INTS Code Migration 0956

# Prerequisites

The following logins are required

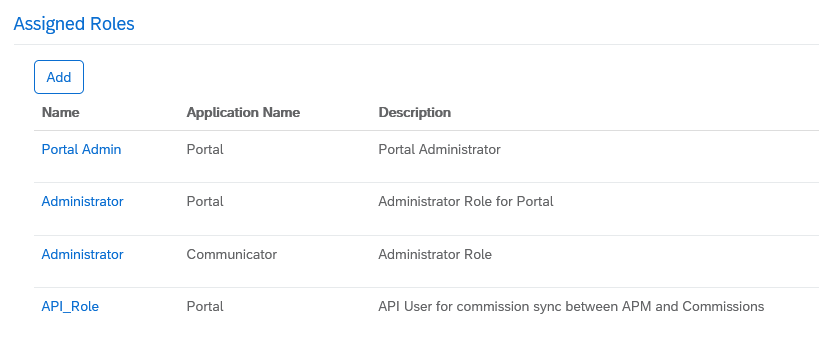
* SPM administrator login
* APM administrator login
* WebIDE login
* Database login
* Database host and port

A public and private key pair need to be generated and the public key added to the CDL drop box. The private key needs to be added to APM.

# SAP\_Admin User

Create SAP\_Admin user in Commissions with Administrator role

Add internal user SAP\_Admin in portal and assign roles:



# Support Tickets

Use following:

|  |  |
| --- | --- |
| Customer ID | 0000203178 |
| S-User | S0022915347 (Jochen Gärtner) |

<https://launchpad.support.sap.com/#/incident/create>

# ODATA

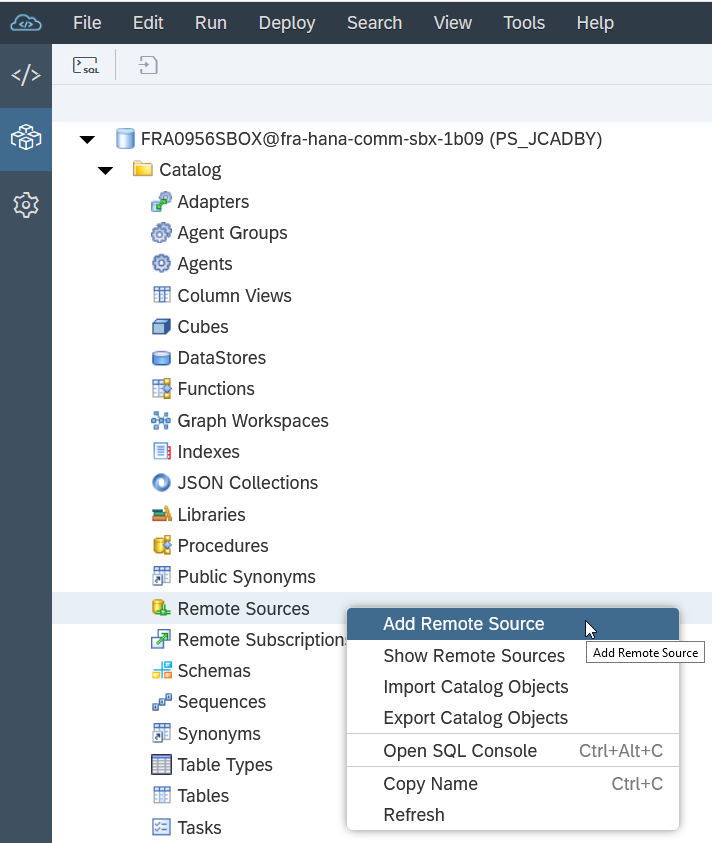
## Support Ticket

24678 / 2021

|  |  |
| --- | --- |
| Subject | Enable ODATA adaptor for tenant 0956 |
| Description | Please enable ODATA adaptor for tenant 0956.  Jon Cadby is primary contact for this case. |

## Remote Source

Right-click Remote Sources 🡪 Add Remote Source



Enter the settings

| **Property** | **Value** |
| --- | --- |
| Source Name | COMN\_OData |
| Adapter Name | OData Adapter |
| Source Location | dpserver |
| URL | https://0956.callidusondemand.com:443/TrueComp-SaaS/CommissionsService.svc |
| Support Format Query | true |
| Credentials Mode | Technical User |
| User | SAP\_Admin |
| Pwd | Use portal password for user |

## Virtual Table

Create the virtual table:

|  |
| --- |
| create virtual table EXT.VT\_PipelineRuns AT "COMN\_OData"."<NULL>"."<NULL>"."PipelineRuns"; |

# EXT Database Objects

Support Ticket

155557 / 2021

|  |  |
| --- | --- |
| Subject | 0955 - CS\_Credit Update Privileges |
| Description | Please grant update privileges on all GenericAttribute, GenericNumber, UnitTypeForGenericNumber, GenericDate, and GenericBoolean fields. |

SIT ticket # 335840 / 2021

## Event Framework

### Objects

Create the objects in the following order:

| **Order** | **Object Type** | **Object Name** |
| --- | --- | --- |
| 1 | FUNCTION | COMN\_FNC\_GET\_FIELD |
| 1 | FUNCTION | COMN\_FNC\_GET\_PAYMENT\_DATE |
| 1 | LIBRARY | COMN\_LIB\_CONSTANTS |
| 1 | TABLE | COMN\_BZO |
| 1 | TABLE | COMN\_BZO\_LANDING |
| 1 | TABLE | COMN\_BZO\_PRELANDING |
| 1 | TABLE | COMN\_CODE\_VALUE |
| 1 | TABLE | COMN\_CONFIG\_EVENT\_OWNERSHIP |
| 1 | TABLE | COMN\_DEBUG |
| 1 | TABLE | COMN\_ERROR |
| 1 | TABLE | COMN\_EVENT |
| 1 | TABLE | COMN\_EVENT\_BAUSTEIN\_TRACE |
| 1 | TABLE | COMN\_EVENT\_BREAK |
| 1 | TABLE | COMN\_EVENT\_BREAK\_TEMP |
| 1 | TABLE | COMN\_EVENT\_BREAK\_TRACE |
| 1 | TABLE | COMN\_EVENT\_BREAK\_TRACE\_TEMP |
| 1 | TABLE | COMN\_EVENT\_BZO |
| 1 | TABLE | COMN\_EVENT\_LANDING |
| 1 | TABLE | COMN\_EVENT\_ORDER\_ID |
| 1 | TABLE | COMN\_EVENT\_PRELANDING |
| 1 | TABLE | COMN\_EVENT\_TRACK |
| 1 | TABLE | COMN\_EVENT\_TRACK\_TEMP |
| 1 | TABLE | COMN\_EVENT\_TRACK\_TRACE |
| 1 | TABLE | COMN\_EVENT\_TRACK\_TRACE\_TEMP |
| 1 | TABLE | COMN\_FILE |
| 1 | TABLE | COMN\_FILE\_TRACE |
| 1 | TABLE | COMN\_FILE\_TYPE |
| 1 | TABLE | COMN\_FILE\_VALIDATION |
| 1 | TABLE | COMN\_FILE\_VALIDATION\_SQL |
| 1 | TABLE | COMN\_GASTAGESALESORDER |
| 1 | TABLE | COMN\_GASTAGESALESTRANSACTION |
| 1 | TABLE | COMN\_INVALID\_OBJECTS |
| 1 | TABLE | COMN\_LIABILITY |
| 1 | TABLE | COMN\_LIABILITY\_TEMP |
| 1 | TABLE | COMN\_LOCK |
| 1 | TABLE | COMN\_POLICY\_PROCESS\_STATUS |
| 1 | TABLE | COMN\_RAT\_AP\_CREDIT\_TEMP |
| 1 | TABLE | COMN\_RAT\_AP\_INT\_TEMP |
| 1 | TABLE | COMN\_RAT\_AP\_TEMP |
| 1 | TABLE | COMN\_STAGEHOOK\_REF |
| 1 | TABLE | COMN\_STAGESALESORDER |
| 1 | TABLE | COMN\_STAGESALESTRANSACTION |
| 1 | TABLE | COMN\_STAGETRANSACTIONASSIGN |
| 1 | TABLE | COMN\_TRANSACTION |
| 1 | TABLE | COMN\_TRANSACTION\_BP\_TEMP |
| 1 | TABLE | COMN\_VALIDATION\_CODE |
| 1 | TABLE | COMN\_VBO |
| 1 | TABLE | COMN\_VBO\_LANDING |
| 1 | TABLE | COMN\_VBO\_PRELANDING |
| 1 | TABLE | COMN\_WF\_ERROR\_HANDLING |
| 1 | TABLE | COMN\_WF\_ERROR\_HANDLING\_ASSIGNMENT |
| 1 | TABLE | COMN\_WF\_ERROR\_HANDLING\_GROUP\_CONFIG |
| 1 | TABLE | GTMP\_COMN\_PARTICIPANT\_CHECK\_HIERARCHY |
| 1 | TABLE | GTMP\_COMN\_PARTICIPANT\_CHECK\_REQUEST |
| 1 | TABLE | GTMP\_COMN\_PARTICIPANT\_CHECK\_RESULT |
| 1 | TABLE | PL\_BATCH\_FILTER |
| 1 | TABLE | PL\_BATCH\_LOG |
| 1 | TABLE | PL\_CONFIG |
| 1 | TABLE | PL\_DEBUG |
| 1 | TABLE | PL\_LEDGER\_DELTA |
| 1 | TABLE | PL\_LEDGER\_LOG |
| 1 | TABLE | PL\_LEDGER\_SUMMARY |
| 1 | TABLE | PL\_LEDGER\_SUMMARY\_LOG |
| 1 | TABLE | PL\_PAYEE |
| 1 | TABLE | PL\_PERIOD |
| 1 | TABLE | PL\_SNAPSHOT\_CREDIT |
| 1 | TABLE | PL\_SNAPSHOT\_CREDIT\_TEMP |
| 1 | TABLE | PL\_SNAPSHOT\_DEPOSIT |
| 1 | TABLE | PL\_SNAPSHOT\_DEPOSIT\_TEMP |
| 1 | TABLE | PL\_SNAPSHOT\_INCENTIVE |
| 1 | TABLE | PL\_SNAPSHOT\_INCENTIVE\_TEMP |
| 1 | TABLE | PL\_SNAPSHOT\_MEASUREMENT |
| 1 | TABLE | PL\_SNAPSHOT\_MEASUREMENT\_TEMP |
| 1 | TABLE | PL\_SQL\_LOG |
| 1 | VIEW | COMN\_V\_INVALID\_OBJECTS |
| 1 | VIEW | VIEW\_COMN\_VALID\_BA |
| 1 | VIEW | VIEW\_COMN\_VALID\_CANCELLATION\_TYPE |
| 1 | VIEW | VIEW\_COMN\_VALID\_GEVO |
| 1 | VIEW | VIEW\_COMN\_VALID\_KG |
| 1 | VIEW | VIEW\_COMN\_VALID\_LVB\_ID |
| 1 | VIEW | VIEW\_COMN\_VALID\_PRODUCTTYPE |
| 1 | VIEW | VIEW\_COMN\_VALID\_TKZ |
| 1 | VIEW | VIEW\_COMN\_VALID\_VERTRAGSARTID |
| 1 | VIEW | VIEW\_COMN\_VALID\_VZKZ |
| 2 | FUNCTION | COMN\_FNC\_GET\_EVENT\_TYPE |
| 2 | FUNCTION | COMN\_FNC\_GET\_FILE\_TIMESTAMP |
| 2 | LIBRARY | COMN\_LIB\_CHECKS\_1\_PARTICIPANT\_VALIDATION |
| 2 | LIBRARY | COMN\_LIB\_PARTICIPANT\_HIERARCHY |
| 2 | PROCEDURE | COMN\_PRC\_DEBUG |
| 2 | PROCEDURE | COMN\_PRC\_DEBUG\_ERROR |
| 2 | SEQUENCE | COMN\_SEQ\_BZO\_KEY |
| 2 | SEQUENCE | COMN\_SEQ\_TRACK\_KEY |
| 2 | SEQUENCE | COMN\_SEQ\_VBO\_KEY |
| 2 | VIEW | COMN\_V\_EVENT\_FILE |
| 2 | VIEW | COMN\_V\_WF |
| 2 | VIEW | PL\_V\_BATCH |
| 2 | VIEW | PL\_V\_BATCH\_DETAIL |
| 2 | VIEW | PL\_V\_BATCH\_LEDGER |
| 2 | VIEW | PL\_V\_BATCH\_SUMMARY |
| 3 | LIBRARY | COMN\_LIB\_CHECKS\_1\_HIERARCHY\_VALIDATION |
| 3 | LIBRARY | COMN\_LIB\_CHECKS\_2\_PARTICIPANT\_VALIDATION |
| 3 | LIBRARY | COMN\_LIB\_PIPELINE |
| 3 | LIBRARY | COMN\_LIB\_STAGEHOOK |
| 3 | LIBRARY | COMN\_LIB\_VALIDATION\_UTILS |
| 4 | FUNCTION | COMN\_FNC\_ISBOOLEAN |
| 4 | FUNCTION | COMN\_FNC\_ISDATE |
| 4 | FUNCTION | COMN\_FNC\_ISNUMBER |
| 4 | FUNCTION | COMN\_FNC\_ISTIMESTAMP |
| 4 | FUNCTION | COMN\_FNC\_NOTNULL |
| 4 | FUNCTION | COMN\_FNC\_TOBOOLEAN |
| 4 | FUNCTION | COMN\_FNC\_TODATE |
| 4 | FUNCTION | COMN\_FNC\_TONUMBER |
| 4 | FUNCTION | COMN\_FNC\_TOTIMESTAMP |
| 4 | LIBRARY | COMN\_LIB\_BZO |
| 4 | LIBRARY | COMN\_LIB\_EVENT\_VALIDATION |
| 4 | LIBRARY | COMN\_LIB\_NVG\_EVENT\_VALIDATION |
| 4 | LIBRARY | COMN\_LIB\_PARTICIPANT\_VALIDATION |
| 4 | LIBRARY | COMN\_LIB\_UTILS |
| 4 | LIBRARY | COMN\_LIB\_VBO |
| 4 | PROCEDURE | COMN\_PRC\_STAGEHOOK |
| 5 | FUNCTION | COMN\_FNC\_ADD\_DAYS |
| 5 | FUNCTION | COMN\_FNC\_DAYS\_BETWEEN |
| 5 | LIBRARY | COMN\_LIB\_EVENT\_TRANSACTION |
| 5 | LIBRARY | COMN\_LIB\_WORKFLOW |
| 5 | PROCEDURE | COMN\_PRC\_BZO |
| 5 | PROCEDURE | COMN\_PRC\_VBO |
| 6 | LIBRARY | COMN\_LIB\_DATABASE |
| 6 | LIBRARY | COMN\_LIB\_EVENT\_TRACK |
| 6 | LIBRARY | COMN\_LIB\_LIABILITY |
| 6 | LIBRARY | COMN\_LIB\_RAT\_AP |
| 7 | LIBRARY | COMN\_LIB\_EVENT |
| 7 | LIBRARY | PL\_LIB |
| 8 | FUNCTION | PL\_FNC\_GET\_RESULT\_KEY |
| 8 | FUNCTION | PL\_FNC\_GET\_RESULT\_KEY\_CREDIT |
| 8 | FUNCTION | PL\_FNC\_GET\_RESULT\_KEY\_DEPOSIT |
| 8 | LIBRARY | COMN\_LIB\_SCHEDULE |
| 8 | PROCEDURE | COMN\_PRC\_EVENT |

### Config Data

Move config data from 0955 to 0956

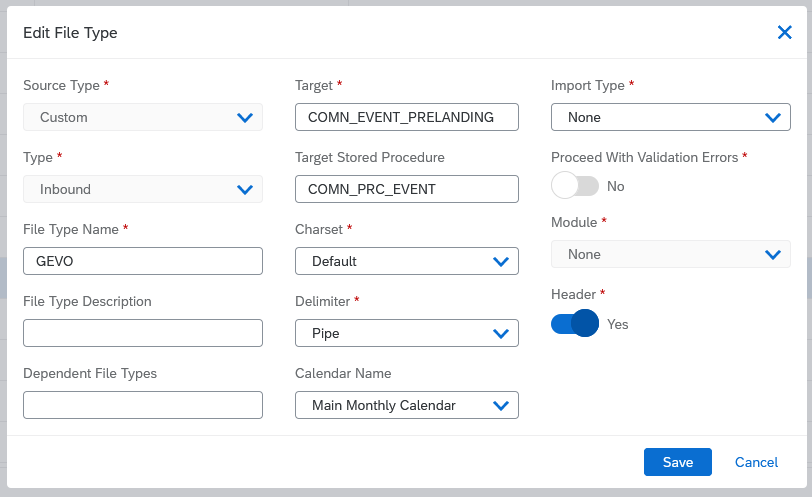
* Right click 0955 database 🡪 Export Catalog Objects
  + Export Location: Local Computer
  + Local archive: 0955\_Config\_YYYYMMDD
  + Click Add Catalog Objects and then add each of the following tables
    - COMN\_Code\_Value
    - COMN\_File\_Type
    - COMN\_File\_Validation
    - COMN\_Stagehook\_Ref
    - COMN\_Validation\_Code
    - COMN\_WF\_Error\_Handling\_Group\_Config
  + Click Export and save the resulting file
* In 0956, drop each of the tables that were exported
* Right-click 0956 database 🡪 Import Catalog Objects
  + Import objects from: Local Computer
  + Local archive: filename from previous step
  + Click Import
* Refresh the dynamic SQL in 0956:

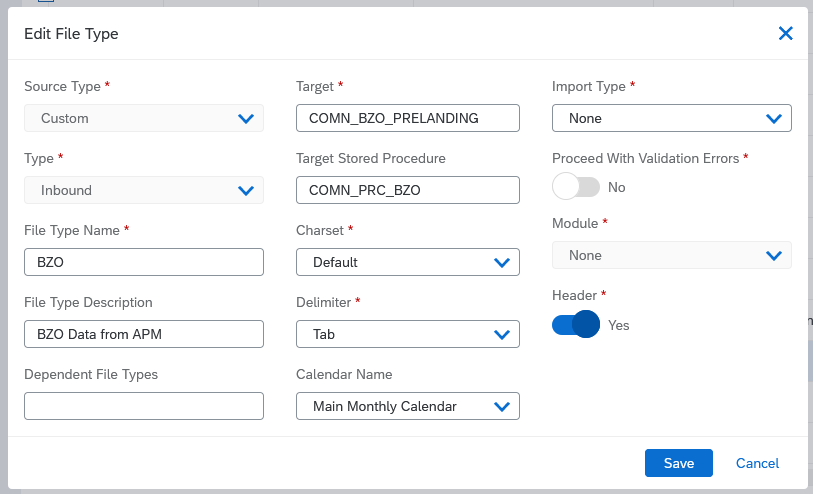
|  |
| --- |
| call ext.comn\_lib\_validation\_utils:data\_type\_sql('GEVO'); |

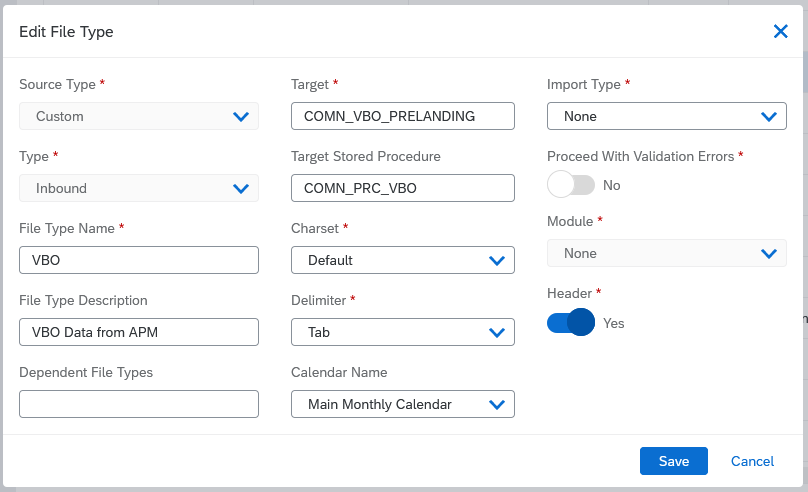
# CDL Config - DONE

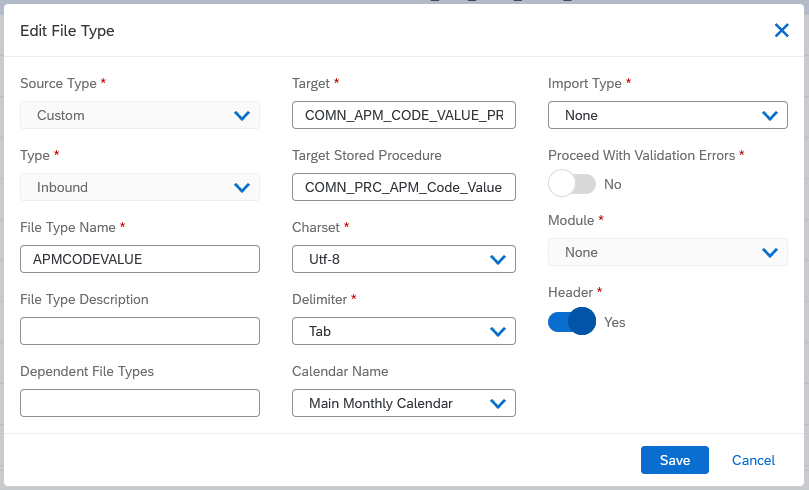
Global Settings 🡪 Autorun = Yes

File Types







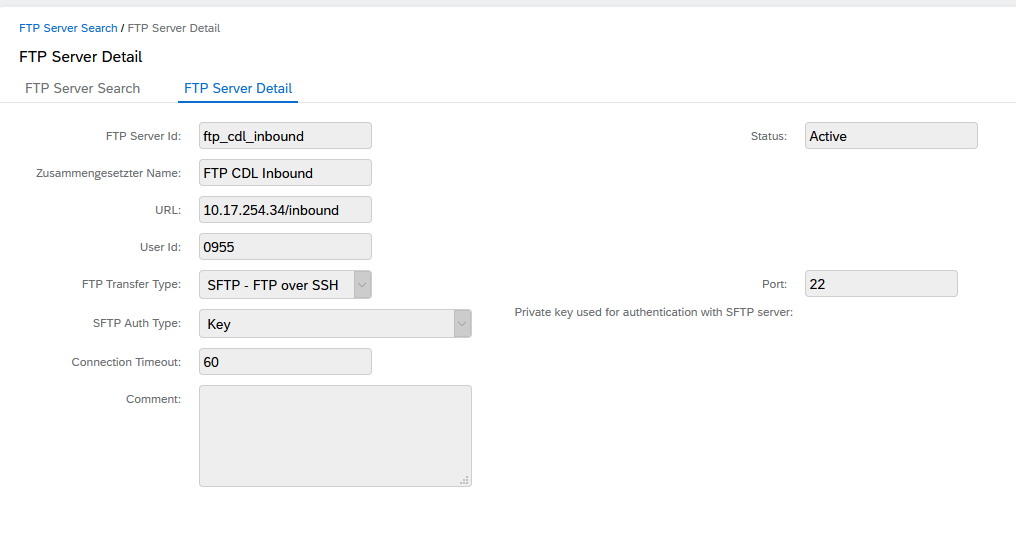


# APM

## FTP

Administration 🡪 Processing Configuration 🡪 FTP Server Search

Update ftp settings for 0956



## QBQueries

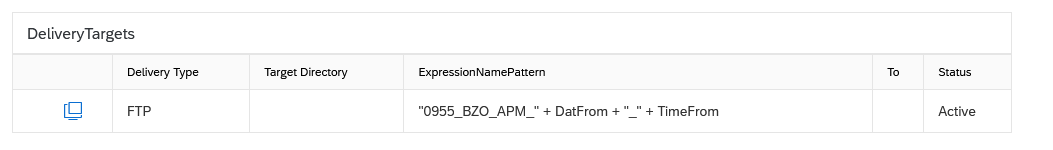
Integration 🡪 Configuration 🡪 QBQuery Search

* qbq\_bzo\_to\_ext
* qbq\_vbo\_to\_ext
* qbq\_apmcodevalue\_to\_ext

## Extracts

Integration 🡪 Configuration 🡪 Extracts Search

Extracts – change the filenames and ensure they are using the ftp “FTP CDL Inbound”



ext\_bzo\_to\_ext

"0956\_BZO\_APM\_" + DatFrom + "\_" + TimeFrom

ext\_vbo\_to\_ext

"0956\_VBO\_APM\_" + DatFrom + "\_" + TimeFrom

ext\_ apmcodevalue \_to\_ext

"0956\_APMCODEVALUE\_APM\_" + DatFrom + "\_" + TimeFrom

## Scheduled Processes

Integration 🡪 Processing 🡪 Scheduled Processes

schd\_bzo\_to\_ext – 5 mins

schd\_vbo\_to\_ext – 5 mins

schd\_apmcodevalue\_to\_ext – at midnight

# WebIDE

## Support Ticket: Job Scheduler

54348 / 2021

|  |  |
| --- | --- |
| Subject | Please create jobScheduler service for 0956 HANA |
| Description | Please create jobScheduler service for 0956 HANA. Jon Cadby is primary contact for this ticket. |

## Project

Create MTA project called COMN\_0956

Right-click COMN\_0956 🡪 Project 🡪 Project Settings 🡪 Space 🡪 Install Builder

## Node.js

Create Node.js module called COMN\_nodejs with “Enable XSJS support”

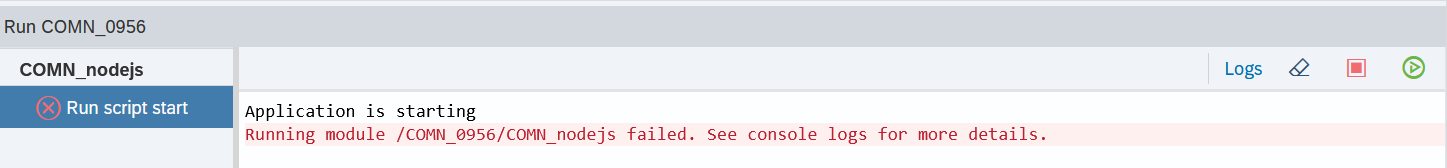
Edit the package.json file to change the node version:

|  |
| --- |
| {  "dependencies": {  "@sap/xsenv": "^2.0.0",  "@sap/xsjs": "^5.2.0"  },  "description": "my description",  "devDependencies": {  "@sap/xsjs-test": "^3.0.2"  },  "files": [],  "main": "server.js",  "name": "COMN\_nodejs",  "scripts": {  "start": "node server.js",  "test": "node testrun.js"  },  "engines": {  "node": "8.x"  },  "version": "1.0.0"  } |

Build COMN\_node.js – the builder needs to have completed installation from earlier step.

Right-click COMN\_nodejs 🡪 Run 🡪 Run as Node.js Application

This will fail:



Click on Logs link and a new browser tab will open to display a URL:

|  |
| --- |
| vgz4sfxtwm9os1uy-0956-comn-nodejs.1b09.calliduscloud.com |

This URL needs to be used in a support ticket.

## Support Ticket

We must contact support to have this URL activated and also to have the scheduler

40600 / 2021

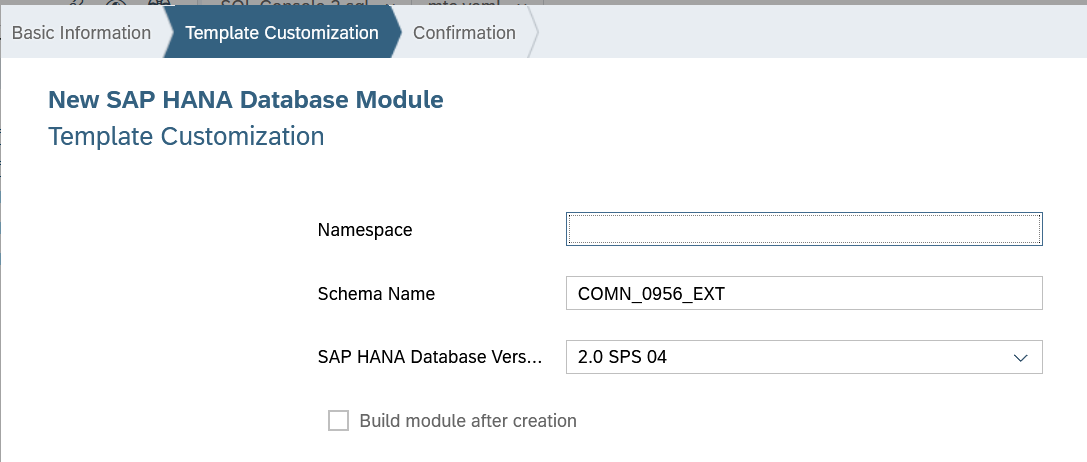
|  |  |
| --- | --- |
| Subject | 0956 Enable Node JS URL |
| Description | Please activate Node JS URL below for 0956:  vgz4sfxtwm9os1uy-0956-comn-nodejs.1b09.calliduscloud.com  Jon Cadby is primary contact for this ticket. |

## Database Module

Create SAP HANA Database Module COMN\_DB

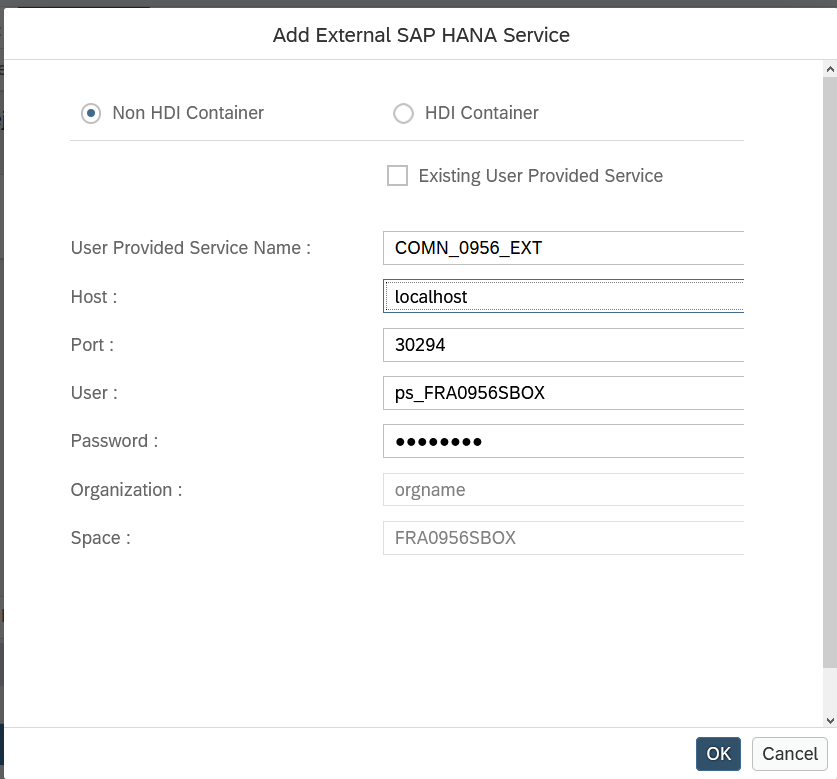
Clear Namespace

Set Schema Name to COMN\_0956\_EXT



### EXT Connection

Right-click COMN\_DB 🡪 New 🡪 SAP HANA Service Connection



Double click mta.yaml 🡪 Modules 🡪 COMN\_DB 🡪 cross-container-service-1 (resource)

Change ServiceName\_1 to ServiceName\_COMN\_0956\_EXT

Save

### Grants

Right-click COMN\_DB 🡪 New 🡪 Folder

Name it cfg

Create EXT.hdbgrants file in cfg:

|  |
| --- |
| {  "ServiceName\_COMN\_0956\_EXT": {  "object\_owner": {  "schema\_privileges" : [  {  "schema": "EXT",  "privileges" : [ "INSERT", "UPDATE", "SELECT", "DELETE", "EXECUTE" ],  "privileges\_with\_grant\_option" : [ "INSERT", "UPDATE", "SELECT", "DELETE", "EXECUTE" ]  }  ]  },  "application\_user": {  "schema\_privileges" : [  {  "schema": "EXT",  "privileges" : [ "INSERT", "UPDATE", "SELECT", "DELETE", "EXECUTE" ],  "privileges\_with\_grant\_option" : [ "INSERT", "UPDATE", "SELECT", "DELETE", "EXECUTE" ]  }  ]  }  }  } |

### Build

Right-click COMN\_DB 🡪 Build 🡪 Build

### Synonyms

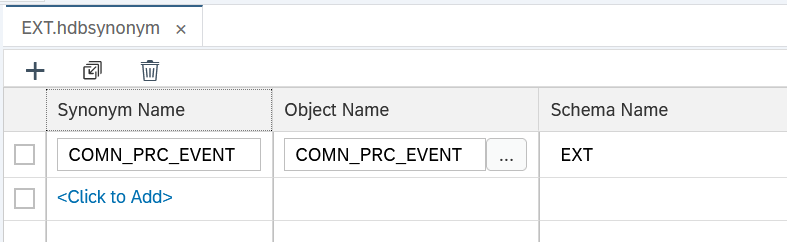
**This section is redundant – we can reference objects in the EXT schema via the grants.**

Right-click COMN\_DB/src 🡪 New 🡪 Database Artifact

File Name: EXT

File Type: . dbsynonym

Create synonym for COMN\_PRC\_EVENT



Build db module again

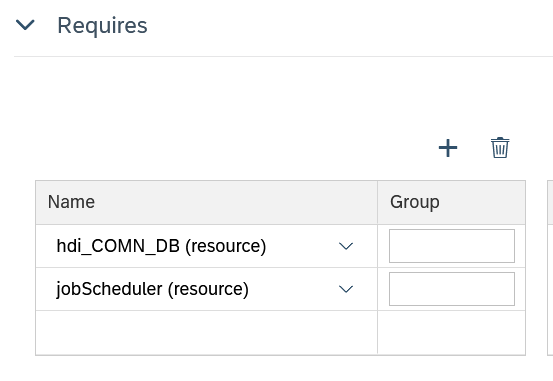
## Job Scheduler

Double click mta.yaml 🡪 Resources

Add: jobScheduler with type com.sap.xs.job-scheduler

Go to Modules tab and select COMN\_nodejs

Add hdi\_COMN\_DB and jobScheduler resources to Requires section



Now edit the server.js file in the node js root to add the job scheduler objects:

|  |
| --- |
| /\*eslint no-console: 0, no-unused-vars: 0\*/  "use strict";  var xsjs = require("@sap/xsjs");  var xsenv = require("@sap/xsenv");  var port = process.env.PORT || 3000;  var options = {  anonymous : true, // remove to authenticate calls  auditLog : { logToConsole: true }, // change to auditlog service for productive scenarios  redirectUrl : "/index.xsjs"  };  // configure HANA  try {  options = Object.assign(options, xsenv.getServices({ hana: {tag: "hana"} }));  } catch (err) {  console.log("[WARN]", err.message);  }  // configure UAA  try {  options = Object.assign(options, xsenv.getServices({ uaa: {tag: "xsuaa"} }));  } catch (err) {  console.log("[WARN]", err.message);  }  // configure job scheduler  try {  options = Object.assign(options, xsenv.getServices({ jobs: {tag: "jobscheduler"} }));  } catch (err) {  console.log("[WARN]", err.message);  }  // start server  xsjs(options).listen(port);  console.log("Server listening on port %d", port); |

Build the node js module again

Create call\_event\_schedule.xsjs in COMN\_nodejs/lib

|  |
| --- |
| /\*eslint no-console: 0, no-unused-vars: 0, quotes: 0 \*/  function callProc() {  var conn;  conn = $.hdb.getConnection();  var ts = new Date().toISOString();  conn.executeUpdate('call EXT.COMN\_Lib\_Schedule:event()');    conn.commit();  conn.close();  console.log("call\_event\_schedule.xsjs:callProc: ", ts);  } |

Create call\_event\_schedule.xsjob in COMN\_nodejs/lib

|  |
| --- |
| {  "description": "Call the event schedule",  "action": "call\_event\_schedule.xsjs::callProc",  "schedules": [{  "description": "Perform call\_event\_schedule.xsjs::callProc every minutes",  "xscron": "\* \* \* \* \* \* 1",  "parameter": {}  }]  } |

Do the same for call\_auto\_revalidate.xsjs/xsjob.

Build the node.js and then start it again

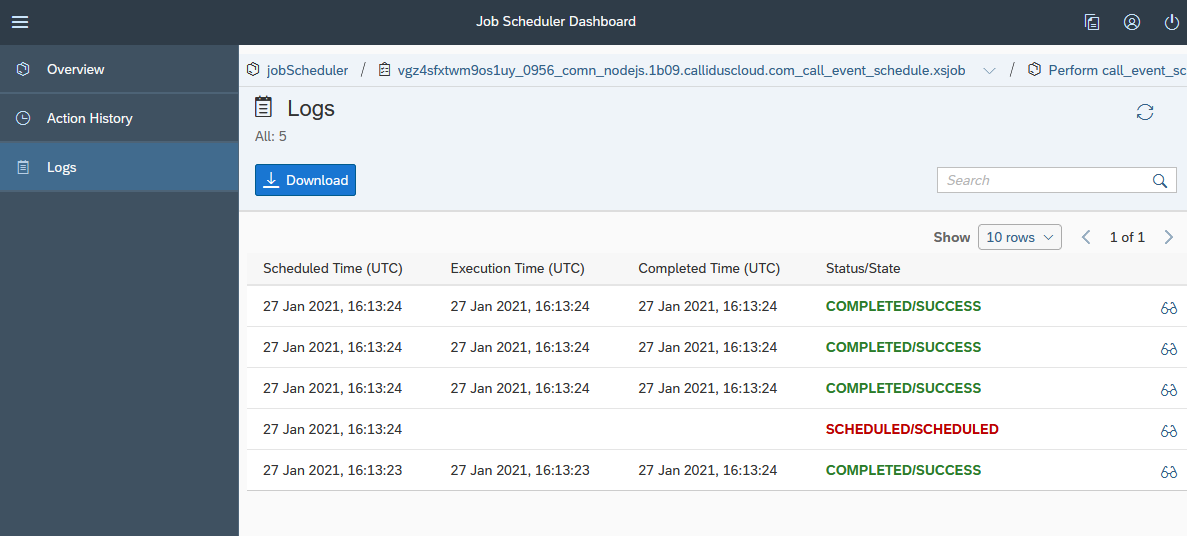
Login to Job Scheduler Dashboard:

<https://jobscheduler-dashboard.1b09.calliduscloud.com/>

Search Instances 🡪 Open Dashboard

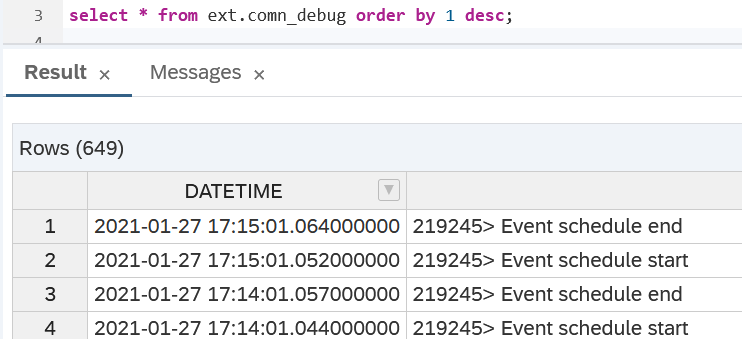
Click on entry with Name ending in “call\_event\_schedule.xsjob”

Schedules 🡪 Perform call\_event\_schedule.xsjs::callProc every minutes 🡪 Logs



We can see the process has run successfully.

Debug table confirms that process is being called:



# Configuration

## Stage Hook Descriptor

Ticket: 41122 / 2021

|  |  |
| --- | --- |
| Subject | Deploy StageHookDescriptor to 0956 |
| Description | Please deploy attached StageHookDescriptor to 0956 environment. Jon Cadby is primary contact for this ticket. |

# Commissions

Import XML:

* INTS Event Role.xml
* INTS KG.xml

# Workflow

## Import Workflows

Proxy to PortalAdmin

Access Workflow

Setup

Administration --> Migration Manager

Import

Component: Workflow

Set Filename

Check radio button “Create new object or overwrite existing objects (based on system id)”

Click Import button

## Configuration

Import configuration

Proxy to PortalAdmin

Access Workflow

Setup

Administration --> Migration Manager

Import

Component: Custom Params

Set Filename

Check radio button “Create new object or overwrite existing objects (based on system id)”

Click Import button

Development 🡪 Custom Parameters

Update the settings for the database

datasource.COMN.username

datasource.COMN.password

# Smoke Test

## Reset

Remove batch

|  |
| --- |
| call ext.comn\_lib\_pipeline:r\_f\_v\_batch\_all('0956\_GEVO\_SHUK\_20201208\_080000\_SmokeTest.txt'); |

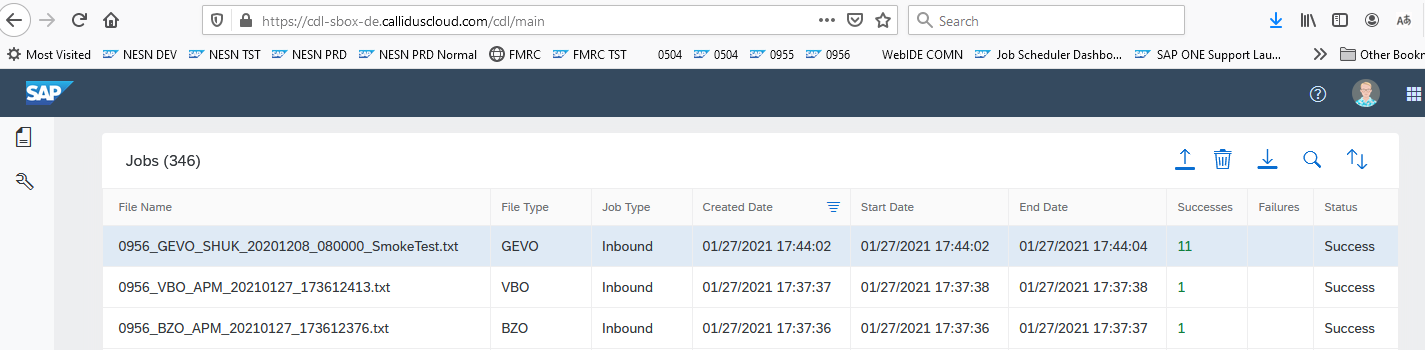
Reset all tables

|  |
| --- |
| call ext.comn\_lib\_utils:reset\_tables(i\_bzo => true, i\_vbo => true);  call ext.pl\_lib:test\_reset(); |

## Steps

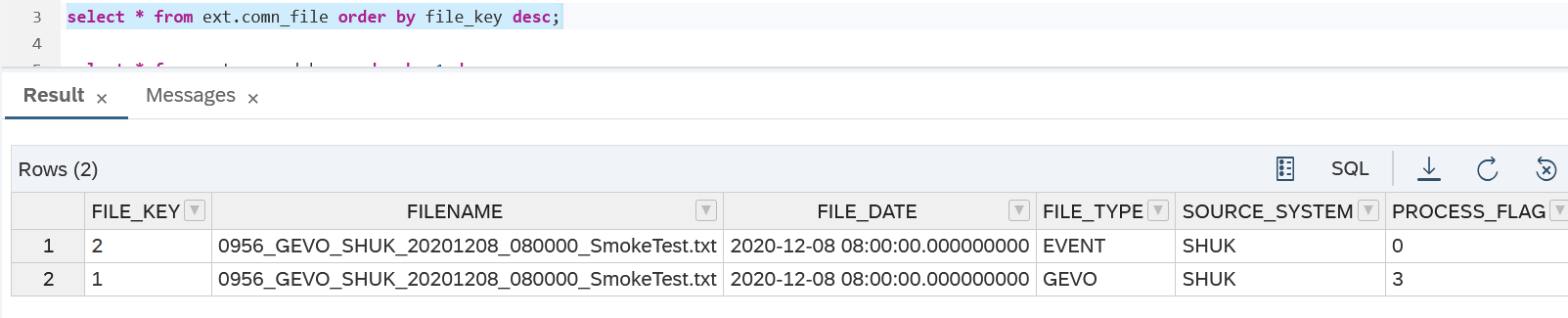
Put file in drop box

File processed by CDL:



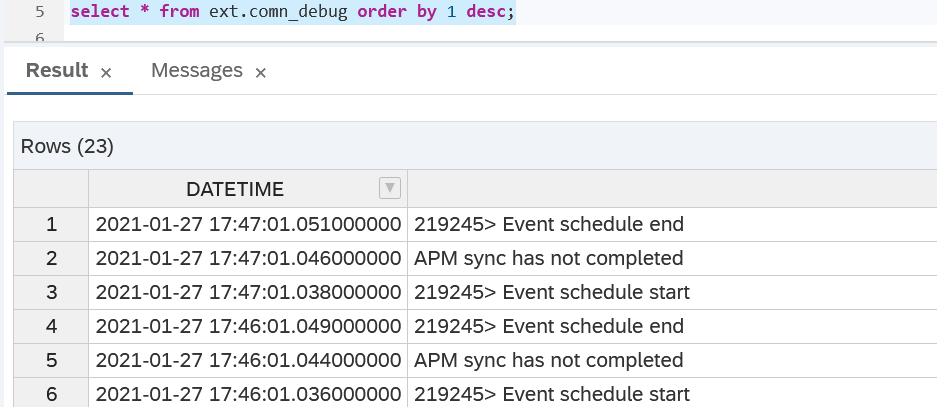
File entries:

|  |
| --- |
| select \* from ext.comn\_file order by file\_key desc; |



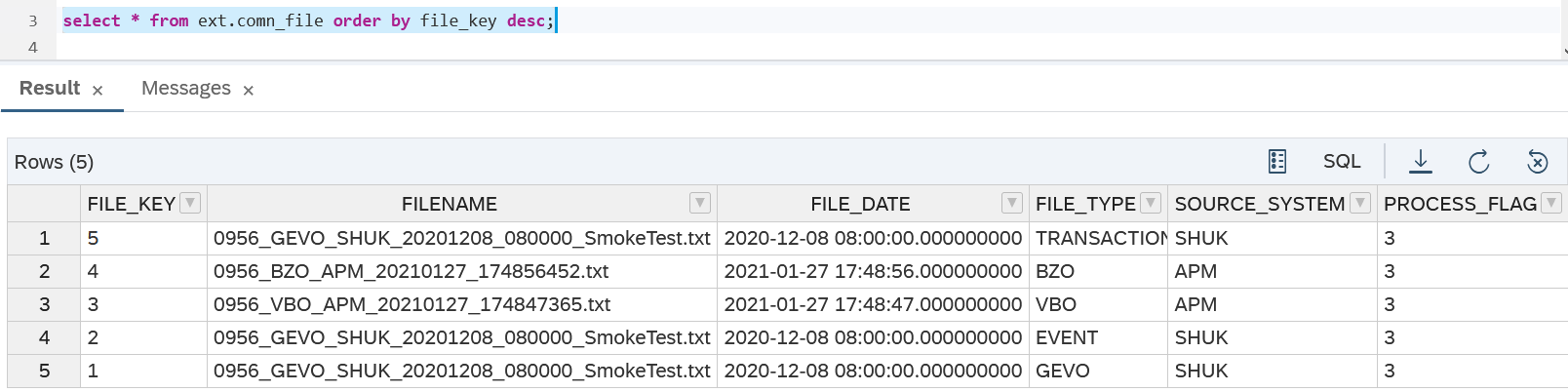
The process of EVENT waits for APM sync

|  |
| --- |
| select \* from ext.comn\_debug order by 1 desc; |



Manually generate the BZO and VBO file extract in APM

File entries:



Import successful:

