**VFR UPLOAD – SSS INTEGRATION**

**Processes Architecture**

***1. BATCH UPLOADER***

* This process looks for Batches in Batch Control Table with status Flag = “Ready for Upload”
* Then, query VFR by Batch Number
* IF the query returns 1 or more hits, it means that the batch already has documents indexed in VFR and these documents needs to be deleted. At this point, the process will perform the following steps:
  + Add Documents from the Hit List to the VFRDocs Database Table. Assign the value of “Ready for Deletion” to the Document Status Flag
  + The records in this table will have the following fields:
    - Batch Number
    - VFR Document ID
    - Document Status Flag
  + Once all the records has been added to the VFRDocs Table, update the Batch Status flag in the Batch Control table to “Waiting for Deletion”
* If query returns 0 hits, the process will performs the following steps:
  + Add documents associated to the Batch to the VFRDocs Database Table. Set the Document Status Flag to “Ready for Upload” for all these records.
  + The Document ID number will correspond to the Document ID in the BatchDocs Database Table
  + Once all the records has been added to the VFRDocs Table, update the Batch Status flag in the Batch Control table to “Waiting for Upload”

***2. BATCH DOC DELETION – DUPLICATE REMOVER***

* This process looks for Documents in VFRDocs Database Table with status Flag = “Ready for Deletion”
* For each document found, send a Deletion Request to VFR via CADI Web Services, and once the request has been sent, update the status flag for this document to “Waiting for Deletion” in VFRDocs Table.

Note: this process must account for the number of records in waiting for deletion for a particular Library. The number of transaction should not exceed the maximum number of items allowed in an input queue.

***3. DELETION MONITOR***

* This process looks for Documents in VFRDocs Database Table with status Flag = “Waiting for Deletion”
* First, this process look for Batches in Batch Control Database with “Waiting for Deletion”
* Then, for each Batch, looks for associated documents in the VFRDocs Database Table.
* For each document found, query the document in VFR. If document does not exist in VFR, remove Document record from VFRDocs Database Table.
* If no documents with “Waiting for Deletion” are found, perform the following steps:
  + Add documents associated to the Batch to the VFRDocs Database Table
  + The Document ID number will correspond to the Document ID in the BatchDocs Database Table
  + Update the Document Status Flag to “Ready for Upload” in the VFRDocs Database Table.
  + Once all the records has been added to the VFRDocs Table, update the Batch Status flag in the Batch Control table to “Waiting for Upload”

***4. BATCH DOC UPLOAD – BATCH UPLOADER***

* This process looks for Documents in VFRDocs Database Table with status Flag = “Ready for Upload”
* For each document found, send an Index Request for this document to VFR, and update the Document Status Flag to “Waiting for Upload” in the VFRDocs Database Table.

Note: this process must account for the number of records in waiting for deletion for a particular Library. The number of transaction should not exceed the maximum number of items allowed in an input queue.

***5. UPLOAD MONITOR***

* This process looks for Documents in VFRDocs Database Table with status Flag = “Waiting for Upload”
* First, this process look for Batches in Batch Control Database with “Waiting for Upload”
* Then, for each Batch, looks for associated documents in the VFRDocs Database Table.
* For each document found, query the document in VFR. If document does exist in VFR, remove Document record from VFRDocs Database Table.
* If no documents with “Waiting for Upload” are found, update the Batch Status flag in the Batch Control table to “Uploaded to VFR”. At this point, check if the Batch Status Flag in the BatchControl Database Table is “Waiting for Re-Index” and if it is, adjust the status to “Waiting for Indexing”. This process also update the VFRUploadCompletedDate field in the BatchControl Database Table with the current time.

Notes:

* Queries to the VFRDocs Database Table, are perform en ascending order by the creation date of the records in the table. The idea is to process the oldest records first.
* When the Batch Delivery Services detects that a Batch to be tagged as Waiting for Indexing has a VFR Status Flag “Ready for Upload”, “Waiting for Upload”, or “Waiting for Deletion”, it will set the Status Flag to “Waiting for Re-Index”.
* The Indexer Service is in charge to adjust the VFR Status Flag value in the BatchControl Database Table for Batches that belong to a Job Type that has been configured to be processed by VFR.

DATABASE TABLE DEFINITION

1. Name: VFRDocs

Fields:

* BatchNumber
* Document ID: when documents are tagged for deletion, the document Id correspond to the Capture Pro Document ID in the DocControl Database Table. When the document is tagged for deletion, the document id correspond to the document id returned by the query perform against the Search Engine.
* StatusFlag
* CreationDate
* VFRLibrary (not sure if is redundant and the value could be found by traversing the BatchControl and looking for the associated Library to a Job Type)
* JobID

1. BacthControl

New fields:

* VFRUploadRequestedDate
* VFR StatusFlag
* VFRUploadCompletedDate

Strategy

* Merge ***BATCH UPLOADER , DELETION MONITOR, UPLOAD MONITOR*** processes in one process called ***VFR UPLOADER MONITOR***

The Monitor Process, query the Batch Control Database Table by Status Flag:

* + “Ready for Upload”
  + “Waiting for Upload”
  + “Waiting for Deletion”

From the query we are interested in the Job Type, Batch Number, and VFRStatusFlag.

Then, we need to filter the query result and keep only the Job Types that has the enable flag for VFR Upload and also match with the name of the station.

Then, we could start a thread for each query. The thread in charge of monitoring for “Ready for Upload” batches, will process only these Batches.

Each thread runs until completion and when all threads end, the Monitor process will be ready for the next cycle, in other words, every cycle will start if and only if there is not treads pending for completion.

* Create a service for :
  + Uploader
  + Upload Monitor
  + Duplicate Remover

These services will be implemented using the same architecture that was created for other processes. The service will allow:

* + Enable / Disable services
  + Tag a Station ID to a Service
  + Schedule Services operation
  + Segregate Service operation by Job Type (or All Jobs)