Upload Process

https://campus.barracuda.com/doc/86543030/

On services start, the ArchiveOne Migrate to Message Archiver service reads the System_Migration.ini. If restarting after a service crash, the INI file settings will indicate a job should be restarted.

1. User configures job in the ArchiveOne Migrate to BMA console.
2. The ArchiveOne Migrate to Message Archiver service counts all items in the repository to give an estimate total number of items to process:
   Logging in: \\localhost\Add-ins\AOnePol\logs\MigrateBMAService\<date_time>

   ```
   2017-07-24 14:45:50.1489   4: GetRepositoryItemCount() - Determined that
   repository Year_2016 has 17 items
   ```

   1. For the first repository in the job, counts all .cmsg files in all .zip files of the defined directory for the repository's archived data. The count of .cmsg files is done by reading the .zip header. This gives an estimated total number of items in the repository.
   2. This total count is stored in memory, but written out to disk when the service stops/starts so can be loaded back into memory.
3. The ArchiveOne Migrate to Message Archiver service opens a connection to the C2CAOneConfig database in preparation for processing.

   ```
   2017-07-24 14:45:50.1802   4: Opening DB connection for uploading
   ```

4. The ArchiveOne Migrate to Message Archiver service performs a search against the repository index to get a list of items for migration. It uses the ArchiveOne BMA Service to do this work. MigrateBMAService.log shows the overview (the detail of this work is in the ArchiveOne BMA Service tracing):

   ```
   2017-07-24 14:45:50.2114   4: Starting searching into repository
   'Year_2016'
   2017-07-24 14:45:50.3677   4: Created temporary repository
   'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279' and temp
   index directory
   'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-4537-928
   6-e57af08f9279'
   2017-07-24 14:45:50.3677   4: Processing all 4 partitions from
   repository 'Year_2016'
   2017-07-24 14:45:50.4145   4: Starting search in repository 'Year_2016'
   and partition file '1\SERVER5_P160603110937_0000.a1i' which is 1 of 4
   ```

   1. The ArchiveOne BMA Service counts all the partitions from all master files in the repository.
      Logging in: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\IntegrationFramework

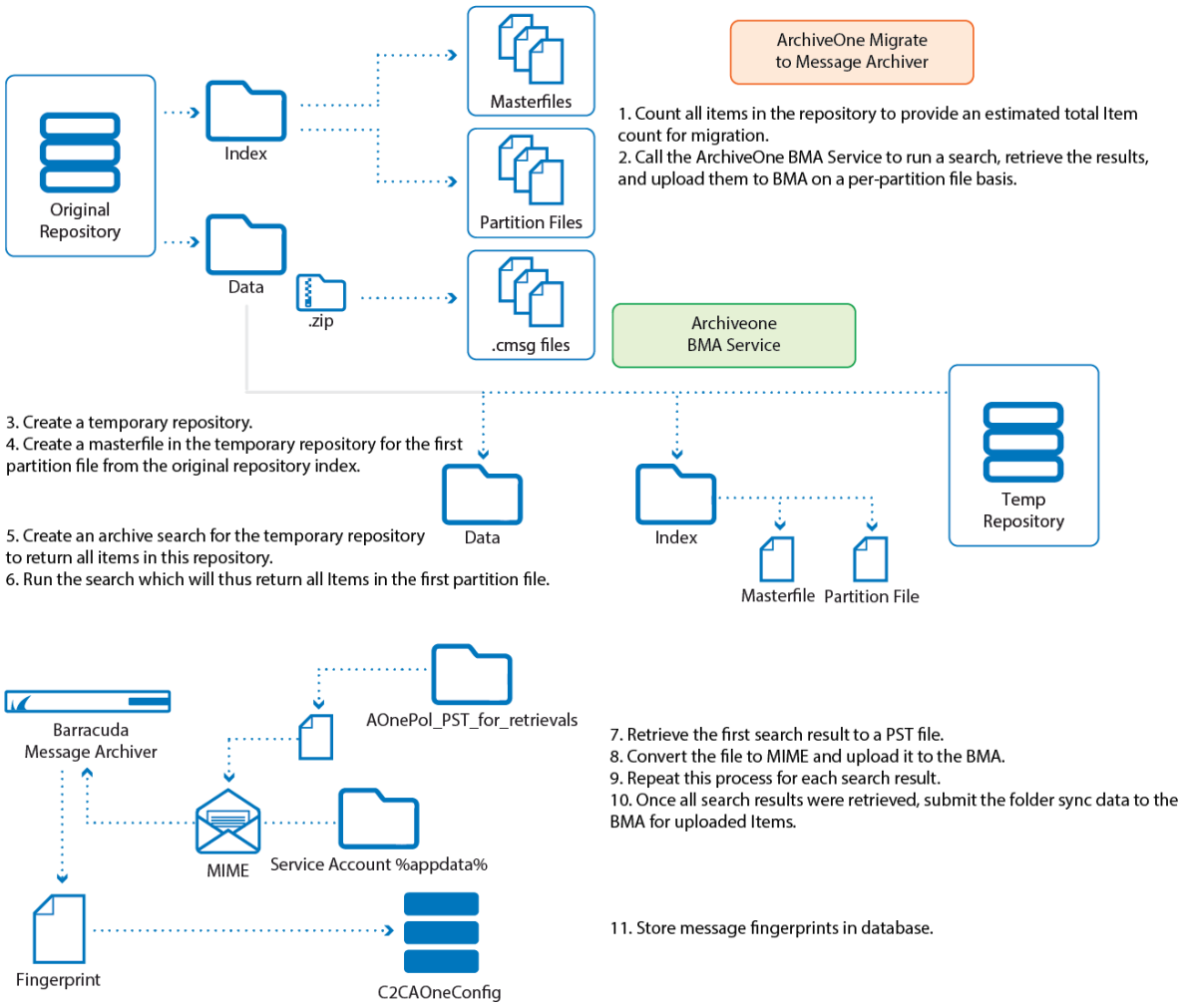
```
24 14:45:50 779341  Retrieving extended files from master file
'E:\Repositories\Year_2016\Index\MasterFile.a1i'
24 14:45:50 782128  ValidateMasterFile - Starting to validate
'E:\Repositories\Year_2016\Index\MasterFile.a1i'
24 14:45:50 784532      Master appears to be valid, containing 4
partitions
24 14:45:50 786979        GetPartitionsFromRepository got 4
partition files for repository 'Year_2016'
```

2. The ArchiveOne BMA Service creates a temporary repository. The temporary repository uses the original data directory, but creates a new folder to use for index data.
   Logging in: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\IntegrationFramework

```
24 14:45:50 791808  *TraceFromClient:(IntegrationFramework) Called
RepositoryManager.CreateRepository for
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
24 14:45:50 805323  PolRepCreate called for a 'Repository' called
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
24 14:45:50 817856  PutNameIntoList not found Repository
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279',
adding it
24 14:45:50 821712    PolRepCreate succeeded
```

3. The ArchiveOne BMA Service writes one Masterfile per partition file into the temporary repository index directory. The original partition files are used in situ; only new Masterfiles are written into the temporary repository index folder. This way a corrupt partition file can easily be identified and skipped if it causes a failure during the search as only partition file is searched at a time.
   Logging in: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\IntegrationFramework

```
24 14:45:50 942398        Rebuilding master
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
7-9286-e57af08f9279\MasterFile.a1i' from 1 extended files
24 14:45:50 956361        CreateMasterFileForOnePartition created
master file for repository
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
containing partition file '..\1\SERVER5_P160603110937_0000.a1i'
```



4. The ArchiveOne BMA Service deletes the archive search BMAMigrationSearch (if it exists) and then creates an archive search with this name for all messages in the temporary repository.
   Logging in: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\IntegrationFramework

```
24 14:45:50 960644  *TraceFromClient:(IntegrationFramework) Called
SearchManager.DeleteSearchIfExists for 'BMAMigrationSearch'
24 14:45:50 965957  *TraceFromClient:(IntegrationFramework)
SearchManager.DeleteSearchIfExists the requested search does not
exist
24 14:45:50 969034  *TraceFromClient:(IntegrationFramework) Called
SearchManager.CreateSearch for 'BMAMigrationSearch'
24 14:45:50 973034  PolRepCreate called for a 'Search' called
'BMAMigrationSearch'
24 14:45:50 975154  CArchiveCriteria::SaveCriteria called for
'BMAMigrationSearch'
```

```
24 14:45:50 979996    PolRepCreate succeeded
24 14:45:50 982483  *TraceFromClient:(IntegrationFramework)
SearchManager.CreateSearch succeeded
24 14:45:50 986680  PolRepAddToProperty called for a 'Search'
called 'BMAMigrationSearch', property 'Repository' adding value
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
24 14:45:50 989137  CArchiveCriteria::LoadCriteria called for
'BMAMigrationSearch'
24 14:45:50 992353  CArchiveCriteria::SaveCriteria called for
'BMAMigrationSearch'
24 14:45:50 997090    PolRepAddToProperty succeeded
24 14:45:50 999818  *TraceFromClient:(IntegrationFramework)
AddRepository for repository
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
returned status PolRepOK
24 14:45:50 003129  PolRepSetProp called for a 'Search' called
'BMAMigrationSearch', property 'SearchDeleted' value '0'
24 14:45:50 005244  CArchiveCriteria::LoadCriteria called for
'BMAMigrationSearch'
24 14:45:50 008369  CArchiveCriteria::SaveCriteria called for
'BMAMigrationSearch'
24 14:45:50 014975    PolRepSetProp succeeded
24 14:45:50 023073  *TraceFromClient:(IntegrationFramework)
SetPropertyValue for 'SearchDeleted' returned status PolRepOK
24 14:45:50 025522  PolRepSetProp called for a 'Search' called
'BMAMigrationSearch', property 'SearchExpired' value '0'
24 14:45:50 027583  CArchiveCriteria::LoadCriteria called for
'BMAMigrationSearch'
24 14:45:50 031120  CArchiveCriteria::SaveCriteria called for
'BMAMigrationSearch'
24 14:45:50 035881    PolRepSetProp succeeded
24 14:45:50 038452  *TraceFromClient:(IntegrationFramework)
SetPropertyValue for 'SearchExpired' returned status PolRepOK
24 14:45:50 040837  PolRepSetProp called for a 'Search' called
'BMAMigrationSearch', property 'MatchIfAllCriteriaMatch' value '1'
24 14:45:50 043130  CArchiveCriteria::LoadCriteria called for
'BMAMigrationSearch'
24 14:45:50 046738  CArchiveCriteria::SaveCriteria called for
'BMAMigrationSearch'
24 14:45:50 052658    PolRepSetProp succeeded
24 14:45:50 055273  *TraceFromClient:(IntegrationFramework)
SetPropertyValue for 'MatchIfAllCriteriaMatch' returned status
PolRepOK
```

5. The ArchiveOne BMA Service runs the search for the first Masterfile so it only gets back a total count of items one partition file at a time.

Logging: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\AdminSearch\BMAMigrationSearch

```
24 14:45:50 116703  *** INFO:Starting:A user application using ID
77ac428 is starting a search called 'BMAMigrationSearch'
24 14:45:50 120724
CAMComplianceServer::SearchIndexWithCommentCount is being called by
'AWESOME\ArchiveOneAdminS5'
24 14:45:50 122906  CArchiveCriteria::LoadCriteria called for
'BMAMigrationSearch'
24 14:45:50 138846  *** INFO:SearchIndex called, user gave comment
'comment'
24 14:45:50 141357  CArchiveCriteria::LoadCriteria called for
'BMAMigrationSearch'
24 14:45:50 145310        ParseUnicodeString: input='  ' output=''
24 14:45:50 148101  *** INFO:Searching  search 'BMAMigrationSearch'
- details are:
24 14:45:50 150134    *** INFO:Criteria: Search in all messages
24 14:45:50 152130    *** INFO:Where: Search in all archived
mailboxes and public folders
24 14:45:50 154218    *** INFO:Status: No status criteria
24 14:45:50 156753    *** INFO:Repository: Search repository
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
24 14:45:50 158991    *** INFO:Others: Show all matched results
...
24 14:45:50 235884  CArchiveCriteria::LoadCriteria called for
'BMAMigrationSearch'
24 14:45:50 316099  MetaSearchIndex::Search searching repos
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
...
24 14:45:51 793320        DetermineSearchMasterFilename::Copying
index master
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
7-9286-e57af08f9279\MasterFile.a1i' to search temp
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
7-9286-e57af08f9279\TempSearch_MasterFile.a1i'
24 14:45:51 796141  CSearchIndex::OpenIndex - Opening master index
file
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
7-9286-e57af08f9279\TempSearch_MasterFile.a1i'
24 14:45:51 800122        IsMasterFileEmpty checking size of master
file
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
7-9286-e57af08f9279\TempSearch_MasterFile.a1i'
24 14:45:51 802622        file size of
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
```

```
7-9286-e57af08f9279\TempSearch_MasterFile.a1i' is 4848
24 14:45:51 804952    Performing search - Ranked string='NULL'
Boolean string='( #0x4d657373616765446c697665727954696d65.0 -
4294967295# )'
24 14:45:51 807523  SODPopulateVector found 7 records in repository
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279' code
'Repository [TempReposForMigration_76e1fd40-776c-4537-9286-
e57af08f9279] Index num 0'
24 14:45:51 809653        TraceMasterCodes dump of all mastercodes
(index files):
24 14:45:51 811843         Counts Cumulat MasterCode
24 14:45:51 814210              7       7 Repository
[TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279] Index
num 0
24 14:45:51 816582  MetaSearchIndex::Search OUT, returning
0:ACSS_OK
24 14:45:51 818751  CAMComplianceServer::SearchIndex returning
count 7
24 14:45:51 820781  *** INFO:CompletedSucessfully:A user
application using ID 77ac428 has completed a search called
'BMAMigrationSearch'
```

6. For each search, the ArchiveOne BMA Service retrieves the search results. It creates a new profile. It creates a PST file named BMAMigrationFolder.pst in the AOnePol_PST_for_retrievals share and adds this new PST file to the profile. Logging: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\AdminSearch\ClientConnection

```
24 14:45:51 838810  MAPISession::MAPISession
24 14:45:51 840870        RetrievalSession::Open in
24 14:45:51 847156        RetrievalSession::OpenPstRetrievalSession
in
24 14:45:51 850100
RetrievalSession::OpenPstRetrievalSessionPath to open session on
pst
'E:\Programs\Barracuda\ArchiveOne\ServerData\AOnePol_PST_for_retrie
vals\BMAMigrationFolder.pst'
24 14:45:51 852228      MAPISession::NewPSTSession called to add
PST
'E:\Programs\Barracuda\ArchiveOne\ServerData\AOnePol_PST_for_retrie
vals\BMAMigrationFolder.pst' to profile 'AOnePolRet_400000000'
```

   Data will be retrieved from the archive to a PST file prior to uploading to the BMA as the .csmg data needs to be converted to MIME.
7. The search returns the data values (.zip file name, .cmsg file name, etc.) and converts the stored information in the index about the .zip file location at the point of archiving into the current .zip file location for each item (in case the repository has been moved), ready for

retrieval.
Logging: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\AdminSearch\ClientConnection

```
24 14:45:52 652695  MetaSearchIndex::GetMessages OUT got 7 results
24 14:45:52 654734        SearchIndexGetResultsInChunks got 7
results
24 14:45:52 663661  CAMComplianceServer::GetIniVars for repository
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
24 14:45:52 665684        CAMComplianceServer::GetIniVars storage
is not using a storage manager - archive at
'E:\Repositories\Year_2016\Archive' index at
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
7-9286-e57af08f9279'
24 14:45:52 667720        CAMComplianceServer::GetState ZipFilePath
'E:\Repositories\Year_2016\Archive\', ZipFileName
'C:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 669761        CAMComplianceServer::GetState final
ZipFilePath
'E:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 672390        CAMComplianceServer::GetState ZipFilePath
'E:\Repositories\Year_2016\Archive\', ZipFileName
'C:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 674453        CAMComplianceServer::GetState final
ZipFilePath
'E:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 677081        CAMComplianceServer::GetState ZipFilePath
'E:\Repositories\Year_2016\Archive\', ZipFileName
'C:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 679104        CAMComplianceServer::GetState final
ZipFilePath
'E:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 681181        CAMComplianceServer::GetState ZipFilePath
'E:\Repositories\Year_2016\Archive\', ZipFileName
'C:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 683197        CAMComplianceServer::GetState final
ZipFilePath
'E:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
```

```
24 14:45:52 685264       CAMComplianceServer::GetState ZipFilePath
'E:\Repositories\Year_2016\Archive\', ZipFileName
'C:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 687751       CAMComplianceServer::GetState final
ZipFilePath
'E:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 689934       CAMComplianceServer::GetState ZipFilePath
'E:\Repositories\Year_2016\Archive\', ZipFileName
'C:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 692913       CAMComplianceServer::GetState final
ZipFilePath
'E:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 695363       CAMComplianceServer::GetState ZipFilePath
'E:\Repositories\Year_2016\Archive\', ZipFileName
'C:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 697738       CAMComplianceServer::GetState final
ZipFilePath
'E:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:52 699831  SearchIndexGetResults in chunk mode, safearray
is 100 but we only have 7 so filling the rest with blanks
24 14:45:52 702243  *** INFO:CompletedSucessfully:A user
application using ID 77ac428 has completed retrieval of search
results
```

5. The ArchiveOne BMA Service now starts the retrieval process to upload the item to the BMA.
    1. First, the ArchiveOne BMA Service ensures the folder and store information are present in the C2CAOneConfig database tables.
        - If the store is for a live mailbox and the data is not already in the database, the ArchiveOne BMA Service will log in to the mailbox and seed the list of folders in the live mailbox. If the mailbox is no longer live, a fake store blob is generated. If a folder for an archived item is no longer present in the live mailbox, a fake store blob is generated.
          Logging: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\AdminSearch\ClientConnection).

          ```
          24 14:45:52 710114
          CAMComplianceServer::MigrateToBMAOneItem called for mailbox
          '/o=Awesome/ou=Exchange Administrative Group
          (FYDIBOHF23SPDLT)/cn=Recipients/cn=User Name' store 'User Name'
          repository 'Year_2016' zip
          ```

```
'E:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P0
00000.zip' cmsg '00739f_d.cmsg' path 'User Name\Deleted Items'
24 14:45:52 713165
BMAFolderHierarchyCollector::ConnectToStore called for
MailboxDN '/o=awesome/ou=exchange administrative group
(fydibohf23spdlt)/cn=recipients/cn=User Name' Name 'User Name'
type Mailbox
24 14:45:52 720394        C2CDatabase::RunQueryReturnRecords
running (truncated) SQL 'SELECT count(*) as c FROM sys.tables
WHERE type = 'U' AND name='Items''
24 14:45:52 723604        C2CDatabase::RunQueryGetInt got value
1
24 14:45:52 725700        C2CDatabase::GetCount for command
'SELECT count(*) as c FROM sys.tables WHERE type = 'U' AND
name='Items'' returning count of '1'
24 14:45:52 727755        CheckTables is not considering
whether upgrade of tables is required as this is a non-primary
service
24 14:45:52 732316        C2CDatabase::RunQueryReturnRecords
running (truncated) SQL 'SELECT [Id], [SyncBlob] FROM
BMAMigrationSyncStores WHERE
[MailboxDN]='/o=awesome/ou=exchange administrative group
(fydibohf23spdlt)/cn=recipients/cn=User Name' AND
[StoreName]='User Name' AND [StoreType]=0'
24 14:45:52 736263
BMAFolderHierarchyCollector::ConnectToStore failed to find
mailbox, log in and generate data
24 14:45:52 754668
MigrateToBMAFolderIterator::ProcessThisMailbox called for DN
'/o=awesome/ou=exchange administrative group
(fydibohf23spdlt)/cn=recipients/cn=User Name'
...
24 14:45:54 558629  MigrateToBMAFolderIterator::FoundFolder
called for folder path '\' name 'Tasks'
24 14:45:54 564232
BMAFolderHierarchyCollector::AddFolderToHierarchy called for
name 'Tasks' path '\'
24 14:45:54 569622        C2CDatabase::RunQueryReturnRecords
running (truncated) SQL 'INSERT INTO BMAMigrationSyncFolders
([Mailbox_Id], [FolderPath], [SyncBlob], [IsRoot]) VALUES (6,
N'\Tasks',
N'{"folder":{"content_count":0,"name":"Tasks","sync_key":"53f97
aa8e91ea74f850ab2dd7c1b2b830000006cb287"},"job":{"id":"21cc08fc
28b4c74fbcb682768c60a27e"},"owner":{"email":"ajack@awesome.com"
,"name":"","sid":"010500000000000515000000 3a93b2701a447f7997e38
dc768040000"},"store":{"name":"","record_key":"d4d7977463234244
```

```
9748d36c9b87ee96","type":"ExchangeOther"}}
', 0)'
24 14:45:54 572639        C2CDatabase::RunQuery return TRUE
24 14:45:54 583689        BMA: 07/24/17 14:45:54 TRACE:
Querying folder ACL
24 14:45:54 591255        TIME_TRACING:IterateFolders time to
call FoundFolder=0.033015
24 14:45:54 599883        FolderIterator release root folder
ref count 0
24 14:45:54 602426
MigrateToBMAFolderIterator::ProcessThisMailbox -
ProcessOneMailbox succeeded, now uploading
24 14:45:54 604452
BMAFolderHierarchyCollector::SendToBMA sending...
24 14:45:54 100347    BMAFolderHierarchyCollector::SendToBMA
sent 6402 bytes of hierarchy to BMA
```

2. For each item, the .cmsg file is extracted from the .zip file.

```
24 14:45:54 118138
BMAFolderHierarchyCollector::GetFolderFromHierarchy found folder in
database
24 14:45:54 120279        EnsureFolderExists called for
'C:\ProgramData\Barracuda\ArchiveOne\MigrateBMATemp'
24 14:45:54 147107  CAMComplianceServer::GetIniVars for repository
'Year_2016'
24 14:45:54 149663        CAMComplianceServer::GetIniVars storage
is not using a storage manager - archive at
'E:\Repositories\Year_2016\Archive' index at
'E:\Repositories\Year_2016\Index'
24 14:45:54 152960        EnsureFolderExists called for
'E:\Programs\Barracuda\ArchiveOne\ServerData\SERVER5_BUnzipTemp_890
_RM'
24 14:45:54 155479      *** INFO:zip file name is
'E:\Repositories\Year_2016\Archive\1\A1P160603110937_SERVER5_P00000
0.zip'
24 14:45:54 157873      *** INFO:file name is '00739f_d.cmsg'
24 14:45:54 160446      *** INFO:unzip location is
'E:\Programs\Barracuda\ArchiveOne\ServerData\SERVER5_BUnzipTemp_890
_RM'
24 14:45:54 203806        GetCMSGFileFromZipAndMsg succeeded,
CMSGfile='E:\Programs\Barracuda\ArchiveOne\ServerData\SERVER5_BUnzi
pTemp_890_RM\1053d395_00739f_d.cmsg'
```

3. This extracted item is then retrieved to the BMAMigrationFolder.pst in the AOnePol_PST_for_retrievals share.

```
24 14:45:54 206977        RetrievalSession::CheckSizeOfPST
MaxPSTRetrievalSize is 1024 MB
24 14:45:54 231355  *** INFO:Creating new message in '\1'
```

4. A MIME item is then staged in the ArchiveOne service account's temp data directory (C:\Users\ARCHIV~4\AppData\Local\Temp\) as an .eml.gz file and uploaded to the BMA.

```
24 14:45:54 364060        BMA: 07/24/17 14:45:54 TRACE: Entered
CMapiItem::Export
24 14:45:54 366370        BMA: 07/24/17 14:45:54 TRACE: Exporting
transport headers
24 14:45:54 368595        BMA: Received: from SERVER2.awesome.com
([fe80::d59d:8682:70ea:1a4]) by
 SERVER2.awesome.com ([fe80::d59d:8682:70ea:1a4%13]) with mapi id
 ...
24 14:45:55 532592        BMA: 07/24/17 14:45:55 TRACE: Creating
MIME message
24 14:45:55 535720        BMA: 07/24/17 14:45:55 TRACE: Entered
CMapiMessage::ExportBodyHeaders
24 14:45:55 537871        BMA: 07/24/17 14:45:55 TRACE: Entered
CMapiItem::ExportBarracudaEnvelopeHeader
24 14:45:55 540266        BMA: 07/24/17 14:45:55 TRACE: Message
staged at:
C:\Users\ARCHIV~4\AppData\Local\Temp\08270b95976c0a4f954cba98cf63a2
89.eml.gz
```

5. If successful, the BMA responds with the fingerprint of the item. This is stored in memory at this stage.

```
24 14:45:55 149731        BMA: 07/24/17 14:45:55 Stored message
with fingerprint:
272acebe0569667361fe686e23cc63727acabc3851f1712fdf060ed8ad4b7529b8b
fe5951453817854
24 14:45:55 152636        BMA: 07/24/17 14:45:55 TRACE: Entered
CMapiItem::LoadEnvelopeParticipants
24 14:45:55 155262        BMAMigrate::MigrateItem succeeded for
message with CMSG '00739f_d.cmsg'
```

6. The process is repeated for all items from the search results. Once all items have been processed, the folder sync data (which has been stored in memory) is now uploaded to the BMA. The data is staged in the C:\ProgramData\Barracuda\ArchiveOne\MigrateBMATemp directory.

```
24 14:45:57 334404  *** INFO:CompletedSucessfully:A user
application using ID 77ac428 has completed retrieval of search
results
24 14:45:57 338064      CAMComplianceServer::MigrateToBMAEndSession
24 14:45:57 340163        BMAFolderContentCollector::SendToBMA
```

```
sending...
24 14:45:57 461589    BMAFolderContentCollector::SendToBMA sent
1364 bytes of content to BMA
24 14:45:57 463358        BMAFolderContentCollector::SendToBMA
sending...
24 14:45:58 656700    BMAFolderContentCollector::SendToBMA sent
1076 bytes of content to BMA
24 14:45:58 665966        BMAFolderContentCollector::SendToBMA
sending...
24 14:45:58 837571    BMAFolderContentCollector::SendToBMA sent
1070 bytes of content to BMA
24 14:45:58 839721        BMAFolderHierarchyCollector::SendToBMA
sending...
24 14:45:58 841824        BMA: 07/24/17 14:45:58 No folder data to
queue
24 14:45:58 844179    BMAFolderHierarchyCollector::SendToBMA sent 0
bytes of hierarchy to BMA
24 14:45:58 847610        RetrievalSession::Close in
```

7. Now all items in the partition have been uploaded along with the folder sync data, the fingerprint data of the uploaded messages are written to the **BMAMigration** table in the C2CAOneConfig database. This prevents data being uploaded again.
8. The ArchiveOne Migrate to Message Archiver service orchestrates the creation of the search for the next partition file and retrieves its data until all partition files are completed:
   Logging in: \\localhost\Add-ins\AOnePol\logs\MigrateToBMAService\<date_time>

```
2017-07-24 14:45:58.5552   4: Starting search in repository
'Year_2016' and partition file '1\SERVER5_P160224113150_0000.a1i'
which is 2 of 4
2017-07-24 14:45:59.9927   4: MigrateBMAThread search got an
initial estimate (no filtering) of 4 items in repository
'Year_2016' partition '1\SERVER5_P160224113150_0000.a1i'
2017-07-24 14:46:00.8989   4: Migrated message '28d450a0-6a41-4b7f-
b788-a13983be990c' with subject 'd' to BMA
2017-07-24 14:46:01.3052   4: Migrated message
'805055ab-0b51-4382-9ac5-b72e21caf947' with subject 'd' to BMA
2017-07-24 14:46:01.5865   4: Migrated message '7937818e-4bf2-4bc7-
a92a-2d066fa09a92' with subject 'd' to BMA
2017-07-24 14:46:01.8677   4: Migrated message
'6b8d78d3-3aab-438b-828f-603aef16f1cc' with subject 'd' to BMA
2017-07-24 14:46:02.6333   4: Starting search in repository
'Year_2016' and partition file '1\SERVER5_P160126141819_0000.a1i'
which is 3 of 4
2017-07-24 14:46:03.7583   4: MigrateBMAThread search got an
initial estimate (no filtering) of 2 items in repository
```

```
'Year_2016' partition '1\SERVER5_P160126141819_0000.a1i'
2017-07-24 14:46:04.3052   4: Migrated message '89012d64-d8f8-460f-
ad4c-7d6955fbc317' with subject 'd' to BMA
2017-07-24 14:46:04.5865   4: Migrated message
'05384abb-0a99-475a-812a-7cb212f683a4' with subject 'd' to BMA
2017-07-24 14:46:05.1802   4: Starting search in repository
'Year_2016' and partition file '1\SERVER5_P160224114302_0000.a1i'
which is 4 of 4
2017-07-24 14:46:06.3521   4: MigrateBMAThread search got an
initial estimate (no filtering) of 4 items in repository
'Year_2016' partition '1\SERVER5_P160224114302_0000.a1i'
2017-07-24 14:46:06.9614   4: Migrated message
'9229c538-4cd0-46ed-8518-bbc4f928dc6c' with subject 'd' to BMA
2017-07-24 14:46:07.2909   4: Migrated message
'095db2c7-05cc-40f5-9b3e-fd65493c1fe9' with subject 'd' to BMA
2017-07-24 14:46:07.5865   4: Migrated message
'881bfde3-9f8b-4bf5-8caf-a8dd086402d3' with subject 'd' to BMA
2017-07-24 14:46:07.8521   4: Migrated message '886596a2-5d47-4436-
abba-0bce80282b94' with subject 'd' to BMA
2017-07-24 14:46:08.7271   4: Completed searching into repository
'Year_2016'
```

As before the ArchiveOne BMA Service is used to rebuild the Masterfile for the next partition, recreate the archive search and run it, rebuild the Masterfile again and so on for the remaining partition files in the repository index:
Logging in: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\IntegrationFramework

```
24 14:45:58 075522        Rebuilding master
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
7-9286-e57af08f9279\MasterFile.a1i' from 1 extended files
24 14:45:58 085942        CreateMasterFileForOnePartition created
master file for repository
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
containing partition file '..\1\SERVER5_P160224113150_0000.a1i'
24 14:46:02 152627        Rebuilding master
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
7-9286-e57af08f9279\MasterFile.a1i' from 1 extended files
24 14:46:02 174616        CreateMasterFileForOnePartition created
master file for repository
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
containing partition file '..\1\SERVER5_P160126141819_0000.a1i'
24 14:46:05 698852        Rebuilding master
'E:\Repositories\Year_2016\Index\TempForMigration_76e1fd40-776c-453
7-9286-e57af08f9279\MasterFile.a1i' from 1 extended files
24 14:46:05 708907        CreateMasterFileForOnePartition created
```

```
master file for repository
'TempReposForMigration_76e1fd40-776c-4537-9286-e57af08f9279'
containing partition file '..\1\SERVER5_P160224114302_0000.a1i'
```

Logging in: \\localhost\Add-ins\AOnePol\logs\AOneBMAService\<date_time>\AdminSearch\BMAMigrationSearch

```
24 14:45:58 260908  *** INFO:Searching  search 'BMAMigrationSearch'
- details are:
24 14:46:02 352780  *** INFO:Searching  search 'BMAMigrationSearch'
- details are:
24 14:46:05 882100  *** INFO:Searching  search 'BMAMigrationSearch'
- details are:
```

Figures

1. bma_migrate-01.png

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