

EDQ for Salesforce Commerce Cloud

Version 20.0.0



1. Summary

The EDQ Commerce Cloud cartridge verify address and validates phone and email data in real time during registration, shipping, billing and address touchpoints; this cartridge supports both SiteGenesis (SGJC) and Storefront (SFRA) workflows.

2. Component Overview

2.1. Functional Overview

The EDQ Commerce Cloud cartridge contains address verification with Pro Web - Address (Verification Engine) and Global Intuitive, as well Global Phone Validate and Email Validate functionality. The sections below describe each of these workflows in more detail.

2.1.1. Email Validate

Email Validation will check your email at the moment you finish typing in the email field box and once you lose focus on the email field the Email Validate will start working letting you know if is a valid or an invalid email.

To configure your Email Validate, you need to access the Business Manager and go to EDQ Config (**Select Site > Merchant Tools > Site Preferences > Custom Site Preferences Group > EDQ Config**) and look for the email options.

A screenshot of a configuration interface. It contains two sections. The first section is labeled "Email Enable" and has a dropdown menu currently set to "None". Below this dropdown is the text "Activates/desactivates email validation". The second section is labeled "Email validation" and also has a dropdown menu set to "None". Below this dropdown is the text "Force email validation to prevent the page going through".

- The email enable option will enable/disable Email Validate in your store.
- The email validation option will enable/disable the page to prevent on going through.

The store touchpoints for Email Validate are:

- Registration form.
- Billing/Payment form.

Example: 9234567890

* Email
thisisnotarealemailx@gmail.com ✖

* Confirm Email

* Password

* Confirm Password

☐ Please add me to Commerce Cloud email list.

Create Account

Commerce cloud does not share or sell

Email validate can result in two potential outcomes.

Verification Level	Description	Icon
Verified	Email exists, or is a company internal email, is reachable and is valid.	✔
Invalid	Mailbox or domain does not exist or is unreachable, illegitimate or disposable.	✖

2.1.2. Global Phone Validate

Global Phone Validate will check your phone at the moment you finish typing in the phone field box and once you lose focus on the phone field, the Global Phone Validate will start working letting you know if is a valid or an invalid phone.

To configure your Global Phone Validate, you need to access the Business Manager and go to EDQ Config (**Select Site > Merchant Tools > Site Preferences > Custom Site Preferences Group > EDQ Config**) and look for the phone options.

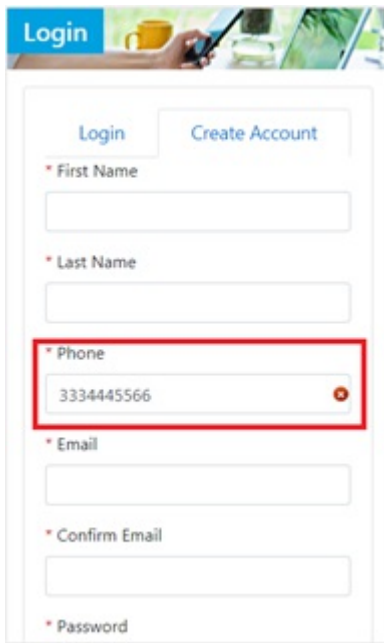
Phone Enable Yes ▼
Activates/desactivates phone validation

Phone validation No ▼
Force phone validation to prevent the page going through

- The phone enable option will enable/disable Global Phone Validate in your store.
- The phone validation option will enable/disable the page to prevent on going through.

The store touchpoints for Global Phone Validate are:

- Registration form.
- Add/Edit Address form.
- Billing/Payment form.



Login

[Login](#) [Create Account](#)

* First Name

* Last Name

* Phone

* Email

* Confirm Email

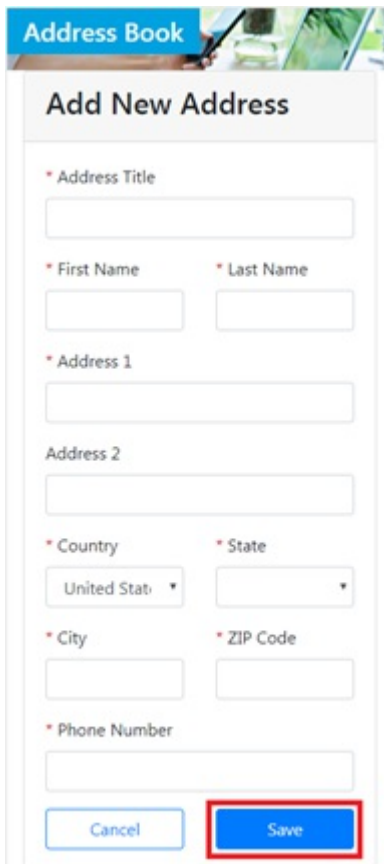
* Password

Global Phone Validate can result in two potential outcomes.

Verification Level	Description	Icon
Verified	Phone matched to a high confidence and returned as a valid number.	✓
Invalid	Could not match the number and returned as an invalid number.	✗

2.1.3. Pro Web - Address (Verification Engine)

Pro Web - Address (Verification Engine) will check your address and correct if possible; once you type your address in the respective address fields and press the page form submitting button.



Address Book

Add New Address

* Address Title

* First Name * Last Name

* Address 1

Address 2

* Country * State

* City * ZIP Code

* Phone Number

[Cancel](#) [Save](#)

In case that your address needs to be corrected and does not match an address; Pro Web - Address (Verification Engine) will prompt a "confirm updated address" box to complete your address in real time; by typing down the address in the address input field, it will give you options with accurate addresses matching the address with the information provided by the user and finally by selecting one of the options it will autocomplete the addresses fields in the address form with correct and valid address and may continue with the store process.

For more information about Pro Web - Address (Verification Engine). (<https://www.edq.com/documentation/apis/address-validate/soap/>)

Confirm updated address

To proceed, please choose an address below.

- lbby 1
- 53 State St Lbby 1
- 02109-3208

53 state st
MA

Use original address

* Country: United States
* State: Massachusetts
* City:
* ZIP Code:
* Phone Number:

Cancel Save

To configure Pro Web - Address (Verification Engine), you need to access the Business Manager and go to EDQ Config (**Select Site > Merchant Tools > Site Preferences > Custom Site Preferences Group > EDQ Config**) and look for the verification engine options.

Name	Value
Preferred address search engine (EDQPreferredAddressSearchEngine) Select your preferred address engine	Both (Both) ▼ Select your preferred address engine
Address Layout (EDQAddressLayout) (String) Define your preferred address layout to show your data	EDQ NA Integration 5 Line Default Define your preferred address layout to show your data
Pro Web Custom Transition Callback (EDQCustomCallbackName) (String) Pro Web Custom Transition Callback	<input type="text"/> Pro Web Custom Transition Callback
Pro Web Callback Validation (EDQProWebCallbackValidation) Activates or deactivates page transition from the callback	No ▼ Activates or deactivates page transition from the callback

- The preferred address search engine option will let you choose between the address search engine options (choose verification engine to only use this selected engine).
- The address layout option lets you choose the structure in which your address will be returned.
- The Pro Web callback validation will let users specify a custom function to manage page transitions.
- The Pro Web Custom Transition Callback will let you specify a name of a function that will be called in order to define custom transition logic when using Pro Web - Address (Verification Engine).

The store touchpoints for Pro Web - Address (Verification Engine) are:

- Add/Edit Address form.
- Billing/Payment form.

Pro Web Custom Transition Callback

To enable the Pro Web Callback Transition go to the Business Manager and go to the EDQ Config (**Select Site > Merchant Tools > Site Preferences > Custom Site Preferences Group > EDQ Config**) and look for the Pro Web Callback Validation option and set the value to true.

Pro Web Callback Validation	Yes ▼	Yes
-----------------------------	-------	-----

After enabling the Pro Web Custom Transition Callback, set the value of the Transition Callback Name with the name of your custom function that will be executed prior to transitioning.

Customer Custom Callback Name	<input type="text"/>
Customer Custom Callback ...	

Since all logic is in the custom function you need to take in consideration the following points to create your custom function:

- Your custom function should receive a parameter; this is where we are going to send you a JSON with the data response from Pro Web Address (Verification Engine).
e.g.

```
function myCustomFunction(myParameter) {
    ...
}
```

The response data from the variable that you're going to receive should look like this example (take note that the way that the data is shown depends on your layout configuration in the Business Manager).

```
{
+4 code: "3208"
City name: "Boston"
Formatted Address 1: null
Formatted Address 2: "53 State St Lbby 2"
Formatted Address 3: "Boston MA 02109-3208"
PO Box: null
PO Box (Number): null
PO Box (Text): null
Primary number: "53"
Secondary number: "Lbby 2"
Secondary number (Number): "2"
Secondary number (Type): "Lbby"
State code: "MA"
State name: "Massachusetts"
Street: "State St"
Street (Descriptor): "St"
Street (Name): "State"
Street (Post-directional): null
Street (Pre-directional): null
ZIP Code: "02109"
}
```

- Your custom function should return a boolean (true or false), depending on your function logic; if your function returns true the page will continue with its normal workflow, if your custom function returns false the page won't make a transition to the next one.

```
if (customLogic)
    return true;
else
    return false;
```

Interaction Modal Box Override

Text messages from Pro Web Address Validation can be overridden by changing the resource message located in `cartridge\templates\resources\experian.properties`; changing the following values will override the custom modal box messages with a customize messages (default messages are in English).

- `proweb.modalHeader.updated=Confirm updated address`
- `proweb.modalHeader.unverified=Confirm unverified address`
- `proweb.interactionRequired.updatedAddressHeader=Updated address`
- `proweb.interactionRequired.originalAddressHeader=Original address`
- `proweb.interactionRequired.useOriginalAddress=Use original address`
- `proweb.interactionRequired.useUpdatedAddress=Use updated address`
- `proweb.interactionRequired.searchPlaceholder=Address information`

Examples

To change messages:

1. Headers messages are located in "proweb.modalHeader".
 - updated
 - unverified
2. Content messages are located in "proweb.interactionRequired".
 - 2.1.updatedAddressHeader
 - 2.2.originalAddressHeader
 - 2.3.useOriginalAddress
 - 2.4.useUpdatedAddress
 - 2.5.searchPlaceholder

1 Test ModalHeader Updated

2.1 Test updatedAddressHeader

19 NE Cook St
Portland
OR
97212,2014

2.2 Test originalAddressHeader

19 cook
portland
or
97212

2.3 Test useUpdatedAddress

2.4 Test useOriginalAddress

1 Test ModalHeader Unverified

Please confirm your Apt/Ste/Unit
Number

2.2 Test originalAddressHeader


53 state st
boston
Ma
02109

2.5 Test searchPlaceholder

2.3 Test useOriginalAddress

2.1.4. Global Intuitive

Global Intuitive will correct your address in real time while your typing down your address in the address field box.



Add New Address

* Address 1

53 State St Lbby 1, Boston MA 02...

53 State St Lbby 2, Boston MA 02...

53 State St Lbby 3, Boston MA 02...


* Country

* State

* City

* ZIP Code

Global Intuitive will automatically fill the rest of the address fields in the form.



Add New Address

* Address 1

Address 2

* Country

* State

* City

* ZIP Code

For more information about Global Intuitive. (<https://www.edq.com/documentation/apis/address-validate/global-intuitive/>)

To configure Global Intuitive, you need to access the Business Manager and go to EDQ Config (**Select Site > Merchant Tools > Site Preferences > Custom Site Preferences Group > EDQ Config**) and look for the global intuitive option.

Name	Value
Global Intuitive Use Current Location (EDQGlobalIntuitiveUseCurrentLoca... Global Intuitive Use Current Location	Yes
Preferred address search engine (EDQPreferedAddressSearchEngine) Select your preferred address engine	None (None)
Data Set Code (EDQDataSetCode) (String) Code to use datasets In case the country ISO code requires it	
Activates or deactivates Data Set usage (EDQDataSetUsage) Activates or deactivates Data Set usage	No

- The preferred address search engine option will let you choose between the address search engine options (choose verification engine to only use this selected engine).
- The Data Set Code option will let you set a code to use Data Sets in case the country ISO code requires it.
- The Activates or deactivates Data Set usage option will let you choose to activate or deactivate Data Set usage.
- The Data Set Code will let you set the Data Set that will be use for an especific country.
- The activates or deactivates Data Set usage will let you use the Data Set function; it should be false for countries that don't need Data Sets.
- The Global Intuitive Use Current Location enables the location feature to search the nearest addresses from your current location (only available for USA).

The store touchpoints for Global Intuitive are:

- Add/Edit Address form.
- Billing/Payment form.

DataSets

The dataset option allows you to specify the dataset for the address you're searching for is sourced from.

Currently, dataset supports 3 countries:

- Australia
- Ireland
- New Zealand

For more information. (<https://www.edq.com/documentation/apis-r/address-validate/global-intuitive/#/datasets>)

Using Datasets

- Enable the option Activates or deactivates Data Set usage

Activates or deactivates Data Set usage (EDQDataSetUsage) Activates or deactivates Data Set usage	Yes
---	-----

- Set the the country and dataset code

Data Set Code

(EDQDataSetCode)
(String)

Code to use datasets in case the country ISO code requires it

AUS:DataFusion

Code to use datasets in case the country ISO code requires it

To set a country and a dataset:

- Country ISO-3 code.
- ":" character.
- Dataset code for the country to be used.

2.2. Compatibility

EDQ cartridge was created with Commerce Cloud version 19.2 and may use the following touchpoints for its integration

SiteGenesis (SGJC):

- Register Form
- Address Form
- Shipping Form
- Billing Form

StoreFront (SFRA):

- Register Form
- Address Form
- Checkout Form

2.3. Privacy, Payment

EDQ cartridge does not have access to your payment data; it just works to verify and correct address data and verify phone and email data. The rest of the data is not checked by Experian.

3. Implementation Guide

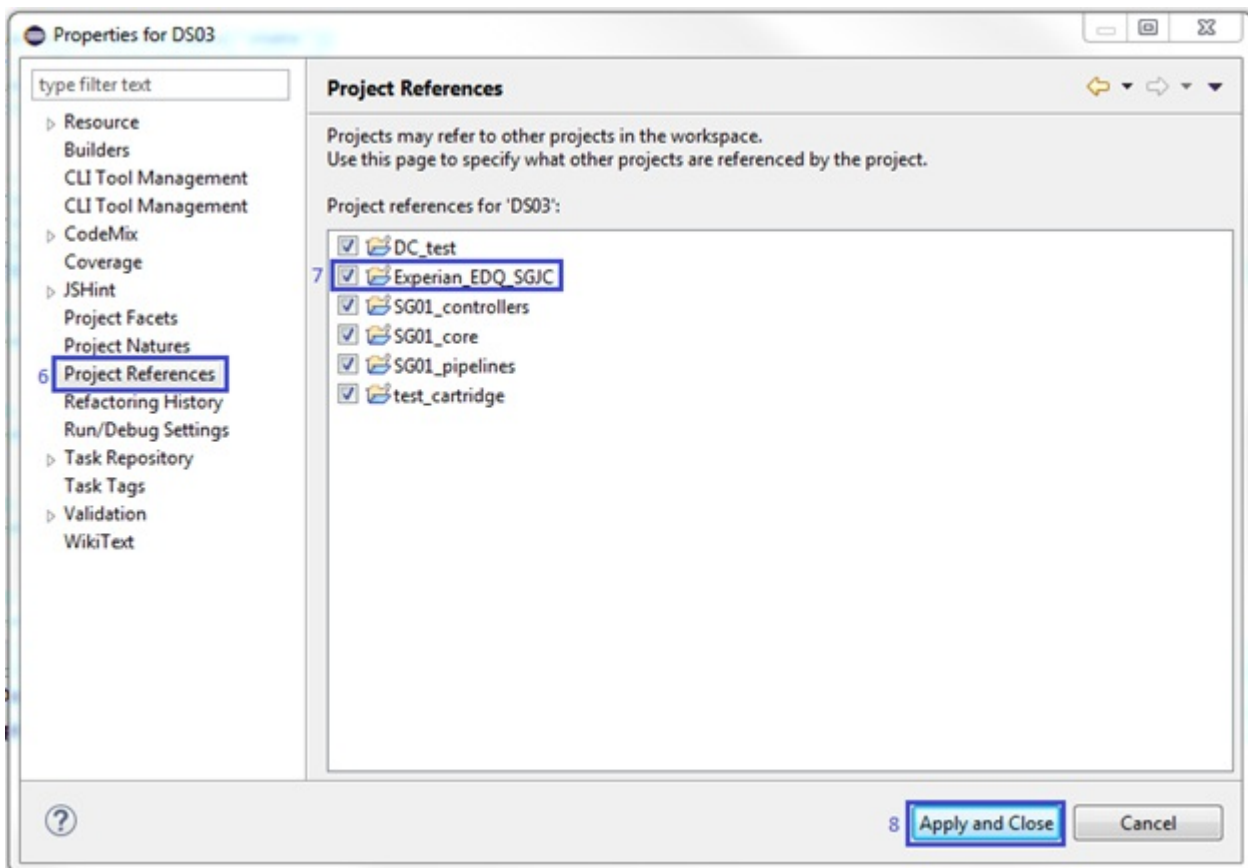
3.1. Setup

This integration process will require access to the following:

- Business Manager
- Commerce Cloud UX Studio

3.1.1. Upload a Cartridge Using Eclipse IDE

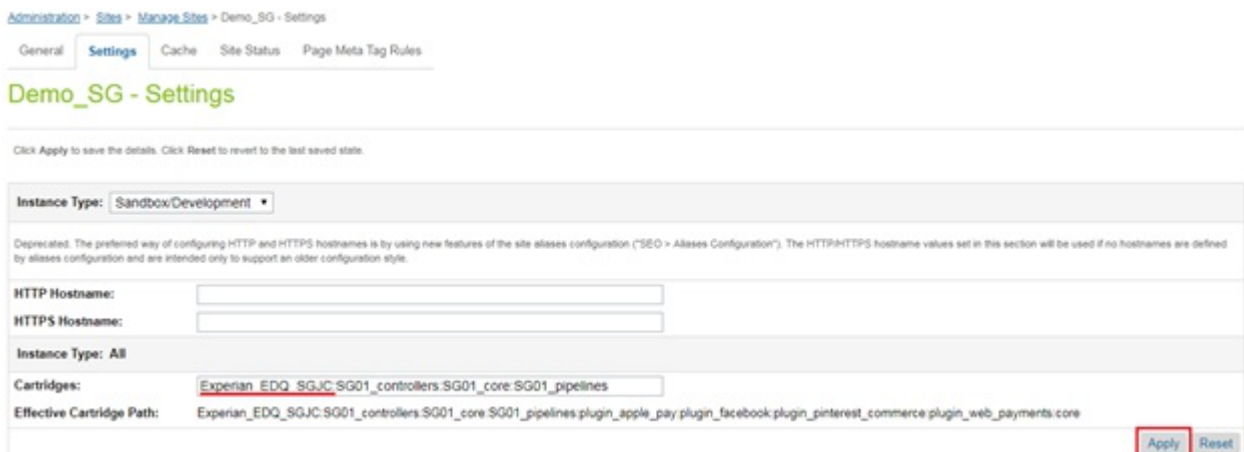
1. Open Eclipse IDE and click **File > Import** .
2. Select the type of project you want to add and click next.
3. Select the project you want to import and click **"Finish"** button.
4. Go to Project Explorer tab.
5. Select your digital server and go to its Properties.
6. On the properties window select the option **"Project Reference"** .
7. Select the cartridge you want to add to your digital server.
8. Press **"Apply and Close"** button.



3.1.2. Business Manager

Register your cartridge.

1. Log in to your Business Manager, then go to **Administration > Sites > Manage Sites**.
2. Look for your “**site_name**” and select it.
3. Click on settings tab.
4. Add the cartridge name “**int_experian_sgjc**” (if you're using SiteGenesis or choose int_experian_sfra if you're using SFRA) into the “Cartridges” input-box (cartridges take preference from left to right).
5. Click “**Apply**” button.



3.1.3. Site Preferences

1. Log into your Business Manager and go to **Administration > Site Development > Site Import & Export**.
2. On the Import section with the tag name Upload Archive check the Local option then select the file “**SitePreferences.zip**”; then press the Upload button.

Import

Upload Archive:

☒ Local ☐ Remote

Choose File No file chosen

Upload

3. Select the file and then press the **Import** button.

4. Press the **Ok** button on the top of this section.

To check the imported site preferences go to **Administration > Site Development > System Object Types** and look for the option **Site Preferences**; then click **Attribute Definitions** option and find all **Site Preferences** needed for EDQ cartridge.

[Administration](#) > [Site Development](#) > [System Object Types](#) > Site Preferences - Attribute Definitions

General **Attribute Definitions** Attribute Grouping

Object Type 'Site Preferences'

This page lists the attribute definitions of your object type. Use the search to find attribute definitions by ID and name.

Click **New** to create new attribute definitions. Click **Delete** to delete existing attribute definitions.

Search Attribute Definitions

ID or Name: Find

Select All	ID	Name	Type	Attribute Settings	Values	
<input type="checkbox"/>	EDQAddressLayout	Address Layout	String		1	Edit
<input type="checkbox"/>	EDQDevUrls	Development URLs	Enum of Strings		7	Edit
<input type="checkbox"/>	EDQEmailEnable	Email Enable	Boolean		0	Edit
<input type="checkbox"/>	EDQPhoneEnable	Phone Enable	Boolean		0	Edit
<input type="checkbox"/>	EDQPreferredAddressSearchEngine	Preferred address search engine	Enum of Strings		4	Edit
<input type="checkbox"/>	EDQProdUrls	Production Urls	Enum of Strings		7	Edit
<input type="checkbox"/>	EDQStaging	Staging	Enum of Strings		2	Edit
<input type="checkbox"/>	EDQToken	EDQ Token	String		0	Edit
<input type="checkbox"/>	EDQValidateEmail	Email validation	Boolean		0	Edit
<input type="checkbox"/>	EDQValidatePhone	Phone validation	Boolean		0	Edit

New Delete

Showing 1 - 10 of 34 items

Show All items

[1] 2 3 4 Next >>

<< Back to List

3.2 Files

3.2.1. Sitegenesis JavaScript Controller

EDQHeaders integration

1. Go to int_experian_sgjc cartridge and open the template located in **templates > default > components > header > htmlhead_Ul.isml**
2. The header line has been added at the end of the file **"htmlhead_Ul.isml"** file `<isinclude template="EDQ/EDQHeaders" />`

```

htmlhead_ULisml
1 <iscontent type="text/html" charset="UTF-8" compact="true"/>
2 <iscomment>THIS FILE ONLY CONTAINS DIFFERENCES BETWEEN SIMPLE AND RICH UI LIB INCLUDES</iscomment>
3 <iscomment>
4 The <!--BEGIN/END--> comments are control statements for the build cartridge which can be found in xChange
5 https://xchange.demandware.com/docs/DOC-5728 or checked out from SVN at
6 https://svn2.hosted-projects.com/cs_europe/DWTechRepository/cartridges/build_cs
7 If you are not using the build cartridge the comments can be safely removed.
8 </iscomment>
9
10 <iscomment>THIRD PARTY STYLESHEETS STYLING</iscomment>
11 <link href="{URLUtils.staticURL('/lib/jquery/ui/jquery-ui.min.css')}" type="text/css" rel="stylesheet" />
12 <link href="//maxcdn.bootstrapcdn.com/font-awesome/4.3.0/css/font-awesome.min.css" rel="stylesheet">
13
14 <!--[if lt IE 9]>
15 <script src="{URLUtils.staticURL('/js/lib/html5.js')}"></script>
16 <![endif]-->
17
18 <iscomment>Salesforce Commerce Cloud active data scripts</iscomment>
19 <isactivedatahead/>
20
21 <isinclude template="EDQ/EDQHeaders" />

```

EDQUnicorn integration

1. Go to int_experian_sgjc cartridge and open the template located in **templates > default > account > addressbook > addressdetails.isml**
2. The `<isinclude template="EDQ/EDQUnicorn" />` line has been added before the buttons definition in **"addressdetails.isml"** file.

```

addressdetails.isml
25 </span>
26 </isif>
27
28 <iscript>
29 var currentCountry = require('~/.cartridge/scripts/util/Countries').getCurrent(pdct);
30 </iscript>
31 <isdynamicform formobject="{pdct.CurrentForms.profile.address}" formdata="{currentCountry.dynamicForms.addressDetail
32
33 <div class="form-row form-row-button">
34 + <isinclude template="EDQ/EDQUnicorn" />
35 <button class="apply-button" type="submit" name="{pdct.Action == 'add' ? pdct.CurrentForms.profile.address.creat
36 {Resource.msg('global.apply','locale',null)}
37 </button>
38 <button class="cancel cancel-button simple" type="submit" name="{pdct.CurrentForms.profile.address.cancel.htmlNan
39 {Resource.msg('global.cancel','locale',null)}
40 </button>
41 <isif condition="{pdct.Action != 'add'}">
42 <input type="hidden" value="{pdct.Address.ID}" name="addressid" id="addressid" />
43 <button class="delete-button delete cancel" type="submit" name="{pdct.CurrentForms.profile.address.remove.htn
44 {Resource.msg('global.delete','locale',null)}
45 </button>
46 </isif>
47 </div>
48 <input type="hidden" name="{dw.web.CSRFPProtection.getTokenName()}" value="{dw.web.CSRFPProtection.generateToken()}" />
49 </fieldset>
50 </form>

```

3. Go to int_experian_sgjc cartridge and open the template located in **templates > default > account > user > registration.isml**
4. The `<isinclude template="EDQ/EDQUnicorn" />` line has been added before the ending tag `</isdecorate>` in **"registration.isml"** file.

```

registration.isml
85      <div class="dialog-required"> <span class="required-indicator">&#8226; <em>${Resource.msg('global.required')}
86      </legend>
87      <isif condition="${!pdict.CurrentSession.customer.externallyAuthenticated}">
88          <inputfield formfield="${pdict.CurrentForms.profile.login.currentpassword}" type="password" dynamicname=
89          <inputfield formfield="${pdict.CurrentForms.profile.login.newpassword}" type="password" dynamicname="tri
90          <inputfield formfield="${pdict.CurrentForms.profile.login.newpasswordconfirm}" type="password" dynamicn
91          <inputfield formfield="${pdict.CurrentForms.profile.login.newpasswordconfirm}" type="password" dynamicn
92          <inputfield formfield="${pdict.CurrentForms.profile.login.newpasswordconfirm}" type="password" dynamicn
93      </iselse/>
94      <inputfield formfield="${pdict.CurrentForms.profile.customer.email}" type="input" attributes="${attribu
95      </isif>
96
97      <div class="form-row form-row-button">
98          <button type="submit" value="${Resource.msg('global.apply','locale',null)}" name="${pdict.CurrentForms.pr
99          ${Resource.msg('global.apply','locale',null)}
100      </button>
101      </div>
102
103      <input type="hidden" name="${dw.web.CSRFProtection.getTokenName()}" value="${dw.web.CSRFProtection.generateTo
104
105      </fieldset>
106
107      </form>
108      </isif>
109
110 + <isinclude template="EDQ/EDQUnicorn" />
111 </isdecorate>
112

```

5. Go to int_experian_sgjc cartridge and open the template located in **templates > default > checkout > billing > billing.isml**
6. The `<isinclude template="EDQ/EDQUnicorn" />` line has been added before the ending tag `</isdecorate>` in "billing.isml" file.

```

billing.isml
199 <iscomment> ++++++
200 payment methods
201 ++++++</iscomment>
202
203
204 <iscomment>payment method area</iscomment>
205 <isinclude template="checkout/billing/paymentmethods"/>
206 <isbonusdiscountlineitem p_alert_text="${Resource.msg('billing.bonusproductalert','checkout',null)}" p_discount_line_item="${p
207
208
209 <div class="form-row form-row-button">
210 <button class="button-fancy-large" type="submit" name="${pdict.CurrentForms.billing.save.htmlName}" value="${Resource.i
211 </div>
212 <input type="hidden" name="${dw.web.CSRFProtection.getTokenName()}" value="${dw.web.CSRFProtection.generateToken()}/>
213
214 </form>
215 <isscript>
216 importScript("util/ViewHelpers.ds");
217 var addressForm = pdict.CurrentForms.billing.billingAddress.addressFields;
218 var countries = ViewHelpers.getCountriesAndRegions(addressForm);
219 var json = JSON.stringify(countries);
220 </isscript>
221 <script>window.Countries = <isprint value="${json}" encoding="off"/></script>
222
223 + <isinclude template="EDQ/EDQUnicorn" />
224
225 </isdecorate>
226

```

7. Go to int_experian_sgjc cartridge and open the template located in **templates > default > checkout > shipping > singleshopping.isml**
8. The `<isinclude template="EDQ/EDQUnicorn" />` line has been added before the ending tag `</isdecorate>` in "singleshopping.isml" file.

```

singleshopping.isml
132 <isscript>
133 importScript("util/ViewHelpers.ds");
134 var addressForm = pdict.CurrentForms.singleshopping.shippingAddress.addressFields;
135 var countries = ViewHelpers.getCountriesAndRegions(addressForm);
136 var json = JSON.stringify(countries);
137 </isscript>
138 <script>window.Countries = <isprint value="${json}" encoding="off"/></script>
139
140 + <isinclude template="EDQ/EDQUnicorn" />
141
142 </isdecorate>
143

```

3.2.2. Storefront Reference Architecture

EDQUnicorn integration

1. Go to int_experian_sfra cartridge and open the template located in **templates > default > account > components > registerForm.isml**

2. The “**registerForm.isml**” line has been added at the end of file `<isinclude template="EDQ/EDQUnicorn" />`
3. In the button section the attribute “**name**” with the label “**save**” to the submit button has been added.

```

registerForm.isml
114      ${Resource.msg('button.createaccount.registration', 'registration', null)}
115    </button>
116    <div class="privacy-policy">
117      ${Resource.msg('description.privacypolicy.registration', 'registration', null)}
118      <a href="#">
119        ${Resource.msg('link.privacypolicy.registration', 'registration', null)}
120      </a>
121    </div>
122  </form>
123
124 + <isinclude template="EDQ/EDQUnicorn" />
125

```

4. Go to int_experian_sfra cartridge and open the template located in **templates > default > account > addressForm.isml**
5. In “**addressForm.isml**” file the `<isinclude template="EDQ/EDQUnicorn" />` has been added after the submit button as shown below.
6. In the button section the attribute “**name**” with the label “**save**” has been added to the submit button.

```

addressForm.isml
157 <!-- Cancel and Save Buttons -->
158 <div class="row">
159   <div class="col-6">
160     <a href="${URLUtils.url('Address-List')}" class="btn btn-block btn-outline-primary">${Resource.msg('button.cancel', 'account')}
161   </div>
162   <div class="col-6">
163 +   <button type="submit" name="save" class="btn btn-save btn-block btn-primary">${Resource.msg('button.save', 'account', null)}
164 +   <isinclude template="EDQ/EDQUnicorn" />
165   </div>
166 </div>
167
168 </form>

```

7. Go to int_experian_sfra cartridge and open the template located in **templates > default > checkout > checkout.isml**
8. The `<isinclude template="EDQ/EDQUnicorn" />` line has been added after the checkout workflow buttons in “**checkout.isml**” file.

```

checkout.isml
74 <!-- Shipping Summary -->
75 <!-- Checkout Workflow Buttons -->
76 <!-- Shipping Summary -->
77 <div class="row">
78   <div class="col-12 next-step-button">
79     <div>
80       <button class="btn btn-primary btn-block submit-shipping" type="submit" name="submit" value="submit-shipping" <isif
81         ${Resource.msg('button.next.payment', 'checkout', null)}
82       </button>
83
84       <button class="btn btn-primary btn-block submit-payment" type="submit" name="submit" value="submit-payment">
85         ${Resource.msg('button.next.place.order', 'checkout', null)}
86       </button>
87
88       <button class="btn btn-primary btn-block place-order" data-action="${URLUtils.url('CheckoutServices-PlaceOrder')}"
89         type="submit" name="submit" value="place-order">${Resource.msg('button.place.order', 'checkout', null)}
90       </button>
91     </div>
92   </div>
93 </div>
94 + <isinclude template="EDQ/EDQUnicorn" />
95 </div>
96

```

9. In the `<!-- Step 1: Shipping -->` section the attribute `id` with the label `editShipping` has been added to the html `span` tag.

```

checkout.isml
49 <!-- Step 1: Shipping -->
50 <isinclude template="checkout/shipping/shipping" />
51 <div class="card shipping-summary">
52   <div class="card-header clearfix">
53     <h4 class="pull-left">${Resource.msg('heading.checkout.shipping', 'checkout', null)}</h4>
54 +   <span id="editShipping" class="edit-button pull-right">${Resource.msg('action.edit.step', 'checkout', null)}</span>
55   </div>
56   <div class="card-body">
57     <isinclude template="checkout/shipping/shippingSummary" />
58   </div>
59 </div>

```


10. In the `<!-- Step 2: Payment and Billing-->` section the attribute `id` with the label `editPayment` has been added to the html `span` tag.

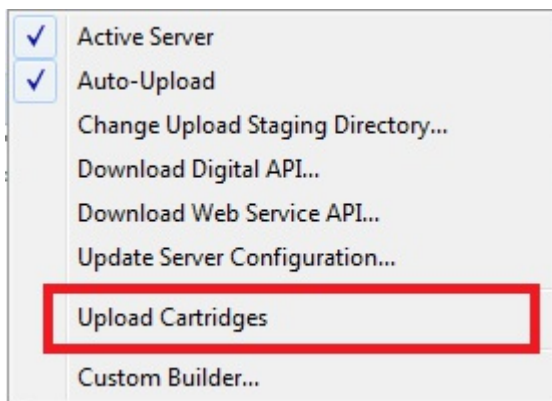
```

checkoutism1
61      <!-- Step 2: Payment and Billing-->
62      <isinclude template="checkout/billing/billing" />
63      <div class="card payment-summary">
64          <div class="card-header clearfix">
65              <h4 class="pull-left">${Resource.msg('heading.payment', 'checkout', null)}</h4>
66              <span id="editPayment" class="edit-button pull-right">${Resource.msg('action.edit.step', 'checkout', null)}</span>
67          </div>
68
69          <div class="card-body">
70              <isinclude template="checkout/billing/billingSummary" />
71          </div>
72      </div>

```

- If your cloud server has the Auto-Upload option active, save all files and all new cartridges are going to be uploaded to your sandbox instance.
- If you want to upload manually from Eclipse

1. Click the cloud server icon 
2. Choose the option **Upload Cartridges**.



3.3. Testing

For both (Sitegenesis and Storefront Reference Architecture) stores the testing touchpoints are the same.

Automated tests are located in tests\tests

To run the tests:

- Install intern `npm i intern`.
- If needed you'll have to install npx (`npm install -g npx`).
- Run the command `npx intern`.

3.3.1. Email Validate

In the create account page type your email in the email input field and the Email Validate will verify your email once you lose focus on the email field, the Email Validate will start working letting you know if is a valid or an invalid email.

Example: 9234567890

* Email
thisisnotarealemailx@gmail.com ✖

* Confirm Email

* Password

* Confirm Password

☐ Please add me to Commerce Cloud email list.

Create Account

Commerce cloud does not share or sell

3.3.2. Global Phone Validate

In the create account page type your phone and Global Phone Validate will check your phone once you lose focus on the phone field, the Global Phone Validate will start working letting you know if is a valid or an invalid phone.

Login Create Account

* First Name

* Last Name

* Phone
3334445566 ✖

* Email

* Confirm Email

* Password

3.3.3. Pro Web - Address (Verification Engine)

Once your logged into your store go to you profile and add new address; type down an address in the address input fields and Pro Web - Address (Verification Engine) will check and correct your address if possible, once you press the page form submitting button; Pro Web - Address (Verification Engine) will check your address and will give you the correct address for it.

Address Book

Add New Address

* Address Title

* First Name

* Last Name

* Address 1

Address 2

* Country

United States

* State

* City

* ZIP Code

* Phone Number

Cancel

Save

In case that your address needs to be corrected and does not match an address; Pro Web - Address (Verification Engine) will prompt a “confirm updated address” box to complete your address in real time; by typing the address in the address input field, it will give you options with accurate addresses matching the address with the information provided by the user and finally by selecting one of the options it will autocomplete the addresses fields in the address form with correct and valid address and may continue with the store process.

Confirm updated address

To proceed, please choose an address below.

lbby 1
53 State St Lbby 1
02109-3208

53 state st
MA

Use original address

* Country
United States

* State
Massachusetts

* City

* ZIP Code

* Phone Number

Cancel
Save

3.3.4. Global Intuitive

Once you're logged into your store go to profile and add new address; start typing an address in the address input field and Global Intuitive will display some options to match the address as you type it; select the correct address from the list.

Address Book

Add New Address

* Address 1
53 state st lbby
53 State St Lbby 1, Boston MA 02...
53 State St Lbby 2, Boston MA 02...
53 State St Lbby 3, Boston MA 02...

* Country
United States

* State

* City

* ZIP Code

Cancel
Save

And automatically global intuitive will fill the rest of the address fields in the form.

4. Operations, Maintenance

4.1. Availability

By default, each service has a timeout configuration in its code:

- Pro Web - Address (Verification Engine) = 3.5 seconds
 - Global Phone Validate = 3.5 seconds
 - Email Validate = 15 seconds
- If you don't get an answer in that time; you can try making the request again.

4.2. Support

For any support contact email are

- QAS Technical Support, Us.support.qas@experian.com

5. User Guide

5.1. Business Manager

Once the EDQ Site Preferences are uploaded in the business manager; choose your site and go to **Merchant Tools > Site Preferences > Custom Site Preferences Group** and choose Experian option.

1. EDQ Token (String): credentials provided to use the service.
 - Set to the value supplied to you by your Experian Partner
2. Email Enable (Boolean): set to enable/disable email validation.
3. Email Validation (Boolean): set enable/disable to force email validation to prevent the page going through.
4. Phone Enable (Boolean): set to enable/disable phone validation.
5. Phone Validation (Boolean): set enable/disable to force phone validation to prevent the page going through.
6. Preferred address search engine (Enum of String): Select one option between:
 1. Both
 2. Global Intuitive
 3. Verification Engine
 4. None
7. Global Intuitive Use Current Location (Boolean): enables to use your current location.
8. Address layout (String): Address layout format for the data. Examples:
 1. EDQ NA Integration 5 Line No Retention - North America Integration Layout Without Any Retention Elements
 2. EDQ NA Integration 5 Line Default - North America Integration Layout With Sub Premise And Care Of Retention
 3. EDQ NA Integration 5 Line Modified - North America Integration Layout With Sub Premise And Care Of Retention But With All Secondary Information Split Out For Concatenation
 4. EDQ NA Integration 5 Line Full Retention - North America Integration Layout With Sub Premise, Care Of, Pre Street, and Post Street Retention

9. Data Set Code (String): Code to use Data Sets in case the country ISO code requires it.
10. Activates or deactivates Data Set usage (Boolean): Activates or deactivates Data Set usage.
11. Pro Web Custom Transition Callback (String): Name for the custom customer function to be triggered.
12. Pro Web Callback validation (Boolean): Activates or deactivates page transition from the callback.

Merchant Tools / Site Preferences / Custom Site Preference Groups /

EDQ Config

Name	Value	Default Value
EDQ Token	<input type="text"/>	
	Token provided to be able to use Experian products.	
Email Enable	<input type="text" value="None"/>	
	Activates/desactivates email validation	
Email validation	<input type="text" value="None"/>	
	Force email validation to prevent the page going through	
Phone Enable	<input type="text" value="None"/>	
	Activates/desactivates phone validation	
Phone validation	<input type="text" value="None"/>	
	Force phone validation to prevent the page going through	
Prefered address search engine	<input type="text" value="None"/>	
	Select your preferred address engine	
Address Layout	<input type="text"/>	Ellucian
	Define your preferred address layout to show your data	
Staging	<input type="text" value="None"/>	
	Select the staging to run the product	

5.3. Storefront Functionality

For each storefront touchpoint

SiteGenesis (SGJC)

SGJC	Email Validate	Global Phone Validate	Pro Web - Address (Verification Engine)	Global Intuitive
Register Form	✓	✗	✗	✗
Address Form	✗	✓	✓	✓
Shipping Form	✗	✓	✓	✓
Billing Form	✓	✓	✓	✓

StoreFront (SFRA)

SFRA	Email Validate	Global Phone Validate	Pro Web - Address (Verification Engine)	Global Intuitive
Register Form	✓	✓	✗	✗
Address Form	✗	✓	✓	✓
Checkout Form	✓	✓	✓	✓

6. Known Issues

- Timeout connection issues can be experience due to a slow internet connection. If you don't get an answer in the default time; you can try making the request again.

7. Failover and recovery

- If the Experian data quality libraries connection fails the store will continue with it's normal workflow; this issue may be caused

due a non valid token or slow internet connection.