



V1  
Document  
Management

Document Automation for CloudHR

Hotfix Bundle 1

20<sup>th</sup> September 2021

# Contents

Information .....	3
Pre-Requisites .....	4
Assumptions .....	5
Download Hotfix Bundle 1.....	6
Un-compress Hotfix Bundle 1 .....	6
Download the V1BulkImport Addon .....	6
Download the V1DbArchiveCleanUp Addon .....	6
Import the Bulk Upload DbArchive Table .....	7
Copy the Bulk Import DbArchive Definition file and BLOB.mim .....	8
Install the V1CloudHRBulkImport Service .....	9
Install the V1DbArchiveCleanUp Service .....	10
Implement the new Vault entries .....	11
Option 1 - Create Manually.....	12
Option 2 - Merge from .json file .....	13
Update DbPDF .....	14
Update CloudHR_PDF_Pickup.def .....	15
Update DbArchive server-side definition files.....	16
Final best Practice steps.....	17
Appendix .....	18
Configuring SmartMail to send emails .....	18
DbArchive Clean Up.....	19

## Information

Q: What is Hotfix Bundle 1?

A: Hotfix Bundle 1 is an incremental update of the current Document Automation Solution for CloudHR by V1.

It addresses a number of issues, adds minor enhancements further bolstering the offering and allows support for CHR1.3 / changes to the way the API's are authenticated.

In Summary:

- ▶ A new set of definition files
  - ▶ Further defensive coding to accommodate communication being compromised for either Vault, CloudHR, DbArchive or the MailMerge facility
    - ▶ Alerts can be switched on / off to allow users to be emailed details of any issues during communication
- ▶ New Vault entries
  - ▶ To accommodate the new authentication methodology CloudHR now uses for KeyCloak
    - ▶ The ability to to flip between CHR1.2 or CHR1.3 authentication types with no code changes required

These instructions also include details of how to apply the following add-ons:

- ▶ Bulk Import Add-on
  - ▶ A new facility allowing single .zip files containing X number of documents to be uploaded to the assoicated CloudHR category enmass.
    - ▶ NOTE: This **is not** mandatory and should only be applied if a requirement of the customer.
- ▶ DbArchive Clean Up Add-on
  - ▶ Where a document has been archived, but the link to CloudHR failed to be added, cleanse the entry in the archive automatically to allow it to be retried.
    - ▶ NOTE: This **is** mandatory and forms part of the enhancements to allow for defensive coding should issues arise with archiving.

## Pre-Requisistes

Before you implement Hotfix Bundle 1, you must have already fully **installed** and **implemented** the **standard solution**.

It has been **tested** sufficiently that **lookups** and **deposits** from **SmartDeposit**, and deposits using **MailMerge** are successfully deposited with their links in CloudHR created.

**DO NOT CONTINUE UNLESS THIS HAS HAPPENED.**

**DO NOT RENAME TABLES IN DBARCHIVE.**

**DO NOT RANDOMALLY REPLACE / RENAME ANY FILES.**

**DO NOT CHANGE ANY PATHS TO ANY FILES BEYOND WHAT HAS  
ALREADY BEEN INSTALLED.**

If any of the above is ignored / bypassed, you **WILL** experience problems.

V1 Development take no responsibility if problems arise as a result of these instructions not being followed in full, to the letter and in order.

## Assumptions

For the purposes of this document, the following assumptions are made:

- ▶ You have direct remote desktop dial in access to the V1 Server where the standard solution is installed.
- ▶ The software has been installed to C:\V1Home.
  - ▶ Change as appropriate to the **actual customer installation path**.
- ▶ You have the necessary route token ID to access Vault.
- ▶ CloudHR has at least one document type and one document category available to archive against.
- ▶ All users have logged out / not using Document Automation for CloudHR by V1.

## Download Hotfix Bundle 1

Navigate to the [V1 Cloud HR Portal](#) and Click Downloads > Hotfixes  
Click on Hotfix Bundle 1.zip

## Un-compress Hotfix Bundle 1

On the V1Server, create a directory called C:\V1Home\HFB1  
Un-compress the files you have downloaded C:\V1Home\HFB1 so you end up with:

C:\V1Home\HFB1

Which contains the files there-in.

NOTE: This is a temporary location until which point the files have been applied.

## Download the V1BulkImport Addon

NOTE: This is **NOT** mandatory for Hotfix Bundle 1, only if a requirement by the customer.

Navigate to the [V1 Cloud HR Portal](#) and Click Downloads > Add-ons  
Click on V1DMCHRBUKIMPORT<VERSION>.zip

Un-compress the files into the C:\V1Home directory at the top level, so you end up with:

C:\V1Home\V1CloudHRBulkImport

Which contains the files there-in.

## Download the V1DbArchiveCleanUp Addon

NOTE: This **IS** mandatory for Hotfix Bundle 1.

Navigate to the [V1 Cloud HR Portal](#) and Click Downloads > Add-ons  
Click on V1DMCHRDBACLEANUP<VERSION>.zip

Un-compress the files into the C:\V1Home directory at the top level, so you end up with:

C:\V1Home\V1DbArchiveCleanUp

Which contains the files there-in.

## Import the Bulk Upload DbArchive Table

NOTE: This is **NOT** mandatory for Hotfix Bundle 1, only if a requirement by the customer.

A new table has been created to house the zip files, the files therein to be uploaded, an XML file has been provided, that you can simply import.

NOTE: Importing this new table can be done safely with existing tables already present and not have any adverse impact on them.

1. Open the DbLogin Admin Console and login as an administrative user
2. Click the DbArchive Table Editor (top right icon)
3. Click the icon Import from XML (second from left)
4. Where prompted, browse to the C:\V1Home\V1CloudHRBulkImport directory and select the v1dm\_chrbulkupload\_tables.xml
5. After a brief pause, the table should appear
6. Click the Reorder tables icon and move the table so it's in alphabetical order amongst the others already present, click OK
7. Close the DbArchive Table Editor

## Copy the Bulk Import DbArchive Definition file and BLOB.mim

NOTE: This is **NOT** mandatory for Hotfix Bundle 1, only if a requirement by the customer.

A single .def file handles the lookups and interface messages in SmartDeposit to necessitate archiving the initial zip file.

1. Using file explorer, browse to the C:\V1Home\V1CloudHRBulkImport directory
2. Take a copy of the BULK\_IMPORT.def
3. Paste it in to the C:\V1Home\DbArchive directory

The BLOB.mim contains 20 common file types (including .zip) not present in the standard solution that can potentially be uploaded into DbArchive.

4. Using file explorer, browse to the C:\V1Home\V1CloudHRBulkImport directory
5. Take a copy of the BLOB.mim
6. Paste it in to the C:\V1Home\DbArchive directory
7. Open services.msc and restart both the DbArchive services

## Install the V1CloudHRBulkImport Service

NOTE: This is **NOT** mandatory for Hotfix Bundle 1, only if a requirement by the customer.

The V1CloudHRBulkImport service is watching for uploads to the Bulk Import DbArchive table.

1. Using file explorer, browse to the C:\V1Home\V1CloudHRBulkImport directory
2. Right click / run as administrator !!RUNMEFIRST
  - a. This sets all paths in all files in your current directory, so you don't have to set them manually
3. Right click / run as administrator !Install\_V1CloudHRBulkImport.bat
4. Right click / run as administrator !Start\_V1CloudHRBulkImport.bat
5. Open services.msc and check the service "V1 - CloudHRBulkImport" is both installed and started

The default tick frequency to check for zip files is every 5 minutes.

To change this, edit the V1CloudHRBulkImport.ini and increase / decrease this value (in seconds)

```
cmdl-wait-time=300
```

Restart the service for it to take effect.

Each tick will generate a log file, C:\V1Home\logs\V1CloudHRBulkImport.log overwritten each tick with evidence of all activity.

## Install the V1DbArchiveCleanUp Service

NOTE: This **IS** mandatory for Hotfix Bundle 1.

The V1DbArchiveCleanUp service is watching for orphaned DbArchive entries (where archiving has worked but uploads to CloudHR have failed) and cleans them out *without* the need to re-index NIS.

1. Using file explorer, browse to the C:\V1Home\V1DbArchiveCleanUp directory
2. Copy the SmartRetention.cal into the C:\V1Home\DbLogin\cals dir
3. Using file explorer, navigate to the C:\V1Home\HFB1\Server\Utils dir
4. Copy FBZip.exe to your clipboard
5. Paste into the C:\V1Home\Utils dir
6. Open services.msc and restart the following services:

V1 – DbLogin

V1NodeIntegrationServer

7. Login in to the V1SmartPortal as an administrative user
8. Click the SmartRetentions icon
9. Click New rule
10. Enter a Rule code of **MFD**
11. Enter a Display Name of **MFD**
12. Click Save button on the top right
13. Go back to the C:\V1Home\V1DbArchiveCleanUp directory
14. Right click / run as administrator !!RUNMEFIRST
  - a. This sets all paths in all files in your current directory, so you don't have to set them manually
15. Right click / run as administrator !Install\_ V1DbArchiveCleanUp.bat
16. Right click / run as administrator !Start\_ V1DbArchiveCleanUp.bat
17. Go back to services.msc and check the service "V1 – DbArchive - CleanUp" is both installed and started

Each tick will generate a log file, C:\V1Home\logs\V1DbArchiveCleanUp.log overwritten each tick with evidence of all activity.

See the [Appendix](#) at the end of this document for more details on the V1DbArchiveCleanup facility.

## Implement the new Vault entries

NOTE: This **IS** mandatory for Hotfix Bundle 1.

Vault, by Hashicorp, is the secrets area where sensitive information needed by the system stored.

It is interrogated via API on the fly by SmartConnect by any definition file or process that requires this data to process a request.

Hotfix Bundle 1 has a requirement to **add to the existing Vault entries** already present in the standard solution, i.e., you're not replacing what's there, you're simply adding to what you already have.

1. Using your web-browser of choice, navigate to <http://localhost:8200> and where prompted, enter the route token ID
2. Click on the kv link
3. Click on the CLOUD\_HR link
4. Either create them manually **or** merge them using the sample .json file provided, details on the following page:

NOTE: The values **in red** are those that are supported, each field has an explanation of what its role is and where to get the values from and where applicable.

NOTE: These are **EXAMPLES** i.e., don't use what values are there, use those applicable to the customer Endpoint.

You have 2 options, you can create the values manually (on the next page) **OR** merge in sample values (the page after.)

## Option 1 - Create Manually

Click on Edit secret and enter the values as below:

Key	Value(s), Definition & Source
CHRVERSION	<p><b>Values:</b> 1.2 or 1.3</p> <p><b>Definition:</b> Depending on the version of CloudHR being used by the customer, set it accordingly.</p> <p><b>Source:</b> It is expected the PS Consultant knows which version they're on</p>
CLIENT_ID	<p><b>Value:</b> cloudhr-XX-aXXo</p> <p><b>Definition:</b> The client ID of the customers CloudHR Endpoint</p> <p><b>Source:</b> Provided by CloudOps</p>
CLIENT_SECRET	<p><b>Value:</b> 3e94XXXd-7XXd-4XX7-bbXX-301ffdXXX521</p> <p><b>Definition:</b> Client Secret of CloudHR, it is 36-character string GUID</p> <p><b>Source:</b> Provided by CloudOps</p>
EMAILONFAILURE*	<p><b>Values:</b> 1 or 0</p> <p><b>Definition:</b> <b>Optional.</b> 1 means it will send an email to a pre-nominated user informing them of issues if a document encounters a problem during the archiving process. 0 means will not send an email and 0 is the <b>DEFAULT</b> value.</p> <p><b>Source:</b> Consult with the customer <b>if</b> they wish to activate this feature</p> <p>See the <a href="#">Appendix</a> at the end of this document to configure SmartMailSend if activated.</p>
EMAILONFAILURE_ADDRESS*	<p><b>Value:</b> hrdept@mycustomer.com</p> <p><b>Definition:</b> <b>Optional.</b> This is the email where v1 application will send an email on failure of document processing. (either during archiving the document or PDF Pickup.)</p> <p><b>Source:</b> <b>If</b> EMAILONFAILURE is 1, request from the customer including credentials</p>
TENANT	<p><b>Value:</b> cloudhrdev-XXX</p> <p><b>Definition:</b> This is identified tenant in CloudHR code. Based on received value of x-tenant, CloudHR get context of tenant</p> <p><b>Source:</b> Different per customer, provided by CloudOps</p>
NISURL	<p><b>Value:</b> https://123.test.customer.cloudhrmt.oneadvanced.io</p> <p><b>Definition:</b> This is the public facing URL which contains the V1 NIS API. Browsing to it should display a list of APIs.</p> <p><b>Source:</b> The root of the V1 URL</p>
IMPORTUSER	<p><b>Value:</b> myv1user</p> <p><b>Definition:</b> Any DbLogin user configured to access the V1SmartPortal.</p> <p><b>Source:</b> Configured in the DbLogin Admin Console as per the standard instructions.</p>
IMPORTPASSWORD	<p><b>Value:</b> mypassword</p> <p><b>Definition:</b> The password of the IMPORTUSER</p> <p><b>Source:</b> Configured in the DbLogin Admin Console as per the standard instructions.</p>
SPECIALCHARACTERSUPPORT	<p><b>Value:</b> 1 or 0</p> <p><b>Definition:</b> In some circumstances, special characters in ParentKey1 are not permitted compromising the lookup / upload in SmartDeposit. 1 allows them, 0 does not allow them and if found, will return a meaningful message to the user.</p> <p><b>Source:</b> Setting to 1 by default is advised.</p>

## Option 2 - Merge from .json file

If you wish to merge in **SAMPLE** values as per the previous page, you can do so following the instructions below:

1. Toggle the JSON button
2. Using file explorer, navigate to the C:\V1Home\HFB1\Server dir
3. Using your text editor of choice, open Vault\_Settings.json and copy it to your clipboard
4. In the CLI, remove the bottom closing brace
5. Add a comma to the end of the last line
6. Paste the contents of your clipboard beneath the last line
7. Un-toggle the JSON button
8. Using the above table on the previous page as a guide, populate the **value(s)**

## Update DbPDF

NOTE: This **IS** mandatory for Hotfix Bundle 1.

DbPDF is a proprietary binary allowing PDF's with formulae values (such as those used by the CloudHR MailMerge facility) to be chopped up in-to individual documents and processed accordingly.

A minor enhancement has been made to add further resilience to the process.

1. Rename the C:\V1Home\**DbPDF** dir to C:\V1Home\**DbPDF.PREHFB1**
2. Using file explorer, navigate to the C:\V1Home\HFB1\Server dir
3. Copy the **DbPDF** dir
4. Paste it into the C:\V1Home\ dir

## Update CloudHR\_PDF\_Pickup.def

NOTE: This **IS** mandatory for Hotfix Bundle 1.

CloudHR\_PDF\_Pickup.def the central script handling the CloudHR MailMerge process.

Enhancements have been made to add further resilience to the process, **optional** alerting and accommodate the new CloudHR 1.3 authentication methodology based on the Vault settings now added.

**ANY BESPOKE CHANGES MADE BEYOND THE STANDARD SOLUTION  
MUST BE MANUALLY RETROFITTED BACK IN TO THIS NEW FILE.**

**IF YOU DO NOT HAVE THE KNOWLEDGE TO DO THAT, STOP.**

**THE V1 PROFESSIONAL SERVICES TEAM MUST BE CONSULTED TO  
ASSIST IN THE PROCESS.**

1. Rename the C:\V1Home\CloudHR\_PDF\_Pickup\CloudHR\_PDF\_Pickup.def **CloudHR\_PDF\_Pickup.def.PREHFB1**
2. Using file explorer, navigate to the C:\V1Home\HFB1\Server dir
3. Copy the **CloudHR\_PDF\_Pickup.def** and **jq-win64.exe** files to your clipboard
4. Paste them into the C:\V1Home\CloudHR\_PDF\_Pickup dir

## Update DbArchive server-side definition files

NOTE: This **IS** mandatory for Hotfix Bundle 1.

Each DbArchive table has a corresponding server-side definition file (of the same name as the table) and where present, it will be run.

These files handle the validation and upload of images based on the DbArchive table to which they relate.

**SAMPLE** files are provided to get you going based on common document categories present in CloudHR.

**ANY BESPOKE CHANGES MADE BEYOND THE STANDARD SOLUTION MUST BE MANUALLY RETROFITTED BACK IN TO THESE NEW FILES.**

**IF YOU DO NOT HAVE THE KNOWLEDGE TO DO THAT, STOP.**

**THE V1 PROFESSIONAL SERVICES TEAM MUST BE CONSULTED TO ASSIST IN THE PROCESS.**

1. Using file explorer, navigate to the C:\V1Home\DbArchive dir
2. Create a directory called PREHFB1
3. Move all \*.def files in the C:\V1Home\DbArchive dir in to C:\V1Home\DbArchive\PREHFB1 dir
4. Using file explorer, navigate to the C:\V1Home\HFB1\Server dir
5. Copy all the \*.def files to your clipboard
6. Paste them in to the C:\V1Home\DbArchive dir

## Final best Practice steps

Now the update is completed, you are advised to take the following steps to ensure the update has completed successfully:

- ▶ Open services.msc and restart the ArchJson and all V1\* services
- ▶ Login to the SmartSuite, open SmartDeposit and ensure you can lookup and deposit a file into a Document Type
  - ▶ Check the log in the C:\V1Home\DbArchive dir which corresponds to the document type used where applicable
- ▶ Perform a MailMerge and ensure the image(s) are archived and link added to CloudHR.
  - ▶ Check the V1\_PDF\_Pickup.log in the C:\V1Home\Logs dir once processed

This completes the update to Hotfix Bundle 1.

## Appendix

### Configuring SmartMail to send emails

**Inbound** processing of emails (such as in conjunction with PDF\_Pickup and MailMerge) does not require a license for SmartMail.

However, **if** there is a requirement to send **outbound** emails (such as the courtesy email for any issues communicating with either V1 of CloudHR where EMAILONFAILURE = 1), it must be separately licensed and configured.

#### ▶ Add License

Request a cut of SmartMailSend from the V1 Support team, you will receive a json file:

```
5bbedc8dad89d73b20197cf8.json
```

NOTE: It is always named this for all customers, tied to their Customer name.

Copy / paste this file on disk in the C:\V1Home\SmartMail\licences

#### ▶ Configure your Outbound email address to send emails

1. Using File Explorer, navigate to C:\V1Home\Utils
2. Right click and run as administrator the start\_services\_debug\_smartmail.bat (this starts the V1 Smart Mail service in debug mode.

NOTE: V1 Smart Mail can only be configured in debug mode to prevent erroneous usage

3. Open your Web Browser of choice and navigate to <http://127.0.0.1:8444>, this is the configuration screen
4. Click on Configure SMTP
5. Ensure the Normal radio button is selected
6. Click the dustbin removing any sample configuration to ensure a clean system

#### Add your mail server

7. Click Add New SMTP
8. Click Default SMTP
9. Enter an ID (a meaningful plain English description of the Mail Server)
10. Enter the SMTP host based on your provider
11. Enter the SMTP port based on your provider
12. If your SMTP provider requires authentication for SMTP, enter the User and Password

NOTE: These details can be left blank if not required

13. Click Test email at the bottom
14. Enter your email address (or one you have access too)
15. Where you get a successful message and you receive the test email, configuration is complete
16. Click Save
17. Click Save smtp configuration at the bottom of the screen.
18. Close your browser
19. Go back to the CMD window you launched to start V1 SmartMail in debug mode, close the window
20. Open services.msc and start V1 SmartMail service.

## DbArchive Clean Up

Q: What is DbArchive Clean Up?

A: When committing images (whether using SmartDeposit, or in conjunction with the MailMerge process), the solution has 2 steps and it always happens in this order:

1. Archive the image to the V1 repository (termed DbArchive)
2. Where this is successful, a GUID is generated.  
That value is used as the marker for the image, this value along with the url to SmartRetrieve. The combination of the GUID and the SmartRetrieve URL are pushed via API to Cloud HR and appears in the associated category as a hyperlink. When clicked, the image is displayed.

If the archiving succeeds, but the push of the links encounters a problem, the blob is orphaned, i.e. in DbArchive, but with no way to view it.

To mitigate this, if the above happens, the blob is marked with a tag MARKFORDELETION. The DbArchive clean-up routine runs **once an hour**, polls the DbArchive index, finds any images with a tag of MARKFORDELETION and removes them *without the need* to re-index the entire repository.

### To change the poll frequency:

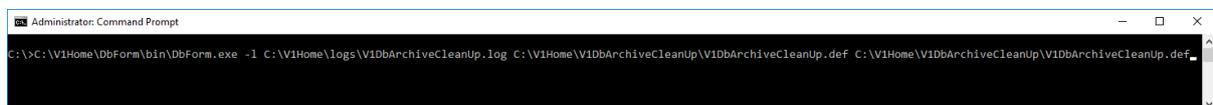
1. Using File Explorer, navigate to C:\V1Home\V1DbArchiveCleanup
2. Using a suitable text editor, edit the V1DbArchiveCleanup.ini
3. Note this value:

```
cmd1-wait-time=3600
```

4. This is the time in seconds it 'ticks', change it to the desired value, but take caution. Too short will put large over head on the archive so you are not advised to go lower than 3600 seconds (1 hour.)

### To run it manually / immediately outside of the poll frequency:

1. Using File Explorer, navigate to C:\V1Home\V1DbArchiveCleanup
2. Using a suitable text editor, edit the V1DbArchiveCleanup.ini and copy the value in cmd1-cmd= excluding the %1 into your clipboard
3. Open a CMD prompt as administrator
4. Paste the value



5. Press enter
6. It will then run it immediately, rather than having to wait for the tick frequency allowing to check if it has been successful.