



Honda Canada

eBiz Single Sign-On v2 with External Web-Based Systems Specification

Version 2.4

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Revision History

The following table is a list of all personnel, including their contact information, which have prepared and contributed to the content of this document.

<i>Responsible Parties</i>			
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The following table is a list of all revisions to this document, including a description of the change.

<i>Revision History</i>				
Name	Title	Revision Date	Version	Description of changes
Cris Jucan		April 24, 2006	1.0	Initial version
Jag Kanangi		May 19, 2006	1.1	Updated definitions
George G.		May 10, 2007	1.2	Just highlighted some key points
George G.		May 15, 2007	2.0	Merged the SSO Schemas document into this document.
George G.		July 19, 2007	2.1	Added 'inheritedDealers' to the schemas.
George G.		October 5, 2007	2.2	Added domain name validation requirements. Updated 'Responsible Parties'. Chris Jucan replaced by Alfred F.
Lawrence Huang		December 5, 2008	2.3	Added user type element to user profile in both request and response schemas. (only apply for HCFI SSO) Updated section 3.3.1.4, 3.3.2.1 and Appendix A
Rajdeep Dinda		June 30, 2009	2.4	Added dealer CALIBRE to dealership element in response schema (XSD).

Once this document is approved, any additional changes not described explicitly in this document will be handled through ISD Project Change Control Procedure, and must be authorized by all managers signed above.

1 Introduction

This document describes the authentication process for users using DCS. It presents an overview of the authentication framework for SSO with an external web-based system. SSO is a specialized form of software authentication that enables a user to authenticate once and gain access to the resources of multiple software systems.

External applications or Partner application are applications that are created by Honda or its vendors to deal with a specific business process. They are deployed independently of the eBiz portal.

External applications will delegate the user authentication to DAS, which uses the SSO framework, enabling users to be authenticated once to gain access to all web applications available on DAS. The SSO framework provides the DCS application with maximum flexibility enabling user authentication by new external applications as well as legacy external web applications.

External applications are designed or have been modified to delegate responsibility for user authentication to DAS. They accept the identity presented to them by DAS. Since they use DAS, they do not need to implement their own authentications modules. User administration is simplified for these applications since there is no need to maintain a list of usernames or passwords. It can therefore reduce both the development costs and ongoing administrative expenses.

1.1 Purpose

The purpose of this document is to be used as a reference by developers of External Applications that have to integrate with the DAS mechanism.

1.2 Definitions

Term	Description
DAS	DCS Authentication Service
DCS	Dealer Communication System
DDIF	DCS Data Interchange Format
eBiz – Portal	Portal application supporting Dealers
External Application	Application that is deployed independent of the eBiz Portal
HTTP	Hyper Text Transfer Protocol
HTTPS	Secure Hyper Text Transfer Protocol
SSO	Single Sign-On
URL	Uniform Resource Locator
XML	Extensible Markup Language

1.3 Business Terms

Term	Description
User Type	Roles that provide specific authorization when accessing the EBiz Portal
Zone	Honda Canada defined geographical zones
Dealership	Company authorized by Honda Canada to sell products
Function	EBiz Portal implemented business functionality
Co-worker	EBiz Portal Users associated by authorization to access a function
Product Line	Grouping of Honda Canada products

1.4 Scope

DAS using SSO deals with the authentication and login of users. DAS does not handle Single Signoff. If a user logs off DCS, they will not necessarily be logged off any external applications. External applications will not be notified when users have logged off DCS. They MUST explicitly log out users based on their own security policies.

2 SSO Authentication Mechanism

2.1 SSO Overview

When a user makes a request for an external application from within the portal, DAS will issue the user an authentication token. The external application will use this token to establish the identity of the user.

The token created by the DAS will be passed back to the user's browser as part of the response. The browser will then make a request to the External Application (using a redirect) and send along the **token** and the user's **current locale**. The external application receives the authentication token as part of its request. The external application obtains the URL of DCS from the request **"url" parameter**. The external application will send the token back to DAS, using **HTTPS** (http in test environment), along with a request for user profile information, to verify that the token is valid. DAS verifies and authenticates the token and creates a response to the external application. The external application will create and send an appropriate response to the browser (See figure 1).

The key to this arrangement is the notion of delegation and trust. The External Applications involved, explicitly trusts DAS that it delegates the authentication function to DAS.

For added security, the external application is required to validate requestor's domain, and reject any request coming from domain other than **honda.ca**.

2.2 Tokens

DAS creates token that are cryptographically secure. DAS uses Triple-DES for encryption of these tokens. DAS generates tokens with the following properties:

- Tokens are time sensitive. Each token is valid for 2 minutes from the time of creation. The external application will have a maximum of 2 minutes from token creation time, to validate the token with DAS.
- Tokens can identify a user, and are unique.
- The token contains the current language of the portal.

A typical browser request to the external application will have the **token** and **lang** as part of its URL parameter. It also contains the **URL** where the external application will POST the request to DCS. An **example** of a URL request is given below:

```
http://external.application.com/login.asp?  
token=xtSnQEJY%2F3bvayJyRp5yOmHZMTaiSDt0Xt65O7TP2cvCt4mveMNZYA%3  
D%3D&lang=en_CA&url=www.portal.honda.ca/SSOAuthorityWeb/authority.sso
```

2.3 DCS Data Interchange Format

Data between DAS and the external application is exchanged using XML. DAS uses its own XML message format, which is called DCS Data Interchange Format (DDIF) to exchange messages. The External Application will POST the request (tokens, application information, request for user profile etc) to DCS and identify the message type as being “application/x-ddif”. The SSO Schemas section of the document describes the message format used during the http post and http reply between External Application and the eBiz Portal (see blue arrows in Figure 1).

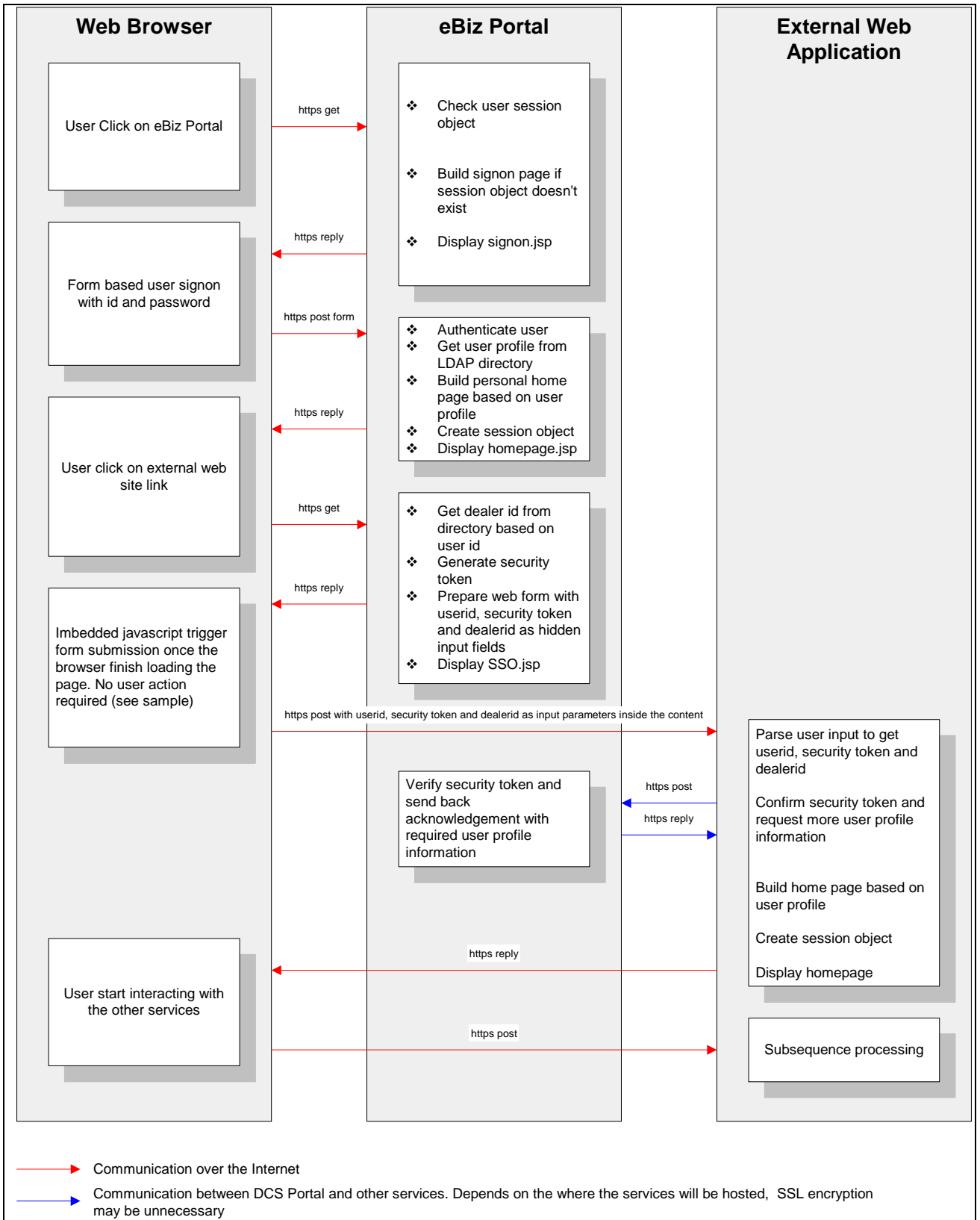


Figure 1 SSO Overview

3 SSO Schemas

This section describes the format of the messages exchanged by eBiz Portal Application with the External Applications.

3.1 DDIF Design Principles

The following principles were used in designing DCS Data Interchange Format (DDIF):

- Broad Range of Applications – DCS Data Interchange Format supports communication with broad range partner applications including HCFI, Product Comparison, Product Guide, and E-Learning.
- Extensible – DDIF has been designed to allow the easy addition of new services. Future versions may include the support for many new services.
- Secure - DDIF provides a framework for building secure applications. Security encompasses authentication of the parties involved, as well as secrecy and integrity of the information being exchanged.
- Batch and Interactive – The design of request and response messages in DDIF is for use in both batch and interactive modes. DDIF provides for applying a single authentication context for multiple requests to reduce the overhead of user authentication.
- Platform Independent - DDIF can be implemented in a wide variety of server systems including those running UNIX, Windows, or OS/2.

3.2 Notation Conventions

The conventions used in the element and aggregate descriptions include the following:

- Elements are included in angled brackets (<element>); attributes are included in curly brackets ({attribute})
- Required elements and aggregates are in bold. Regular face indicates elements and aggregates that are optional.
- Elements and aggregates appear once unless noted otherwise in the description.
- Character fields are identified with a datatype of “A-n”, where n is the maximum number of allowed unicode characters.
- Numeric fields are identified with a datatype of “N-n”, where n is the maximum number of characters in the value. White space is not allowed in the numeric fields.
- timestamp fields represent a time with format YYYYMMDDhhmmss.SSS[GMT+hh:mm]
- Locale fields according to the i18n standard.

3.3 Messages

3.3.1 ssoRequestMessage.xsd

The request message has to be valid according to the ssoRequestMessage.xsd (see Appendix A). The following is a description of the elements composing the ssoRequestMessage.

3.3.1.1 ssoRequest element

Tag	Description
<ssoreq:ssoRequest> { token} { version} <clientInfo> <applicationInfo> <userProfile>	Request Message Security token generated by the eBiz Portal SSO protocol's version Client settings Information regarding the External Application Information that is requested by the External Application from the eBiz Portal

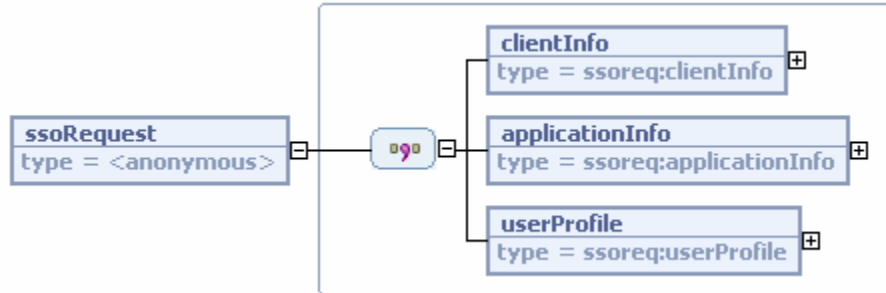


Figure 2 Request – ssoRequest element

3.3.1.2 clientInfo element

Tag	Description
<clientInfo> <timestamp> <locale>	Client settings Client machine timestamp The user's locale name

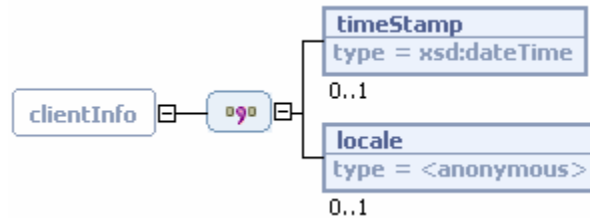


Figure 3 Request – clientInfo element

3.3.1.3 *applicationInfo* element

Tag	Description
<applicationInfo> {version} <applicationCredential>	Information regarding the External Application External application's version Identification information available to the External Application

Tag	Description
<applicationCredential> {securityType} <applicationId> <password>	Identification information available to the External Application Application level security. Can be 1 or 2 EBiz Portal defined identifier of the External Application Password to be used for additional authentication requirements

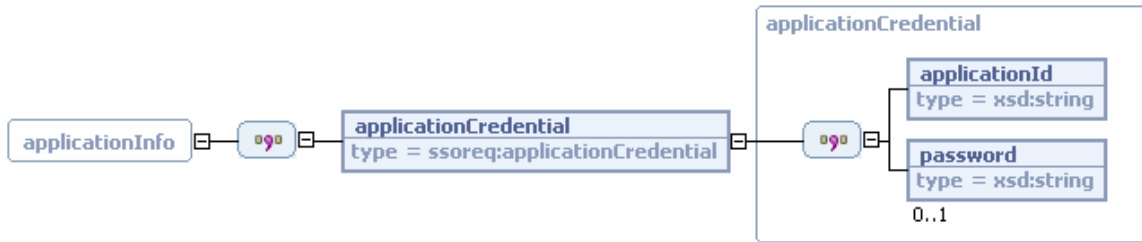


Figure 4 applicationInfo – element

3.3.1.4 *userProfile* element

Tag	Description
<userProfile>	Information that is requested by the External Application from the eBiz Portal. External Application can request information by including the following elements in the request message.
<email>	User's e-mail address
<locale>	User's locale as defined in eBiz
<firstName>	User's First Name
<lastName>	User's Last Name
<division>	User's Division
<department>	User's Department
<title>	User's Title
<scope>	User's Scope
<UserType>	User Type Id
<zoneCode>	User's Zone code
<securityCredential>	Security related details of the user
<coWorkers>	Users co-workers
<studentId>	User's student identifier
<dealers>	Dealers to which the user is associated
<selectedDealers>	Dealer that the user selected. Selected Dealers is available only for users that can select different dealers (e.g. National Users)

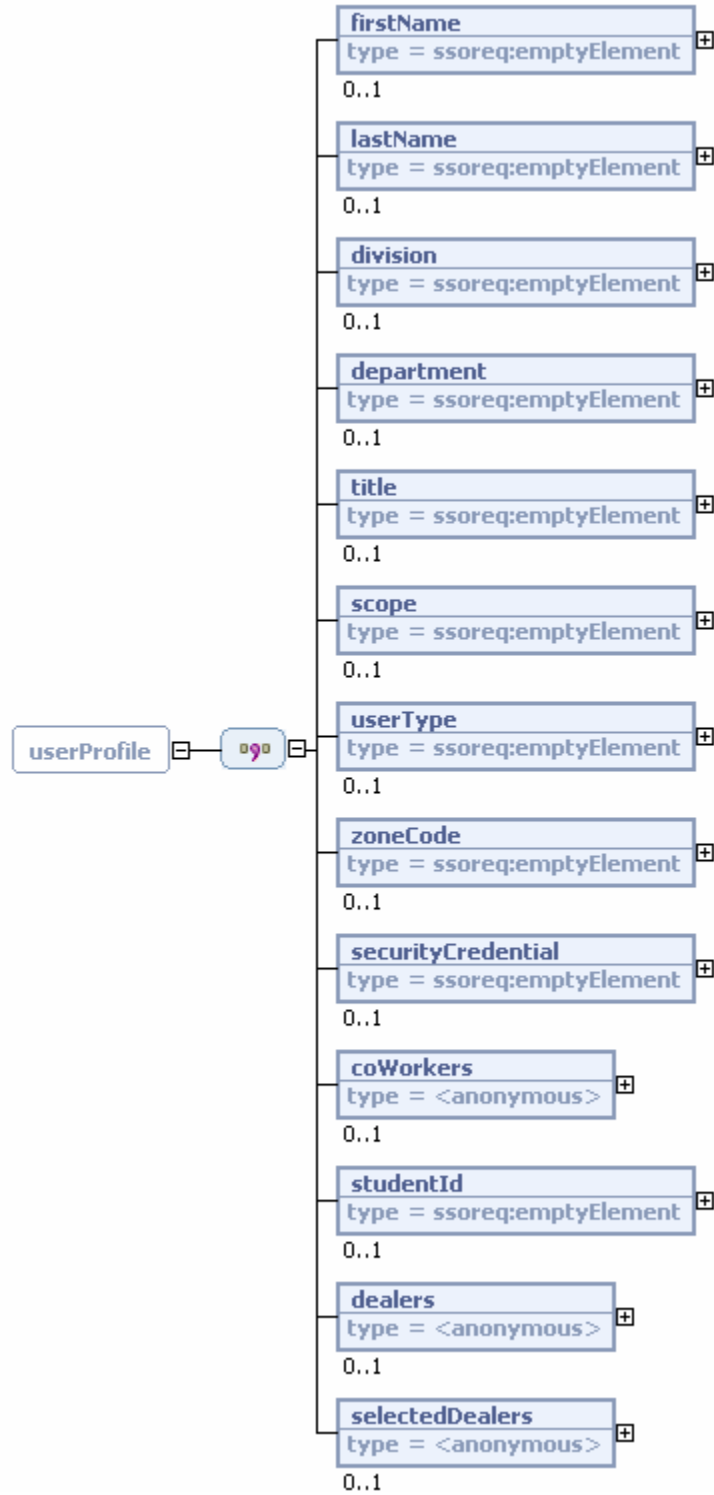


Figure 5 Request - userProfile element

Tag	Description
<coWorkers>	Request to retrieve the co-workers.
<coWorker>	Additional information needed to retrieve the co-workers

Tag	Description
<coWorker> <email> <locale> <securityCredential>	Request to retrieve the co-workers. User's e-mail address User's locale as defined in eBiz Security related details of the user
<securityCredential> <functions>	Security related details needed to retrieve the co-workers Aggregate for the function elements
<functions> <function>	Aggregate for the function elements Function for which the co-workers are requested
<function> <functionName> <resources>	Function for which the co-workers are requested eBiz Portal specified name of the function List of Resources associated with the function used in order to retrieve the co-workers from eBiz
<resources> <resource>	List of Resources associated with the function used in order to retrieve the co-workers from eBiz Resource associated with the function
<resource> <originalResourceName> <targetResourceName>	Resource associated with the function Resource used to authorize the user for Resource for which the co-workers are requested

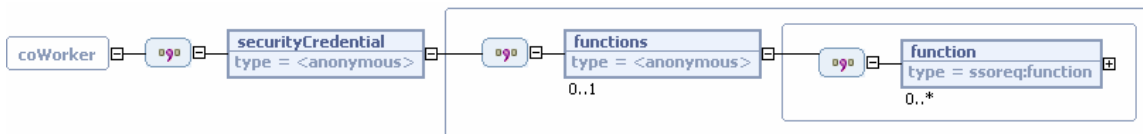


Figure 6 Request - coWorker element

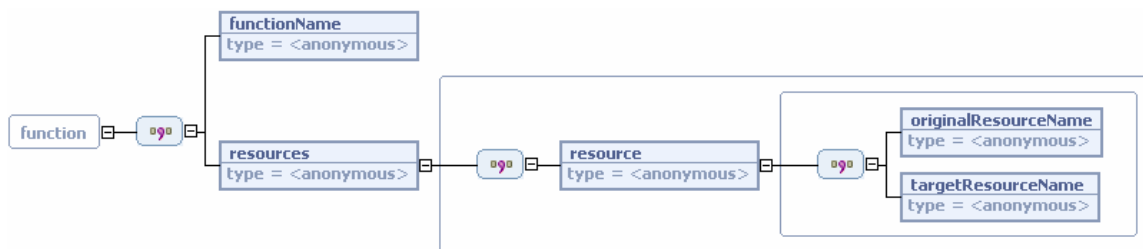


Figure 7 Request - function element

Tag	Description
<dealership> <dealerCode> <dealerName> <productLines> <zoneCode> <dealerAddress>	Dealership information requested from the eBiz Portal Honda Canada code associated with the dealer Honda Canada name associated with the dealer Products that the dealer is authorized for Zone code associated with the dealer Address of the dealer

<hiSpeed> <inheritedDealers>	Type of connection used by the dealer The List of inherited dealers
---------------------------------	--

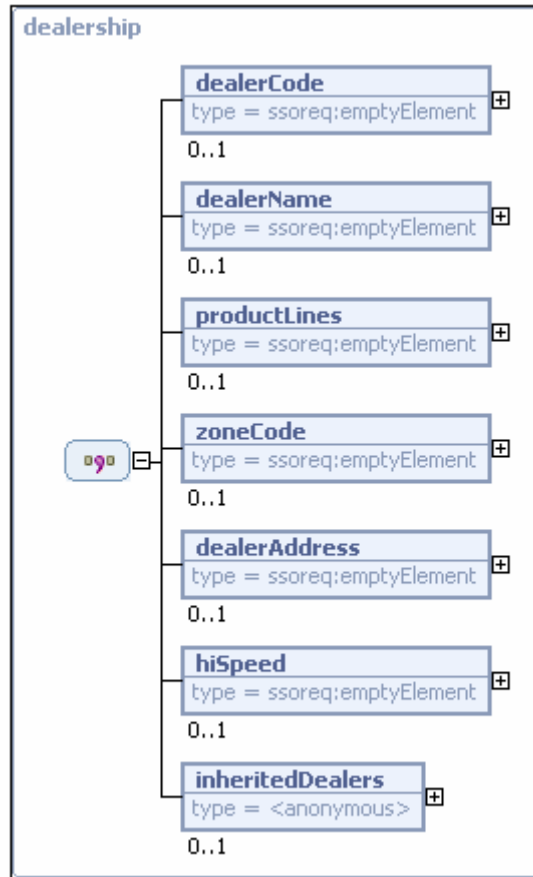


Figure 8 Request - dealership element

3.3.2 ssoResponseMessage.xsd

The request message has to be valid according to the ssoResponseMessage.xsd (see Appendix B). The following is a description of the elements composing the ssoResponseMessage.

All response elements include two optional attributes.

Tag	Description
<response element> {errorCode} {errorDescription}	Request Message Error code, if an error occurred when retrieving the element Description of the error. This is a configurable option of the eBiz Portal, and can be enabled for debugging purposes. It is not intended to be displayed to the user, as the External Application should handle the errors based on the error code.

The possible error codes and their description are given below:

Error Code	Description
0	Success
100	Could not initialize document
110	Could not initialize profile
130	Invalid user locale - null
131	Invalid user locale - empty string
140	Invalid login id - null
141	Invalid login id - empty string
150	Invalid dealer code - null
151	Invalid dealer code - empty string
160	Invalid selected dealer code - null
161	Invalid selected dealer code - empty string
170	Invalid national dummy dealer code - null
171	Invalid national dummy dealer code - empty string
180	Invalid selected primary dealer name - null
181	Invalid selected primary dealer name - empty string
190	Invalid province name
200	Invalid product line - null
201	Invalid product line - empty string
210	Invalid selected product line - null
220	Invalid user scope - null
221	Invalid user scope - empty string
230	Invalid zone code - null
231	Invalid zone code - empty string
240	Invalid selected zone code
250	Invalid admin level
260	Invalid selected dealer profile
270	Invalid selected secondary dealer profile
290	Invalid selected province name
300	Invalid selected secondary dealer code
310	Invalid function name - null
311	Invalid function name - empty string
320	Invalid lms student id - null
321	Invalid lms student id - empty string
330	Invalid user first name - null
331	Invalid user first name - empty string
330	Invalid user last name - null
331	Invalid user last name - empty string
360	Coworkers error
361	Does not have access to original resource
370	Invalid webservices password - null
380	Invalid access level - null

381	Invalid access level - empty string
390	Invalid high speed connection - null
391	Invalid high speed connection - empty string
400	Invalid address - null
401	Invalid address - empty string
500	Invalid postal code - null
501	Invalid postal code - empty string
600	Invalid province name - null
601	Invalid province name - empty string
700	Invalid user email id - null
701	Invalid user email id - empty string
1003	Request xml could not be parsed
1004	Request xml did not confirm to schema
1002	Security type not known. Must be 1 or 2
1001	Unknown SSO version requested for authentication
2000	Invalid token - Authentication failed
2001	Failed to authenticate application for given applicationId and Password
5000	Unable to build response. Please check portal logs

Tag	Description
<ssores:ssoResponse>	Request Message
<userProfile>	Information specific to the eBiz Portal user that is using the External Application If the userProfile is not present, the error code attribute is present indicating the error that occurred when retrieving the userProfile

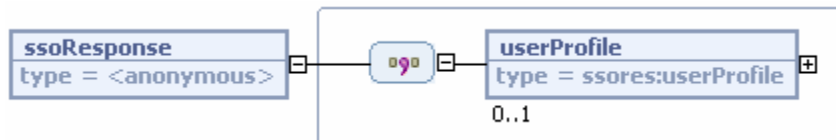


Figure 9 Response - ssoResponse element

3.3.2.1 *userProfile* element

Tag	Description
<userProfile>	Information specific to the eBiz Portal user that is using the External Application
<email>	User's e-mail address
<locale>	User's locale as defined in eBiz
<firstName>	User's First Name
<lastName>	User's Last Name *
<division>	User's Division *

<p><department> <title> <scope></p> <p><userType> <zoneCode> <securityCredential> <coWorkers> <studentId> <dealers> <selectedDealers></p>	<p>User's Department *</p> <p>User's Title</p> <p>User's Scope:</p> <ul style="list-style-type: none"> • D - Dealer • N - National <p>User Type Id</p> <p>User's Zone code: N-1</p> <p>Security related details of the user</p> <p>Users co-workers</p> <p>User's student identifier</p> <p>Dealers to which the user is associated</p> <p>Dealer that the user selected. Selected Dealers is available only for users that can select different dealers (e.g. National Users)</p>
---	--

* Currently, user profile does not contain these attributes, and the value returned will be an empty string.

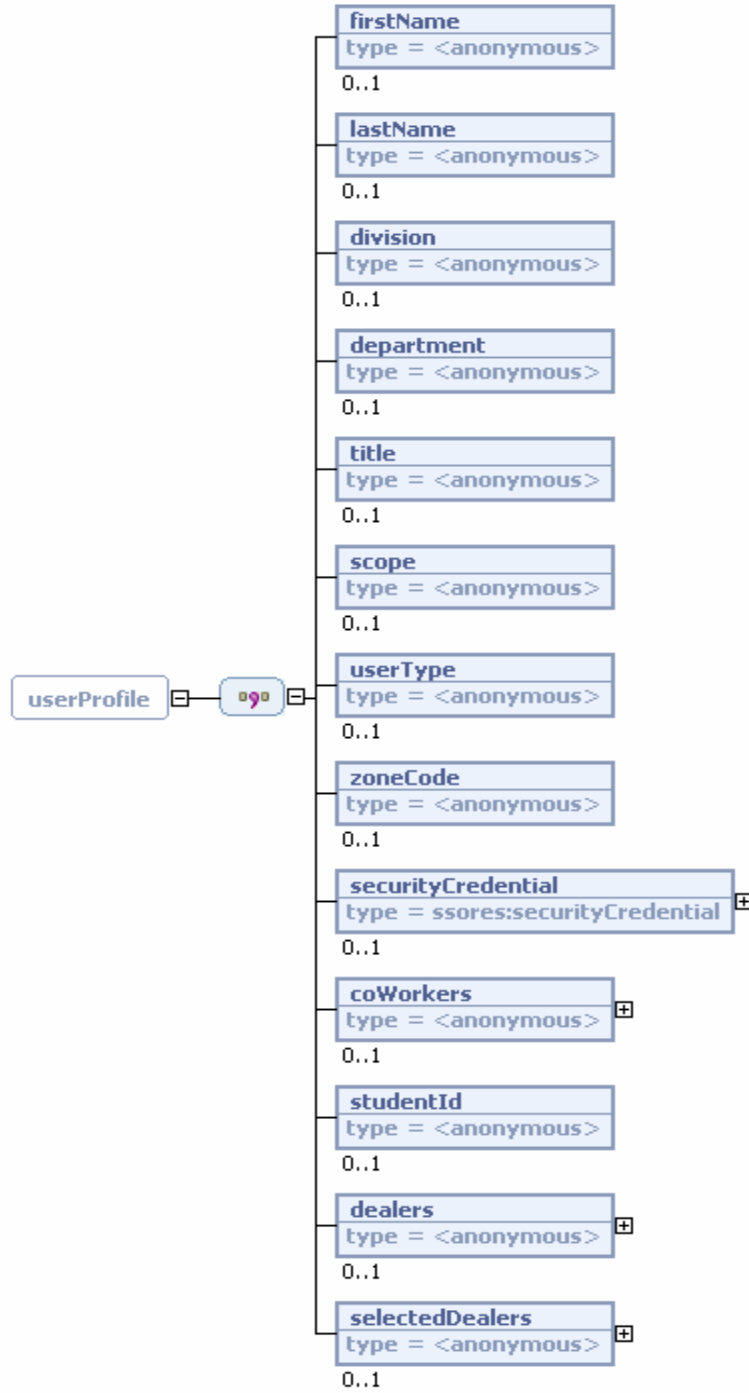


Figure 10 Response - userProfile element

Tag	Description
<securityCredential>	Security related details of the user
<userLogon>	eBiz Portal User logon for the currently logged on user
<functions>	eBiz Portal functions that are available to the current user

<p><accessLevel></p>	<p>Access level of the current user, as defined in eBiz Portal.</p> <ul style="list-style-type: none"> • A - Dealer Admin • E - User Data Entry • N - Normal User • P - Portal Admin • S – Superadmin User
<p><productLines></p>	<p>The list of product lines accessible to the user</p>
<p><wsCredential></p>	<p>Web services credential associated with the user</p>

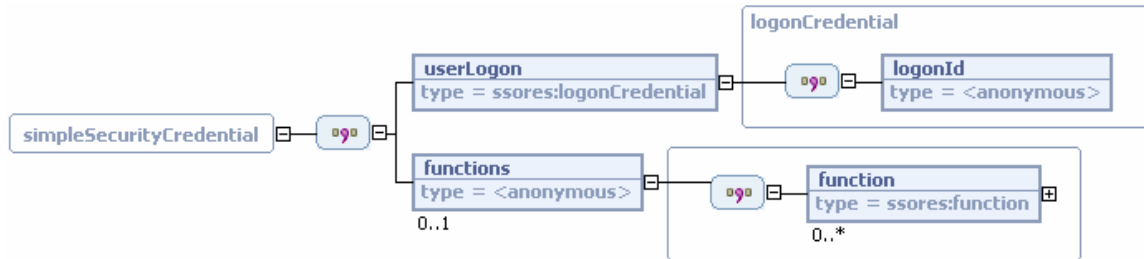


Figure 11 Response - simpleSecurityCredential element

Tag	Description
<userLogon>	eBiz Portal User logon for the currently logged on user
<logonId>	Logon Id

Tag	Description
<functions>	eBiz Portal functions that are available to the current user
<function>	eBiz Portal function

Tag	Description
<function>	eBiz Portal function
<functionName>	eBiz Portal function name
<resources>	Resources defined in eBiz Portal for the function

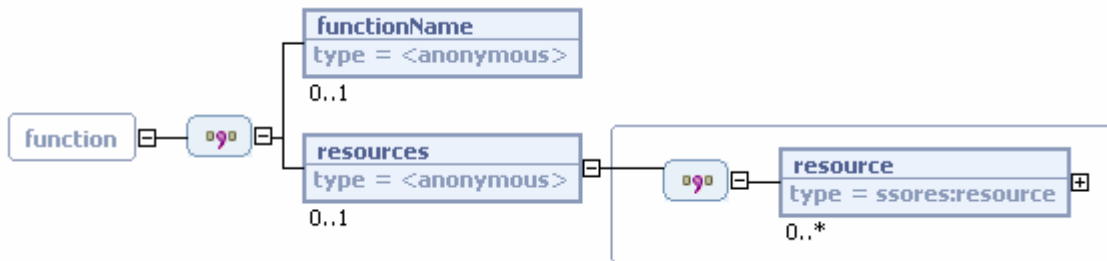


Figure 22 Response - function element

Tag	Description
<resources>	Resources defined in eBiz Portal for a function
<resource>	Resource defined in eBiz Portal for a function

Tag	Description
<resource> <resourceName> <accessLevel> <printable>	Resources defined in eBiz Portal for a function eBiz portal defined resource Specifies the access to the resource. <ul style="list-style-type: none"> • R - Read • W - Write • D - Denied Specifies if the resource can be printed or not <ul style="list-style-type: none"> • Y - Yes • N - No

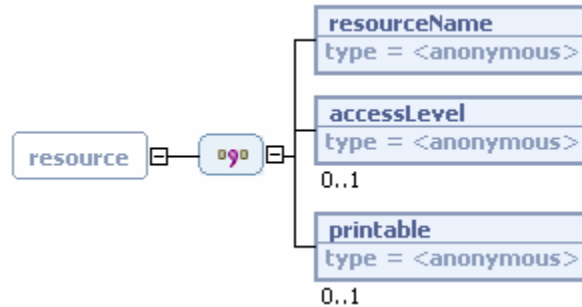


Figure 33 Response - resource element

Tag	Description
<productLines> <productLine>	The list of product lines accessible to the user Specific product line to which the user is authorized <ul style="list-style-type: none"> • A - Honda • C - Acura • M - Motorcycle • P - Power Equipment

Tag	Description
<wsCredential> <logonId> <password>	Web Service credential to be used when accessing the web services EBiz defined logon identifier EBiz defined password

Tag	Description
<coWorkers> <coWorker>	Users co-workers Individual co-worker

Tag	Description
<coWorker> <email> <locale> <securityCredential>	Co-worker Co-worker's e-mail address Co-worker's locale as defined in eBiz Co-worker's security related information

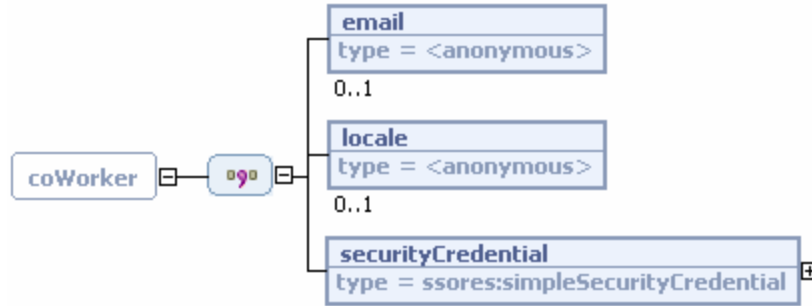


Figure 44 Response - coWorker element

Tag	Description
<dealers>	Dealers the user is associated with
<primaryDealer> <secondaryDealer>	Primary dealer the user is associated with Secondary dealer the user is associated with

Tag	Description
<selectedDealers>	Dealers the user selected
<primaryDealer> <secondaryDealer>	Primary dealer the user selected Secondary dealer based on the user selection

Both primaryDealer and secondaryDealer are of the same type: dealership.

Tag	Description
<primaryDealer> <secondaryDealer>	Dealership information
<dealerCode> <dealerName> <productLines> <zoneCode> <dealerAddress> <hiSpeed>	Honda Canada code associated with the dealer Honda Canada name associated with the dealer Products that the dealer is authorized for Zone code associated with the dealer Address of the dealer Type of connection used by the dealer <ul style="list-style-type: none"> • Y – Hi-speed connection • N – Not a high-speed connection
<inheritedDealers> <calibre>	The List of inherited dealers Dealer Calibre information.

The dealership element

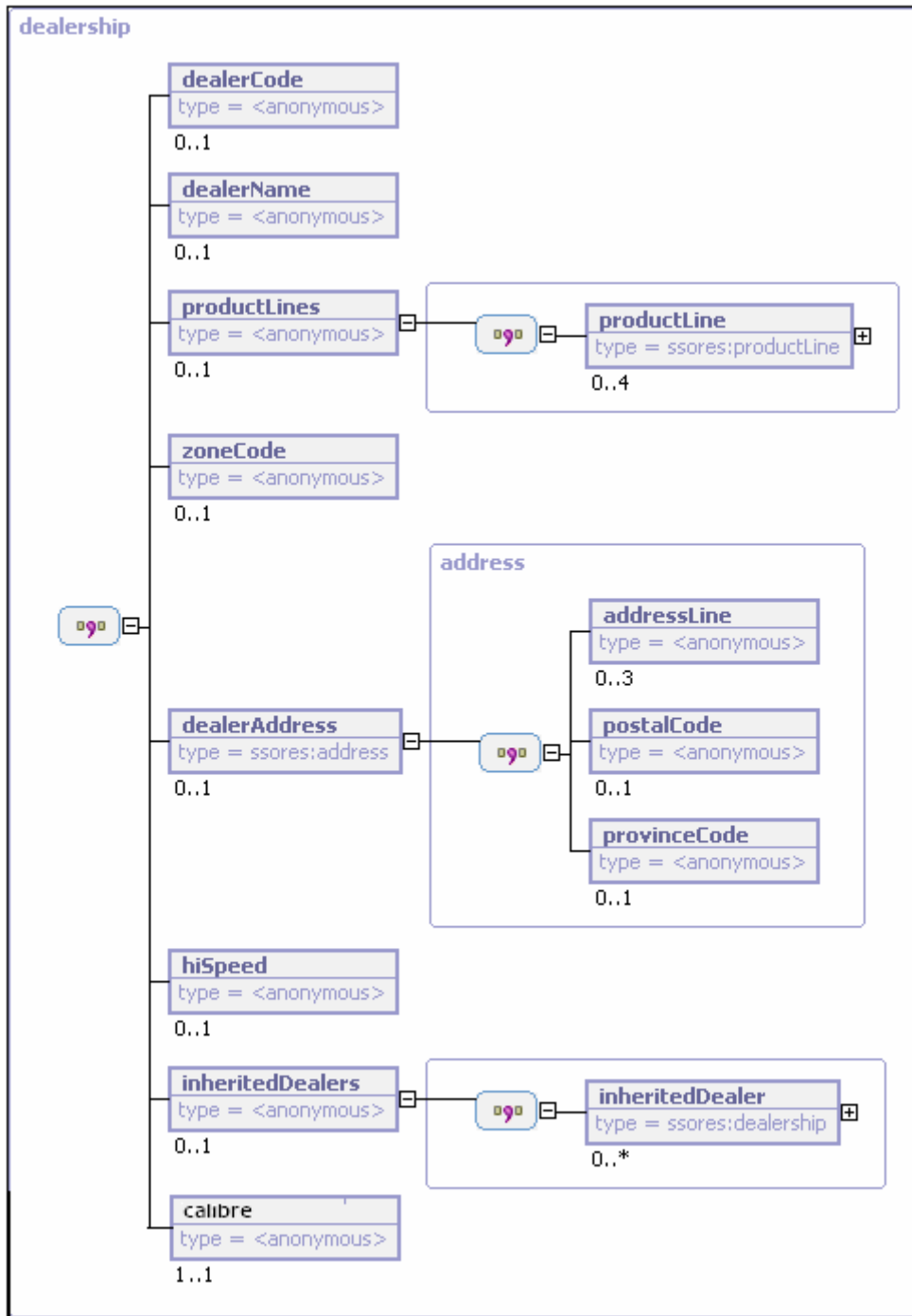


Figure 55 Response - dealership element

Tag	Description
<dealerAddress>	Address of the dealer
<addressLine>	Address line (can have up to 3 address lines)
<postalCode>	Postal code according to the Canada Post format
<provinceCode>	Province code according to Canada Post <ul style="list-style-type: none"> • AB - Alberta • BC - British Columbia • MB - Manitoba • NB - New Brunswick • NL - Newfoundland and Labrador • NS - Nova Scotia • NT - Northwest Territories • NU - Nunavut • ON - Ontario • PE - Prince Edward Island • QC - Quebec • SK - Saskatchewan • YT - Yukon

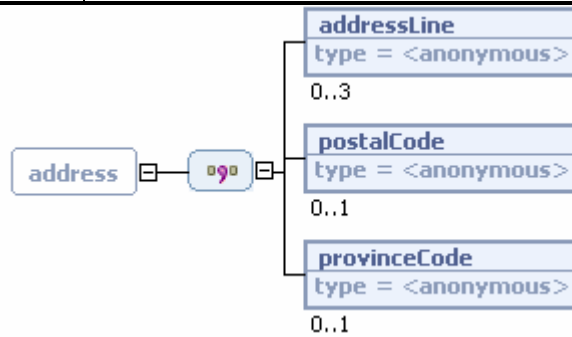


Figure 66 Response - address element

4 Appendix A – ssoRequestMessage.xsd

```

<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:ssoreq="http://sso.honda.ca" targetNamespace="http://sso.honda.ca" elementFormDefault="unqualified"
attributeFormDefault="unqualified">
  <!-- ssoRequest Definition -->
  <xsd:element name="ssoRequest">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="clientInfo" type="ssoreq:clientInfo"/>
        <xsd:element name="applicationInfo" type="ssoreq:applicationInfo"/>
        <xsd:element name="userProfile" type="ssoreq:userProfile"/>
      </xsd:sequence>
      <xsd:attribute name="version" use="required">
        <xsd:annotation>
          <xsd:documentation>Attribute specifies the version of the request/response builder</xsd:documentation>
        </xsd:annotation>
        <xsd:simpleType>
          <xsd:restriction base="xsd:string">
            <xsd:minLength value="1"/>
            <xsd:maxLength value="5"/>
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:attribute>
      <xsd:attribute name="token" use="required" type="xsd:string"/>
    </xsd:complexType>
  </xsd:element>
  <!-- clientInfo Definition -->
  <xsd:complexType name="clientInfo">
    <xsd:sequence>
      <xsd:element name="timeStamp" type="xsd:dateTime" minOccurs="0"/>
      <xsd:element name="locale" minOccurs="0">
        <xsd:annotation>
          <xsd:documentation>The element specifies the user locale</xsd:documentation>
        </xsd:annotation>
        <xsd:complexType>
          <xsd:attribute name="value" use="required">
            <xsd:simpleType>
              <xsd:restriction base="xsd:string">
                <xsd:pattern value="en|fr"/>
              </xsd:restriction>
            </xsd:simpleType>
          </xsd:attribute>
        </xsd:complexType>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
  <!-- applicationInfo Definition -->
  <xsd:complexType name="applicationInfo">
    <xsd:sequence>
      <xsd:element name="applicationCredential" type="ssoreq:applicationCredential"/>
    </xsd:sequence>
    <xsd:attribute name="version" use="optional">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:minLength value="1"/>
          <xsd:maxLength value="10"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:attribute>
  </xsd:complexType>
  <!-- userProfile Definition -->

```



```

<xsd:complexType name="userProfile">
  <xsd:complexContent>
    <xsd:extension base="ssoreq:userBase">
      <xsd:sequence>
        <xsd:element name="firstName" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="lastName" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="division" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="department" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="title" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="scope" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="userType" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="zoneCode" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="securityCredential" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="coWorkers" minOccurs="0">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="coWorker" type="ssoreq:coWorker"/>
            </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
        <xsd:element name="studentId" type="ssoreq:emptyElement" minOccurs="0"/>
        <xsd:element name="dealers" minOccurs="0">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="primaryDealer" type="ssoreq:dealership"/>
              <xsd:element name="secondaryDealer" type="ssoreq:dealership" minOccurs="0"/>
            </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
        <xsd:element name="selectedDealers" minOccurs="0">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="primaryDealer" type="ssoreq:dealership"/>
              <xsd:element name="secondaryDealer" type="ssoreq:dealership" minOccurs="0"/>
            </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<!-- applicationCredential Definition -->
<xsd:complexType name="applicationCredential">
  <xsd:sequence>
    <xsd:element name="applicationId" type="xsd:string" >
    </xsd:element>
    <xsd:element name="password" type="xsd:string" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation>password associated to the applicationId.</xsd:documentation>
      </xsd:annotation>
    </xsd:element>
  </xsd:sequence>
  <xsd:attribute name="securityType" use="optional">
    <xsd:simpleType>
      <xsd:restriction base="xsd:string">
        <xsd:enumeration value="1"/>
        <xsd:enumeration value="2"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:attribute>
</xsd:complexType>
<!-- function Definition -->
<xsd:complexType name="function">

```

```

<xsd:sequence>
  <xsd:element name="functionName">
    <xsd:complexType>
      <xsd:attribute name="value" use="required"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="resources">
    <xsd:annotation>
      <xsd:documentation>The List of resources associated with the function</xsd:documentation>
    </xsd:annotation>
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="resource">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="originalResourceName">
                <xsd:complexType>
                  <xsd:attribute name="value" use="required"/>
                </xsd:complexType>
              </xsd:element>
              <xsd:element name="targetResourceName">
                <xsd:complexType>
                  <xsd:attribute name="value" use="required"/>
                </xsd:complexType>
              </xsd:element>
            </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
</xsd:sequence>
</xsd:complexType>
<!-- userBase Definition -->
<xsd:complexType name="userBase">
  <xsd:sequence>
    <xsd:element name="email" type="ssoreq:emptyElement" minOccurs="0"/>
    <xsd:element name="locale" type="ssoreq:emptyElement" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<!-- coWorker Definition-->
<xsd:complexType name="coWorker">
  <xsd:complexContent>
    <xsd:extension base="ssoreq:userBase">
      <xsd:sequence>
        <xsd:element name="securityCredential">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="functions">
                <xsd:annotation>
                  <xsd:documentation/>
                </xsd:annotation>
                <xsd:complexType>
                  <xsd:sequence>
                    <xsd:element name="function" type="ssoreq:function"/>
                  </xsd:sequence>
                </xsd:complexType>
              </xsd:element>
            </xsd:sequence>
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
</xsd:extension>

```

```

        </xsd:complexContent>
    </xsd:complexType>
    <!-- dealership Definition -->
    <xsd:complexType name="dealership">
        <xsd:sequence>
            <xsd:element name="dealerCode" type="ssoreq:emptyElement" minOccurs="0"/>
            <xsd:element name="dealerName" type="ssoreq:emptyElement" minOccurs="0"/>
            <xsd:element name="productLines" type="ssoreq:emptyElement" minOccurs="0"/>
            <xsd:element name="zoneCode" type="ssoreq:emptyElement" minOccurs="0"/>
            <xsd:element name="dealerAddress" type="ssoreq:emptyElement" minOccurs="0"/>
            <xsd:element name="hiSpeed" type="ssoreq:emptyElement" minOccurs="0"/>
            <xsd:element name="inheritedDealers" minOccurs="0">
                <xsd:annotation>
                    <xsd:documentation>The List of inherited dealers</xsd:documentation>
                </xsd:annotation>
                <xsd:complexType>
                    <xsd:sequence>
                        <xsd:element name="inheritedDealer" type="ssoreq:dealership" minOccurs="0"/>
                    </xsd:sequence>
                </xsd:complexType>
            </xsd:element>
        </xsd:sequence>
    </xsd:complexType>
    <!-- emptyElement Definition -->
    <xsd:complexType name="emptyElement"/>
</xsd:schema>

```

5 Appendix B – ssoResponseMessage.xsd

```

<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:ssores="http://sso.honda.ca" targetNamespace="http://sso.honda.ca" elementFormDefault="unqualified"
attributeFormDefault="unqualified">
    <!-- ssoResponse Definition -->
    <xsd:element name="ssoResponse">
        <xsd:complexType>
            <xsd:sequence>
                <!-- The SSO Response will include one userProfile element-->
                <xsd:element name="userProfile" type="ssores:userProfile" minOccurs="0"/>
            </xsd:sequence>
            <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
        </xsd:complexType>
    </xsd:element>
    <!-- userProfile Definition -->
    <xsd:complexType name="userProfile">
        <xsd:complexContent>
            <xsd:extension base="ssores:userBase">
                <xsd:sequence>
                    <xsd:element name="firstName" minOccurs="0">
                        <xsd:complexType>
                            <xsd:attribute name="value" use="optional"/>
                            <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
                        </xsd:complexType>
                    </xsd:element>
                    <xsd:element name="lastName" minOccurs="0">
                        <xsd:complexType>
                            <xsd:attribute name="value" use="optional"/>
                        </xsd:complexType>
                    </xsd:element>
                </xsd:sequence>
            </xsd:extension>
        </xsd:complexContent>
    </xsd:complexType>

```

```

        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
  <xsd:element name="division" minOccurs="0">
    <xsd:complexType>
      <xsd:attribute name="value" use="optional"/>
      <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="department" minOccurs="0">
    <xsd:complexType>
      <xsd:attribute name="value" use="optional"/>
      <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="title" minOccurs="0">
    <xsd:complexType>
      <xsd:attribute name="value" use="optional"/>
      <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="scope" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation>This provides the scope of the user. The possible values are D - Dealer N -
National</xsd:documentation>
    </xsd:annotation>
    <xsd:complexType>
      <xsd:attribute name="value" use="optional">
        <xsd:simpleType>
          <xsd:restriction base="xsd:string">
            <xsd:pattern value="D|N|Z"/>
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:attribute>
      <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="userType" minOccurs="0">
    <xsd:complexType>
      <xsd:attribute name="value" use="optional"/>
      <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
    </xsd:complexType>
  </xsd:element>
  <!-- Zone code is provided for Zone Users -->
  <xsd:element name="zoneCode" minOccurs="0">
    <xsd:complexType>
      <xsd:attribute name="value" use="optional">
        <xsd:simpleType>
          <xsd:restriction base="xsd:string">
            <xsd:length value="1"/>
            <xsd:pattern value="[0-9]"/>
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:attribute>
      <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
    </xsd:complexType>
  </xsd:element>
  <!-- securityCredential is provided if requested-->
  <xsd:element name="securityCredential" type="ssores:securityCredential" minOccurs="0">
    <xsd:annotation>
      <xsd:documentation>The element specifies the security related details of the user</xsd:documentation>
    </xsd:annotation>
  </xsd:element>

```

```

<!-- coWorkers are provided if requested-->
<xsd:element name="coWorkers" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation>Element specifies this users co-workers</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="coWorker" type="ssores:coWorker" minOccurs="0"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
  </xsd:complexType>
</xsd:element>
<!-- studentId is provided if requested -->
<xsd:element name="studentId" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation/>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:attribute name="value" use="optional">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:minLength value="1"/>
          <xsd:maxLength value="8"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:attribute>
    <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
  </xsd:complexType>
</xsd:element>
<!-- dealers is provided if requested -->
<xsd:element name="dealers" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation>Dealers the user is associated with.
  </xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="primaryDealer" type="ssores:dealership"/>
      <xsd:element name="secondaryDealer" type="ssores:dealership" minOccurs="0"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
  </xsd:complexType>
</xsd:element>
<!-- selectedDealers is provided if requested-->
<xsd:element name="selectedDealers" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation>
      Dealers the user has selected.
    </xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="primaryDealer" type="ssores:dealership"/>
      <xsd:element name="secondaryDealer" type="ssores:dealership" minOccurs="0"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
  </xsd:complexType>
</xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<!-- dealership Definition -->

```

```

<xsd:complexType name="dealership">
  <xsd:sequence>
    <xsd:element name="dealerCode" minOccurs="0">
      <xsd:complexType>
        <xsd:attribute name="value" use="optional">
          <xsd:simpleType>
            <xsd:restriction base="xsd:integer">
              <xsd:minInclusive value="0"/>
              <xsd:maxInclusive value="9999"/>
            </xsd:restriction>
          </xsd:simpleType>
        </xsd:attribute>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="dealerName" minOccurs="0">
      <xsd:complexType>
        <xsd:attribute name="value" type="xsd:string" use="required"/>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="productLines" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation>The List of Products associated to this particular dealer. For regular dealership there would be only one
product but for National dealership the list can have multiple entries</xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="productLine" type="ssores:productLine" minOccurs="0" maxOccurs="4"/>
        </xsd:sequence>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="zoneCode" minOccurs="0">
      <xsd:complexType>
        <xsd:attribute name="value" use="optional">
          <xsd:simpleType>
            <xsd:restriction base="xsd:string">
              <xsd:length value="1"/>
              <xsd:pattern value="[0-9]"/>
            </xsd:restriction>
          </xsd:simpleType>
        </xsd:attribute>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="dealerAddress" type="ssores:address" minOccurs="0"/>
    <xsd:element name="hiSpeed" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation>Element specifies internet connection speed of the dealer. This is mainly used by customer service
representatives</xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
        <xsd:attribute name="value" use="optional">
          <xsd:simpleType>
            <xsd:restriction base="xsd:string">
              <xsd:pattern value="Y|N"/>
            </xsd:restriction>
          </xsd:simpleType>
        </xsd:attribute>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
  </xsd:sequence>
</complexType>

```

```

<xsd:element name="inheritedDealers" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation>The List of inherited dealers</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element name="inheritedDealer" type="ssores:dealership" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
  </xsd:complexType>
</xsd:element>
<xsd:element name="calibre" minOccurs="1" maxOccurs="1">
  <xsd:complexType>
    <xsd:attribute name="value" use="required">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:length value="2"/>
          <xsd:pattern value="[10-90]"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:attribute>
    <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
  </xsd:complexType>
</xsd:element>
</xsd:sequence>
<xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>
<!-- function Definition -->
<xsd:complexType name="function">
  <xsd:sequence>
    <xsd:element name="functionName" minOccurs="0">
      <xsd:complexType>
        <xsd:attribute name="value" use="optional"/>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="resources" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation>The List of resources associated with the function</xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="resource" type="ssores:resource" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
  </xsd:sequence>
  <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>
<!-- resource Definition -->
<xsd:complexType name="resource">
  <xsd:sequence>
    <xsd:element name="resourceName">
      <xsd:complexType>
        <xsd:attribute name="value" use="optional"/>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="accessLevel" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation>Element determines the read write access on the resource. Possible values included R-Read W-Write D-
Denied</xsd:documentation>

```

```

        </xsd:annotation>
        <xsd:complexType>
            <xsd:attribute name="value" use="optional">
                <xsd:simpleType>
                    <xsd:restriction base="xsd:string">
                        <xsd:pattern value="R|W|D"/>
                    </xsd:restriction>
                </xsd:simpleType>
            </xsd:attribute>
            <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
        </xsd:complexType>
    </xsd:element>
    <xsd:element name="printable" minOccurs="0">
        <xsd:annotation>
            <xsd:documentation>element indicates if the resource can be printed or not</xsd:documentation>
        </xsd:annotation>
        <xsd:complexType>
            <xsd:attribute name="value" use="optional">
                <xsd:simpleType>
                    <xsd:restriction base="xsd:string">
                        <xsd:pattern value="Y|N"/>
                    </xsd:restriction>
                </xsd:simpleType>
            </xsd:attribute>
            <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
        </xsd:complexType>
    </xsd:element>
</xsd:sequence>
<xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>
<!-- product line Definition -->
<xsd:complexType name="productLine">
    <xsd:annotation>
        <xsd:documentation>Element specifies the product type. Possible values A - Acura, C - Honda, M - Motorcylce and P - Power
Equipment</xsd:documentation>
    </xsd:annotation>
    <xsd:attribute name="value" use="optional">
        <xsd:simpleType>
            <xsd:restriction base="xsd:string">
                <xsd:pattern value="A|C|M|P"/>
            </xsd:restriction>
        </xsd:simpleType>
    </xsd:attribute>
    <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>

<!-- address Definition -->
<xsd:complexType name="address">
    <xsd:sequence>
        <xsd:element name="addressLine" minOccurs="0" maxOccurs="3">
            <xsd:complexType>
                <xsd:attribute name="lineId" use="required">
                    <xsd:simpleType>
                        <xsd:restriction base="xsd:integer">
                            <xsd:minInclusive value="1"/>
                            <xsd:maxInclusive value="3"/>
                        </xsd:restriction>
                    </xsd:simpleType>
                </xsd:attribute>
                <xsd:attribute name="value" type="xsd:string" use="optional"/>
                <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
            </xsd:complexType>
        </xsd:element>

```



```

<xsd:element name="postalCode" minOccurs="0">
  <xsd:complexType>
    <xsd:attribute name="value" use="optional">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:length value="6"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:attribute>
    <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
  </xsd:complexType>
</xsd:element>
<xsd:element name="provinceCode" minOccurs="0">
  <xsd:complexType>
    <xsd:attribute name="value" use="optional">
      <xsd:simpleType>
        <xsd:restriction base="xsd:string">
          <xsd:enumeration value="AB">
            <xsd:annotation>
              <xsd:documentation>Alberta</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="BC">
            <xsd:annotation>
              <xsd:documentation>British Columbia</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="MB">
            <xsd:annotation>
              <xsd:documentation>Manitoba</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="NB">
            <xsd:annotation>
              <xsd:documentation>New Brunswick</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="NL">
            <xsd:annotation>
              <xsd:documentation>Newfoundland and Labrador</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="NS">
            <xsd:annotation>
              <xsd:documentation>Nova Scotia</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="NT">
            <xsd:annotation>
              <xsd:documentation>Northwest Territories</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="NU">
            <xsd:annotation>
              <xsd:documentation>Nunavut</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="ON">
            <xsd:annotation>
              <xsd:documentation>Ontario</xsd:documentation>
            </xsd:annotation>
          </xsd:enumeration>
          <xsd:enumeration value="PE">

```

```

        <xsd:annotation>
          <xsd:documentation>Prince Edward Island</xsd:documentation>
        </xsd:annotation>
      </xsd:enumeration>
    <xsd:enumeration value="QC">
      <xsd:annotation>
        <xsd:documentation>Québec</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="SK">
      <xsd:annotation>
        <xsd:documentation>Saskatchewan</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
    <xsd:enumeration value="YT">
      <xsd:annotation>
        <xsd:documentation>Yukon</xsd:documentation>
      </xsd:annotation>
    </xsd:enumeration>
  </xsd:restriction>
</xsd:simpleType>
</xsd:attribute>
<xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>
</xsd:element>
</xsd:sequence>
<xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>
<!-- userBase Definition -->
<xsd:complexType name="userBase">
  <xsd:sequence>
    <xsd:element name="email" minOccurs="0">
      <xsd:complexType>
        <xsd:attribute name="value" use="optional">
          <xsd:simpleType>
            <xsd:restriction base="xsd:string">
              <xsd:minLength value="5"/>
              <!-- xsd:pattern value="([a-zA-Z0-9]+@[a-zA-Z0-9]+\.[a-zA-Z0-9]+)"/-->
            </xsd:restriction>
          </xsd:simpleType>
        </xsd:attribute>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="locale" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation>The element specifies the user locale</xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
        <xsd:attribute name="value" use="optional">
          <xsd:simpleType>
            <xsd:restriction base="xsd:string">
              <!-- xsd:pattern value="en|fr"/-->
            </xsd:restriction>
          </xsd:simpleType>
        </xsd:attribute>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
  </xsd:sequence>
  <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>
<!-- logonCredential Definition -->

```

```

<xsd:complexType name="logonCredential">
  <xsd:sequence>
    <xsd:element name="logonId">
      <xsd:annotation>
        <xsd:documentation>User eBiz Logon Id.</xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
        <xsd:attribute name="value" use="optional"/>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
  </xsd:sequence>
  <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>
<!-- simpleSecurityCredential Definition-->
<xsd:complexType name="simpleSecurityCredential">
  <xsd:sequence>
    <xsd:element name="userLogon" type="ssores:logonCredential"/>
    <xsd:element name="functions" minOccurs="0">
      <xsd:annotation>
        <xsd:documentation>The List of functions the user have access to</xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
        <xsd:sequence>
          <xsd:element name="function" type="ssores:function" minOccurs="0" maxOccurs="unbounded"/>
        </xsd:sequence>
        <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
      </xsd:complexType>
    </xsd:element>
  </xsd:sequence>
  <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>
<!-- securityCredential Definition -->
<xsd:complexType name="securityCredential">
  <xsd:complexContent>
    <xsd:extension base="ssores:simpleSecurityCredential">
      <xsd:sequence>
        <xsd:element name="accessLevel" minOccurs="0">
          <xsd:annotation>
            <xsd:documentation>access level of this particular user. The possible values includes : A -Dealer Admin E-
User Data Entry N-Normal User P-Portal Admin S-User Superadmin</xsd:documentation>
          </xsd:annotation>
          <xsd:complexType>
            <xsd:attribute name="value" use="optional">
              <xsd:simpleType>
                <xsd:restriction base="xsd:string">
                  <xsd:pattern value="A|E|N|P|S"/>
                </xsd:restriction>
              </xsd:simpleType>
            </xsd:attribute>
            <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
  <xsd:element name="productLines">
    <xsd:annotation>
      <xsd:documentation>The List of Products allowed for the user</xsd:documentation>
    </xsd:annotation>
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="productLine" type="ssores:productLine" minOccurs="1" maxOccurs="4"/>
      </xsd:sequence>
      <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
    </xsd:complexType>
  </xsd:element>

```

```

</xsd:element>
<xsd:element name="wsCredential" minOccurs="0">
  <xsd:annotation>
    <xsd:documentation>Element specifies web service username and password</xsd:documentation>
  </xsd:annotation>
  <xsd:complexType>
    <xsd:complexContent>
      <xsd:extension base="ssores:logonCredential">
        <xsd:sequence>
          <xsd:element name="password">
            <xsd:annotation>
              <xsd:documentation>password associated to the
logonId.</xsd:documentation>
            </xsd:annotation>
          </xsd:element>
        </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
  <xsd:attribute name="value" use="optional"/>
  <xsd:attributeGroup ref="ssores:errorAttributeGroup"/>
</xsd:complexType>
</xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
</xsd:element>
</xsd:sequence>
</xsd:extension>
</xsd:complexContent>
</xsd:complexType>
<!-- coWorker Definition -->
<xsd:complexType name="coWorker">
  <xsd:complexContent>
    <xsd:extension base="ssores:userBase">
      <xsd:sequence>
        <xsd:element name="securityCredential" type="ssores:simpleSecurityCredential"/>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<!-- errorAttributeGroup Definition -->
<xsd:attributeGroup name="errorAttributeGroup">
  <!--The errorCode is present if there is any error retrieving the element -->
  <xsd:attribute name="errorCode" use="optional">
    <xsd:annotation>
      <xsd:documentation>Attribute specifies the exception code for the error, if any, that occurred during retrieval of the associated
element</xsd:documentation>
    </xsd:annotation>
  </xsd:attribute>
  <xsd:simpleType>
    <xsd:restriction base="xsd:string">
      <xsd:minLength value="1"/>
      <xsd:maxLength value="5"/>
    </xsd:restriction>
  </xsd:simpleType>
</xsd:attribute>
  <!-- Error Description is sent when the flag is turned on in the application -->
  <xsd:attribute name="errorDescription" type="xsd:string" use="optional">
    <xsd:annotation>
      <xsd:documentation>Element specifies the exception description for the error, if any, that occurred during retrieval of the associated
element</xsd:documentation>
    </xsd:annotation>
  </xsd:attribute>
</xsd:attributeGroup>
</xsd:schema>

```