Oracle® Banking Virtual Account Management Oracle Banking Routing Hub Integration Guide





Oracle Banking Virtual Account Management Oracle Banking Routing Hub Integration Guide, Release 14.7.0.0.0

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Preface

Purpose

This guide provides information about the APIs configured in Oracle Banking Virtual Account Management through Oracle Banking Routing Hub. These APIs are configured to use the jars directly for the endpoint for different APIs like amount block, transaction journaling etc.

Audience

This guide is primarily intended for the following user/user roles:

Table 1-1 Audience

Role	Function
Implementation and IT Staff	Implementation and maintenance of the software

Acronyms and Abbreviations

The list of the acronyms and abbreviations that the used in this guide are as follows:

Table 1-2 Acronyms and Abbreviations

Acronyms and Abbreviation	Description
API	Application Programming Interface
ECA	External Credit Approval
REST	Representational State Transfer
URL	Uniform Resource Locator

List of Topics

This guide is organized as follows:

Table 1-3 List of Topics

Topics	Description
Integration Guide	This topic provides information about the APIs configured in Oracle Banking Virtual Account Management through Oracle Banking Routing Hub.

2

Integration Guide

This topic provides information about the APIs configured in Oracle Banking Virtual Account Management through Oracle Banking Routing Hub.

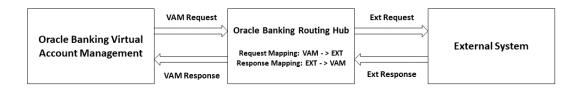
- Introduction
 This topic provides the overview about Oracle Banking Routing Hub.
- APIs configured using Oracle Banking Routing Hub
 This topic describes about the various APIs configured using Oracle Banking Routing Hub.

2.1 Introduction

This topic provides the overview about Oracle Banking Routing Hub.

Oracle Banking Routing Hub enables seamless & standardised integrations between FSGBU Banking Products using configurations provided as part of the product Infrastructure.

Figure 2-1 Oracle Banking Routing Hub Integration



For more details on configuration, refer to *Routing Hub Configuration User Guide*.

2.2 APIs configured using Oracle Banking Routing Hub

This topic describes about the various APIs configured using Oracle Banking Routing Hub.

- DDA Implementation
 This topic provides the API information for DDA Implementation.
- EXTERNAL ACCOUNT Implementation
 This topic provides the API information for EXTERNAL ACCOUNT Implementation.
- Oracle Banking Payments Implementation
 This topic provides the API information for Oracle Banking Payments Implementation.
- Interest and Charges Implementation
 This topic provides the API information for Interest and Charges Implementation.

Oracle Banking Liquidity Management Implementation

The Complete Parking Complete Comple

This topic provides the API information for Oracle Banking Liquidity Management Implementation.

Oracle Banking Host to Host Implementation

This topic provides the API information for Oracle Banking Host to Host Implementation.

2.2.1 DDA Implementation

This topic provides the API information for DDA Implementation.

The following APIs are configured for DDA Implementation using Oracle Banking Routing Hub:

1. closeECA

Host: FCUBS

Version: 14.1 / 14.4

2. EAC

Host: FCUBS

Version: 14.1 / 14.4

createECA Host: FCUBS

Version: 14.1 / 14.4

4. handofftoDDA Host: FCUBS

Version: 14.1 / 14.4

The following Service Providers and Consumer Services needs to be configured in Oracle Banking Routing Hub:

Service Providers - DDA

This topic describes about the service providers configuration for DDA systems.

Consumer Services - DDA

This topic describes about the consumer services required for DDA Implementation.

2.2.1.1 Service Providers - DDA

This topic describes about the service providers configuration for DDA systems.

Multiple DDA providers are added to configure FCUBS 14.1 and FCUBS 14.4. They use SOAP APIs for request/response.



Figure 2-2 Service Providers - DDA



2.2.1.2 Consumer Services - DDA

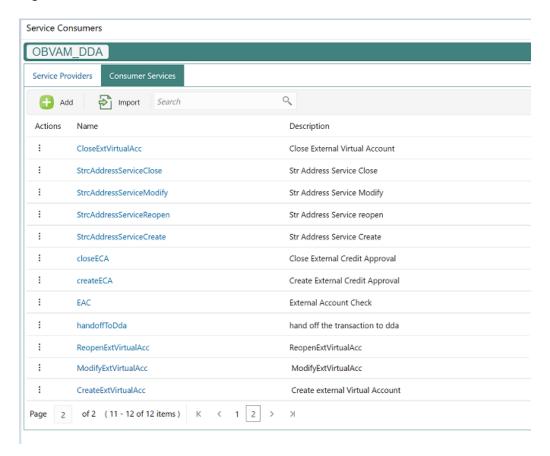
This topic describes about the consumer services required for DDA Implementation.

The below endpoints must be configured under Consumer Services in Oracle Banking Routing Hub:

- Create an amount block (createECA)
- 2. Close/release amount block (closeECA)
- External account check (EAC)
- Create a transaction (handofftoDDA)
- 5. Structure Address Create (StrcAddressServiceCreate)
- 6. Structure Address Modify (StrcAddressServiceModify)
- Structure Address Close (StrcAddressServiceClose)
- 8. Structure Address Reopen (StrcAddressServiceReopen)
- Create External VA (CreateExtVirtualAcc)
- 10. Modify External VA (ModifyExtVirtualAcc)
- 11. Close External VA (CloseExtVirtualAcc)
- 12. Reopen External VA (ReopenExtVirtualAcc)

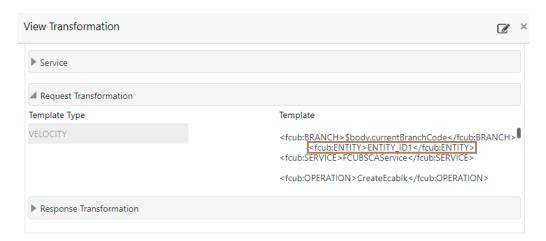


Figure 2-3 Consumer Services - DDA



As part of Multi-Entity changes, add the EntityId of DDA System under <fcub:ENTITY> </fcub:ENTITY> tags in velocity template for each operation as shown below.

Figure 2-4 View Transformation



createECA

This API enables the user to create an amount block.



Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE="createECA"

Request:

```
"userID": "",
  "currentBranchCode": "",
 "ddaSystem": "",
 "transactionrefNo": "",
 "creatEextRefNo": "",
 "ecaReferenceNo": "",
 "source": "",
  "effectiveDate": "",
  "ecaBlockDetailsDTO":
  [
    {
      "accountNo": "",
      "accCurrency": "",
      "accountbranch": "",
      "blockStatus": "",
      "drCrIndicator": "",
      "sweepRequired": "",
      "partialBlkReqd": "",
      "remarks": "",
      "requestBlkAmount": "",
      "approvedBlkAmount": "",
      "outstandingBlkAmount": "",
      "partialReleaseAllowed": ""
    }
  ]
}
```

Response:

```
{
  "MSGSTAT":"" (SUCCESS/FAILUER)
  "{ERROR_CODE}":"{ERROR_DESC}"(if MSGSTAT = FAILUER)
}
```

closeECA

This API enables the user to close/release the amount block.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE = "closeECA"

```
{
    "userID": "",
```



Response:

```
{
   "MSGSTAT":""
}
```

EAC

This API enables the user to perform an external account check.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE = "ECA"

Request:

```
"userID": "",
"currentBranchCode": "",
"ddaSystem": "",
"realAccountNo": "",
"drCrIndicator": "",
"externalRefNo": "",
"mcyFlag": "",
"customerBranchCode": "",
"ccy": "",
```

```
{
    "isValidAccount":""
}
```



handoffToDda

This API enables the user to create a transaction.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE = "handoffToDda"

```
"userID": "",
 "currentBranchCode": "",
 "ddaSystem": "",
  "externalReferenceNo": "",
  "source": "",
  "ecaEntriesDetailsDTO":
    {
     "module": "",
     "transactionRefNo": "",
      "eventserialNo": "",
      "event": "",
      "accBranch": "",
      "accountNumber": "",
      "accCCY": "",
      "drCrIndicator": "",
      "amttag": "",
      "lcyAmt": 0,
      "trnDate": "",
      "valueDate": "",
      "ecaRefernceNo": "",
      "blockReleaseStatus": "",
      "chequeMandatory": "",
      "availBalReqd": "",
      "intraDayRelease": "",
      "availInfo": "",
      "salaryCredit": "",
      "sweepRequried": "",
      "escrow": "",
      "AMLMontoring": "",
      "considerForAccActivity": "",
      "balUpdThruPC": "",
      "txnNarrative": "",
      "txnCode": "",
      "relatedCustomer": "",
      "fcyAmount": 0,
      "exchrate":0
 ]
}
```



Response:

```
{
   "MSGSTAT":""
}
```

StrcAddressServiceCreate

This API enables the user to create structure address.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE= "StrcAddressServiceCreate"

Request

```
"department": "",
 "subDepartment": "",
 "streetName": "",
 "buildingNumber": "",
 "buildingName": "",
 "floor": "",
  "postbox": "",
  "room": "",
  "postcode": "",
 "townName": "",
 "townLocationName": "",
 "districtName": "",
 "countrySubDivision": "",
 "strrCountry": "",
 "virtualAccountNo": "",
 "branchId": ""
}
```

Response:

```
{
 "MSGSTAT":""
}
```

StrcAddressServiceModify

This API enables the user to modify structure address.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE= "StrcAddressServiceModify"



Request:

```
{
        "department": "",
        "subDepartment": "",
        "streetName": "",
        "buildingNumber": "",
        "buildingName": "",
        "floor": "",
        "postbox": "",
        "room": "",
        "postcode": "",
        "townName": "",
        "townLocationName": "",
        "districtName": "",
        "countrySubDivision": "",
        "strrCountry": "",
        "virtualAccountNo": "",
        "branchId": ""
    }
```

Response:

```
{
  "MSGSTAT":""
}
```

StrcAddressServiceClose

This API enables the user to close structure address.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE= "StrcAddressServiceClose"

```
"department": "",
    "subDepartment": "",
    "streetName": "",
    "buildingNumber": "",
    "buildingName": "",
    "postbox": "",
    "room": "",
    "postcode": "",
    "townName": "",
    "townLocationName": "",
    "districtName": "",
    "countrySubDivision": "",
    "strrCountry": "",
    "virtualAccountNo": "",
```



```
"branchId": ""
}
```

Response:

```
{
"MSGSTAT":""
}
```

StrcAddressServiceReopen

This API enables the user to reopen structure address.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM DDA"

SERVICE-CONSUMER-SERVICE= "StrcAddressServiceReopen"

Request:

```
{
        "department": "",
        "subDepartment": "",
        "streetName": "",
        "buildingNumber": "",
        "buildingName": "",
        "floor": "",
        "postbox": "",
        "room": "",
        "postcode": "",
        "townName": "",
        "townLocationName": "",
        "districtName": "",
        "countrySubDivision": "",
        "strrCountry": "",
        "virtualAccountNo": "",
        "branchId": ""
    }
```

Response:

```
{
"MSGSTAT":""
}
```

CreateExtVirtualAcc

This API enables the user to create external virtual account.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE= "CreateExtVirtualAcc"

Request:

```
"countryCode": "",
"address4": " ",
"address3": "",
"address2": "",
"address1": "",
"ecaCheckReq": "",
"accountClass": "",
"acStatDormant": "",
"acStatFrozen": "",
"glStatBlocked": "",
"acStatNoDr": "",
"acStatNoCr": "",
"acOpenDate": "",
"custAcName": "",
"custAcCcy": "",
"customerNo": "",
"sourceSystemAccBrn": "",
"sourceSystemAccNo": "",
"sourceSystem": "",
"custAcIban": "",
"hostCode": "",
"custAccountNo": "",
"branchId": ""
```

Response:

```
{
  "MSGSTAT":""
}
```

ModifyExtVirtualAcc

This API enables the user to modify external virtual account.

Request / Response for FCUBS Version 14.1 and 14.4

```
SERVICE-CONSUMER = "OBVAM_DDA"
```

SERVICE-CONSUMER-SERVICE= "ModifyExtVirtualAcc"

```
{
    "countryCode": "",
    "address4": " ",
    "address3": "",
    "address2": "",
    "address1": "",
    "ecaCheckReq": "",
    "accountClass": "",
    "acStatDormant": "",
```



```
"acStatFrozen": "",
    "glStatBlocked": "",
    "acStatNoDr": "",
    "acStatNoCr": "",
    "acOpenDate": "",
    "custAcName": "",
    "custAcCcy": "",
    "customerNo": "",
    "sourceSystemAccBrn": "",
    "sourceSystemAccNo": "",
    "sourceSystem": "",
    "custAcIban": "",
    "hostCode": "",
    "custAccountNo": "",
    "branchId": ""
}
```

Response:

```
{
"MSGSTAT":""
}
```

CloseExtVirtualAcc

This API enables the user to close external virtual account.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE= "CloseExtVirtualAcc"

```
{
        "countryCode": "",
        "address4": " ",
        "address3": "",
        "address2": "",
        "address1": "",
        "ecaCheckReq": "",
        "accountClass": "",
        "acStatDormant": "",
        "acStatFrozen": "",
        "glStatBlocked": "",
        "acStatNoDr": "",
        "acStatNoCr": "",
        "acOpenDate": "",
        "custAcName": "",
        "custAcCcy": "",
        "customerNo": "",
        "sourceSystemAccBrn": "",
        "sourceSystemAccNo": "",
        "sourceSystem": "",
```



ReopenExtVirtualAcc

This API enables the user to reopen external virtual account.

Request / Response for FCUBS Version 14.1 and 14.4

SERVICE-CONSUMER = "OBVAM_DDA"

SERVICE-CONSUMER-SERVICE= "ReopenExtVirtualAcc"

```
{
        "countryCode": "",
        "address4": " ",
        "address3": "",
        "address2": "",
        "address1": "",
        "ecaCheckReq": "",
        "accountClass": "",
        "acStatDormant": "",
        "acStatFrozen": "",
        "glStatBlocked": "",
        "acStatNoDr": "",
        "acStatNoCr": "",
        "acOpenDate": "",
        "custAcName": "",
        "custAcCcy": "",
        "customerNo": "",
        "sourceSystemAccBrn": "",
        "sourceSystemAccNo": "",
        "sourceSystem": "",
        "custAcIban": "",
        "hostCode": "",
        "custAccountNo": "",
        "branchId": ""
```



Response:

```
{
    "MSGSTAT":""
```

2.2.2 EXTERNAL ACCOUNT Implementation

This topic provides the API information for EXTERNAL ACCOUNT Implementation.

This API is used when the account number needs to be generated externally. Oracle Banking Virtual Account Management's account number generation will be suppressed and externally generated account number will be assigned.

The following API is configured using Oracle Banking Routing Hub:

- 1. OBVAM EXTERNAL ACCOUNT ext acc 14.4
 - SERVICE-CONSUMER OBVAM_EXTERNAL_ACCOUNT
 - SERVICE-CONSUMER-SERVICE ext_acc
 - REQUIRED_ACTION VA / IBAN / VA_IBAN



 \mbox{VA} / \mbox{IBAN} / $\mbox{VA_IBAN}$ – Choose of the option based on Branch Parameter configuration.

The following Service Providers and Consumer Services needs to be configured in Oracle Banking Routing Hub:

- Service Providers EXTERNAL ACCOUNT
 This topic describes about the service providers configuration for EXTERNAL ACCOUNT.
- Consumer Services EXTERNAL ACCOUNT
 This topic describes about the consumer services required for EXTERNAL ACCOUNT Implementation.

2.2.2.1 Service Providers - EXTERNAL ACCOUNT

This topic describes about the service providers configuration for EXTERNAL ACCOUNT.

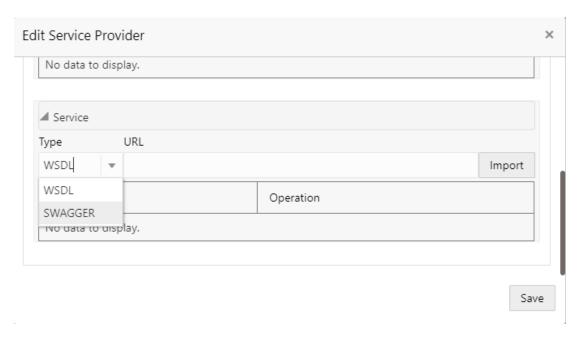
To configure the external system in Oracle Banking Routing Hub, import WSDL / Swagger provided by the external system.



Figure 2-5 Service Providers - EXTERNAL ACCOUNT



Figure 2-6 Service Providers - Edit Service Provider



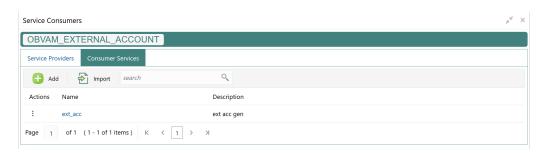
2.2.2.2 Consumer Services - EXTERNAL ACCOUNT

This topic describes about the consumer services required for EXTERNAL ACCOUNT Implementation.

The below endpoint must be configured under Consumer Services in Oracle Banking Routing Hub:

Generate the account number externally (ext_acc)

Figure 2-7 Consumer Services - EXTERNAL ACCOUNT



ext acc

This API enables the user to generate the account number externally.

```
"branchCode": "",
"virtualEntityId": "",
"virtualEntityName": "",
"realCustomerNo": "",
"defaultAccCcy": "",
"virtualAccProduct": "",
"virtualAccountNo": "",
"ibanRequired": "",
"ibanAccNo": "",
"realAccountNo": "",
"virtualAccountName": "",
"addressLine1": "",
"addressLine2": "",
"addressLine3": "",
"addressLine4": "",
"pincode": "",
"countryCode": "",
"accountPurpose": "",
"interestCalcReq": "",
"accountFrozen": "",
"balChkForDebits": "",
"balAvailabilityOptions": "",
"fixedAmtFromPool": "",
"overdraftAllowed": "",
"fixedAmount": "",
"creditTxnsAllowed": "",
"debitTxnsAllowed": "",
"status": "",
"realAccLinkage": "",
"realAccountCcy": "",
"realAccountBrn": "",
"accOpenDate": "",
"accClosureDate": "",
"lastActivityDate": "",
"odStartDate": "",
"odEndDate": "",
```



```
"additionalFields": "",
  "StructuredAddressDTO": [],
  "sanctionChkStatus": ""
}

Response:
{
  "virtualAccountNo": "",
  "ibanAccNo": ""
```

2.2.3 Oracle Banking Payments Implementation

This topic provides the API information for Oracle Banking Payments Implementation.

The following APIs is configured for Oracle Banking Payments Implementation using Oracle Banking Routing Hub:

- 1. OBVAM OBPM PendingPaymentQuery
 - API /api-gateway/cmc-obrh-services/route/dispatch
 - · Headers -
 - SERVICE-CONSUMER OBVAM OBPM
 - SERVICE-CONSUMER-SERVICE PendingPaymentQuery

The following Service Providers and Consumer Services needs to be configured in Oracle Banking Routing Hub:

- Service Providers Oracle Banking Payments
 This topic describes about the service providers configuration for Oracle Banking Payments.
- Consumer Services Oracle Banking Payments
 This topic describes about the consumer services required for Oracle Banking Payments Implementation.

2.2.3.1 Service Providers - Oracle Banking Payments

This topic describes about the service providers configuration for Oracle Banking Payments.

To configure Oracle Banking Payments in Oracle Banking Routing Hub, import WSDL / Swagger provided by Oracle Banking Payments.



Figure 2-8 Service Providers - Oracle Banking Payments



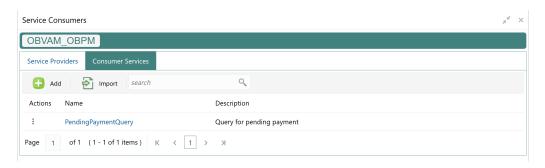
2.2.3.2 Consumer Services - Oracle Banking Payments

This topic describes about the consumer services required for Oracle Banking Payments Implementation.

The below endpoint must be configured under Consumer Services in Oracle Banking Routing Hub:

1. Query for pending payment (PendingPaymentQuery)

Figure 2-9 Consumer Services - Oracle Banking Payments



PendingPaymentQuery

This API enables the user to query Oracle Banking Payments system for pending payments during account closure.

```
"txnDet":
{
    "customerAccount": ""
},
    "header":
{
    "functionId": "PMDPENDP",
    "action": "EXECUTEQUERY",
    "channel": "REST",
    "source": "MANL",
    "moduleId": "PM",
```



```
"userId": "USER02", ** this user needs to be update as per OBPM user
"userBranch": "HEL", ** this branch needs to be updated as per OBPM
user's branch
   "transactionId": ""
   }
}
```

Response:

2.2.4 Interest and Charges Implementation

This topic provides the API information for Interest and Charges Implementation.

The following APIs are configured for DDA Implementation using Oracle Banking Routing Hub:

- 1. fetchqcSclcRate
- 2. closelEAccount
- CREATE_EXT_IC_GRP_PRD
- 4. fetchAccuredInt
- 5. CREATE_EXT_IC_GRP
- 6. liquidateInterest
- 7. fetchExtICGrps
- 8. fetchPrdMapForGrp
- 9. CREATE_IC_ACCOUNT

The following Service Providers and Consumer Services needs to be configured in Oracle Banking Routing Hub:

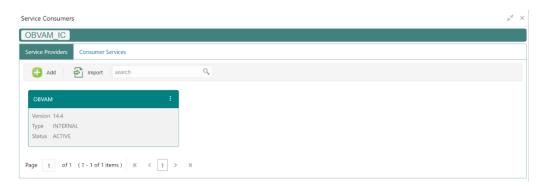
- Service Providers Interest and Charges
 This topic describes about the service providers configuration for Interest and Charges.
- Consumer Services Interest and Charges
 This topic describes about the consumer services required for Interest and Charges Implementation.

2.2.4.1 Service Providers - Interest and Charges

This topic describes about the service providers configuration for Interest and Charges.

To configure the Interest and Charges services in Oracle Banking Routing Hub, import WSDL / Swagger provided by Interest and charges services.

Figure 2-10 Service Providers - Interest and Charges



2.2.4.2 Consumer Services - Interest and Charges

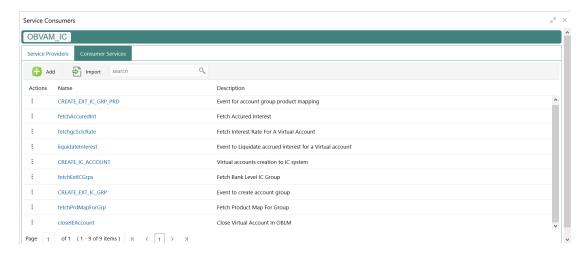
This topic describes about the consumer services required for Interest and Charges Implementation.

The below endpoints must be configured under Consumer Services in Oracle Banking Routing Hub:

- Fetch Interest Rate for A Virtual Account (fetchgcSclcRate)
- Close Virtual Account (closeIEAccount)
- 3. Event for account group product mapping (CREATE_EXT_IC_GRP_PRD)
- 4. Fetch Accrued Interest (fetchAccuredInt)
- 5. Event to create account group (CREATE EXT IC GRP)
- 6. Event to Liquidate accrued interest for a Virtual account (liquidateInterest)
- 7. Fetch Bank Level IC Group (fetchExtICGrps)
- **8.** Fetch Product Map For Group (fetchPrdMapForGrp)
- Virtual accounts creation to IC system (CREATE_IC_ACCOUNT)
- 10. vdbalMaster



Figure 2-11 Consumer Services - Interest and Charges



fetchgcSclcRate

This API enables the user to fetch the interest rates for a Virtual Account.

Request / Response

SERVICE-CONSUMER = "OBVAM_IC"

SERVICE-CONSUMER-SERVICE = "fetchgcSclcRate"

Request:

```
"branch": "string",
  "account": "string",
  "extAccGrp": "string",
  "accGrp": "string",
  "dateFrom": "string",
  "ccy": "string",
  "dateType": "string",
}
```

```
"data":
[
    "aclass": "string",
    "productCode": "string",
    "ccyCode": "string",
    "udeEffDt": "string",
    "branchCode": "string",
    "RateCategory": "string",
    "productdesc": "string",
    "GenUdeValList":
[
```



```
"udeId": "string",
          "udeDesc": "string",
          "udeType": "string",
          "udeValue": 0,
          "rateCode": "string",
          "tdRateCode": "string"
      ]
  ],
  "warnings":
      "warningCode": "string",
      "warningDesc": "string"
 ],
  "errors":
      "errorCode": "string",
      "errorDesc": "string"
    }
 ]
}
```

closelEAccount

This API enables the user to close a Virtual Account.

Request / Response

SERVICE-CONSUMER = "OBVAM_IC"

SERVICE-CONSUMER-SERVICE = "closeIEAccount"

Request:

```
{
  "source": "string",
  "branch": "string",
  "acc": "string",
  "currency": "string"
}
```

```
"warnings":
[
     {
        "warningCode": "string",
        "warningDesc": "string"
     }
],
```



```
"errors":
[
     {
        "errorCode": "string",
        "errorDesc": "string"
     }
]
```

CREATE_EXT_IC_GRP_PRD

This API enables the user to generate an event for account group product mapping.

Request / Response

SERVICE-CONSUMER = "OBVAM_IC"

SERVICE-CONSUMER-SERVICE = "CREATE_EXT_IC_GRP_PRD"

Request:



fetchAccuredInt

This API enables the user to fetch the accrued Interest.

Request / Response

SERVICE-CONSUMER = "OBVAM_IC"

SERVICE-CONSUMER-SERVICE = "fetchAccuredInt"

Request:

```
{
  "brn": string,
  "acc": string,
  "source": string
}
```

```
"data":
 "brn": "string",
 "acc": "string",
 "source": "string",
 "totalAccrDr": 0,
 "totalAccrCr": 0,
 "accruedAmtList":
      "acc": "string",
      "brn": "string",
      "prod": "string",
      "frmNo": 0,
      "accruedAmt": 0,
      "drcr": "string"
 ]
},
"warnings":
[
   "warningCode": "string",
   "warningDesc": "string"
 }
],
"errors":
[
   "errorCode": "string",
   "errorDesc": "string"
 }
]
```



CREATE_EXT_IC_GRP

This API enables the user to generate an event to create an account group.

Request / Response

```
SERVICE-CONSUMER = "OBVAM_IC"
```

SERVICE-CONSUMER-SERVICE = "CREATE_EXT_IC_GRP"

Request:

```
{
  "accGrp": "string"
  "accGrpDesc": "string"
  "extAccGrpTesc": "string"
  "extAccGrpType": "string"
}
```

Response:

liquidateInterest

This API enables the user to generate an event to liquidate accrued interest for a Virtual account.

Request / Response

```
SERVICE-CONSUMER = "OBVAM_IC"
```

SERVICE-CONSUMER-SERVICE = "liquidateInterest"

```
{
  "onliq":
  [
    {
      "branchCode": "string",
```



```
"accountNumber": "string",
    "productCode": "string",
    "liquidationDate": "string"
}
]
```

Response:

fetchExtlCGrps

This API enables the user to fetch a Bank-Level IC Group.

Request / Response

```
SERVICE-CONSUMER = "OBVAM_IC"
```

SERVICE-CONSUMER-SERVICE = "fetchExtlCGrps"

Request:

```
{
  "accGrp": "string",
  "extAccGrpType": "string"
}
```

```
{
    "data":
    {
```



fetchPrdMapForGrp

This API enables the user to fetch a Product Map for Group.

Request / Response

SERVICE-CONSUMER = "OBVAM_IC"

SERVICE-CONSUMER-SERVICE = "fetchPrdMapForGrp"

Request:

```
{
  "accGrp": "string",
  "productCode": "string",
  "ccy": "string"
}
```



CREATE_IC_ACCOUNT

This API enables the user to create a Virtual account for the IC system.

Request / Response

SERVICE-CONSUMER = "OBVAM_IC"

SERVICE-CONSUMER-SERVICE = "CREATE_IC_ACCOUNT"

Request:

```
"accMasterList":
  [
      "acc": "string",
     "childAcc": "string",
      "accountClass": "string",
      "accType": "string",
      "acOpenDate": "string",
      "bookAcc": "string",
      "bookBrn": "string",
      "bookCcy": "string",
      "brn": "string",
      "calcAcc": "string",
      "ccy": "string",
      "custNo": "string",
      "consolChgAcc": "string",
      "intStartDate": "string",
      "sourceSystem": "string",
      "sourceSystemBrn": "string",
      "sourceSystemAcc": "string",
      "chargeBookAcc": "string",
      "chargeBookBrn": "string",
      "chargeBookCcy": "string",
      "chgStartDate": "string"
    }
  ]
}
```

```
{
  "warnings":
```



vdbalMaster

This API enables the user to fetch a Virtual account balance.

Request / Response

SERVICE-CONSUMER = "OBVAM_IC"

SERVICE-CONSUMER-SERVICE = "vdbalMaster"

Request:

```
{
  "type": "string",
  "extRefNo": "string",
  "sourceCode": "string",
  "vdBalList":[
     {
      "acc": "string",
      "brn": "string",
      "ccy": "string",
      "valDt": "string"
     }
]
```

```
"warnings":
[
     {
        "warningCode": "string",
        "warningDesc": "string"
     }
],
"errors": null
```



2.2.5 Oracle Banking Liquidity Management Implementation

This topic provides the API information for Oracle Banking Liquidity Management Implementation.

The following API is configured for Oracle Banking Liquidity Management Implementation using Oracle Banking Routing Hub:

1. getLMAccount Host: OBVAM

Version: 14.4

SERVICE-CONSUMER = "OBVAM_OBLM"

The following Service Providers and Consumer Services needs to be configured in Oracle Banking Routing Hub:

- Service Providers Oracle Banking Liquidity Management
 This topic describes about the service providers configuration for Oracle Banking Liquidity Management.
- Consumer Services Oracle Banking Liquidity Management
 This topic describes about the consumer services required for Oracle Banking Liquidity Management Implementation.

2.2.5.1 Service Providers - Oracle Banking Liquidity Management

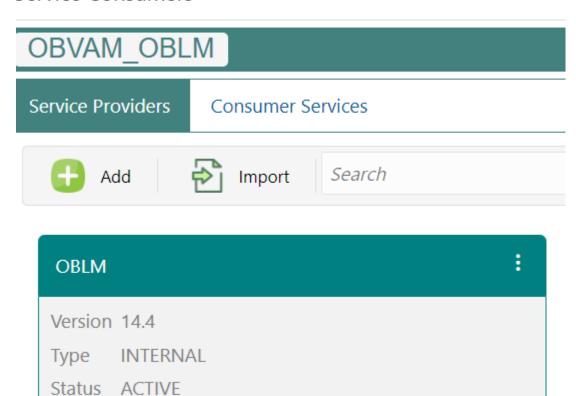
This topic describes about the service providers configuration for Oracle Banking Liquidity Management.

To configure the Oracle Banking Liquidity Management in Oracle Banking Routing Hub, import WSDL / Swagger provided by Oracle Banking Liquidity Management.



Figure 2-12 Service Providers - Oracle Banking Liquidity Management

Service Consumers





Edit Service Provider

No data to display.

Service

Type URL

WSDL

WSDL

SWAGGER

NO data to display.

Operation

Swager

Figure 2-13 Service Providers - Edit Service Provider

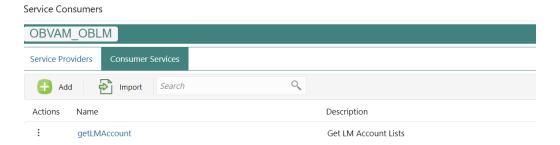
2.2.5.2 Consumer Services - Oracle Banking Liquidity Management

This topic describes about the consumer services required for Oracle Banking Liquidity Management Implementation.

The below endpoint must be configured under Consumer Services in Oracle Banking Routing Hub:

1. Get the Liquidity Management account lists (getLMAccount)

Figure 2-14 Consumer Services - Oracle Banking Liquidity Management



getLMAccount

This API enables the user to get the Liquidity Management account lists.

```
{
    "includeAllAccount": "",
    "authStat": "",
    "multiCcyAccountNumber": "",
    "isProspect": "",
```



```
"acyAvailableBal": "",
       "offset": "",
       "isExternal": "",
       "includecloseandunauth": "",
       "recordStat": "0",
       "accountNumber": "1000242",
       "isActive": "",
       "sourceSystemAccNo": "",
       "branchCode": "",
       "isNotional": "",
       "limit": "",
       "customerId": "",
       "currency": "",
       "isResident": ""
    }
Response:
           "body": {
            "data": {
              "data": [
                     "keyId": "1a939627-4629-4b30-bd10-ebdc01d7ba27",
                     "makerId": "OBDX02",
                     "makerDateStamp": "2018-11-30T13:05:31.000+00:00",
                     "checkerId": "OBDX02",
                     "checkerDateStamp": "2018-11-30T13:05:31.000+00:00",
                     "modNo": 1,
                     "recordStatus": "0",
                    "authStatus": "A",
                     "onceAuth": "Y",
                     "doerRemarks": null,
                    "approverRemarks": null,
                     "sourceSystem": "OBDX",
                     "sourceSystemAccNo": null,
                     "iban": null,
                     "updatedIban": null,
                    "logCode": "fb79f58f-8206-465d-9bdd-72fb8cccd31b",
                     "accountNumber": "OBDX SYSACC 8665",
                     "accountDescription": "OBDX SYSACC 8665 Notional
Account",
                     "branchCode": "HEL",
                     "bankCode": "0020",
                     "citvId": "Sydney",
                     "countryId": "AUS",
                     "currency": "GBP",
                    "customerId": "000464",
                     "customerName": "XXX XXXXXX",
                     "accCreatedDate": null,
                     "accOpenDate": "2020-03-26",
                    "accClosedDate": null,
                     "acyAvailableBal": null,
                    "acyCurrentBal": null,
```



```
"lastBalUpdateTime": null,
        "isActive": "A",
        "isExternal": "External",
        "isResident": "R",
        "isNotional": "Y",
        "acyCasaBlockedAmt": null,
        "accCategory": "S",
        "drLimit": null,
        "crLimit": null,
        "ilRouteCode": null,
        "lineId": null,
        "limitCcy": null,
        "region": "Asia/Kolkata",
        "uncollFundsLimit": null,
        "uncollAvailable": null,
        "balCompParticipation": null,
        "odLimit": null,
        "isDebitUnlimited": "N",
        "groupCode": null,
        "groupDescription": null,
        "isNoCredit": null,
        "isNoDebit": null,
        "isFrozen": null,
        "isBlocked": null,
        "countryCode": null,
        "address4": null,
        "address3": null,
        "address2": null,
        "address1": null,
        "isDormant": null,
        "isProspect": "N",
        "isVirtual": null,
        "isICRequired": null,
        "isMultiCurrencyAccount": null,
        "multiCcyAccountNumber": null,
        "noBalanceHandling": "Last Balance",
        "isBalanceOnline": "Y",
        "branchDate": "2020-03-30",
        "isRegulatedDebits": "N",
        "entityID": "HEL ENTITY",
        "entityName": "HEL ENTITY NAME",
        "bankName": "Futura Bank",
        "branchName": "HEL FC UNIVERSAL BANK",
        "countryName": "Australia",
        "simAccount": null,
        "LmmTmMultiCcyAccountDTO": null
"paging": {
    "totalResults": 1,
    "links": {
        "next": null,
        "prev": null
```

}

```
},
"messages": {
    "keyId": null,
    "status": "SUCCESS",
    "codes": [],
    "requestId": null,
    "httpStatusCode": "OK",
    "overrideAuthLevelsReqd": null
}
}
```

2.2.6 Oracle Banking Host to Host Implementation

This topic provides the API information for Oracle Banking Host to Host Implementation.

The following callback API is configured for Oracle Banking Electronic Data Exchange Implementation using Oracle Banking Routing Hub.

- 1. parseResponse
- 2. handoffResponse
- 3. outgoingFileCallBackResponse

Host: OBVAM Version: 14.6

SERVICE-CONSUMER = "OBVAM OBEDX"

The following Service Providers and Consumer Services needs to be configured in Oracle Banking Routing Hub:

- Service Providers Oracle Banking Electronic Data Exchange
 This topic describes about the service providers configuration for Oracle Banking Electronic Data Exchange Implementation.
- Consumer Services Oracle Banking Electronic Data Exchange
 This topic describes about the consumer services required for Oracle Banking Electronic Data Exchange Implementation.

2.2.6.1 Service Providers - Oracle Banking Electronic Data Exchange

This topic describes about the service providers configuration for Oracle Banking Electronic Data Exchange Implementation.

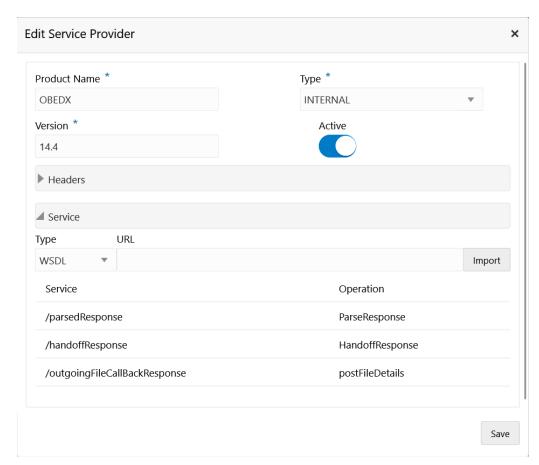
To configure the Oracle Banking Electronic Data Exchange in Oracle Banking Routing Hub, import WSDL / Swagger provided by Oracle Banking Electronic Data Exchange.



Figure 2-15 Service Providers - Oracle Banking Electronic Data Exchange



Figure 2-16 Service Providers - Edit Service Provider

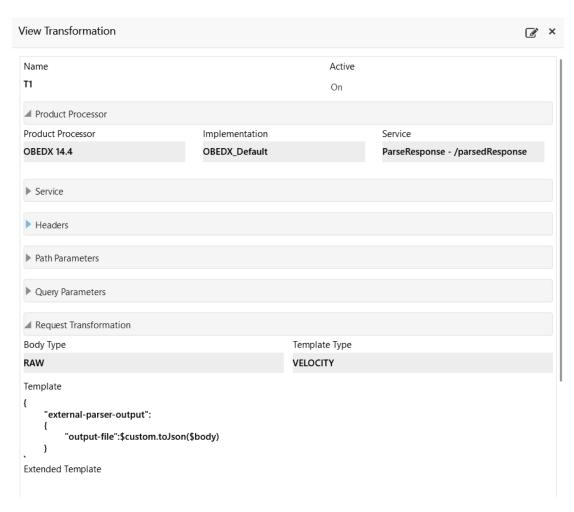


In Request Transformation, template needs to be added for ParseResponse consumer service.

```
{
    "external-parser-output":
    {
        "output-file":$custom.toJson($body)
    }
}
```



Figure 2-17 View Transformation



2.2.6.2 Consumer Services - Oracle Banking Electronic Data Exchange

This topic describes about the consumer services required for Oracle Banking Electronic Data Exchange Implementation.

The following callback API is configured for Oracle Banking Electronic Data Exchange Implementation using Oracle Banking Routing Hub

Figure 2-18 Consumer Services - OBVAM_OBEDX

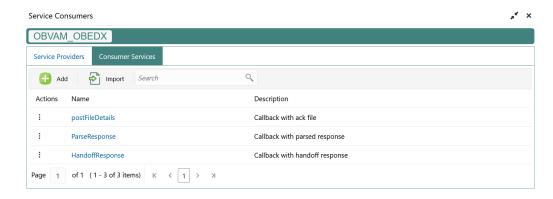
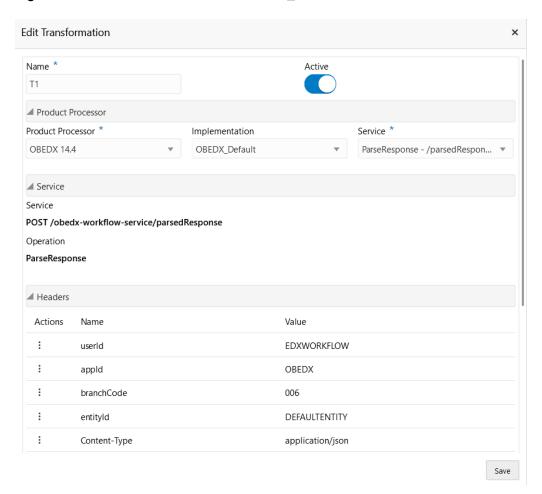


Figure 2-19 Edit Transformation - OBVAM_OBEDX



HandoffResponse

Request:

```
{
    "fileRefId": 110634,
```



```
"internalRefId": null,
"workflowInstanceId": "",
"fileStatus": "",
"cacheVersion": 0,
"fileOriginalName": "",
"fileModifiedName": "",
"fileSize": 692,
"formatName": null,
"createdBy": null,
"createdDate": 1651721400000,
"modifiedBy": null,
"modifiedDate": 1651721405000,
"transactionId": "",
"transactionName": null,
"transactionModNo": 1,
"formatId": "",
"formatModNo": 1,
"channelId": "",
"channelModNo": 1,
"corporateId": "",
"corporateModNo": 1,
"corporateRef": null,
"totalRecords": 2,
"successRecords": 0,
"failedRecords": 0,
"totalAmount": null,
"totalAmountCurrency": null,
"messageId": null,
"initiatingPartyName": null,
"initiatingPartyId": "",
"initiatingPartyCD": null,
"initiatingPartyAddress": {},
"groupStatus": null,
"groupStatusReasonCode": null,
"noOfHandoff": null,
"handoffId": null,
"corelationLevel": null,
"recordPersist": false,
"chunkSize": 2,
"chunkIndex": 1,
"totalChunks": 1,
"retryCount": 0,
"retryForChunk": [],
"fieldData": {
    "handoffId": null,
    "initiatingPartyName": null
},
"recordList": [{
    "recordId": 971614727779409900,
    "fileRefId": 110634,
    "modifiedBy": "",
    "modifiedDate": 1523052010000,
    "txnStatus": "",
    "statusCodes": ""
    "transactionId": "",
```

```
"transactionModNo": 1,
"createdDate": null,
"createdBy": null,
"fxRate": null,
"convertedCurrency": null,
"convertedAmount": null,
"fieldData": {
    "odStartDate": "",
    "virtualAccountName": "",
    "debitTxnsAllowed": "",
    "fixedAmtFromPool": null,
    "odEndDate": "",
    "transferInVirAccNo": null,
    "accountPurpose": "",
    "action": "new",
    "addressLine1": "",
    "buildingNumber": "",
    "addressLine2": "",
    "addressLine3": "",
    "addressLine4": "",
    "pincode": "",
    "townName": "",
    "overdraftSanctionAmount": null,
    "defaultAccCcy": "",
    "postBox": "",
    "virtualParentAcc": null,
    "realCustomerNo": "",
    "branchCode": "",
    "virtualEntityId": "",
    "transferOutVirAccNo": null,
    "buildingName": "",
    "structureCode": null,
    "postCode": "",
    "virtualAccountNo": null,
    "interestCalcReq": "N",
    "realAccountBrn": null,
    "ibanAccNo": null,
    "countrySubDivision": "",
    "realAccountCcy": null,
    "accountFrozen": "N",
    "subDepartment": "",
    "realAccountNo": null,
    "streetName": "",
    "ibanRequired": "",
    "countryCode": "",
    "balChkForDebits": "",
    "department": "",
    "floor": "",
    "virtualAccProduct": "",
    "townLocationName": "",
    "districtName": "",
    "overdraftAllowed": "",
    "creditTxnsAllowed": "",
    "strrCountry": "",
    "room": "",
```

```
"realAccLinkage": "",
            "remarks": "",
            "balAvailabilityOptions": ""
        "exceptionList": [{
            "exceptionCode": "",
            "exceptionArgs": "",
            "lineNo": 1,
            "CreatedDate": null
        } ]
    } ],
    "exceptionList": []
}
Response:
{
    "body": {
        "messages": {
            "status": "SUCCESS",
            "codes": [{
                "information": true,
                 "override": false,
                "error": false,
                "overrideAuthLevelsReqd": 0,
                "desc": "Record Created successfully",
                "code": "EDX-HCB-000",
                "language": "ENG",
                "type": "I"
            } ],
            "httpStatusCode": "OK"
        },
        "data": {
            "links": []
        }
    }
}
ParseResponse
Request:
{
    "fileRefId": 110635,
    "internalRefId": null,
    "workflowInstanceId": "",
    "fileStatus": "",
    "cacheVersion": 0,
```

"fileOriginalName": "",
"fileModifiedName": "",

"createdDate": 1651721490130,

"fileSize": 692,
"formatName": "CSV",
"createdBy": null,



```
"modifiedBy": null,
"modifiedDate": null,
"transactionId": "",
"transactionName": "Open Virtual Account",
"transactionModNo": 1,
"formatId": "",
"formatModNo": 1,
"channelId": "",
"channelModNo": 1,
"corporateId": "",
"corporateModNo": 1,
"corporateRef": null,
"totalRecords": 2,
"successRecords": 0,
"failedRecords": 0,
"totalAmount": null,
"totalAmountCurrency": null,
"messageId": null,
"initiatingPartyName": null,
"initiatingPartyId": "",
"initiatingPartyCD": null,
"initiatingPartyAddress": {},
"groupStatus": null,
"groupStatusReasonCode": null,
"noOfHandoff": null,
"handoffId": null,
"corelationLevel": null,
"recordPersist": false,
"chunkSize": 2,
"chunkIndex": 1,
"totalChunks": 1,
"retryCount": 0,
"retryForChunk": [
    0
"fieldData": {
    "handoffId": null,
    "initiatingPartyName": null
} ,
"recordList": [{
    "recordId": 971615103983312900,
    "fileRefId": 110635,
    "modifiedBy": null,
    "modifiedDate": null,
    "txnStatus": "",
    "statusCodes": null,
    "transactionId": "",
    "transactionModNo": 1,
    "createdDate": null,
    "createdBy": "",
    "fxRate": null,
    "convertedCurrency": null,
    "convertedAmount": null,
    "fieldData": {
        "odStartDate": "",
```

```
"accLiqdAllowed": "",
    "virtualAccountName": "",
    "debitTxnsAllowed": "Y",
    "fixedAmtFromPool": "",
    "odEndDate": "1990-01-01",
    "transferInVirAccNo": "",
    "accountPurpose": "",
    "action": "new",
    "addressLine1": "",
    "buildingNumber": "88",
    "addressLine2": "",
    "addressLine3": "",
    "addressLine4": "",
    "pincode": "",
    "townName": "",
    "defaultAccCcy": "",
    "postBox": "",
    "virtualParentAcc": "",
    "realCustomerNo": "",
    "branchCode": "",
    "virtualEntityId": "",
    "transferOutVirAccNo": "",
    "buildingName": "",
    "structureCode": "",
    "postCode": "",
    "virtualAccountNo": "",
    "interestCalcReq": "",
    "realAccountBrn": "",
    "ibanAccNo": "",
    "countrySubDivision": "",
    "realAccountCcy": "",
    "accountFrozen": "",
    "subDepartment": "",
    "realAccountNo": "",
    "streetName": "",
    "ibanRequired": "",
    "countryCode": "",
    "balChkForDebits": "",
    "fixedAmount": "",
    "department": "",
    "floor": "8",
    "virtualAccProduct": "",
    "townLocationName": "",
    "districtName": "",
    "overdraftAllowed": "",
    "creditTxnsAllowed": "",
    "strrCountry": "",
    "room": "",
    "realAccLinkage": "",
    "remarks": ",
   "balAvailabilityOptions": ""
"exceptionList": [{
    "exceptionCode": "",
    "exceptionArgs": "",
```

```
"lineNo": 1,
            "CreatedDate": 1651721492536
        } ]
    }],
    "exceptionList": []
}
Response:
    "body": {
        "messages": {
            "status": "SUCCESS",
            "codes": [{
                "information": true,
                "override": false,
                "error": false,
                "overrideAuthLevelsReqd": 0,
                "desc": "Record Created successfully",
                "code": "EDX-PCB-000",
                "language": "ENG",
                "type": "I"
            } ] ,
            "httpStatusCode": "OK"
        },
        "data": {
            "links": []
    }
}
postFileDetails
Request:
    "ackFileDTO":
    [
        "index": 1,
        "type": "TEXT",
           "content":
"{\"fileRefId\":16652,\"ackfileRefId\":16652,\"ackfileName\":\"ACME CSV
_Open
                Virtual
Account 20221010000004\",\"ackfileChannelName\":\"AutoCorpOutgoing\",
\"ackResponseIdentifier\":\"RESPONSE FILE\",\"ackfileStatus\":\"EDX-
COF-000\",
\"chunkSize\":0,\"chunkIndex\":0,\"totalChunks\\":0,\"totalRecords\\":1,
                \"recordList\":
[{\"recordId\":1033332842200104960,\"lineNo\":null,
                \"status\":\"EDX-COR-000\",\"exceptionList\":
```



```
[]}]}"
    ],
    "file":
    [
        "fileName": "ACME CSV Open Virtual
Account 20221010000004.csv",
        "file": "file_0",
        "index": 0,
        "type": "FILE"
    ]
}
Response:
{
    "headers": {},
    "body": {
        "data": {
            "messages": {
                "status": "SUCCESS",
                "codes": [
                    {
                    "information": false,
                    "override": false,
                    "error": false,
                    "code": "EDX-ADS-009"
                ]
            }
        },
        "messages": {
            "keyId": null,
            "status": "SUCCESS",
            "codes": [],
            "requestId": null,
            "httpStatusCode": "OK",
            "overrideAuthLevelsReqd": null
```



}

}

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