bloomreach

Bloomreach Discovery

Core Cartridge Integration guide

Version 23.1.0

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1. Summary

The Bloomreach Discovery LINK cartridge is built for the Salesforce Commerce cloud and allows you to quickly kickstart integration of Bloomreach Discovery into a storefront. The cartridge includes instructions, code samples and best practices for an integration project.

Bloomreach Discovery offers AI-Driven product discovery focused on ROI. It leverages Loomi, our industry leading AI for ecommerce, to further drive product discovery. The Bloomreach Discovery x Shopify connector significantly simplifies your implementation to make sure pixel data from your storefront is fed appropriately into Bloomreach Discovery. Build your storefront quicker with a templated search UI and components for search results pages, facets and autosuggest.

Glossary

Term	Description
SFCC	Salesforce Commerce Cloud
LINK	Extension modules for a SFCC developed by the Salesforce service partner and certified by the Salesforce
SFRA	Storefront Reference Architecture, a modern architecture for building the SFCC storefronts.
SFCC BM *or* Business Manager *or* BM	Salesforce Commerce Cloud Business Manages is the web application and the primary tool used to configure the SFCC ecommerce instances and customer storefronts.
UX Studio	An Eclipse UI extension for SFCC development and working with the sandboxes.

2. Component Overview

Functional Overview

Bloomreach Discovery is a SaaS-based product discovery platform that helps you curate relevant, intelligent, and efficient digital search experiences so that your customers find the right products at the right time with maximum ease.

Limitations, Constraints

Use of the Bloomreach Discovery 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 Discovery services.

Compatibility

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

Privacy, Payment

The Bloomreach Discovery 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

Prerequisites

This Integration Guide is intended for developers with basic knowledge and skills of working with SFCC. Before starting work, make sure that:

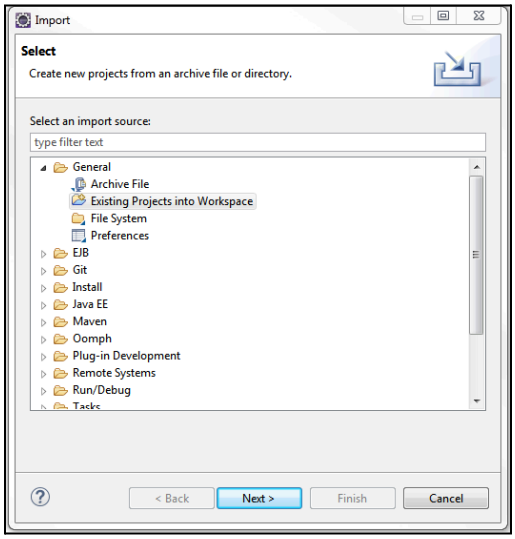
- You have access to a Salesforce Commerce cloud instance.
- Installed Eclipse IDE with Salesforce UX studio plugin.

The cartridge installation process is described for using Eclipse IDE with the Salesforce UX studio plugin, but you can use other IDE's as well, for example Visual Studio Code.

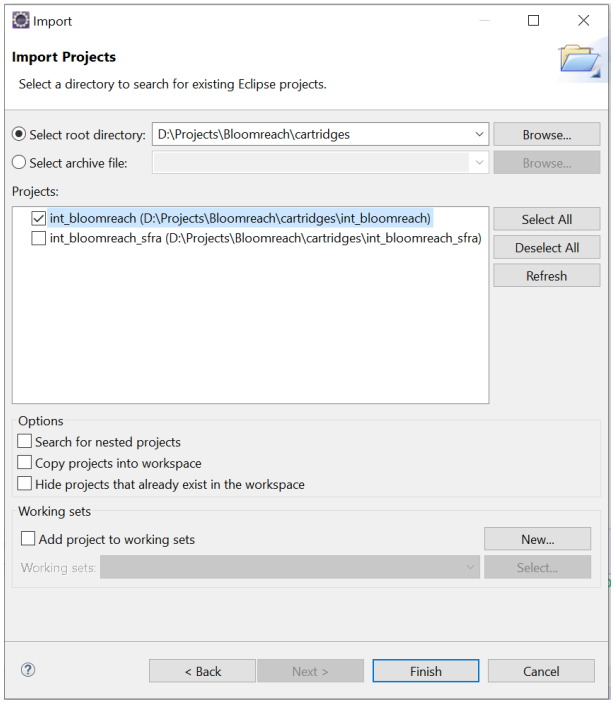
Setup of Business Manager

Importing cartridges

1. Download the cartridge source code from the github: https://github.com/bloomreach/discovery-sfcc-b2c
2. Establish a new digital server connection with your SFCC Instance
3. Import cartridges to a workspace in Salesforce UX Studio.



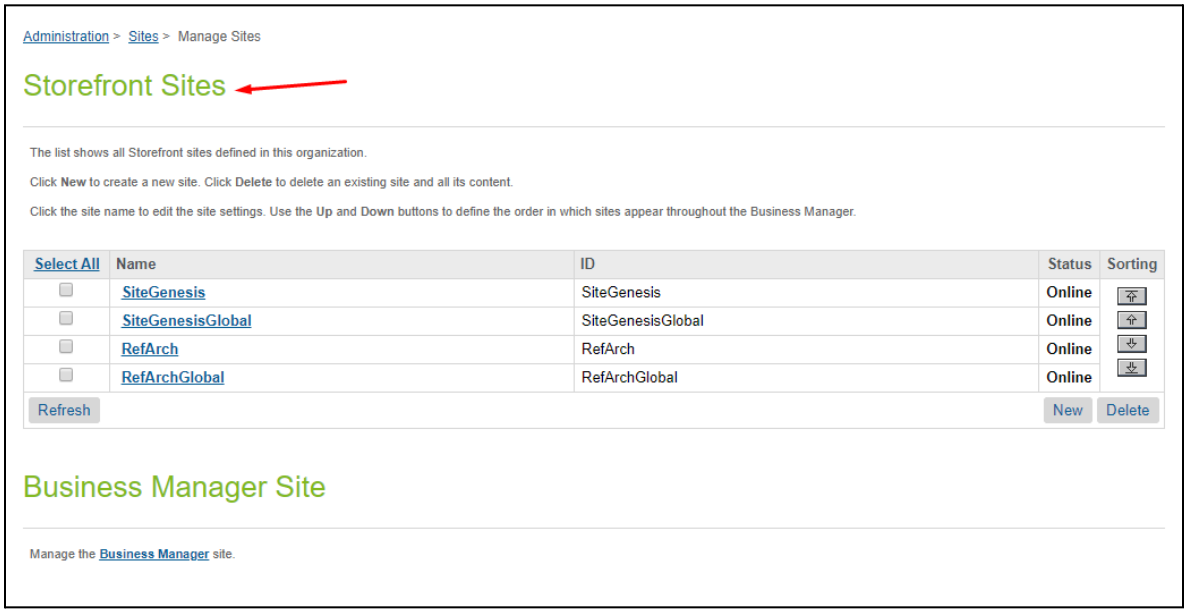
4. Add cartridges to Project Reference of Server Connection.



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

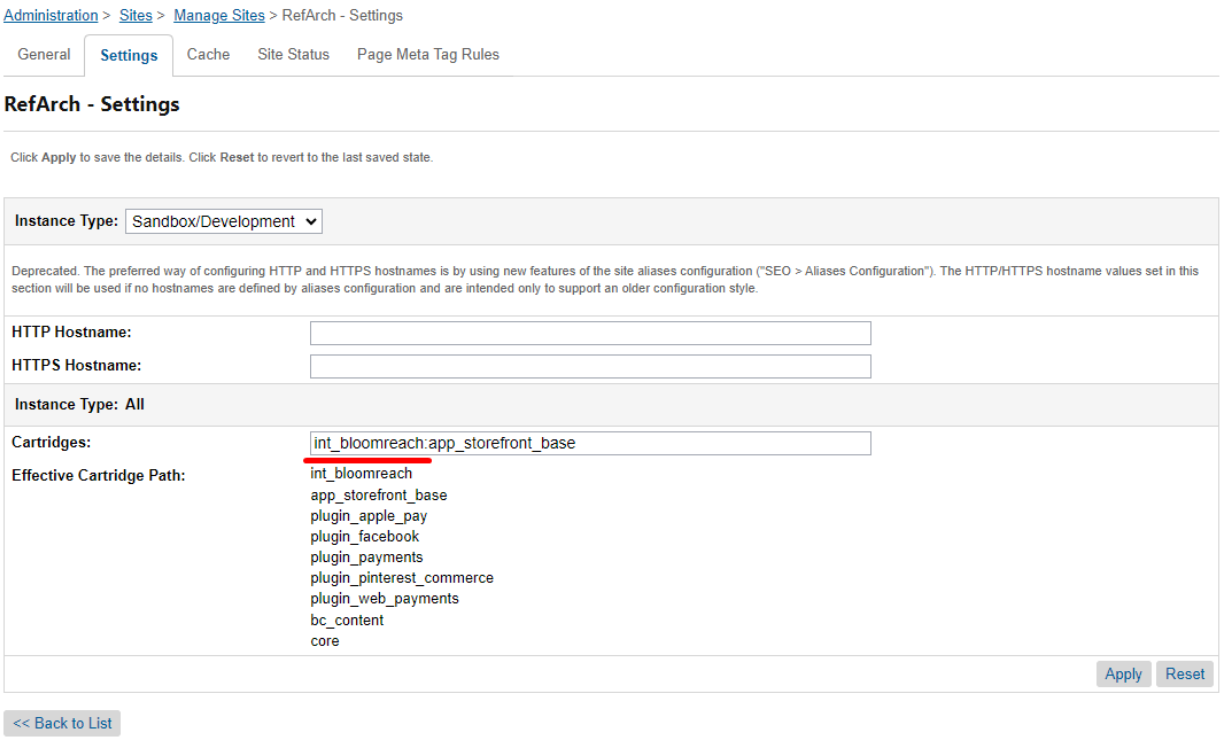
Assigning cartridges to the site

Open Business Manager and go to *Administration > Sites > Manage Sites > Select your site* from the "Storefront Sites" table.



Select Settings tab. In the beginning of the cartridge path add the following text (mind the colon)

```
int_bloomreach:
```



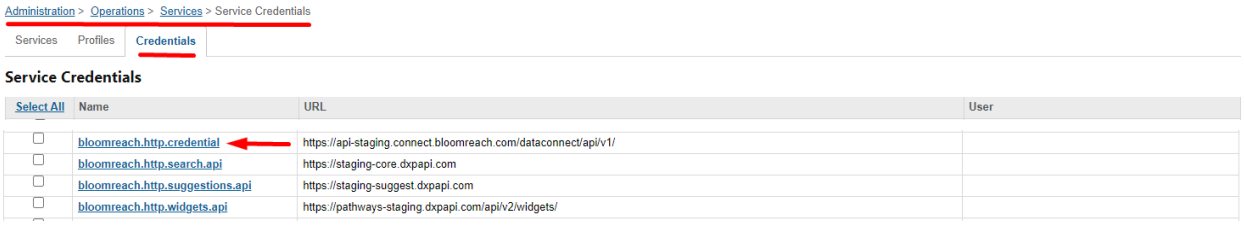
Import of metadata

Open Business Manager and 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

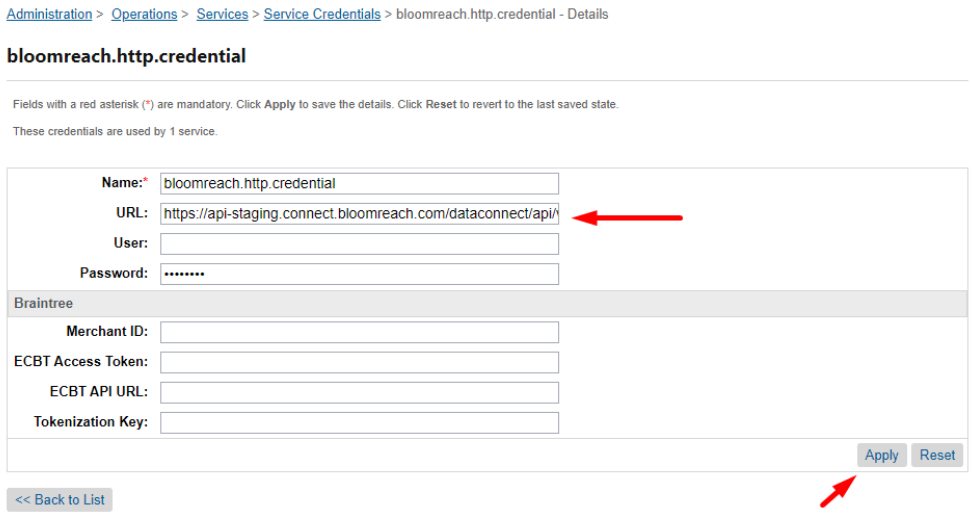
Service

You have to set the Bloomreach Discovery API endpoints URL.
Open Business Manager and go to *Administration > Operations > Services* and select the *Credentials* tab.



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.

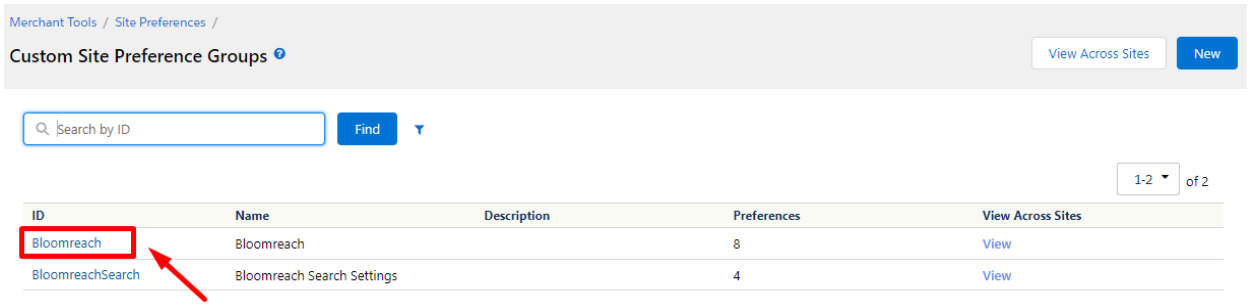
- Production: https://api.connect.bloomreach.com/dataconnect/api/v1/
- Staging: https://api-staging.connect.bloomreach.com/dataconnect/api/v1/



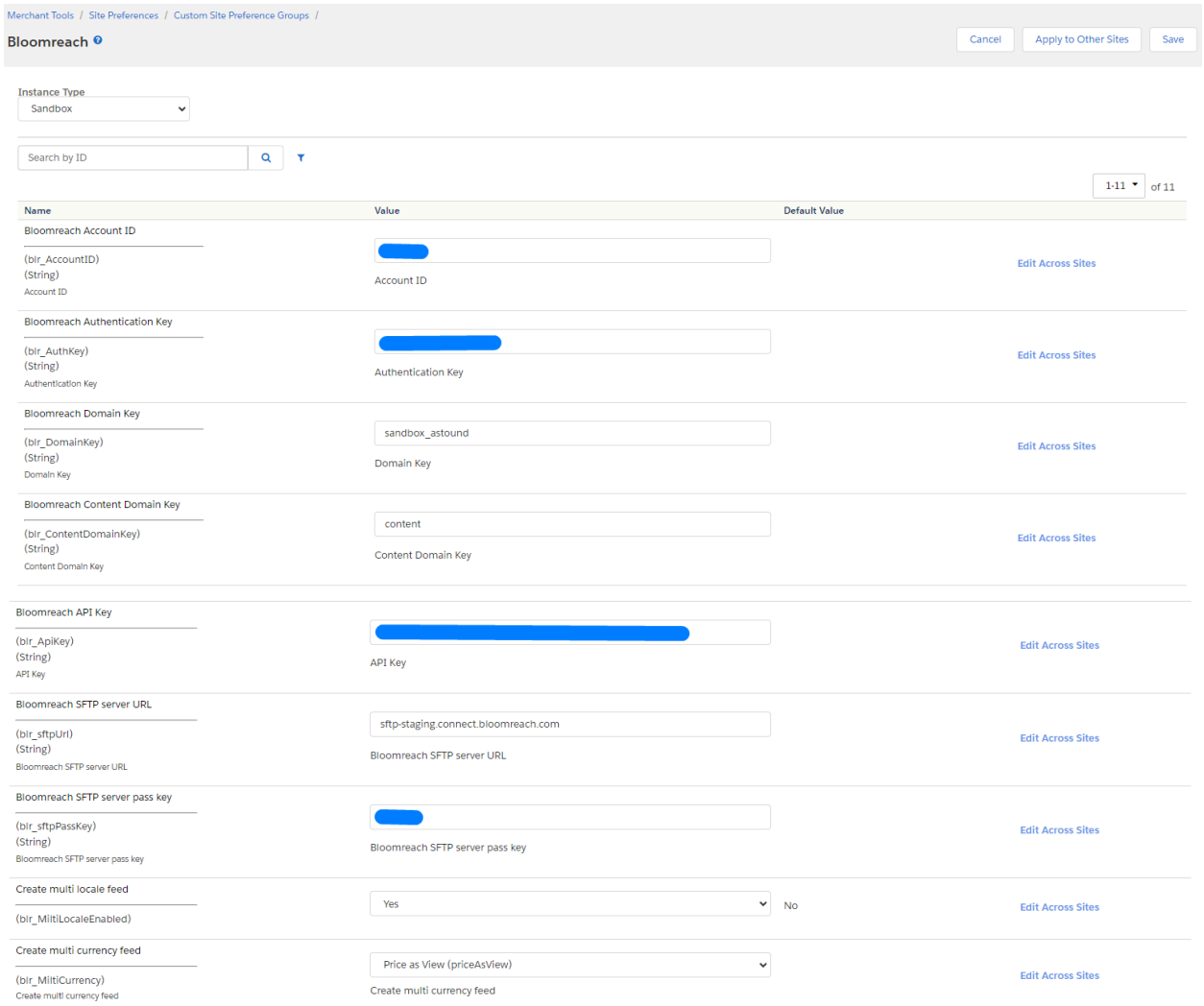
Configuration

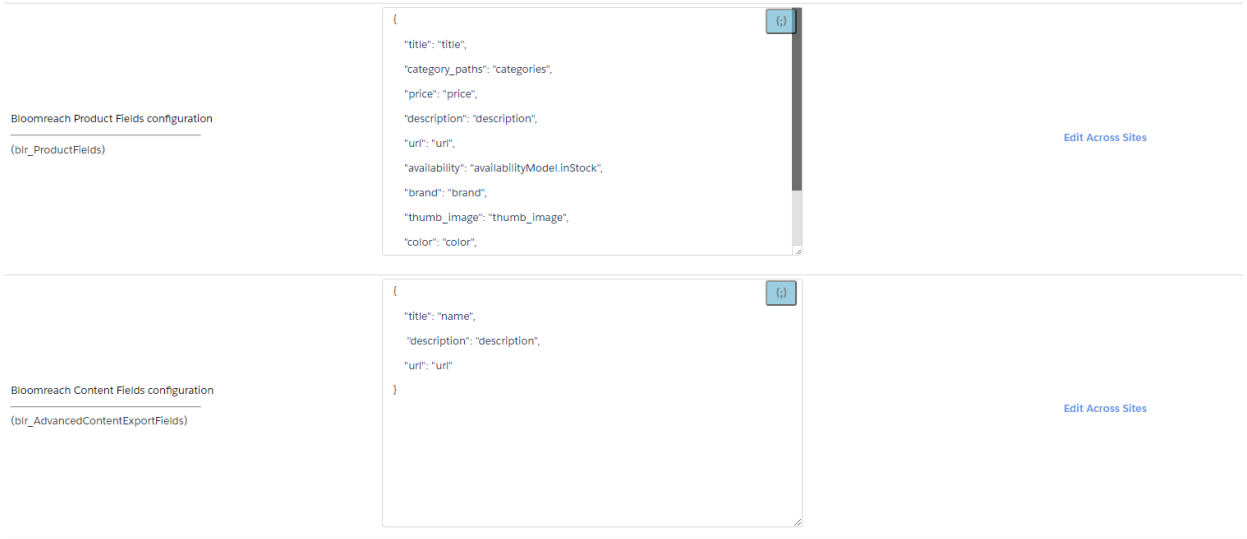
Custom Site Preferences

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.





#	Field Title	Description
1	Bloomreach Discovery 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 Discovery 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 Discovery Domain Key	Domain Key is used as a product catalog identifier used by Bloomreach Discovery. 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 used by Bloomreach Content. 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 Discovery 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	Bloomreach Discovery SFTP server URL	The URL of the SFTP server for the Production or Staging environment. This server is used by the Bloomreach Discovery Product Feed and Bloomreach Content Feed jobs. Production: **sftp.connect.bloomreach.com** Staging: **sftp-staging.connect.bloomreach.com**
7	Bloomreach Discovery SFTP server pass key	Pass key for access to the SFTP server.
8	Create multi locale feed	Switch this to On or 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 Discovery account. 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 Discovery 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 suffixes. For example: Bloomreach Discovery API Key is **f32r8932g934hniog23jf** Catalog for English locale will be - **f32r8932g934hniog23jf** Catalog for French locale must be - **f32r8932g934hniog23jf_fr** Catalog for Germany locale must be - **f32r8932g934hniog23jf_de**

9	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`
		`  }`
		`  }`
		`}`
		More detail about Views you can find in Bloomreach documentation.

10	Bloomreach Discovery Product Fields configuration	Contain list of the product properties in product feed in JSON format and mapping of each property to Bloomreach Discovery and product's SFCC. Name of the property matches the Bloomreach Discovery product property. Value of the property matches the SFCC product property.
		List of Bloomreach Discovery product properties you can find in documentation.
		List of SFCC product properties you can find in SFCC documentation.
		By default, the following product properties are configured:
		`{`
		`  "title": "title",`
		`  "category_paths": "categories",`
		`  "price": "price",`
		`  "description": "description",`
		`  "url": "url",`
		`  "availability": "availabilityModel.inStock",`
		`  "brand": "brand",`

		<pre>"thumb_image": "thumb_image",
		"color": "color",
		"size": "size"
		}</pre>

11	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.
		List of Bloomreach content properties you can find in Bloomreach documentation.
		List of SFCC product properties you can find in SFCC documentation.
		By default, the following content properties are configured:
		<pre>{
		"title": "name",
		"description": "custom.body.source",
		"url": "url"
		}</pre>

Bloomreach Product Fields configuration

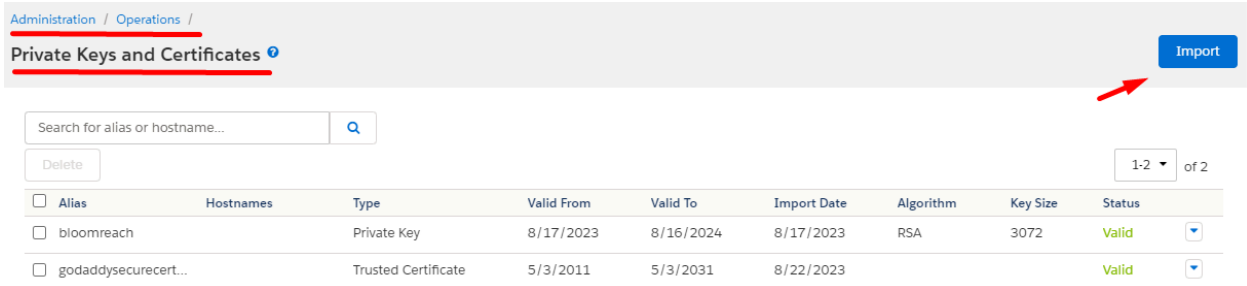
You can add simple SFCC product properties to the configuration that do not require preprocessing. For example, product name, brand, stock availability, etc. To be able to add properties that require pre- or post-processing, you need to add a handler function to the *aggregatedValueHandlers* variable in the file *int_bloomreach/cartridge/scripts/bloomreach/models/productAttributes.js.* In this case, you have to specify the name of the handler function in the JSON configuration. Below is a list of handlers implemented in the base cartridge.

Handler name	Description
categories	Get product category tree in Bloomreach format.
color	Get product color property for the variation products.
size	Get product size property for the variation products.
price	Get product price value.
url	Get product storefront URL.
thumb_image	Get product large image URL.
title	Get product name in lower case.
description	Get product description in lower case.

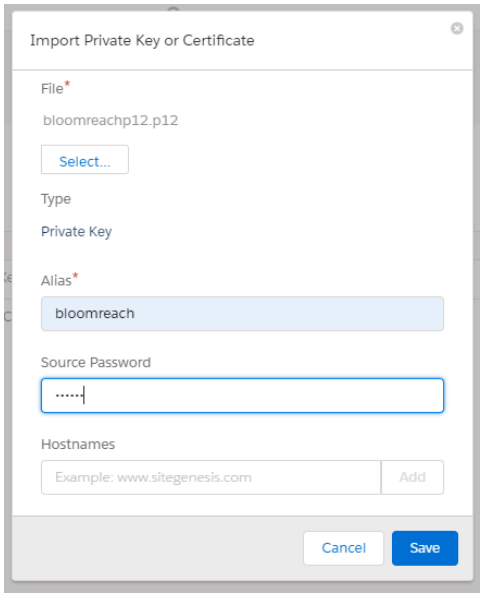
Certificates

To create an 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.

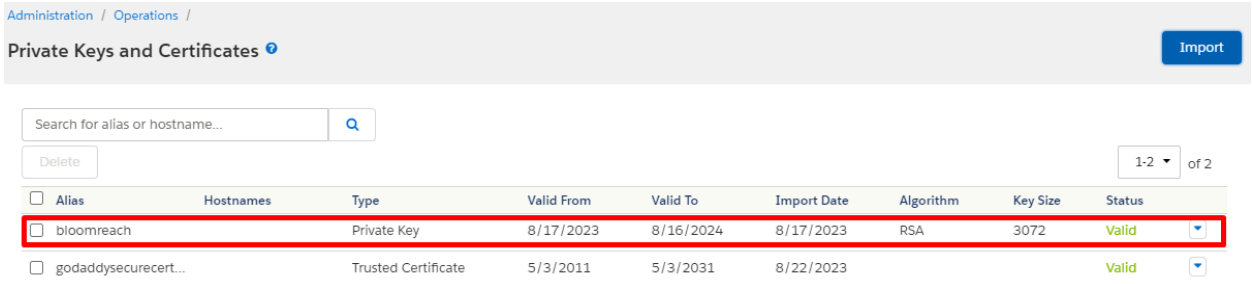


Upload file with a certificate enter Alias name **bloomreach** and enter password and click Save button.



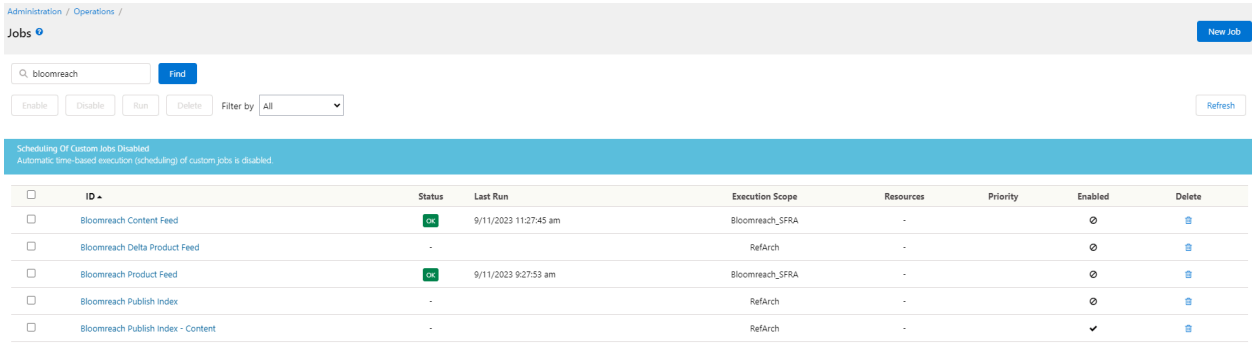
Note: Alias name must be **bloomreach**, because cartridge code references this Alias by this name.

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



Jobs

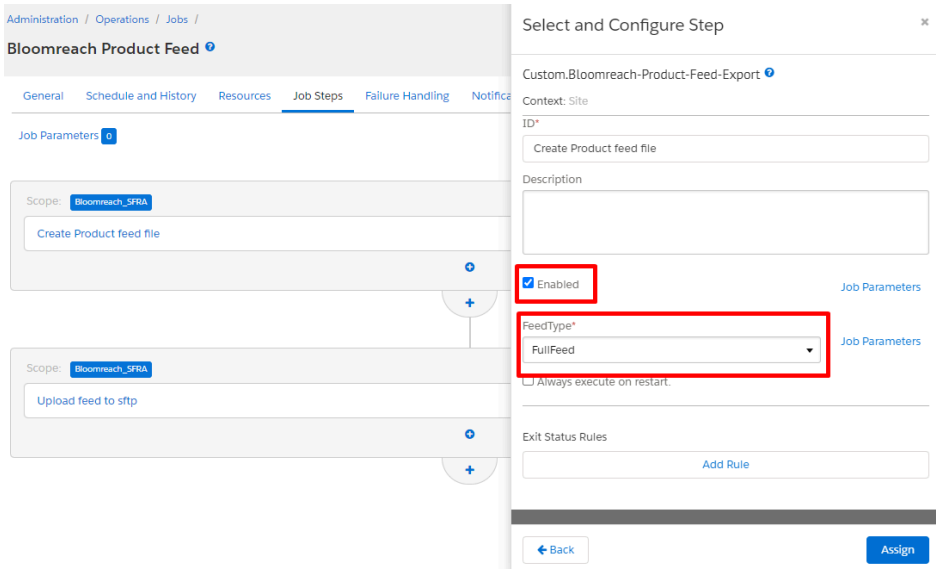
Go to Administration > Operations > Jobs. There are five Bloomreach cartridge jobs.



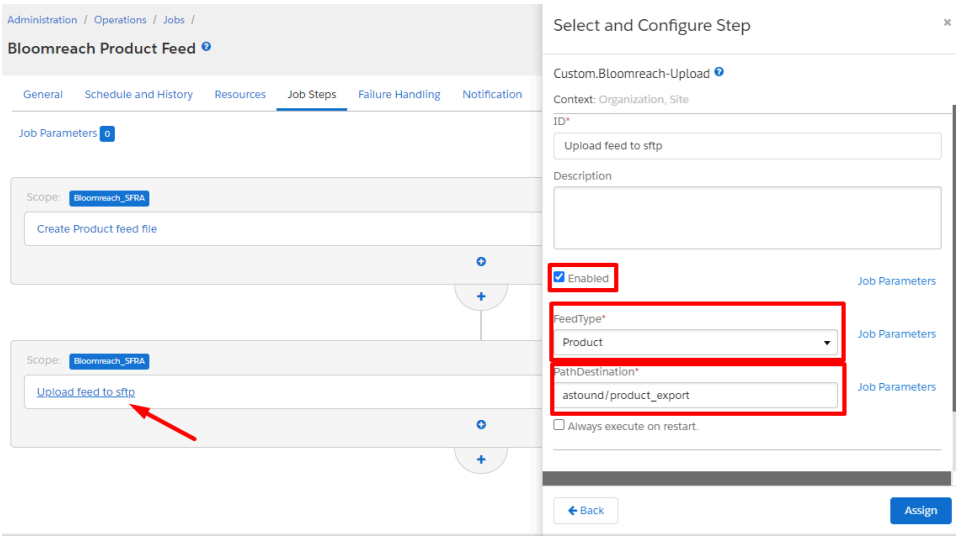
Bloomreach Product Feed job

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:

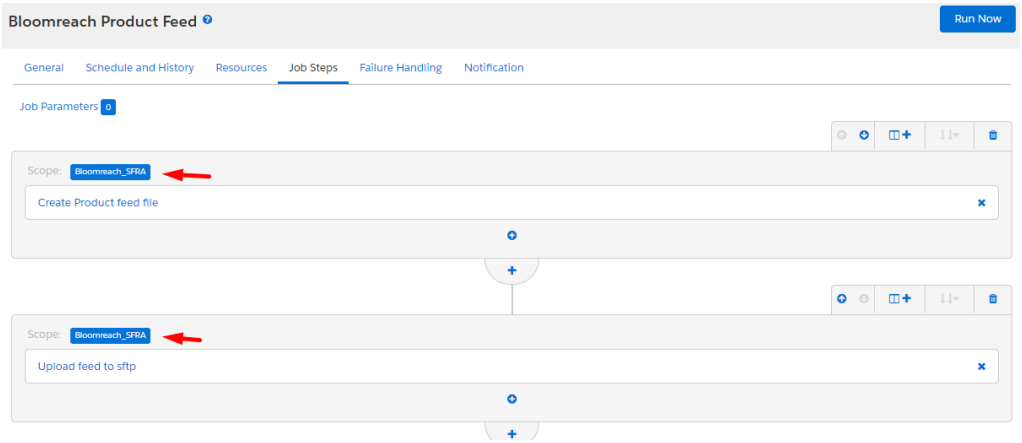
- ***Create Product feed file***: This step to create product feed files in json lines format and store in TEMP/bloomreach/product folder. File name has format: productfeed_<Site Name>_<timestamp>_<locale code>_<country code>.jsonl.
  For each locale a separate file will be created.
  Job parameter:
  - **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 set.



- ***Upload feed to sftp***: This step uploads files to the Bloomreach SFTP server and initializes import of the product feed from files to Bloomreach Discovery 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 set.
  - **PathDestination**: path to the folder on the Bloomreach SFTP server to upload the product feed file.



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

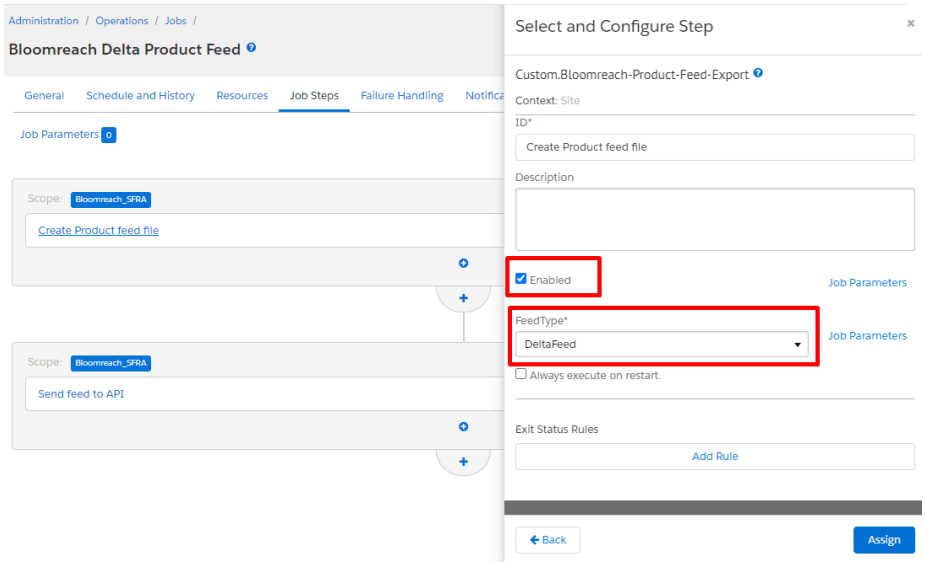


After the job is completed, it creates a snapshot file that contains the products and their parameters exported to the Bloomreach side. This snapshot is used by the *Bloomreach Delta Product Feed* job to identify modified products and export only modified products. The snapshot file gets stored in TEMP/bloomreach/product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

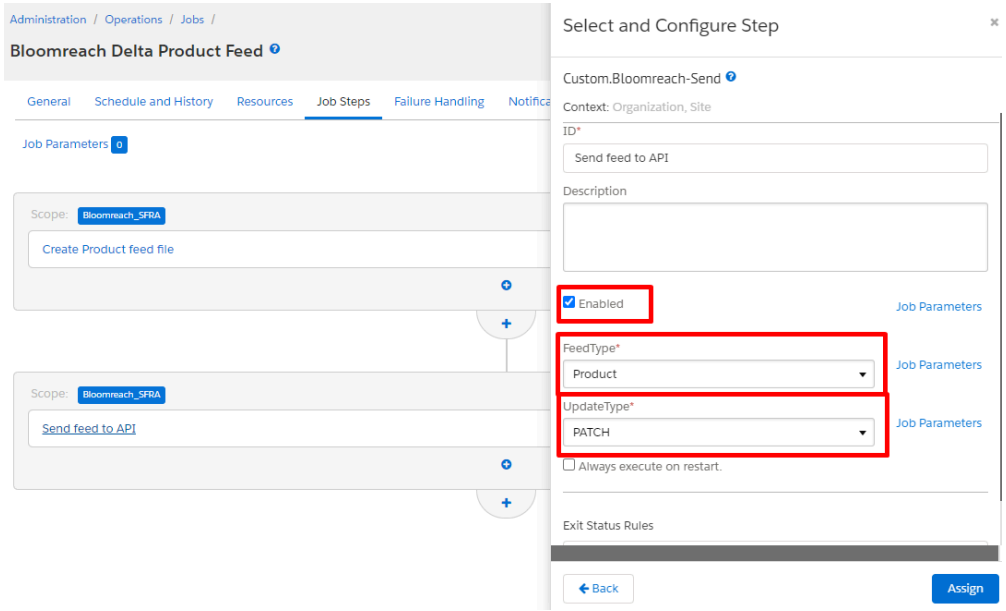
Bloomreach Delta Product Feed job

This job for exporting a changed product feed from SFCC to Bloomreach dashboard. This job is used to update changed products in the catalog and runs after the initial 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:

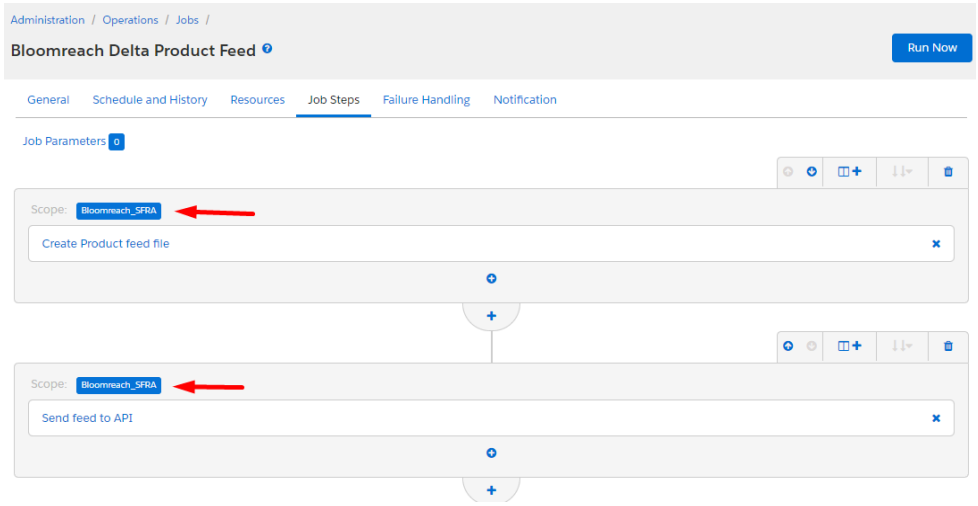
- ***Create Product feed file***: This step to create product feed files in json lines format and store in TEMP/bloomreach/product folder. File name has format:
  productfeed_<Site Name>_<timestamp>_<locale code>_<country code>.jsonl.
  For each locale a separate file will be created.
  Job parameter:
  - **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 set.



- ***Send feed to API***: This step uploads the product feed using Bloomreach API and initializes the import of a product feed to the Bloomreach catalog.
  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 **Product** to be set.
  - **UpdateType**: for Bloomreach Delta Product Feed job must **PATCH** to be set.



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



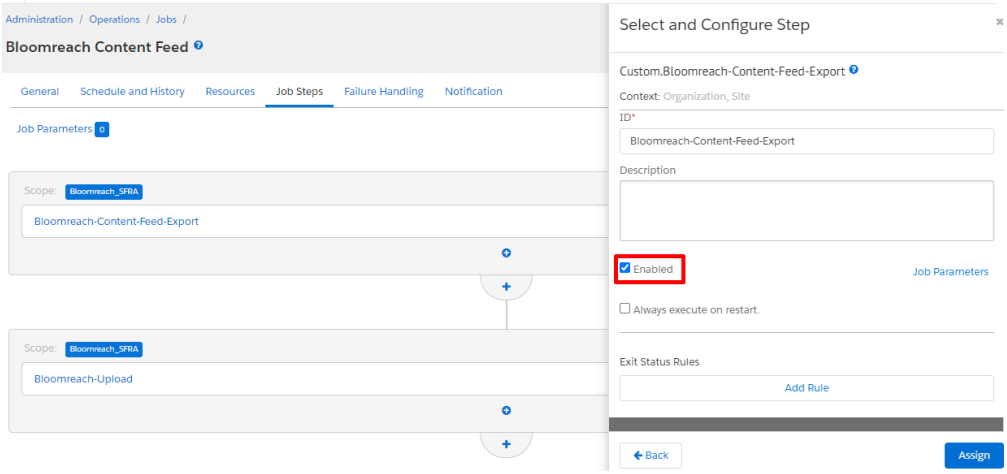
After the job is completed, it updates a snapshot file that contains the products and their properties exported to the Bloomreach side. If there was no snapshot file, it is created again.

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

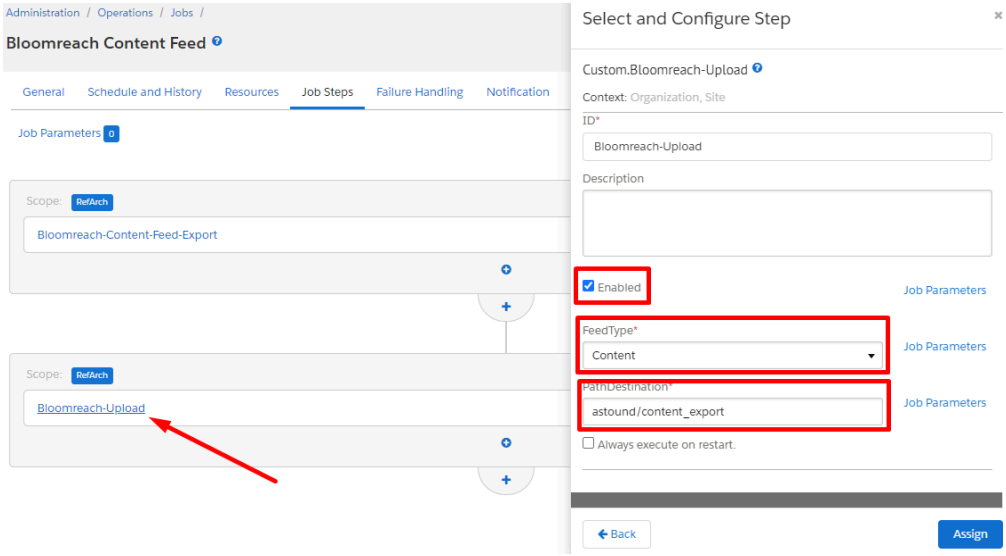
This job for exporting full content feed from SFCC to Bloomreach dashboard. This job is used to update all content in the catalog.
Click on the job name and select the Job Steps tab. The job has two steps.
Job steps:

- ***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.

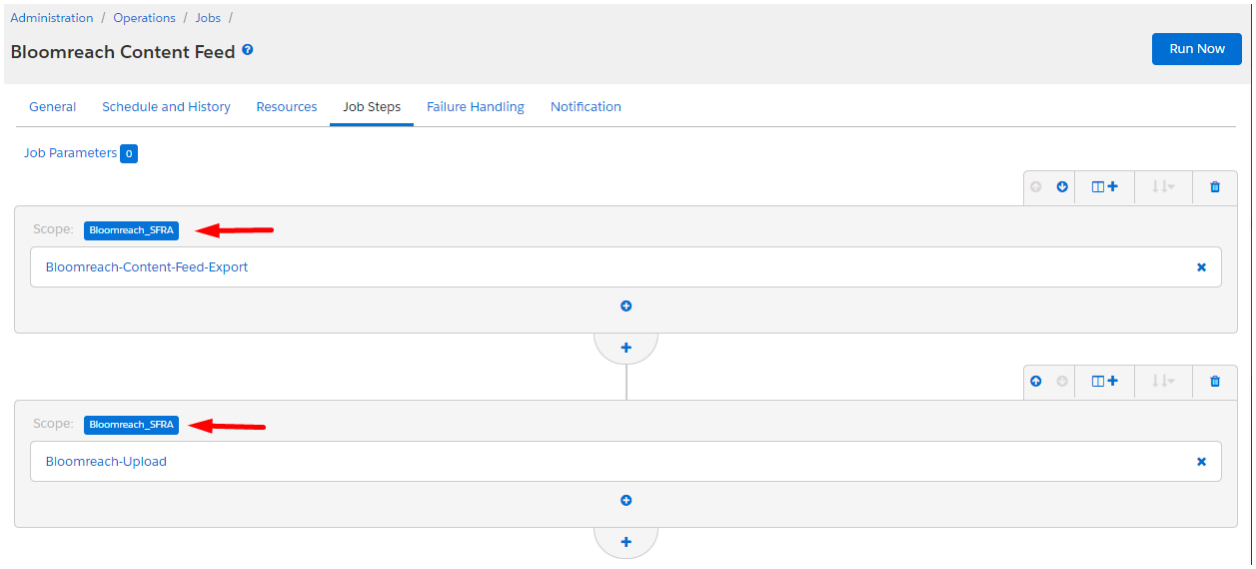


- ***Bloomreach-Upload***: This step upload files to the Bloomreach SFTP server and initial import content feed from files to Bloomreach catalog.
  Job parameter:
  - **Enabled**: If this box is checked, the job step will be executed when the job runs.

- **FeedType**: for Bloomreach Content Feed job must **Content** to be set.
- **PathDestination**: path to the folder on the Bloomreach SFTP server to upload the content feed file.



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

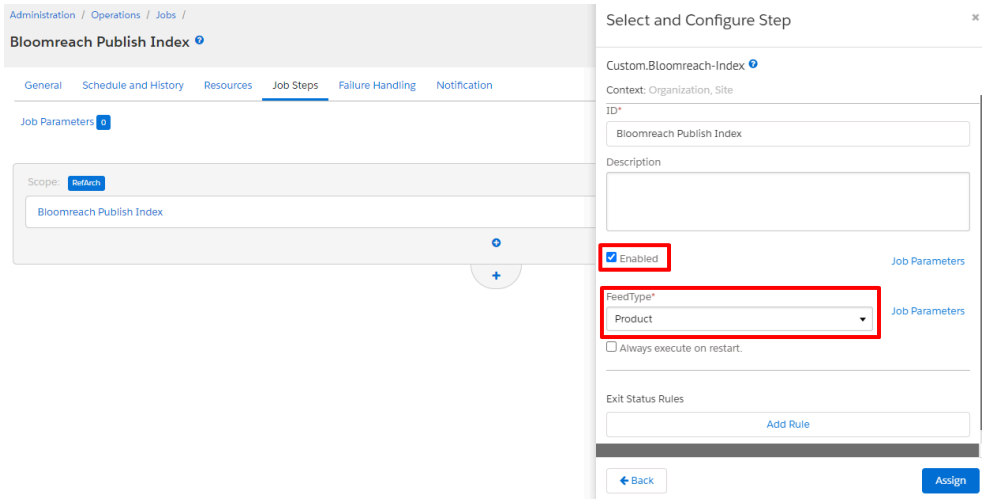


Bloomreach Publish Index job

The Bloomreach Publish Index job runs after sending your products data. This job informs Bloomreach about the new product data available for indexation and initializes the indexation of 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 set.

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

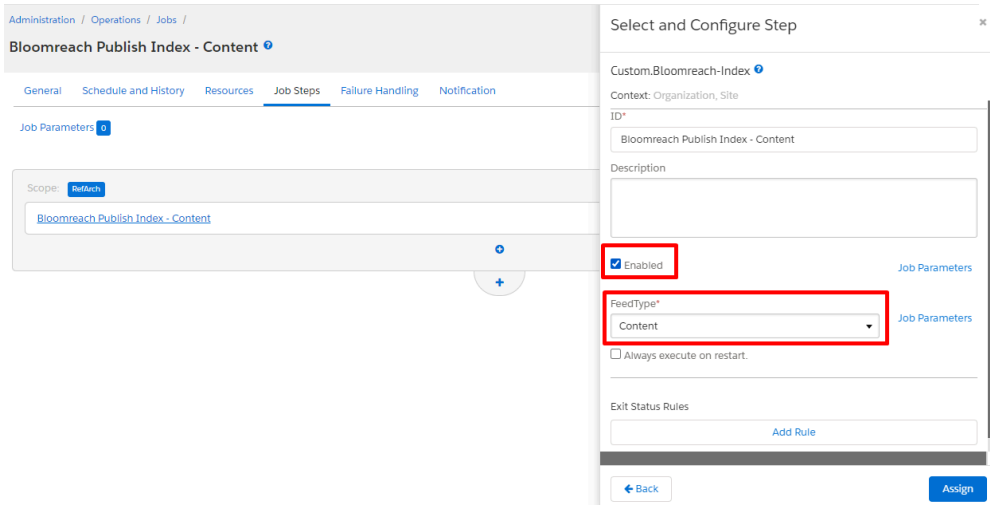


Bloomreach Publish Index - Content job

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 set.

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 Discovery 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

What should I see in Bloomreach Discovery when the cartridge works properly?

To make sure your integration works as expected check the next points of integration:

For core cartridge:

- ☐ snapshot files are created
- ☐ job status success, no errors reported
- ☐ error logs have no records with bloomreach- prefix
- ☐ communication logs

5. Operations, Maintenance

Data Storage

Intentionally left blank

Availability

If the Bloomreach Discovery 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