

Amplience Cartridges for Salesforce Commerce Cloud

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Version 20.1.0

-

Installation Instructions

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Overview

This document describes the various components of the Amplience Integration, how to install and configure it with in Salesforce Commerce Cloud Business Manager and describes an example implementation where the Salesforce Commerce Cloud Cartridges for Amplience are integrated with the Storefront Reference Architecture application (SFRA).

This integration takes into account the list of features defined in the section below. It may not cover application or client specific requirements. Storefront Reference Architecture (SFRA) application is a requirement to enable the Amplience integration.

Intended Audience

This document is intended for technical personnel who will be setting up the Amplience cartridges to integrate to the Salesforce Commerce Cloud (SFCC).

Limitations, Constraints

This version will work with Storefront Reference Architecture 5.0.1 or further. Amplience Content Items limited to 20.000 to prevent a quota violation (there is a limit of 20.000 in any collection array in a Salesforce Commerce Cloud cartridge). This means if the Amplience account has more than 20.000 items, only the first 20.000 will display in Business Manager.

Storefront Reference Architecture Version	Platform Version	Compatibility Mode	Amplience Cartridge Version
5.0.1	20.10	19.10	20.1.0

The cartridge is locale-independent, but it was tested with “en_US” locale.

If server with Manifest is down, then Manifest Import job will be failed and product images will not be updated till the server will be accessible again.

If the Amplience Dynamic Media CDN is down, than product images will not be shown on the storefront till the CDN will be accessible again.

Features Implemented

Dynamic Media

Amplience Dynamic Media gives you control over your visual digital content, such as product images and videos. The solution provides powerful automated image and video management workflows, Dynamic Imaging and Video Transcoding capabilities, metadata, viewer configuration, reporting, and analytics.

Key Features

- Dynamically render any image variant on demand from a single master asset
- Transcode video for all devices, mobile operating systems, and screen resolutions
- Flexible, mobile optimized, adaptive, and responsive product media viewers
- Dynamically create personalized image roundels and other layers
- Automate 360o and 720o (up and over) spin set production
- Managed complex media asset ingestion workflows via APIs and multiple FTP locations

Integration

1. Product imagery served by the Amplience Dynamic Media service easily configurable.
2. Automated assignment of Amplience product media to SFCC products catalog.
3. Configurable ootb production ready PDP viewer Support for 720, 360, video, alternate images.

Installation and Setup Plan for Dynamic Media

At a high level, the following tasks must be completed to install and setup the Amplience cartridges:

1. Download, deploy and register the Amplience cartridges
2. Import DM metadata into Salesforce Commerce Cloud
3. Configure cartridge settings in Business Manager
4. Upload rendering kit static resources
5. Setup Manifest Import job in Business Manager
6. Storefront Implementation

Pre-requisites

Salesforce Commerce Cloud logins

- Access to a Salesforce Commerce Cloud sandbox is required for development.
- Salesforce Commerce Cloud Exchange access is needed for documentation and support as well as to download tools such as UX Studio.

Amplience Media Sets

The Amplience platform was created with media automation in mind. Automating media workflows improves the speed of the studio-to-site process. Media sets are the driver behind the Amplience cartridge integration. Product Media in sets are assigned directly into products from your Salesforce Commerce Cloud catalog. If you have not set the automation scripts talk to your Customer Success Consultant who will guide you through the process of getting one created for you.

Naming Convention for Product Images

This is a prerequisite if interested in the Dynamic Media capabilities. The cartridge helps in the assignment of Amplience product imagery to Salesforce Commerce Cloud products. In order for the cartridge to work, you must use a standardized naming convention for the media sets holding your product media. For further information on this don't hesitate to contact your Solutions Consultant who will guide you through it.

Amplience Transformation Templates (TTs)

The assignment of Amplience product imagery to SFCC product catalog utilizes the SFCC out of the box view-types functionality. In order for this to work TT's need to be set on the Amplience side. This is something that will be set by the provisioning team for you. Speak to your Solutions Consultant for more info.

Temp folders

The following folders will be created by the script if not exists in your Import/Export directory:

1. 'src/temp'
2. 'customLogs'

E.g. the full path of the temp folder should be:

<https://<instance>/on/demandware.servlet/webdav/<organization>/Impex/src/temp>

You can open the path in your browser to view the folder contents (you will need to login to the sandbox), e.g.:

<https://amplience03.tech-prtnr-eu03.dw.demandware.net/on/demandware.servlet/webdav/Sites/Impex/src/temp>

These folders are used to store the different files generated by the Dynamic Media import job at run time:

- Copy of the Manifest file to be parsed fetched from the Amplience servers
- Manifest file separated in different files.
- Catalog files generated by the integration.
- Report files.

NOTE: To create new folders you will need a Webdav Client. For more information see: <https://documentation.demandware.com/DOC1/topic/com.demandware.dochelp/ImportExport/ManuallyAddingFilestoSandboxInstances.html>

Example Webdav clients:

Use a webdav client to add files and folders to your Import/Export directory

- Apple Mac: Mac Finder (Go > Connect to Server); <http://cyberduck.ch/>, <http://viperftp.com/>
- Windows: Windows File Explorer (Map Network Drive); http://www.netdrive.net/download_click/

NOTE: Check 'Use SSL' if required by your client.

Setup your Development Environment

Salesforce's recommended way to upload cartridges to Salesforce Commerce Cloud, is using Eclipse IDE with the UX Studio plugin.

The following pages on documentation.demandware.com detail the steps to setup Eclipse:

1. [Installing UX Studio](#)
2. [Creating a Workspace](#)
3. [Connecting to a Server](#)

Installation

Download the Cartridges

The latest Amplience cartridges can be downloaded from the Salesforce Commerce Cloud LINK_Amplience repository on GitHub:

https://github.com/SalesforceCommerceCloud/link_amplienicedynamicmedia

Deploy Amplience cartridges to SFCC

The Amplience integration contains 2 cartridges: `bm_amplience` and `int_amplience_sfra`.

bm_amplience

This cartridge contains libraries providing utility methods for working with the Amplience API and Dynamic Media manifest import.

int_amplience_sfra

This is an example SFRA cartridge for use with the Amplience Dynamic Media.

Register the cartridges

1. Log in to Business Manager and navigate to Administration > Sites > Manage Sites
2. Add to the Business Manager cartridge path:
 - a) Under the heading 'Business Manager Site', click on the link 'Manage the Business Manager site'
 - b) Add to the right of the 'Cartridges' text field:
`bm_amplience`
 - c) Click 'Apply' to add the cartridges to the effective cartridges path.
3. Add to your Site cartridge path:
 - a) Click 'Back to List' to go back to Administration > Sites > Manage Sites
 - b) Under the heading 'Storefront Sites', click on the name of your site
 - c) Click on the 'Settings' tab
 - d) Add to the left of the 'Cartridges' text field:
`int_amplience_sfra`
 - e) Add to the right of the 'Cartridges' text field:
`bm_amplience`
 - f) Click 'Apply' to add the cartridges to the effective cartridges path

For more information see the page [Register a Cartridge](#)

Import Amplience metadata

Metadata is XML file, which can be found in the downloadable zip and imported into the Salesforce Commerce Cloud Business Manager.

NOTE: Before you start, make sure you select the correct site in Business Manager.

There are two ways of metadata import. The first one is via Site Import & Export:

1. In Business Manager, navigate to Administration > Site Development > Site Import & Export
2. Upload the file *metadata/amplience-metadata.zip*
3. Import archive *amplience-metadata.zip*

Another way is separate files import.

NOTE: If you already successfully imported metadata, skip following steps.

Import system object type metadata

NOTE: If you have multiple Sites setup on your SFCC instance, System Objects metadata only needs to be imported once, it does not need to be re-imported for each site.

1. In Business Manager, navigate to Administration > Site Development > Import & Export
2. Click on the link 'Upload' under 'Import & Export Files'
3. Upload the file *metadata/amplience-metadata/meta/system-objecttype-extensions.xml*
4. Click on the Back button to return to the Import & Export screen
5. Click on the 'Import' link under 'Meta Data'
6. Select *system-objecttype-extensions.xml* and continue through the import wizard

The imported site preferences objects can be found at Administration > Site Development > System Object Types: SitePreferences (Attribute Definitions tab):

[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:		<input type="text" value="ampDM*"/>	<input type="button" value="Find"/>			
Select All	ID	Name	Type	Attribute Settings	Values	
<input type="checkbox"/>	ampDM_CdnHostname	Amplience Dynamic Media CDN Hostname	String		<u>1</u>	Edit
<input type="checkbox"/>	ampDM_CustomerPath	Amplience Dynamic Media Customer Path	String		<u>1</u>	Edit
<input type="checkbox"/>	ampDM_Enabled	Enable Amplience Dynamic Media	Boolean		<u>1</u>	Edit
<input type="checkbox"/>	ampDM_Viewer	Amplience Dynamic Media Viewer	String		<u>1</u>	Edit
					<input type="button" value="New"/>	<input type="button" value="Delete"/>

Import Amplience services

This will add a service and service profile to the Services configuration.

NOTE: If you have multiple Sites setup on your SFCC instance, Services metadata only needs to be imported once, it does not need to be re-imported for each site.

1. In Business Manager, navigate to Administration > Operations > Import & Export
 2. Click on the link 'Upload' under 'Import & Export Files'
 3. Upload the file *metadata/amplience-metadata/services.xml*
 4. Click on the Back button to return to the Import & Export screen
 5. Click on the 'Import' link under 'Services'
 6. Select *services.xml* and continue through the import wizard
- NOTE: Choose the 'Merge' option when prompted

The imported services can be found at Administration > Operations > Services

[Administration](#) > [Operations](#) > Services

Services Profiles Credentials

Services

Select All	Name	Type	Profile	Credentials	Status
<input type="checkbox"/>	http.amp.manifest.get	HTTP	http.amp.manifest.prof	None	Live

Import Job Schedules

NOTE: Job Schedules metadata must be (re-)imported for every Site you have setup on your SFCC instance.

1. In Business Manager, navigate to Administration > Operations > Import & Export
 2. Click on the link 'Upload' under 'Import & Export Files'
 3. Upload the file *metadata/amplience-metadata/jobs.xml*
 4. Click on the Back button to return to the Import & Export screen
 5. Click on the 'Import' link under 'Job Schedules'
- NOTE: DO NOT use 'Job Schedules (deprecated)'
6. Select *jobs.xml* and continue through the import wizard
- NOTE: Choose the 'Replace' option when prompted

The imported Job can be found at Administration > Operations > Job Schedules with the ID *AssignAmplienceImages*

Business Manager Configuration

Catalog Configuration

NOTE: Both the Storefront catalog assigned to the site and the Master catalog should be configured to use an external image location as follows.

1. In Business Manager, navigate to Merchant Tools > Products and Catalogs > Catalogs
2. Open the catalog to configure for Amplience DM (generally your master catalog and your storefront catalog)
3. Click on 'Edit' Button
4. Click on 'Image Settings' tab
5. For 'Image Location' select 'External'
6. Add the following values for 'HTTP URL' and 'HTTPS URL'
HTTP: `http://cdn.media.amplience.net/i/{companyID}/`
HTTPS: `https://cdn.media.amplience.net/i/{companyID}/`
e.g. `http://cdn.media.amplience.net/i/dem/`
7. Add View Type values
 - a) large *
 - b) medium *
 - c) small *
 - d) swatch *
 - e) image **
 - f) video **
 - g) spin **
 - h) set **

* default Salesforce Commerce Cloud view types
** additional view types used by Amplience cartridge
8. Add Variation Attribute ID
In order to group images by variation values, you can specify an ID of a shared or local Variation Attribute. The default is 'color'.
NOTE: 'color' is the most frequently used variation attribute ID. Most other attributes (size etc) will not need alternative images.
WARNING: The Amplience Assign Images job will only work with a single variation attribute, multiple variations (e.g. color, material) are not supported.
9. Click on 'Apply' button

Configuring site preferences

1. In Business Manager, navigate to Merchant Tools > Site Preferences > Custom Preferences
2. Click on ‘Amplience DM’ (Amplience Dynamic Media Settings)
3. Update the value of the following field
 - a) Amplience Dynamic Media Customer Path

NOTE: In most cases the other fields can be left as the default values. See the table in Appendix > Amplience DM Site Preferences Details

Manifest Import Job

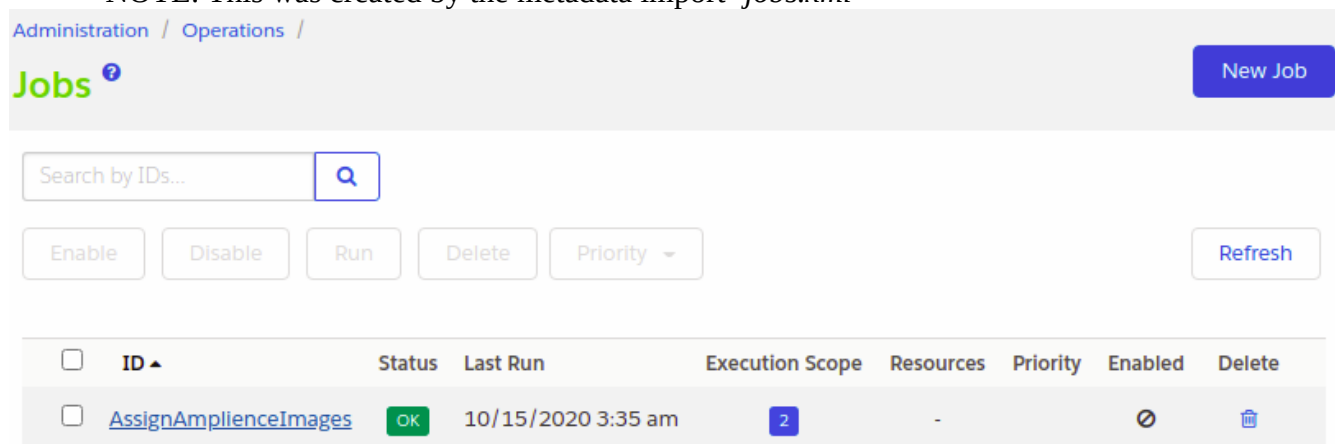
The Manifest Import Job is used to assign product images and transformation templates to the SFCC product catalog view types.

Custom steps are defined in the *steptypes.json* file, which is uploaded to Salesforce Commerce Cloud as part of the the cartridge *bm_amplience* (location: *bm_amplience/steptypes.json*). These steps specify scripts to run in the same cartridge or other cartridges.

An example job was created by the metadata import *jobs.xml*. For more information see ‘Import Job Schedules’. Please follow the instructions below to create, configure and run the job:

1. In Business Manager, navigate to Administration > Operations > Job Schedules
2. Click on the job with the ID ‘Import-AssignAmplienceImages’ to edit it

NOTE: This was created by the metadata import ‘*jobs.xml*’



<input type="checkbox"/>	ID ▲	Status	Last Run	Execution Scope	Resources	Priority	Enabled	Delete
<input type="checkbox"/>	AssignAmplienceImages	OK	10/15/2020 3:35 am	2	-		<input checked="" type="checkbox"/>	

3. Change the Job ID from ‘AssignAmplienceImages’ to ‘AssignAmplienceImages-SITEID’ or something unique to your site.

NOTE: This is to prevent the job being overwritten if the Job Schedule metadata needs to be imported again.

4. Click on the tab 'Schedule and History' and Set the schedule as follows:

Administration / Operations / Jobs /

AssignAmplienceImages [?]

Run Now

General **Schedule and History** Resources Job Steps Failure Handling Notification

Enabled

Active

Trigger

Recurring Interval

From* 10/15/2020 12:00 To

Run Time

Every

Amount* 1 Interval* Days

Run Only On These Days:

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

- a) Trigger: Recurring interval
- b) Run Time: Every 1 day
- c) Choose an appropriate time

5. Click on the tab 'Step Configurator'
 - a) Assign scope to the steps

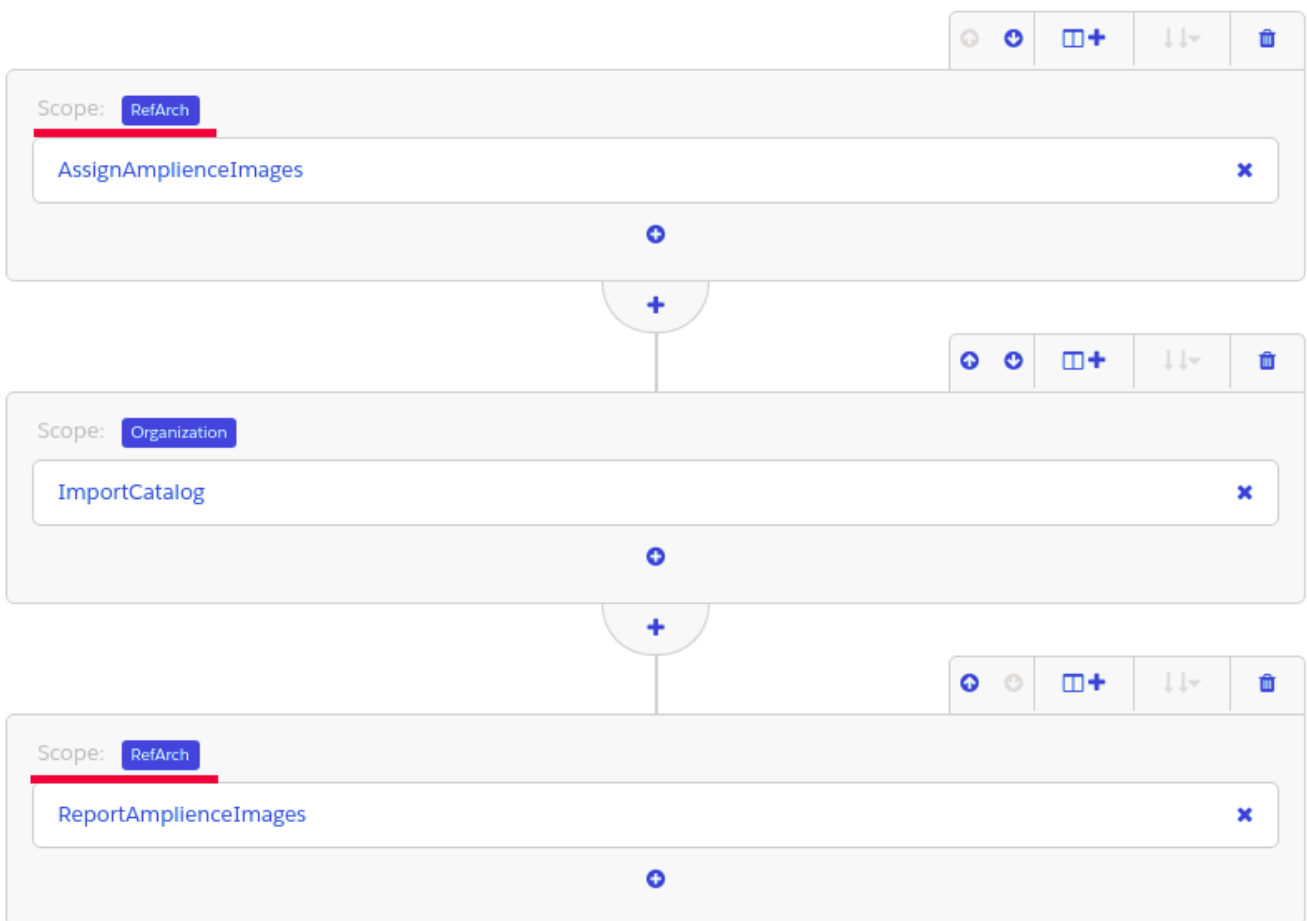
Administration / Operations / Jobs /

AssignAmplienceImages ?

Run Now

General Schedule and History Resources **Job Steps** Failure Handling Notification

Job Parameters 0



Scope: RefArch

AssignAmplienceImages

Scope: Organization

ImportCatalog

Scope: RefArch

ReportAmplienceImages

- b) Click on the Step name 'AssignAmplienceImages' and configure job step 'Custom.AssignAmplienceImages':

Custom.AssignAmplienceImages [?](#)

Context: Site

AmplienceManifestURL*

`http://static.adis.amplience.com/dw-setssfra/manife`

IsDeltaManifest

SiteCatalogID*

`storefront-catalog-m-en`

MasterCatalogID*

`apparel-m-catalog`

ImagePatternSeparator*

`-`

ImagePattern*

`sku_color`

ViewTypes

`{"large": "$large$", "small": "$small$", "medium": "$r`

PathPattern

`?`

TargetDir*

`IMPEX/src/temp`

TargetFile*

`amplience_images_catalog.xml`

ReportFile

`amplience_report.json`

Field Name or ID	Description and notes	Default Value
ID	The ID of this step No need to change the default	<i>AssignAmplienceImages</i>
AmplienceManifestURL	URL for the XML manifest file from Amplience This field MUST be changed to the valid manifest URL NOTE: A Manifest file will need to be setup on your account for this feature to work. The Manifest URL should be sent by your Customer Success Consultant	<i>http://static.adis.amplience.com/dw-turnkey/manifest/3fdbbc30-4426-11e6-bdf4-0800200c9a66/dw-manifest.xml</i>
IsDeltaManifest	If true (checked), then manifest file will be processed as delta-manifest. In that case “Products without images in SFCC” will not be calculated.	<i>true</i>
SiteCatalogID	ID of the storefront catalog in the site scope Must be modified to match the catalog ID that is assigned to your site at Merchant Tools > Products and Catalogs > Catalogs	<i>storefront-catalog-en</i>
MasterCatalogID	ID of the master catalog Must be modified to match your master catalog ID as set up at Merchant Tools > Products and Catalogs > Catalogs	<i>apparel-catalog</i>
ImagePatternSeparator	The separator used in product image naming convention	<i>_</i>
ImagePattern	The pattern of the product image naming convention NOTE: Your Amplience Customer Success consultant can help your determine your image naming convention	<i>sku_color</i>
ViewTypes	Configuration for the various view types of the catalog assigning a	<i>{ "large": "\$large\$", "small": "\$small\$", "medium":</i>

	<p>Transformation Template (TT) so images can be served at the right size - these will match your catalog image settings view types.</p> <p>NOTE: For “set” a transform template does not need to be specified, the default of “_set” will be appended to the image path by the cartridge script. If any value is given to “set” here, it will be appended after “_set”. For swatch, the default “_SWATCH” is appended to the image path, so the transform template needs to be specified as a query parameter, i.e. “?\$swatch”.</p>	<pre>"\$medium\$", "swatch": "?\$swatch", "video": "\$video\$", "spin": "\$spin\$", "set": "" }</pre>
PathPattern	<p>The path pattern is used if we want to generate SEO friendly URLs for images. For example, if we have path pattern = /name_color? the image URL will contain the color name as part of the image URL</p> <p>This field is required and it must end with a ‘?’ because the view types parameters are appended to the URL after this pattern. If you do not want to include SEO friendly URLs just specify “?”.</p>	?
TargetDir	Target directory for a generated files	<i>IMPEX/src/temp</i>
TargetFile	Generated catalog XML file name	<i>amplience_images_catalog.xml</i>
ReportFile	Generated report data JSON file name	<i>amplience_report.json</i>

- c) Click on the Step name 'AssignAmplienceImages' and configure job step 'Custom.ReportAmplienceImages':

Custom.ReportAmplienceImages [?](#)

Context: Organization, Site

ID*

ReportAmplienceImages

Description

SourceDir*

IMPEX/src/temp

ReportFile*

amplience_report.json

ReportEmailFrom

noreply@amplience.com

ReportEmailTo

noreply@amplience.com

ReportEmailSubject

Manifest Import Report Summary

Field Name or ID	Description and notes	Default Value
ID	The ID of this step No need to change the default	<i>ReportAmplienceImages</i>
SourceDir	Source directory with a generated files	<i>IMPEX/src/temp</i>
ReportFile	Generated report data JSON file name	<i>amplience_report.json</i>
ReportEmailFrom	From email address for missing images report	<i>noreply@amplience.com</i>
ReportEmailTo	To email address for missing images report	<i>noreply@amplience.com</i>
ReportEmailSubject	Email subject	<i>Manifest Import Report Summary</i>

6. Click on the tab 'Notification'
An email can be sent when the Scheduled job fails
 - a) Add email a 'from' email addresses and a 'to' email address
7. Click on the tab 'Failure Handling' and Modify the error handling rules as required:

Administration / Operations / Jobs /

AssignAmplienceImages [?]

Run Now

General Schedule and History Resources Job Steps **Failure Handling** Notification

Job Failure Rules

Failure Rule

Continue As Scheduled ▼

8. Go back to the Schedule and History tab
 - a) Click 'Run Now' to run the job
 - b) If the job is successful it will change to a green button with the label OK.
 - c) Otherwise check the log file in case of any errors.
9. You should see the following files in your *Impex/src/temp* directory:
NOTE: See Temp folders
 - Copy of the imported manifest XML file(s): e.g. amplience_manifest.xml
 - Catalog import XML file generated by the job: amplience_images_catalog.xml
 - ✓ Review this file to see the image paths that have been generated by the job
 - HTML reports of images: e.g. report-1510237346527.html
 - ✓ Report of products without images and unassigned sets

Storefront Reference Architecture Implementation

There is an example SFRA cartridge for use with the Amplience Dynamic Media cartridge at `/cartridges/int_amplience_sfra`

Implementation and Deployment

1. We assume, that Storefront Reference Architecture is installed as sibling project in folder `../storefront-reference-architecture/` and built
2. Open `package.json` and update the paths object with the correct path to your local copy of `app_storefront_base`

```
{
  "paths": {
    "base": "../storefront-reference-architecture/cartridges/app_storefront_base/"
  }
}
```
3. Open `webpack.config.js` and edit it (optional)
4. Run `npm install` in the root of this repository to install all of the local dependencies
5. Run `npm run build` in the root of this repository to compile all client-side JS files
6. Create `dw.json` file in the root of this repository:

```
{
  "hostname": "your-sandbox-hostname.demandware.net",
  "username": "yourlogin",
  "password": "yourpwd",
  "code-version": "version_to_upload_to"
}
```
7. Run `npm run uploadCartridge` in the root of this repository to upload `int_amplience_sfra` cartridge to the sandbox you specified in `dw.json` file.

Updating or Customising the Amplience DM Viewer-Kit

The Amplience Viewer Kit is used for Product Page viewers in the Amplience Dynamic Media cartridge. Viewer-Kit is a separate open-source project that is available in Github at <https://github.com/amplience/viewer-kit> and full documentation can be found on the [Amplience Playground](#).

If you want to update Viewer Kit to the latest version or customise the player options, CSS etc. please refer to the documentation above and then follow the instructions on the [Amplience Documentation Hub](#) to deploy the new code.

User Guides

Further documentation including user guides can be found in the [Amplience Documentation Hub](#)

Appendix

Amplience DM Site Preferences Details

Name	Description	Default Value
Enable Amplience Dynamic Media		Yes
Amplience Dynamic Media CDN Hostname		cdn.media.amplience.net
Amplience Dynamic Media Customer Path	In Amplience Dynamic Media this is the 'tag' for the account. It can be found by viewing the Properties of any Asset. The Dynamic URL shown in Properties is in the format http://c1.adis.ws/c/tag/... NOTE: This has the same value as the setting 'Amplience Delivery API Store identifier' in Amplience CA custom preferences	dem
Amplience Dynamic Media Customer Path		amp-dm-viewer-kit

Services

Dynamic Media (DM) integration module leverages the Salesforce Commerce Cloud Services Framework for communicating with other systems.

Amplience DM utilizes Amplience Media Set Service API for querying and retrieving the manifest file from Amplience

The service definition and profile were automatically created by the services import *services.xml* (see the section 'Import Amplience Services' above).

Service Name	Service Type	Service Profile	Service Credentials
http.amp.manifest.get	HTTP	http.amp.manifest.prof	None