

Functional Specification Document

Cloud Backup and Migration v.2.0 for SAP® Commerce

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INTRODUCTION

Purpose of the Document

The main goal of the document is to ensure that the owner's expectations and the scope of work are the same at the most basic level. The distinctive features of the document are:

- the designation of high-level requirements without profound technical details;
- user manual;
- third-party connection instructions.

POSITIONING

Business Opportunity

Cloud Backup and Migration v.2.0 is the extension for the SAP® Commerce Cloud 1808/1811 (on B2C Accelerator).

The main business opportunity of the designed extension is the technical expansion of the SAP® Commerce Software platform with different cloud storages for managing backups, remote storing, and migrating media data.

Cloud Backup and Migration module v.2.0 allows users to connect to any number of Amazon S3 and Dropbox accounts to:

1. Create backups of sites and catalogs with all media content "in one click";
2. Store and restore backup files (ImpEx, CSV, media files) in one zip archive;
3. Quickly upload the created backup on any server;
4. Store copies of the whole site (or parts of it) and enable different development teams with access to it;
5. Use external storage as a source of media content to simplify its management.

Problem Statement

The complications in backup management can occur during the work with an e-commerce website. The developers can experience inconveniences because the list of the website's items can be rather voluminous. Since SAP® does not have a ready-made solution for efficient backup management, the developers had to do everything "manually." The proposed solution automates and streamlines manipulations with media migration and backup management.

After installing the module, the user can:

1. Manage hot backups on different accounts of Amazon S3 and Dropbox storages;

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2. Receive one backup file that contains all stuff related to content and media files from the CMS Site instead of multiple ImpEx files related to the export process;
3. Make a quick transfer of media content to Amazon S3 or Dropbox storage in real time, not causing inconveniences for the website's work.



Installation and Access Levels Management

To start working with Cloud Backup and Migration v. 2.0, your project must use SAP® Commerce 1808/1811 only!

1. Extract zip file into hybris/bin/custom directory.

2. Add to your localextensions.xml

```
<extension name="importexportcloud"/>
```

```
<extension name="importexportbackoffice"/>
```

3. Optionally redefine in your local.properties:

The custom DropBox client identifier (default AimprosoftHybrisPlugin/0.1.0)

dbx.request.config.client.identifier

Custom name of Stage catalog (default Staged)

staged.catalog.version.name

Custom name of Online catalog (default Online)

online.catalog.version.name

Your project URL (i.e. https://your-project-url.com:9002/backoffice/parseDropboxAuthCode)

cloud.storage.dropBoxStorageType.redirectUrl

4. Run and clean all.

5. Update system.

6. The module is ready.

In addition to a user-friendly Set Permissions Page, the module has a new perspective for the back office with a new role and group which restricts permissions to a chosen functionality.

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USER MANUAL: MAIN PROCESSES

Brief Flows

1. **As a User, I would like to migrate all media from the local to the Amazon S3 account to utilize the external storage for my project.**

MIGRATION - > select Storage:Amazon S3 - > select Account:{accountName} - > CONNECT - > Migration task settings:Media folder for migration:{folderName} - > START MEDIA MIGRATION - > Migration confirmation: YES

2. **As a User, I would like to import the backup of the site from the Dropbox account to use the previous version.**

IMPORT - > select Storage:Dropbox - > select Account:{accountName} - > CONNECT - > CHOOSE FILE - > START IMPORT TASK

3. **As a User, I would like to save a backup of the site in the Amazon S3 account to share it with my colleagues.**

EXPORT - > select Storage:Amazon S3 - > select Account:{accountName} - > CONNECT - > Export scope: Site - > select Site:{siteName} - > SET EXPORT PATH - > START EXPORT TASK

4. **As a User, I would like to view the history of all operations to find out the details of one of them.**

HISTORY - > Import Task Info (or Export Task Info) > choose an operation from the list

Storages: Select and Configuration

There are 3 supported storages:

- Local
- Amazon S3
- Dropbox

By default, only local storage (user's hard drive) is available. After choosing this type of storage, there are no additional connection settings.

Amazon S3 Storage

Using Amazon S3 Storage as a source of backup or a target includes two steps:

1. Adding the connection credentials to the database;
2. Choosing credentials for each operation.

ADD NEW ACCOUNT button helps create a new account configuration in the DB. There is no limit to the number of saved and active connections with Amazon S3 Storage.

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After pressing the **SAVE** button, credentials are saved and can be used to **IMPORT** and **EXPORT** tasks.

After adding the connection, the user can select it from the Account drop-down list and press the CONNECT button. After selecting an account, the User can edit credentials (EDIT), disconnect (DISCONNECT), or delete (REMOVE) each of them.

Using Dropbox Storage as a source of backup or a target includes two steps:

- ADD NEW ACCOUNT button helps create a new account configuration in the DB. There is no limit to the number of saved and active connections with Dropbox Storage.

After pressing the **SAVE** button, credentials are saved and can be used to **IMPORT** and **EXPORT** tasks.

After adding the connection, users can select it from the Account drop-down list and press the CONNECT button. After selecting an account, the User can edit credentials (EDIT), disconnect (DISCONNECT), or delete (REMOVE) each of them.

1. Having installed the module and logged in, the user will have to add the credentials of their Dropbox/Amazon S3 account into the database and press the SAVE button. Afterwards, they will be able to choose a previously created account for media migration and import/export operations.

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3. They should choose the required storage from a drop-down list (e.g., using Dropbox as source storage).
4. Then choose the Media folder for migration from the dropdown.
5. Having chosen source storage, it's required to select target storage, the place where the media will be migrated next. To begin the process of media migration, the user should click on the START MEDIA MIGRATION button. They will receive a verification message that pops up on the screen.
6. If the YES button is pressed, the migration process will start. The user will see a corresponding "Migration has started message" on the screen.
7. As soon as the migration process is completed, the user can see the "Finished migration to Company DropBox config" message. If they mistakenly choose target storage similar to their source storage, the warning message will appear on the screen.

Import Data Backup

Import is used to select, download, and install the backup archive created with Cloud Backup and Migration v. 2.0.

For a clean install, it is desirable that the server has the same settings as it had at the time of the backup preparation ([Appendix A](#) contains detailed instructions). Otherwise, the data missing in the import file will remain on the server.

To start the backup import, the user has to:

1. open IMPORT page;
2. connect the Storage;
3. choose the file (CHOOSE FILE) in the selected Storage;
4. press START IMPORT TASK.

The "Import media content" checkbox means that the import processes include media files if they exist in the selected backup archive.

The process of importing can take some time, depending on the file size. If the command succeeds, the User sees two messages: about downloading and successful data applying.

All warnings and errors are shown in relevant alerts.

All started import tasks appear in the history node, in the Import Task Info page.

Caution! If the selected backup contains media ("Export media content" checkbox had been pressed during the Export Data Backup process), you can't disable the "Import media content" checkbox in the Import Data Backup process.

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Export Data Backup

Export is the process of selecting the scope, site, and packing the backup archive.

To start the backup import, the user has to:

1. open EXPORT page;
2. connect the Storage;
3. choose Export scope: "Site" (all catalogs related do the one site) or "Catalog + version" (The user can choose catalog for the import);
4. select Site / Catalog;
5. set the folder path to export (SET EXPORT PATH) in the selected Storage;
6. press START EXPORT TASK.

The "Export media content" checkbox means that during export processes, all related media files will be added to the backup archive.

The export process may take some time depending on the file size. If the command succeeds, the user sees the message about successful data exporting.

All warnings and errors are shown in relevant alerts.

Note! The default file name is unique, but for the user's convenience, it is possible to add a prefix to the file name (File name prefix) input.

All started export tasks appear in the history node, in the Export Task Info page.

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APPENDIX

A. Preparing the Server for Site Import

I. Prepare the CMS Site for importing.

Log in to Backoffice as an admin user.

Note! In the further description, remove only items related to the Site to be imported.

Remove Items related to Product and Classification catalogs (optional). Do the following steps:

1. Catalog -> Products

Remove all the Products in Staged and Online Product catalog versions.

2. Multimedia -> Media

Remove all the Media related to Staged and Online Product catalog versions.

3. Multimedia -> Media Containers

Remove all the Media containers related to Staged and Online Product catalog versions.

4. Catalog -> Classification System -> Feature List

Remove all the Features related to Classification Catalog

5. Catalog -> Categories

Remove all the Categories related to Staged and Online Product catalog versions and Classification Catalog.

Remove Items related to Content Catalog. Do the following steps:

1. Remove all the Items related to Staged and Online Content catalog versions in the following nodes (to have these nodes, you should have "cmsbackoffice" extension in your project):

WCMS ->

Page Template

Page

ContentSlot

Component

Navigation Node

2. Multimedia -> Media

Remove all the Media related to Staged and Online Content catalog versions.

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II. Import CMS Site using Cloud Backup and Migration v. 2.0.

III. Adjust just Imported CMS Site.

Log in to the Back office as an admin user.

1. Synchronize the next catalog versions

Product Catalog:Staged -> Online

Content Catalog:Staged -> Online

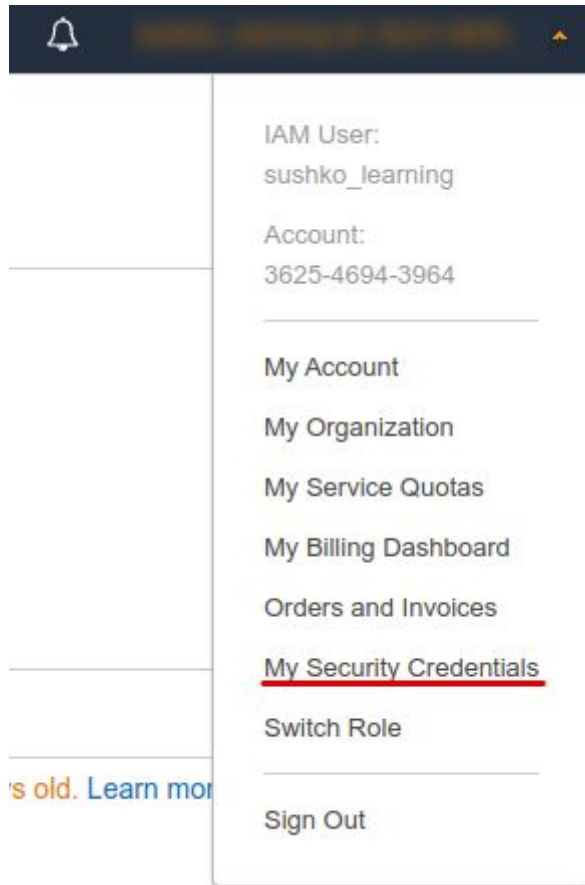
2. System -> Search and Navigation -> Facet Search Configurations

Start full Indexation for imported Site Facet Search Configuration

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B. AWS S3 Storage Configuration

1. Login into <https://console.aws.amazon.com/>.
2. Open the drop-down menu under your account name and choose “My security credentials.”



3. Press “Create access key”, then copy “Access key ID” and “Secret key.”
Recommendation: save the file with your credentials to your local device.
4. Create a new Bucket if you don’t have one.
5. Open the Amazon S3 console at <https://console.aws.amazon.com/s3/>.
6. Choose “Create bucket.”
7. On the “Name and region” page, enter a name for your bucket, and choose the AWS Region where you want the bucket to reside. Complete the fields on this page as follows:
 - a. For the new Bucket Name, enter a unique DNS-compliant name. Follow these naming guidelines:
The name must be unique across all existing bucket names in Amazon S3.

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"Create app."

Create a new app on the DBX Platform

1. Choose an API

<input checked="" type="radio"/> Dropbox API For apps that need to access files in Dropbox. Learn more		<input type="radio"/> Dropbox Business API For apps that need access to Dropbox Business team info. Learn more	
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2. Choose the type of access you need

[Learn more about access types](#)

<input type="radio"/> App folder – Access to a single folder created specifically for your app.
<input checked="" type="radio"/> Full Dropbox – Access to all files and folders in a user's Dropbox.

3. Name your app

Create app

6. On the opened page, with your app settings, you can see "App key" and "App secret."

Copy both of them into the Cloud Backup and Migration v. 2.0 module:

- a) login into SAP Commerce with your credentials;
- b) in "Storage" drop-down choose "Dropbox";
- c) and press ADD NEW ACCOUNT button;
- d) fill all fields:
 - from Dropbox application "App key" to the module new connection "App key";
 - from Dropbox application "App secret" to module a new connection "App secret";
 - fill the new connection name field, for example, "CBM Dropbox."

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