute	Explanation	Mandatory
<userId>	Customer number at UC. Five signs long	Yes
<password>	PIN code at UC, two or three signs long	Yes

The following example shows how <customer> may appear if your customer number at UC is ABCDE and your PIN code is UTC.

```
<customer>
    <userId>ABCDE</userId>
    <password>UTC</password>
</customer>
```

Order data

The element for ordering a credit report is called <xxxQuery> where xxx is the name of the Web Service, such as **<businessReportQuery>.** The Web Service identityCheck does not contain this element. The element contains the following important <elements> and attributes

Element/Attribute	Explanation	Mandatory
<object>	National or company´s corporate registration number. Always 10 digits.	Yes
<orderedBy>	External customer, the end user	No
<reference>	Your own reference	No
<override>	Code to force through a business operator report. For valid values please refer to the chapter on Value areas for element and attributes.	No
<creeditSeek>	Credit applied for	No
extendedDetails	Close company participant information. Note that an individualReport cannot include this data. For valid values please refer to the chapter on Value areas for element and attributes.	No
lang	Reply language (Swedish or English)	Yes

Element/Attribute	Explanation	Mandatory
xmlReply	Order for a report in XML format to be included in the reply. This element is normally not specified in the order as the default is that the reply contains a report in XML format. For valid values please refer to the chapter on Value areas for element and attributes.	Yes
htmlReply	Order for a report in HTML format to be included in the reply. For valid values please refer to the chapter on Value areas for element and attributes.	Yes
<template>	Element for ordering a query template. See detailed description below.	No

The following example shows how <businessReport Query> may appear.

```
<businessReportQuery xmlReply="true" htmlReply="false" extendedDetails="true">
    <object>4101047373</object>
    <creditSeeked>24000</creditSeeked>
</businessReportQuery>
```

<SeekJuridiker> contains these elements.

Element/Attribute	Explanation	Mandatory
seekName	Name of the of one that your are seeking of	No
seekCategoryJur	Category – possible values Company Limited company Partnership, unlimited and limited Sole trader Legal person	Yes
<adress>	Grouptag of address	No
streetadress		No
zipcode		No
<telephone>	Grouptag of phone number	No
countrycode		No
areacode	Area code number	No
number	Telephone number	No
maxSeekHits	maximum number of matches	Yes

<SeekFysiker> contains these elements.

Element/Attribute	Explanation	Mandatory
seekName	Name of the of one that your are seeking of	No
seekCategoryFys	Category – possible values Physical person Male Female	Yes
<adress>	Grouptag of address	No
streetadress		No
zipcode		No
maxSeekHits	maximum number of matches	Yes

Ordering a decision template

The element for ordering a decision template is called <template> and is in the element for ordering data as described above. **<template**> has the following attributes:

Element/Attribute	Explanation	Mandatory
id	Name of credit template	Yes

The element **<template>** contains the following important elements.

Element/Attribute	Explanation	Mandatory
<income>	Applicant´s income. Note that only an individualReport can include this data. Contains the attributes type and value	No
type	Income amount sort. For valid values please refer to the chapter on Value areas for element and attributes.	No
value	Income amount. For valid values please refer to the chapter on Value areas for element and attributes.	Yes
<coObject>	National registration number of co- applicant. Note that only an individualReport can include this data (the income amount´s type is governed by type in <income>).	No
<coObjectIncome>	Income for co- applicant. Note that only an individualReport can include this data.	No
<templateParams>	Credit template´s free fields. For contents see below.	No

The element **<templateParams>** contains the following important elements.

Element/Attribute	Explanation	Mandatory
<templateparam>	Free fields contains the attributes id and value <templateparam> can be repeated up to 20 times, since a credit template may contain up to 20 free fields.	No
id	Serial number of the free field. For format and valid values please refer to the chapter on Value areas for element and attributes.	Yes
value	Value of the free field.	Yes

The following examples show how the element <individualReportQuery> may appear if it includes a query template with the template ABC and three free fields.

```
<individualReportQuery xmlReply="true" htmlReply="false">
    <object>4101047373</object>
    <creditSeeked>24000</creditSeeked>
    <template id="ABC">
        <income type="T" value="248"/>
        <coObject>4312014431</coObject>
        <coObjectIncome>198</coObjectIncome>
        <templateParams>
            <templateparam id="1" value="J"/>
            <templateparam id="2" value="1"/>
            <templateparam id="3" value="430"/>
        </templateParams>
    </template>
</individualReportQuery >
```

The following example shows how the element <individualReportQuery> may appear if it includes a query template with the template ABC and does not contain free fields or other template parameters.

```
<individualReportQuery xmlReply="true" htmlReply="false">
    <object>4101047373</object>
    <creditSeeked>24000</creditSeeked>
    <template id="ABC"/>
</individualReportQuery >
```

RESPONSE

The response to an order is supplied in the <body> element.
<body> contains a full response and a message that normally signals an OK.

<body>
The response from a Web Service is put in the element <ucReply>.
The element <ucReply> contains the following elements.

Element/Attribute	Explanation	Occurrences
<status>	Status information	1
<xmlReply>	Reports supplied in XML format.	0-2

Element/Attribute	Explanation	Occurrences
<htmlReply>	Reports supplied in HTML format.	0-2

The principle structure of the element <ucReply> is as follows.

```
<ucReply>
    <status result="ok" />
    <ucReport>

        <xmlReply>
           <reports lang="swe">
              <report id=…>
                    ---
                    ---
                 </group>
              </report>
           </reports>
        </xmlReply>

        <htmlReply>
            ---
            ---
        </htmlReply>

        <xmlReply>
           <reports lang="swe">
              <report id=…>
                    ---
                    ---
                 </group>
              </report>
           </reports>
        </xmlReply>

        <htmlReply>
            ---
            ---
        </htmlReply>

    </ucReport>
</ucReply>
```

The example contains two elements each of <xmlReply> and <htmlReply>. This is a typical example of when the reply is give in both XML and HTML, as well as where the reply contains data for two people/companies. Two reports are supplied, for example for queries on applicant + co-applicant or company + company's parent.
Another typical example of the structure of <ucReply> is certain business operator reports where two <report> elements may occur in an <xmlReply>. The first <report> then contains the report on the business operator and the second an annex with business operator data as in the following example:

```
<ucReply>
    <status result="ok" />
    <ucReport>

        <xmlReply>
```

```
        <reports lang="swe">
            <report id=…>
                ---
                ---
            </report>
            <report id=…>
                ---
                ---
            </report>
        </reports>
    </xmlReply>

    </ucReport>
</ucReply>
```

STATUS

The element that shows status information is called <status> and is in the response element <ucReply> as described above. <status> has the following attributes:

Element/Attribute	Explanation	Value area
result	Status flag that shows how the order went.	Ok = the order went well and the anticipated result can be delivered Error = the order did not go well and a descriptive message is delivered.

The element <status> contains the following elements if result=error.

Element/Attribute	Explanation	Remark
<message>	Message from UC	Contains the attribute "id" with a 3-digit message code and message in clear text.

The following example shows an error message from UC due to incorrect national registration number.

```
<status result="error" xmlns="https://www.uc.se.schemas/ucOrderReply/">
    <message id="101">
        Objekt-nr saknas i UC:s register. Kontrollera att numret är korrekt angivet
    </message>
</status>
```

XMLREPLY

The elementet <xmlReply> contains the reports supplied and the principle structure is as follows:

```
<xmlReply>
    <reports>
        <report>
            <group id="…">
                <term id="…"></term>
                <term id="…"></term>
                ---
                ---
            </group>
        </report>
    </reports>
</xmlReply>
```

Each of the <reports> contains one or two <report> elements. The <report> element contains a report or annex to a report. A detailed description of the contents of <report> can be found later in this document.

HTMLREPLY

The elementet <htmlReply> contains the reports supplied in HTML format and is delivered if a HTML report has been ordered. The principle structure of <htmlReply> is as follows.

```
<htmlReply>
    <![CDATA[
    -    <!DOCTYPE HTML PUBLIC "-//W3C
    -
    -    Här kommer HTML-rapporten
    -
    -        </body>
    -    </html>
    -    ]]>
</htmlReply>
```

EXAMPLES OF RESPONSES

The following examples show the response to an order for an individualReport. The report is ordered without the HTML report.

<?xml version="1.1" encoding="UTF-8" ?>
<soapenv:Envelope xmlns:soapenv="https://schemas.xmlsoap.org/soap/envelope/"
xmlns:soapenc="https://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsd="https://www.w3.org/2001/XMLSchema"
xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
<ucReply xmlns="https://www.uc.se.schemas/ucOrderReply/">
*<ns2:status ns2:result="**ok**" xmlns:ns2="https://www.uc.se.schemas/ucOrderReply/" />*
<ucReport>
<xmlReply>
*<ns2:reports ns2:lang="**swe**" xmlns:ns2="https://www.uc.se.schemas/ucOrderReply/">*
*<ns2:report ns2:id="**4801093750**" ns2:index="**0**" ns2:name="**Peter 'Ernst' Peltonen**"*
*ns2:styp="**3**">*
*<ns2:group ns2:id="**W080**" ns2:index="**0**" ns2:key="" ns2:name="**IDuppgifter, fysiker**">*
*<ns2:term ns2:id="**W08001**">9480109375</ns2:term>*
*<ns2:term ns2:id="**W08002**">4801093750</ns2:term>*
*<ns2:term ns2:id="**W08003**">Peter 'Ernst' Peltonen</ns2:term>*
*<ns2:term ns2:id="**W08004**">Barong 3</ns2:term>*
*<ns2:term ns2:id="**W08005**">23072</ns2:term>*
*<ns2:term ns2:id="**W08006**">Tygelsjö</ns2:term>*
*<ns2:term ns2:id="**W08007**">5905104948</ns2:term>*
*<ns2:term ns2:id="**W08008**">Helga Peltonen</ns2:term>*
*<ns2:term ns2:id="**W08015**">199510</ns2:term>*
*<ns2:term ns2:id="**W08045**">Registrerat sedan 1995-10*
*</ns2:term><ns2:term ns2:id="**W08018**">N*
</ns2:term>
*<ns2:term ns2:id="**W08027**" />*
*<ns2:term ns2:id="**W08030**">2</ns2:term>*
*<ns2:term ns2:id="**W08043**">Gift sedan 1995-08 med Helga Peltonen (590510-4948)</ns2:term>*
*<ns2:term ns2:id="**W08031**">199508</ns2:term>*
*<ns2:term ns2:id="**W08036**">2003-11-01</ns2:term>*
*<ns2:term ns2:id="**W08009**">12</ns2:term>*

*<ns2:term ns2:id="**W08012**">Skåne</ns2:term>*
*<ns2:term ns2:id="**W08010**">62</ns2:term>*
*<ns2:term ns2:id="**W08013**">Lomma</ns2:term>*
*<ns2:term ns2:id="**W08011**">01</ns2:term>*
*<ns2:term ns2:id="**W08014**">Lomma</ns2:term>*
*<ns2:term ns2:id="**W08035**">Peltonen, Peter Ernst*
</ns2:term></ns2:group>
-
-
- Here follows the report
-
-
</ns2:report>
</ns2:reports>
</xmlReply>
</ucReport>
</ucReply>
</soapenv:Body>
</soapenv

What differs in the example from previous descriptions is the inserted reference to the current namespace, ns2: . The format of this reference differs in various production environments and versions of namespace.

Value areas for elements and attributes

Element/Attribute	Occurrences	Valid values
Order		
product	<businessReport product="410">	410 (Standard) 4 (Risk) 91 (Mikro)
product	<companyReport product="410">	410 (Standard) 41 (Mini) 4 (Risk) 91 (Mikro)
product	<individualReport product="3">	3 (Standard) 90 (Mikro)
version	<businessReport version="2.2">	Version number 1.1 to 2.2 are valid values from this date.
version	<companyReport version="2.2">	Version number 1.1 to 2.2 are valid values from this date.

Element/Attribute	Occurrences	Valid values
version	<individualReport version="2.2">	Version number 1.1 to 2.2 are valid values from this date.
version	<identityCheck version="2.2">	Version number 1.1 to 2.2 are valid values from this date.
<override>	<businessReportQuery> <override>1</override> </businessReportQuery>	See description below. Blank/0 1-3
xmlReply	xmlReply="true"	true or false
htmlReply	htmlReply="false"	true or false
extendedDetalis	extendedDetalis="false"	true or false
lang	lang="swe"	swe for Swedish or eng for english
type	<income type="T" value="248">	T for SEK thousands H for SEK hundreds If no type is specified tge income is interpreted as stated in Swedish kronor (SEK).
value	<income type="T" value="248">	Numerical, maximum 6 characters
id	<templateparam id="1" value"J">	1-20
Reply		
result	<status result="ok">	ok or error

override>

Override is a function which makes it possible to order an businessreport for an individual who accordingly to UC is not an active sole trader.

When ordering a report on a sole trader business (UC 410) or a business operator report (UC 501) in some cases a message code is returned (487 or 491) which indicates that the person is not an active business operator in UC's register. The order can, however, be completed if the person dealing with the order knows that the person is an active business operator, by using the override function.

For message code 487 (when UC 501 has been ordered) <override> 1,2 or 3 can be used to continue.
For message code 491 (when UC 410 has been ordered) <override> 1 or 2 can be used to continue.

Override 1,2 or 3 should not be used as a default setting, it should instead be used when the user knows that the person is an active sole trader.

<override></override>	Value when ordering a report without override.
<override>1</override>	The person runs a business (active choice).
<override>2</override>	The person is Managing Director or member of the board of a limited company (active choice).
<override>3</override>	The person is a participator in a close company or partner in a partnership/limited partnership (active choice).

Response transactions/xmlReply

Response transactions are divided into information groups and these consist of a number of terms. All existing information groups and associated terms are described in the documentation. A description is also given of which information groups may exist for the various reports ("companyReport", "businessReport" or " individualReport") based on the type of object; legal entities (companies) or private individuals (people). In other words the information groups and terms in the response transaction are mainly governed by the report ordered and type of object but also depend on the scope of the information for the individual object.

DESCRIPTION OF INFORMATION GROUPS AND TERMS

Each information group and term is described and defined on the basis of the following parameters; Term id, Name, Format, Index and Comments.

W060 - F (business) tax, VAT and employer's contributions

Term id	Name	Format	Index	Comments
W06001	Registered for business tax	an1	0	J, N, A (J=Yes, N=No, A=Dereg)
W06002	Clear text business tax	an..22	0	
W06003	Date of business tax data	an8	0	CCYYMMDD date of registration or deregistration

Term id: Information groups and terms are defined with specific identities (Term id) and where information groups are defined using four positions, such as W060 (F (business) tax, VAT,etc) and associated terms with six positions, such as W06001 (Registered for F (business) tax).

Name: The terms are described by a name, i.e. the name contains information as to what type of information the term includes.

Index: Information groups and terms may occur several times in each response transaction and the index describes the number of possible occurrences.
Index 0 = 1 occurrence of the term and it is in index 0
Index 0-1 = 2 occurrences, one in index 0 and one in index 1
Index 0-2 = 3 occurrences, one in index 0, one in index 1 and one in index 2
Etc.
Index * = unlimited number of occurrences per response transaction, i.e. from Index 0 till *

Comments: Certain terms are described in more detail in the Comments field in order to clarify their contents.