

Headless (OCAPI) Configuration guide

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**SFCC - ESW Cartridge**

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Headless (OCAPI) Architecture

Configure OCAPI

This section describes how to configure Shop API resources under OCAPI settings. ESW recommends that you configure Shop API version 23.1 or later for optimum utilization of the cartridge.

**Note**

You can generate a new client ID and password by logging in to the [Commerce Cloud Account Manager](https://account.demandware.com/dwsso/XUI/?realm=%2F&goto=https%3A%2F%2Faccount.demandware.com%3A443%2Fdwsso%2Foauth2%2Fauthorize%3Fresponse_type%3Dcode%26client_id%3D70e0d585-9115-4cd2-89cd-1c8758ed2ce2%26scope%3Dopenid%2520roles%2520tenantFilter%2520profile%26redirect_uri%3Dhttps%253A%252F%252Faccount.demandware.com%253A443%252Fdw%252Foidc%252Fopenid_connect_login%26nonce%3D2285cdce6299e%26state%3D3f09c85416588%26prompt%3D#login/).

Add Shop API Resources

For the cartridge to work, you must add Shop API resources to the cartridge.

To add resources:

1. On the target site, go to **Administration** > **Site Development** > **Open Commerce API Settings**.
2. From the **Select type**drop-down, select **Shop**.



1. From the **Select Context** drop-down, select the appropriate context, for example, Global (organization-wide) or site-specific.
2. Enter the OCAPI data API resources provided in the **ocapi-configurations.json** file in the **documentation**folder.
3. Update the **client\_id** with the one you generated from the Commerce Cloud Account Manager.
4. Click **Save**.

Note: **int\_eshopworld\_headless** is an overlay cartridge that includes all OCAPI customizations. You can duplicate the customizations in your cartridge by including the function calls in your OCAPI hook call files.

OCAPI Endpoint Customizations

Product Detail Page (PDP)

* + - 1. OCAPI Endpoint

GET http://hostname:port/dw/shop/v{OCAPI\_VERSION}/products/{id}?expand=prices

* + - 1. Request Parameters

| **ESW Parameters** | **Description** | **Notes** |
| --- | --- | --- |
| country-code | (Required) Two-letter ISO code of the shopper's country. | - |
| currency-code | (Optional) Three-letter ISO code of the shopper's local currency. | If the currency code is provided in the request, the ESW plugin uses this currency. If not provided, the ESW plugin uses the currency code provided in the **ESW Default Country Currency Mapping** site preference. |
| currency | (Optional) Three-letter ISO code of the shopper's local currency. | This is a standard OCAPI parameter. The parameter is required for Fixed Pricing and Override Price Books. |

* + - 1. OCAPI Response

Product Document (Out of the box pricing attributes are converted and assigned to ESW custom attributes.)

|  |  |  |
| --- | --- | --- |
| **ESW Attribute** | **Type** | **Product Base Pricing Attribute** |
| c\_eswPrice | Decimal | price |
| c\_eswPrice\_max | Decimal | price\_max |
| c\_eswPrice\_per\_unit | Decimal | price\_per\_unit |
| c\_eswPrice\_per\_unit\_max | Decimal | price\_per\_unit\_max |
| c\_eswPrices | Map[String, Number] | prices |
| c\_shopperCurrency | String - 3 Char ISO | - |
| c\_eswReturnProhibited | Boolean - true/false if  product return is prohibited  in current shopper country. |  |
| c\_eswRestrictedProduct | Boolean - true/false if  product is restricted  in current shopper country. |  |

* + - 1. Customizations

|  |  |  |
| --- | --- | --- |
| **Extension Point** | **ESW Extension Script** | **Notes** |
| dw.ocapi.shop.product.beforeGET | /int\_eshopworld\_headless/cartridge/scripts/ocapi/shop/hooks/setOverridePriceBook.js | This extension script is mainly used for Fixed Pricing and Override Price Book to get prices directly from the price book. |
| dw.ocapi.shop.product.modifyGETResponse | /int\_eshopworld\_headless/cartridge/scripts/ocapi/shop/hooks/pdpPriceHook.js | This extension script is used for dynamic/calculated prices. This script skips dynamic calculations for Fixed Pricing model countries. |

* + 1. Product Listing Page (PLP/CLP)

GET http://hostname:port/dw/shop/v20\_10/product\_search?expand=prices

You can also add search-related query parameters to the URL as well.

* + - 1. Request Parameters

|  |  |  |
| --- | --- | --- |
| **ESW Parameters** | **Description** | **Notes** |
| country-code | (Required) Two-letter ISO code of the shopper's country. | - |
| currency-code | (Optional) Three-letter ISO code of the shopper's local currency. | If the currency code is provided in the request, the ESW plugin uses this currency. If not provided, the ESW plugin uses the currency code provided in the **ESW Default Country Currency Mapping** site preference. |
| currency | (Optional) Three-letter ISO code of the shopper's local currency. | This is a standard OCAPI parameter. The parameter is required for Fixed Pricing and Override Price Books. |

* + - 1. OCAPI Response

Product Search Result Hits (Out of the box pricing attributes are converted and assigned to ESW custom attributes.)

|  |  |  |
| --- | --- | --- |
| **ESW Attribute** | **Data Type** | **Product Base Pricing Attribute** |
| c\_eswPrice | Decimal | price |
| c\_eswPrice\_max | Decimal | price\_max |
| c\_eswPrice\_per\_unit | Decimal | price\_per\_unit |
| c\_eswPrice\_per\_unit\_max | Decimal | price\_per\_unit\_max |
| c\_eswPrices | Map[String, Number] | prices |
| c\_shopperCurrency | String - 3 Char ISO | - |
| c\_eswReturnProhibited | Boolean - true/false if  product return is prohibited  in current shopper country. |  |
| c\_eswRestrictedProduct | Boolean - true/false if  product is restricted  in current shopper country. |  |

* + - 1. Customizations

|  |  |  |
| --- | --- | --- |
| **Extension Point** | **ESW Extension Script** | **Notes** |
| dw.ocapi.shop.product  .beforeGET | /int\_eshopworld\_headless/cartridge/scripts/okapi  /shop/hooks/setOverridePriceBook.js | This extension script is mainly used for Fixed Pricing and Override Price Book to get prices directly from the price book. |
| dw.ocapi.shop.product  \_search.modifyGETResponse | /int\_eshopworld\_headless/cartridge/scripts/okapi  /shop/hooks/plpPriceHook.js | This extension script is used for dynamic/calculated prices. This script skips dynamic calculations for Fixed Pricing model countries. |

* + 1. Cart or Basket Page

POST http://hostname:port/dw/shop/v{OCAPI\_VERSION}/baskets

* + - 1. Request Parameters

|  |  |  |
| --- | --- | --- |
| **ESW Parameters** | **Description** | **Notes** |
| country-code | (Required) Two-letter ISO code of the shopper's country. | - |
| currency-code | (Optional) Three-letter ISO code of the shopper's local currency. | If the currency code is provided in the request, the ESW plugin uses this currency. If not provided, the ESW plugin uses the currency code provided in the **ESW Default Country Currency Mapping** site preference. |

* + - 1. OCAPI Response

Basket Document.

|  |  |  |
| --- | --- | --- |
| **ESW Attribute** | **Data Type** | **Basket API Object - Base Pricing Attribute** |
| c\_eswOrderTotal | Decimal | totalGrossPrice |
| c\_eswShopperCurrency | String - 3 Char ISO | - |
| c\_eswEstimatedShippingTotal | Decimal | shippingTotalPrice |
| c\_eswOrderDiscount | Decimal | eswOrderDiscount |
| c\_ eswSubTotal | Decimal | eswSubTotal |

|  |  |  |
| --- | --- | --- |
| **ESW Attribute** | **Data Type** | **Basket API Object - ProductLineItem - Base Pricing Attribute** |
| c\_eswPrice | Decimal | price |
| c\_eswBasePrice | Decimal | basePrice (subtotal) |
| c\_eswPriceAfterOrderDiscount | Map[String, Number] | proratedPrice |
| c\_eswReturnProhibited | Boolean - true/false if  product return is prohibited  in current shopper country. |  |
| c\_eswRestrictedProduct | Boolean - true/false if  product is restricted  in current shopper country. |  |
| c\_eswUnitPrice | Decimal | basePrice (per unit) |

Note: If retailer wants to convert additional custom attributes prices at basket and product line item level, can use SFCC site preferences ([ESW Headless Integration Configuration](https://know.eshopworld.com/space/AE/255557757/Merchant+Tools#ESW-Headless-Integration-Configuration)).

* + - 1. Customizations

|  |  |  |
| --- | --- | --- |
| **Extension Point** | **ESW Extension Script** | **Notes** |
| dw.ocapi.shop.basket.afterPOST | /int\_eshopworld\_headless/cartridge/scripts/ocapi/shop/hooks/setOverridePriceBook.js | This extension script is mainly used for Fixed Pricing and Override Price Book to get prices directly from the price book. |
| dw.order.calculate | /int\_eshopworld\_headless/cartridge/scripts/cart/calculate.js | The standard SFCC calculate.js extension script calculates (or recalculates) the basket sent in the request.  The customized/ added function call in the standard extension script (eswBasketPriceConversions) is used for dynamic/calculated prices. This function skips dynamic calculations for Fixed Pricing model countries. |
| dw.ocapi.shop.basket.modifyPATCHResponse | /int\_eshopworld\_core/cartridge/scripts/headless/shop/hooks/basketHooks.js | **Used in Enhanced Order Flow Only**  This hook is responsible to call the ESW checkout Api. |
| dw.ocapi.shop.basket.beforePATCH | /int\_eshopworld\_core/cartridge/scripts/headless/shop/hooks/basketHooks.js | **Used in Enhanced Order Flow Only**  This hook is responsible to set override pricebooks and handle esw basket attributes. |

* + 1. ESW Checkout Redirect

SFCC Order OCAPI and ESW Checkout API

POST http://hostname:port/dw/shop/v{OCAPI\_VERSION}/orders

* + - 1. Request Parameters

|  |  |  |
| --- | --- | --- |
| **ESW Parameters** | **Description** | **Notes** |
| country-code | (Required) Two-letter ISO code of the shopper's country. | - |
| currency-code | (Optional) Three-letter ISO code of the shopper's local currency. | If the currency code is provided in the request, the ESW plugin uses this currency. If not provided, the ESW plugin uses the currency code provided in the **ESW Default Country Currency Mapping** site preference. |

**OCAPI Response**

orderResponse Document (Appended with ESW PreOrder Service Response)

**ESW PreOrder Service Response - SUCCESS**

"c\_eswPreOrderResponseStatus": "OK",

"c\_eswPreOrderResponse": {

        "preOrderCode": "8e2275b1-34a0-474c-97a5-f862a2dfa432",

        "orderNumber": "8e2275b1-34a0-474c-97a5-f862a2dfa432",

        "redirectUrl": "https://checkout-ui-plugus.sandbox.eshopworld.com/se/8e2275b1-34a0-474c-97a5-f862a2xxxxxxxx",

        "shopperAccessToken": "eyJhbGciOiJSUzI1NiIsImtpZCI6IjQ3NkQ1QzE5QzI1Nzc0NUVDOTQ2MDlGNTQ1REY0QjU2QzdERTM5NTNSUzI1NiIsInR5cCI6IkpXVCIsIng1dCI6IlIyMWNHY0pYZEY3SlJnbjFSZDlMVnNmZU9WTSJ9.eyJuYmYiOjE2MzM1Mjg3MjEsImV4cCI6MTYzMzUzMjMyMSwiaXN"

    }

**Note:** “shopperAccessToken” is an optional attribute in response and will only show if ESW checkout request created by registered shopper. This token will further use to achieve Stored Payment Card feature. For more details & how to enable this click [here](https://know.eshopworld.com/space/AE/723714049/Stored+Payment+Cards+Integration).

**ESW PreOrder Service Response - FAILED**

"c\_eswPreOrderResponseStatus": "ERROR",

"c\_eswPreOrderResponse": [

{

"message": "RetailerCartId is required.",

"code": 8

}

]

**Customizations**

|  |  |  |
| --- | --- | --- |
| **Extension Point** | **ESW Extension Script** | **Notes** |
| dw.ocapi.shop.order.beforePOST | /int\_eshopworld\_headless/cartridge/scripts/ocapi/shop/hooks/ orderHooks.js | This extension script is used for Fixed Pricing and Override Price Book to get prices directly from the price book based on the basket currency.  The orderHooks.js hook is used to set the following Basket attributes with faux information, which helps to create an order in SFCC:   * Shipping Address * Billing Address * Customer Email Address * ESW Payment Method   The script also sets the following product line item custom attributes that are required and must be saved during order creation:   * ESW Unit Price * ESW Delta Rounding Value |
| dw.ocapi.shop.order.afterPOST | /int\_eshopworld\_headless/cartridge/scripts/ocapi/shop/hooks/orderHooks.js | This extension script is used to set the following Order level custom attributes:   * eswFxrate * eswShopperCurrencyOrderDiscount * eswDeliveryOptions   This script also fetches and stores the override shipping method rates that you can use in the ESW Checkout service.  To store override shipping methods JSON with rates, the ESW plugin uses eswDeliveryOptions, which is an order level custom attribute available in the systemobjects\_headless.xmlmetadata file. |
| dw.ocapi.shop.order.modify POSTResponse | /int\_eshopworld\_headless/cartridge/scripts/ocapi/shop/hooks/orderHooks.js | This extension script is used to make a call to the ESW Checkout service and append the service response in order OCAPI’s [POST] orderResponse document. The response format is mentioned above. |
| dw.ocapi.shop.basket.modifyPOSTResponse | /int\_eshopworld\_headless/cartridge/scripts/ocapi/shop/hooks/basketHooks.js | This script is used to fetch the ESW override shipping methods in basket if selected country has override shipping methods enable |

* + - 1. Basket Creation Request Payload

The following code sample shows the minimum request payload that is required to create an ESW Checkout Order:

{

"product\_items":[

{

"product\_id":"750518699721",

"quantity":1

},

{

"product\_id":"750518699769",

"quantity":1

}

],

"shipments":[

{

"shipping\_method":{

"id":"POST"

}

}

],

"currency":"USD"

}

For information on Checkout API and its request body attributes, see the [Checkout API](https://devportal.eshopworld.com/reference/checkout). For information on the OCAPI endpoints, see [SFCC - Shop API Resources](https://documentation.b2c.commercecloud.salesforce.com/DOC2/index.jsp?topic=%2Fcom.demandware.dochelp%2FOCAPI%2Fcurrent%2Fshop%2FResources%2Findex.html).

* + 1. Order Confirmation

The ESW Order Confirmation is a webhook call initiated from the ESW system to the retailer system. Similar to other architectures, the Headless (OCAPI) Architecture also has a similar flow for Order Confirmation. For information on the Order Confirmation Integration, see [Webhook Overview](https://know.eshopworld.com/space/DT/177046186/Order+Confirmation+Webhook).

For order confirmation requests in Headless OCAPI, the EShopWorldSG-Notify endpoint is used for Sitegenisis compatible architecture and EShopWorld-Notify endpoint is used for SFRA compatible architecture. Configurations for this can be done using the ESW Metadata Items custom site preference under ESW Checkout Configuration (refer to the eShopWorld\_Checkout\_Integration.docx document).

* + 1. Generic Price Conversion Endpoint
       1. SFCC Custom Web Endpoint

**SiteGenisis compatible Architecture:** GET <https://hostname/on/demandware.store/Sites-SiteGenesis-Site/en_US/EswHL-PriceConversion?price=26&country=GB>

**SFRA compatible Architecture:** GET <https://hostname/on/demandware.store/Sites-RefArch-Site/en_US/EswRefArchHL-PriceConversion?price=26&country=GB>

**Request Parameters**

|  |  |  |  |
| --- | --- | --- | --- |
| **ESW Parameters** | **Type** | **Description** | **Notes** |
| price | Decimal | (Required) Price of the product. | - |
| country | String | (Required) Two-letter ISO code of the shopper's country. | - |
| currency | String | (Optional) Three-letter ISO code of the shopper's local currency. | If the currency code is provided in the request, the ESW plugin uses this currency. If not provided, the ESW plugin uses the currency code provided in the **ESW Default Country Currency Mapping** site preference. |
| applyAdjust | Boolean | (Optional) Indicates if the country adjustment should be applied. | If provided, the country adjustment value is applied to the price accordingly. |
| applyRounding | Boolean | (Optional) Indicates if the prices should be rounded. | If provided, the prices are rounded accordingly. |

**Response**

The formatted converted price in the shopper currency.

For more information on how OCAPI response attributes can be used to display or represent the different prices on the Cart Page, see [Headless (OCAPI) Attributes Mapping with Cart](https://know.eshopworld.com/space/AE/294486123/Headless+(OCAPI)+Attributes+Mapping+with+Cart).

* + 1. Order Cancelation
       1. SFCC Custom Web Endpoint

The ESW Order Cancelation is a webhook call initiated from the ESW system to the retailer system.

For order cancelation requests in Headless OCAPI, the EShopWorldSG- ProcessWebHooks endpoint is used for Sitegenisis compatible architecture and EShopWorld-ProcessWebHooks endpoint is used for SFRA compatible architecture. Configurations for this can be done by importing systemobjects\_headless.xml from sitesdata/meta directory path.

ESW Headless Integration Configuration site preference

* **ESW Basket Pricing Mapping**: This preference contains the mapping between the Basket API object attributes and ESW basket custom attributes. The following code sample shows the mapping:

{

"c\_estimatedCharges": "eswEstimatedCharges",

"c\_cartSubtotal": "eswCartSubTotal",

"c\_total-discount": "eswTotalDiscount",

"productLineItems": {

"c\_regular-price": "eswRegularPrice",

"c\_sale-price": "eswSalePrice"

}

}

The following table lists the Basket API object attributes and ESW-specific basket custom attributes used in the mapping. The cartridge takes the value of basket-related attributes, converts these values to shopper prices, and stores the converted price in the ESW basket custom attributes.

|  |  |
| --- | --- |
| **Basket API object attributes** | **ESW basket custom attributes** |
| c\_estimatedCharges | eswEstimatedCharges |
| c\_cartSubtotal | eswCartSubTotal |
| c\_total-discount | eswTotalDiscount |
| c\_regular-price | eswRegularPrice |
| c\_sale-price | eswSalePrice |
| c\_available\_shipping\_methods | eswOverrideShipping |

* **ESW Pricebook Keywords - Retailer Currencies/ Keywords**: This preference holds the price book ID keywords (separated by pipeline) that need to be replaced when converting the price book prices.

**Keywords Example**: Retailer Currencies, countries, and so on.

**Value Example**: usd|cad|gbp|abc

**Use Case**

When converting prices, ESW takes the prices from the retailer’s base currency price book and converts these prices to shopper currency prices. If the retailer's base currency price book ID is 'usd-list-prices'/'usd-sale-prices', ESW converts the prices and puts the converted price values against the IDs with 'eSWPriceOf-' as the suffix. This changes the ID from 'usd-list-prices'/ 'usd-sale-prices' to 'eSWPriceOf-usd-list-prices'/ 'eswPriceOf-usd-sale-prices' in the response.

However, as this naming convention could be confusing, the keywords in the price book IDs can be changed to a keyword called 'base'. This means that if the brand name is 'abc' and the price book ID is 'abc-list-prices', the ID will be 'eSWPriceOf-base-list-prices' in the response.