Bloomreach

Core Cartridge Integration guide

Version 23.1.0

Table of Contents

1. Summary

The Bloomreach LINK cartridge allows you to quickly integrate a Bloomreach search service into a Salesforce Commerce Cloud website. The Bloomreach service allows the customer to use a search engine on your website.

This LINK cartridge contains instructions that allow you to integrate with a reference Bloomreach application.

Glossary

Term	Description
SFCC	Salesforce Commerce Cloud
Business Manager (BM)	The primary tool used to configure the SFCC platform and customer storefront SFRA

2. Component Overview

Functional Overview

The Bloomreach service allows the customer to use a search engine on your website.

Limitations, Constraints

Use of the Bloomreach cartridge requires credentials and API keys from Bloomreach.

Contract

To work with the cartridge, you need to contact the Bloomreach support service to get your personal credentials to gain access to the Bloomreach services.

Compatibility

The cartridge is designed for Salesforce Commerce Cloud API version 23.9 (Compatibility Mode: 22.7).
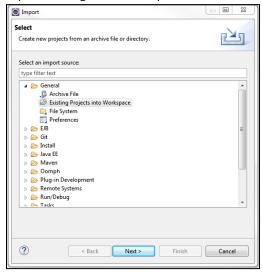
Privacy, Payment

The Bloomreach cartridge doesn't collect and process user profile information or billing information. For additional privacy information, please contact your Bloomreach Account Manager.

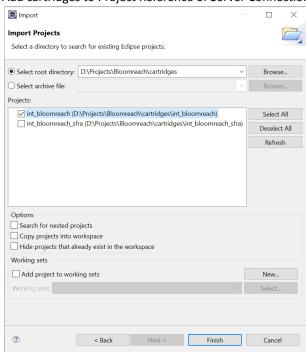# 3. Implementation Guide

Setup of Business Manager

Importing cartridges

1. Download the cartridge source code.
2. Establish a new digital server connection with your SFCC Instance
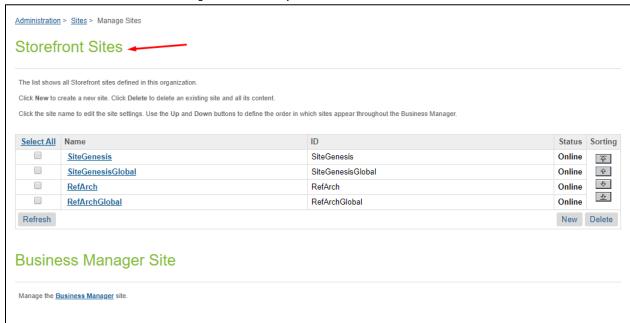3. Import cartridges to a workspace in Salesforce UX Studio.

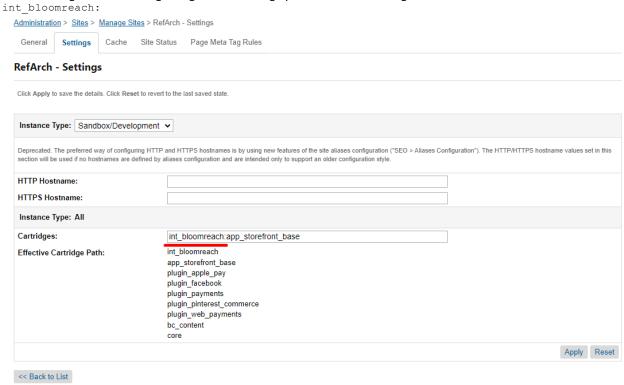4. Add cartridges to Project Reference of Server Connection.

5. Wait until Studio completes workspace build and uploads source codes to the sandbox.

Assigning cartridges to the site

Go to *Administration > Sites > Manage Sites > Select your site* from the list "Storefront Sites".

Administration > Sites > Manage Sites

Storefront Sites ←

The list shows all Storefront sites defined in this organization.

Click **New** to create a new site. Click **Delete** to delete an existing site and all its content.

Click the site name to edit the site settings. Use the **Up** and **Down** buttons to define the order in which sites appear throughout the Business Manager.

Select All	Name	ID	Status	Sorting
☐	**SiteGenesis**	SiteGenesis	Online	⤒
☐	**SiteGenesisGlobal**	SiteGenesisGlobal	Online	⇧
☐	**RefArch**	RefArch	Online	⇩
☐	**RefArchGlobal**	RefArchGlobal	Online	⤓

Refresh — New | Delete

Business Manager Site

Manage the **Business Manager** site.

Select Settings tab. In the beginning of the cartridge path add the following:
`int_bloomreach:`

Administration > Sites > Manage Sites > RefArch - Settings

| General | **Settings** | Cache | Site Status | Page Meta Tag Rules |

RefArch - Settings

Click **Apply** to save the details. Click **Reset** to revert to the last saved state.

Instance Type: Sandbox/Development ▾

Deprecated. The preferred way of configuring HTTP and HTTPS hostnames is by using new features of the site aliases configuration ("SEO > Aliases Configuration"). The HTTP/HTTPS hostname values set in this section will be used if no hostnames are defined by aliases configuration and are intended only to support an older configuration style.

HTTP Hostname:
HTTPS Hostname:

Instance Type: All

Cartridges: int_bloomreach:app_storefront_base

Effective Cartridge Path:
int_bloomreach
app_storefront_base
plugin_apple_pay
plugin_facebook
plugin_payments
plugin_pinterest_commerce
plugin_web_payments
bc_content
core

Apply | Reset

<< Back to List

Import of metadata

Go to *Administration > Site Development > Site Import & Export.* Upload *bloomreach.zip* file from the metadata folder.

Select *bloomreach.zip*, click Import button and finish the import process
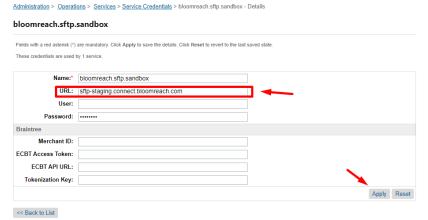
Service

You have to set the Bloomreach API endpoints URL.
Log in to the SFCC BM and go to *Administration > Operations > Services* and select the *Credentials* tab.
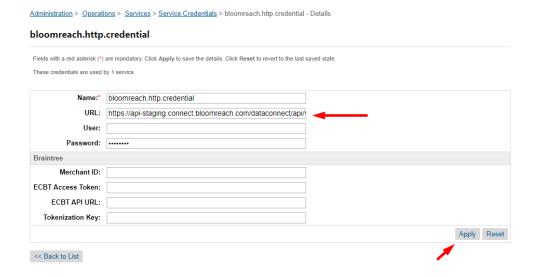

Click to the *bloomreach.sftp.sandbox*. Set the URL of the SFTP server for the Production or Staging environment and click the Apply button.

- Production: https://api.connect.bloomreach.com/dataconnect/api/v1/
- Staging: https://api-staging.connect.bloomreach.com/dataconnect/api/v1/

Back to the credential tab and click to the *bloomreach.http.credential*. Set the URL of the API endpoint for the Production or Staging environment and click the Apply button.

- Production: https://api.connect.bloomreach.com/dataconnect/api/v1/
- Staging: https://api-staging.connect.bloomreach.com/dataconnect/api/v1/
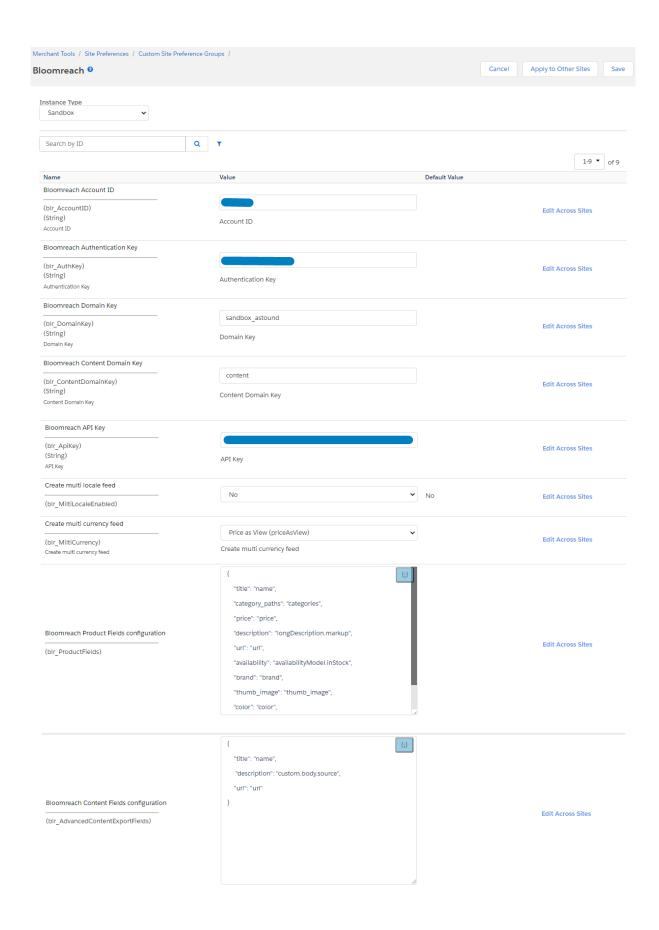
Configuration

Custom Site Preferences

After import is successfully done, you should see Site Preferences in BM > Merchant Tools > Site Preferences > Custom Preferences.

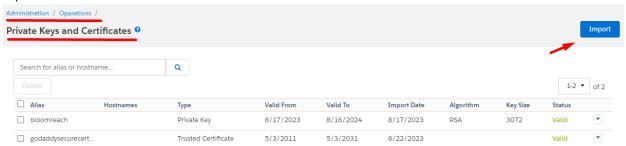Select Bloomreach and you should see fields for cartridge setup.

Bloomreach ❓

<div align="right">Cancel   Apply to Other Sites   Save</div>

Instance Type

Sandbox ▼

Search by ID 🔍 ▼

1-9 ▼ of 9

Name	Value	Default Value	
Bloomreach Account ID (blr_AccountID) (String) Account ID	▬▬▬ Account ID		Edit Across Sites
Bloomreach Authentication Key (blr_AuthKey) (String) Authentication Key	▬▬▬▬ Authentication Key		Edit Across Sites
Bloomreach Domain Key (blr_DomainKey) (String) Domain Key	sandbox_astound Domain Key		Edit Across Sites
Bloomreach Content Domain Key (blr_ContentDomainKey) (String) Content Domain Key	content Content Domain Key		Edit Across Sites
Bloomreach API Key (blr_ApiKey) (String) API Key	▬▬▬▬▬▬▬ API Key		Edit Across Sites
Create multi locale feed (blr_MiltiLocaleEnabled)	No ▼	No	Edit Across Sites
Create multi currency feed (blr_MiltiCurrency) Create multi currency feed	Price as View (priceAsView) ▼ Create multi currency feed		Edit Across Sites

Bloomreach Product Fields configuration

(blr_ProductFields)

```
{
    "title": "name",
    "category_paths": "categories",
    "price": "price",
    "description": "longDescription.markup",
    "url": "url",
    "availability": "availabilityModel.inStock",
    "brand": "brand",
    "thumb_image": "thumb_image",
    "color": "color",
```

Edit Across Sites

Bloomreach Content Fields configuration

(blr_AdvancedContentExportFields)

```
{
    "title": "name",
    "description": "custom.body.source",
    "url": "url"
}
```

Edit Across Sites

#	Field Title	Description
1	Bloomreach Account ID	This is part of personal credentials to gain access to the Bloomreach services. Contact the Bloomreach support service to get your Account ID.
2	Bloomreach Authentication Key	This is part of personal credentials to gain access to the Bloomreach services. Contact the Bloomreach support service to get your Authentication Key.
3	Bloomreach Domain Key	Domain Key is used as a product catalog identifier on the Bloomreach side. This is part of personal credentials to gain access to the Bloomreach services. Contact the Bloomreach support service to get your Domain Key.
4	Bloomreach Content Domain Key	Content Domain Key is used as a content catalog identifier on the Bloomreach side. This is part of personal credentials to gain access to the Bloomreach services. Contact the Bloomreach support service to get your Domain Key.
5	Bloomreach API Key	This is part of personal credentials to gain access to the Bloomreach services. Contact the Bloomreach support service to get your API Key.
6	Create multi locale feed	Switch On/Off to create product and content feed for multi-locale sites. For the multi-locale sites you have to create a separate product and content catalog for each locale on the Bloomreach sandbox. The product and content catalog must have a catalog name and locale suffix in the format: **<domain key>_<locale>**. Where **<domain key>** is the Bloomreach API Key. **<locale>** is the name of the locale in ISO 3166-1 alpha-2 in lower case format. English locale is the default locale and has no any suffixes. For example: Bloomreach API Key is **astound** Catalog for English locale will be - **astound** Catalog for French locale must be - **astound_fr** Catalog for Germany locale must be - **astound_de**

7	Create multi currency feed	Select type of product feed for the multi currency sites. There are three options:
		Disable - don't create multi currency product feed. Product feed uses default currency for the current site.
		
		Price as attribute - for every product creates price properties with currency suffix in format **price_<currency>**. Where **<currency>** is currency code in ISO 4217 in lower case format.
		For example:
		For USD currency price property will be - **price_usd**
		For EUR currency price property will be - **price_eur**
		
		Price as View - for each product a View object is created with the currency code as the view ID and price value.
		For example:
		`"views": {`
		`    "usd": {`

| | | ```
        "attributes": {
            "price": 59
        }
    },
    "eur": {
        "attributes": {
            "price": 48
        }
    }
}
```<br>More detail about Views you can find in [Bloomreach documentation](#). |
| 8 | Bloomreach Product Fields configuration | Contain list of the product properties in product feed in JSON format and mapping of each property to Bloomreach and product's SFCC. Name of the property matches the Bloomreach product property. Value of the property matches the SFCC product property.<br>List of Bloomreach product properties you can find in [Bloomreach documentation](#).<br>List of SFCC product properties you can find in [SFCC documentation](#).<br>By default, the following product properties are configured:<br>```
{
    "title": "name",
    "category_paths": "categories",
    "price": "price",
    "description": "longDescription.markup",
    "url": "url",
    "availability": "availabilityModel.inStock",
    "brand": "brand",
    "thumb_image": "thumb_image",
    "color": "color",
    "size": "size"
}
``` |
| 9 | Bloomreach Content Fields configuration | Contain list of the content properties in content feed in JSON format and mapping of each property to Bloomreach and content's SFCC. Name of the property matches the Bloomreach content property. Value of the property matches the SFCC content property.<br>List of Bloomreach content properties you can find in [Bloomreach documentation](#).<br>List of SFCC product properties you can find in SFCC documentation.<br>By default, the following content properties are configured:<br>```
{
    "title": "name",
     "description": "custom.body.source",
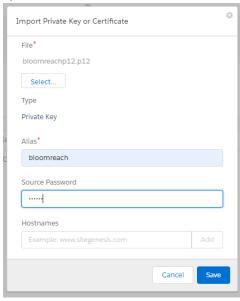    "url": "url"
}
``` |

Certificates

To create SFTP connection for upload product feed and category feed files uses a private key with its certificate. This is part of personal credentials to gain access to the Bloomreach services. Contact the Bloomreach support service to get your certificate and password. Certificate must be in PKCS #12 format (filename extension .p12).

To upload a certificate to the SFCC, go to *Administration > Operations > Private Keys* and *Certificates* and click the Import button.

Upload file with a certificate enter Alias name **bloomreach** and enter password and click Save button.

Note: Alias name must be **bloomreach**.

After successful import, you will see the certificates in the list.

Jobs

Go to Administration > Operations > Jobs. There are five Bloomreach cartridge jobs.

Bloomreach Product Feed job

This job for exporting full product feed from SFCC to Bloomreach dashboard. This job is used to update all products in the catalog and must be run for the first.

Click on the job name and select the Job Steps tab. The job has two steps.

Job steps:

- **Create Product feed file**: This step to create product feed files in json lines format and store in TEMP/bloomreach/product folder. File name has format:
  productfeed_<Site Name>_<timestamp>_<locale code>_<country code>.jsonl.
  For each locale a separate file will be created.
  Job parameter:
    - **Enabled**: If this box is checked, the job step will be executed when the job runs.
    - **FeedType**: for Bloomreach Product Feed job must **FullFeed** to be seated.

- **Upload feed to sftp**: This step upload files to the Bloomreach SFTP server and init import product feed from files to Bloomreach catalog.
  Job parameter:
    - **Enabled**: If this box is checked, the job step will be executed when the job runs.
    - **FeedType**: for Bloomreach Product Feed job must **Product** to be seated.

Before running the job for the first time, for each step, set the site name as the Scope:

After the job is completed, it creates a snapshot file that contains the products and their parameters exported to the Bloomreach side. This snapshot is used by the *Bloomreach Delta Product Feed* job to identify modified products and export only modified products. The snapshot file store in TEMP/bloomreach/product folder. File name has format *product-snapshot_<Site Name>.jsonl*

Bloomreach Delta Product Feed job

This job for exporting changed product feed from SFCC to Bloomreach dashboard. This job is used to update changed products in the catalog and runs after the init export has been done using the Bloomreach Product Feed job.
Click on the job name and select the Job Steps tab. The job has two steps.
Job steps:

- *Create Product feed file*: This step to create product feed files in json lines format and store in TEMP/bloomreach/product folder. File name has format:
  productfeed_<Site Name>_<timestamp>_<locale code>_<country code>.jsonl.
  For each locale a separate file will be created.
  Job parameter:
  - **Enabled**: If this box is checked, the job step will be executed when the job runs.
  - **FeedType**: for Bloomreach Delta Product Feed job must **DeltaFeed** to be seated.

- **_Send feed to API_**: This step upload product feed using Bloomreach API and init import product feed to Bloomreach catalog.
  <u>Job parameter:</u>
    - **Enabled**: If this box is checked, the job step will be executed when the job runs.
    - **FeedType**: for Bloomreach Delta Product Feed job must **Product** to be seated.
    - **UpdateType**: for Bloomreach Delta Product Feed job must **PATCH** to be seated.

Before running the job, for each step, set the site name as the Scope for each step:

After the job is completed, it updates a snapshot file that contains the products and their properties exported to the Bloomreach side. If there was no snapshot file, it is created again.

Note: Bloomreach's API has limitations on the size of product update data. You can send up to 1 GB data to update.

Bloomreach Content Feed job

This job for exporting full content feed from SFCC to Bloomreach dashboard. This job is used to update all content in the catalog.
Click on the job name and select the Job Steps tab. The job has two steps.
Job steps:
- **Bloomreach-Content-Feed-Export**: This step to create content feed files in json lines format and store in TEMP/bloomreach/content folder. File name has format:
  contentfeed_<Site Name>_<timestamp>_<locale code>_<country code>.jsonl.
  For each locale a separate file will be created.
  Job parameter:
  - **Enabled**: If this box is checked, the job step will be executed when the job runs.

- **Bloomreach-Upload**: This step upload files to the Bloomreach SFTP server and init import content feed from files to Bloomreach catalog.
  Job parameter:
  - **Enabled**: If this box is checked, the job step will be executed when the job runs.

- **FeedType**: for Bloomreach Product Feed job must **Content** to be seated.

Before running the job, for each step, set the site name as the Scope:

Bloomreach Publish Index job

The Bloomreach Publish Index job runs after sending your products data. This job informs Bloomreach about the new products data and to index that catalog. After indexing is complete, the new products data will be available for use.

The Bloomreach Publish Index job has one step *Bloomreach Publish Index* and one job parameter:

- **Enabled**: If this box is checked, the job step will be executed when the job runs.
- **FeedType**: for Bloomreach Publish Index job must **Product** to be seated.

Before running the job, set the site name as the Scope for a job step:

Bloomreach Publish Index - Content job

The Bloomreach Publish - Content Index job runs after sending your content data. This job informs Bloomreach about the new content data and to index that catalog. After indexing is complete, the new content data will be available for use.

The Bloomreach Publish - Content Index job has one step *Bloomreach Publish Index* and job parameters:

- **Enabled**: If this box is checked, the job step will be executed when the job runs.
- **FeedType**: for Bloomreach Publish Index - Content job must **Content** to be seated.

Before running the job, set the site name as the Scope for a job step:

Log errors

All errors that may appear during a job run are stored in the error log file with name *customlog-Bloomreach…log*.

Restrictions

The Bloomreach API has some restrictions on the number of requests it can process. To avoid errors when running jobs, we recommend running jobs no more than once every 10 minutes.

Firewall Requirements

No special firewall requirements

4. Testing

Intentionally left blank

5. Operations, Maintenance

Data Storage

Intentionally left blank

Availability

If the Bloomreach service becomes unavailable, the storefront continues to work without the service. All errors work of the service are saved in the log file.

Failover/Recovery Process

Intentionally left blank

Support

For questions please contact your Bloomreach Success Manager.

6. Known Issues

7. Release History

Version	Date	Changes
23.1.0	2023-09-01	Initial release
		|