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# Winning with EPM Cloud

EPM Cloud Integration

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March 7, 2018

# Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

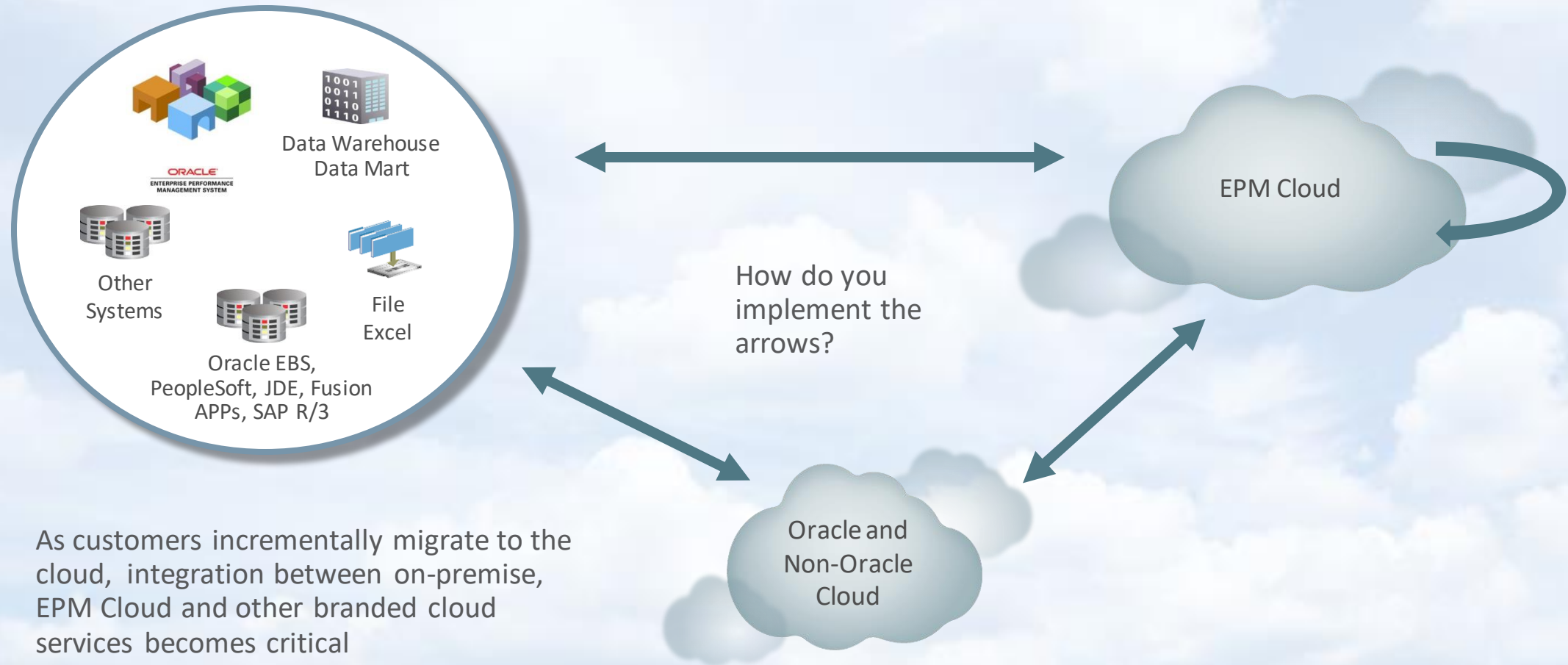
# Agenda

- 1 Integration Overview
- 2 Data Management
- 3 Use Cases
- 4 Roadmap, EPMAutomate and Scripting
- 5 Demos
- 6 Q&A



# Integration Overview

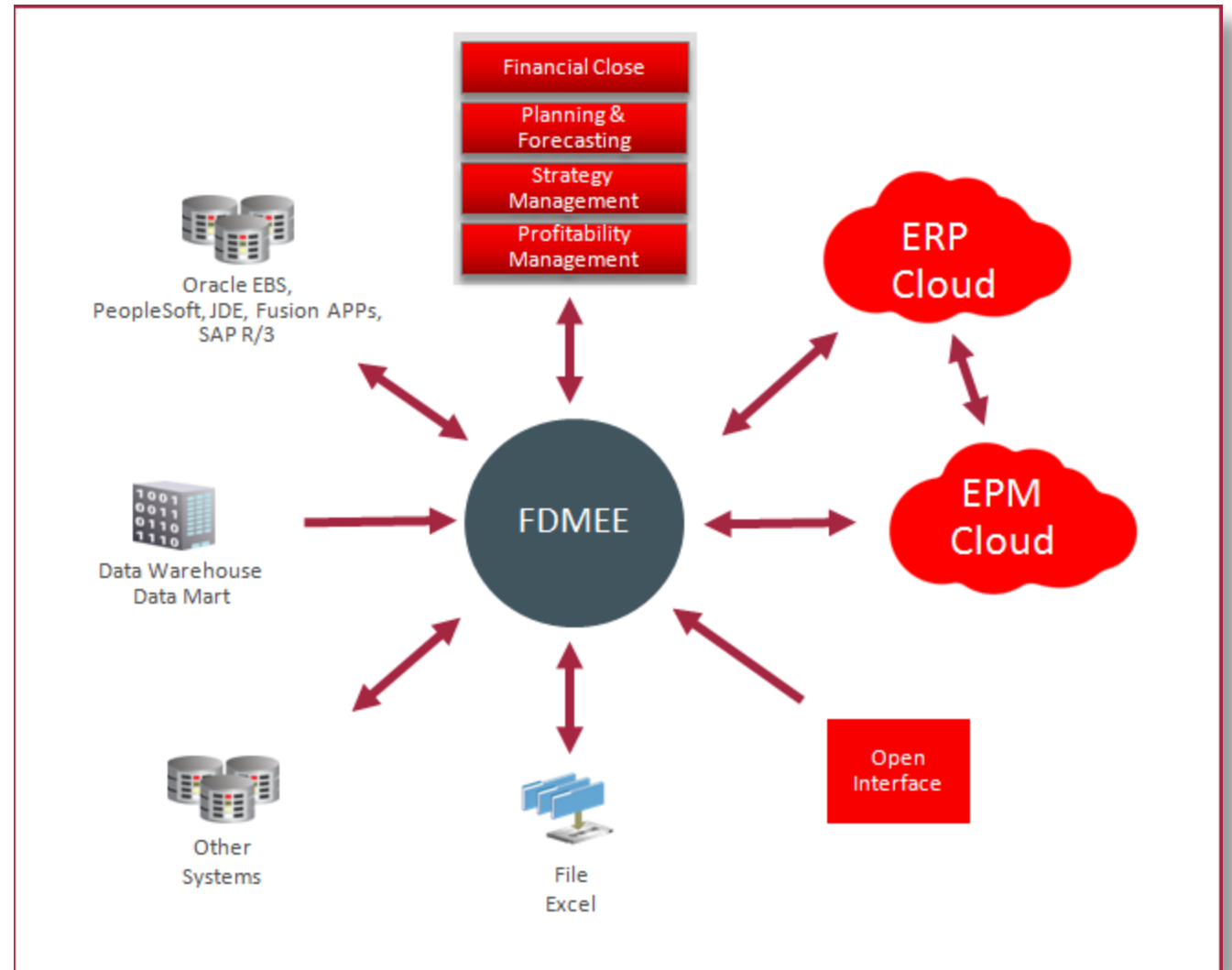
# Cloud and Hybrid Integration Overview



As customers incrementally migrate to the cloud, integration between on-premise, EPM Cloud and other branded cloud services becomes critical

# Hybrid Implementation Support

- Financial Data Quality Management, Enterprise Edition (FDMEEE)
  - Recommended approach for Hybrid Integration
- Easily integrate cloud and on-premise applications
- Virtually any source or target
- Lift and shift your on-premise Planning apps to the cloud



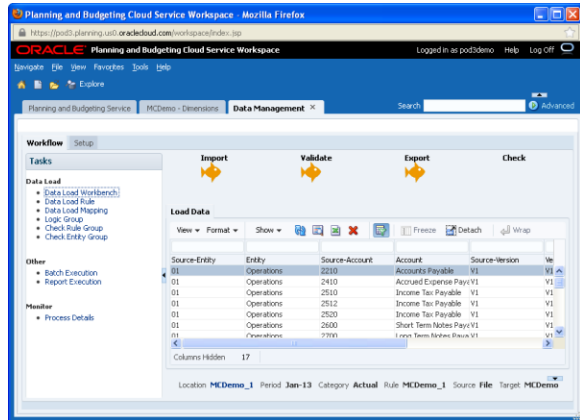
# Data Management

FDMEE in the Cloud



# Integration using Data Management

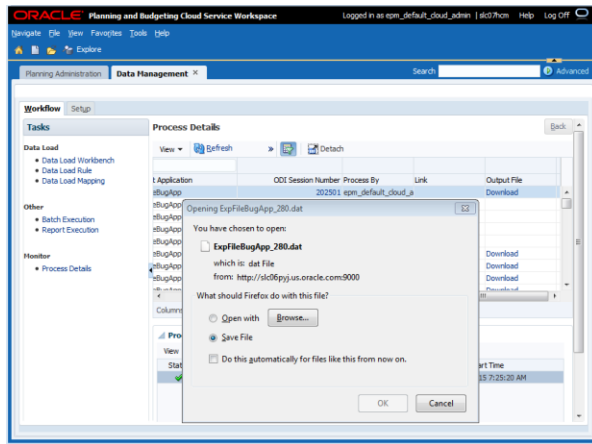
## Transform and load from any source



- Flat file or directly from Oracle GL Cloud
  - Included in all cloud services except EPRCS
- Any format
  - Delimited, fixed width, multi-column, text, etc.
- Map data to transform from source
- Robust features provided to manage the data loading workflow process
- Drill-through to source possible if HTTP:// landing page available
- Log files available from Process Details to investigate issues or “Provide Feedback”

# Integration using Data Management

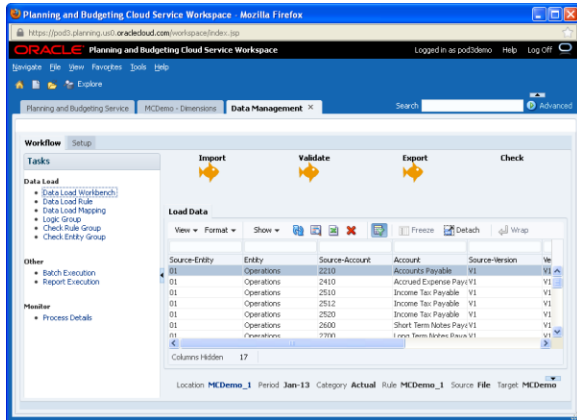
## Filter and Extract Data



- Utilize data outside of EPM Cloud applications
- Easy setup in Data Management
  - Use custom application as target
  - Filter and save as delimited file
  - Extracted to Data Management outbox
- Download by hand or with EPMAutomate
- Customize to provide additional dimensionality beyond EPM

# Integration using Data Management

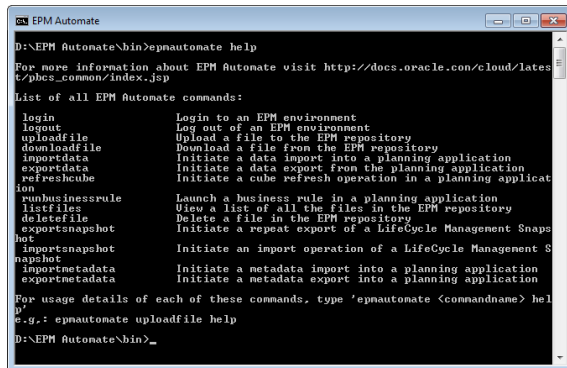
## Preferred Use Case



- Data not in target specific format
- Manage process with workflow, audit and controls
- Drill-through to source
- Prototype with native loading, then transition to Data Management as complexity increases

# Automating the Data Integration Process

## Using EPMAutomate



```
D:\EPM Automate\bin>epnautomate help
For more information about EPM Automate visit http://docs.oracle.com/cloud/latest/pbes_common/index.jsp
List of all EPM Automate commands:
login          Login to an EPM environment
logout         Log out of an EPM environment
uploadfile    Upload a file to the EPM repository
downloadfile  Download a file from the EPM repository
importdata    Initiate a data import into a planning application
exportdata    Initiate a data export from the planning application
refreshcube   Initiate a cube refresh operation in a planning application
runbusinessrule Launch a business rule in a planning application
listfiles     View a list of all the files in the EPM repository
deletefile    Delete a file in the EPM repository
exportsnapshot Initiate a repeat export of a LifeCycle Management Snapshot
importsnapshot Initiate an import operation of a LifeCycle Management Snapshot
importmetadata Initiate a metadata import into a planning application
exportmetadata Initiate a metadata export into a planning application
For usage details of each of these commands, type 'epnautomate <commandname> help'
e.g.: epnautomate uploadfile help
D:\EPM Automate\bin>
```

- Command line access for EPM Cloud applications
- Available for Windows and Linux
  - Easily schedule .bat or .sh files
- Integrate with other scripts for end-to-end processes
- See documentation for full list of commands

# Use Cases

A man and a woman are sitting at a desk in a meeting. The woman is holding a small red and white striped cone. The man is looking at the cone. There is a laptop on the desk. The background is a blurred office setting. The image has a red overlay on the left side.

# Native Cloud Data Loading

## Provided by each EPM Cloud Service

The image shows two overlapping screenshots of the Oracle EPM Cloud Service user interface. The top screenshot is the 'Import Data' dialog, and the bottom screenshot is the 'Export Data' dialog.

**Import Data Dialog:**

- Location:  Local  Inbox
- Source Type:  Planning  Essbase
- File Type:  Comma delimited  Tab delimited  Other
- Source File:
- Include Metadata:
- Date Format:
- Last Import: No data to display

**Export Data Dialog:**

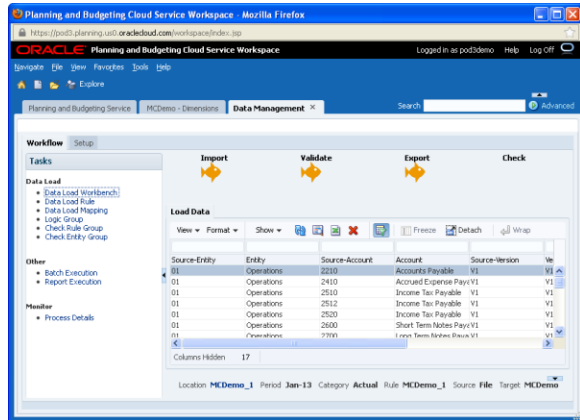
- Location:  Local  Outbox
- Cube: Plan1
- File Type:  Comma delimited  Tab delimited  Other
- Smart Lists:  Export Labels  Export Names
- Dynamic Members:  Include  Exclude
- Slice Definition:

Row	Column	Point of View
Select	Select	Select
- Last Export: No data to display

- Specific format for each EPM cloud service
- Import/Export Data and Metadata
- Execute manually, schedule with UI or EPMAutomate/REST
- Drill-through not supported

# On-Premise to EPM Cloud

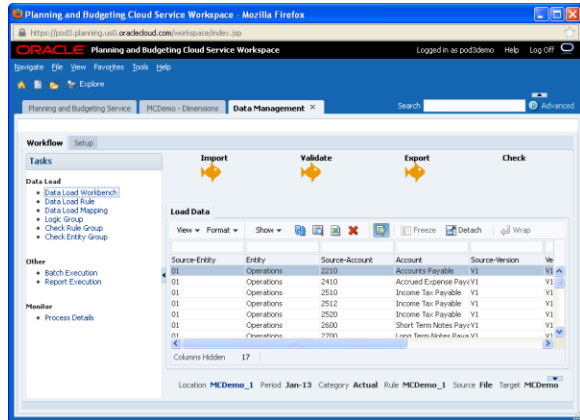
## Using On-Premise FDMEE



- Register EPM Cloud application in FDMEE
  - Looks and acts like on-prem application
  - Drill-through from cloud natively supported
- 2-Way integration for PBCS, EPBCS and FCCS
  - Extract from TRCS, ARCS and journals from FCCS on roadmap
- Use scripting to extend to other services as needed
- Important tool to facilitate incremental move to cloud

# Integration using Data Management

## Transform and load from any source



- Flat file or Oracle GL Cloud, HCM Cloud or Netsuite
  - Included in all cloud services except EPRCS
- Any format
  - Delimited, fixed width, multi-column, text, etc.
- Map data to transform from source
- Robust features provided to manage the data loading workflow process
- Drill-through to source possible if HTTP:// landing page available
- Use log files available from Process Details to investigate issues



# Cloud to Cloud

## Using Data Management

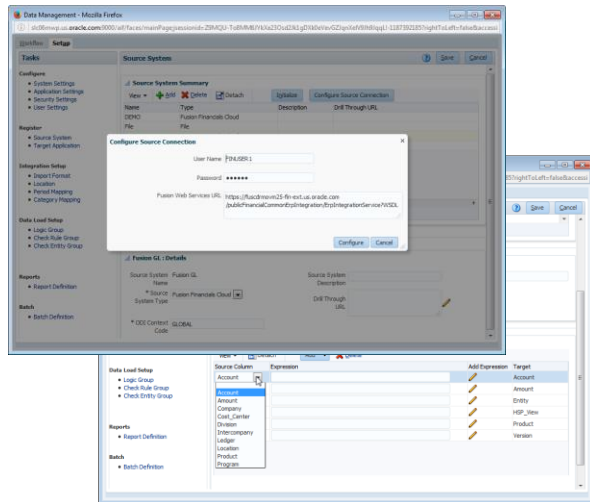
The image shows two screenshots of the Oracle Planning and Budgeting Cloud Vision interface, specifically the 'Balance Sheet - Forecast' table. The top screenshot shows the table with data for FY16, FY18, FY17, and FY17. The bottom screenshot shows the same table with data for FY16, FY18, FY17, and FY17. A large blue arrow points from the top screenshot to the bottom screenshot, indicating data synchronization.

	FY16	FY18	FY17	FY17
	Q3	Q4	Q1	Q2
Current Assets	15,000,000	16,000,000	17,000,000	18,000,000
Other Assets	10,000,000	11,000,000	12,000,000	13,000,000
Total Assets	25,000,000	27,000,000	29,000,000	31,000,000
Current Liabilities	10,000,000	11,000,000	12,000,000	13,000,000
Long Term Liabilities	5,000,000	6,000,000	7,000,000	8,000,000
Total Liabilities and Owners Equity	15,000,000	17,000,000	19,000,000	21,000,000

- Synch data between EPM Cloud service instances
- Supported sources – PBCS, EPBCS, FCCS, PCMCS, TRCS
  - Journals from FCCS and balances from ARCS not supported
- Setup consistent with loading from a file
  - Pick source, target, mapping, data load rule
- Drill available to Data Management
  - Direct page links for PBCS and EPBCS
  - Form or Dashboard with POV

# Oracle GL Cloud to EPM

## Pre-built Integration



- User/Password and WSDL for connection setup
- Includes GL Balances and Budgetary Control
  - Write back as budgets or to Budgetary Control
- Drill-through automatically configured
- Oracle GL Cloud also available in Hybrid mode with FDMEE

# Integration with Oracle GL Cloud

- Extract from Oracle GL Cloud and load to any EPM Cloud application
- Write-back to Oracle GL Cloud
  - Budgets and Budgetary Control
  - Actuals (future)
- Drill-through from EPM Cloud to Oracle GL Cloud
- Note: Metadata loading via native app feature only. On roadmap for Data Management

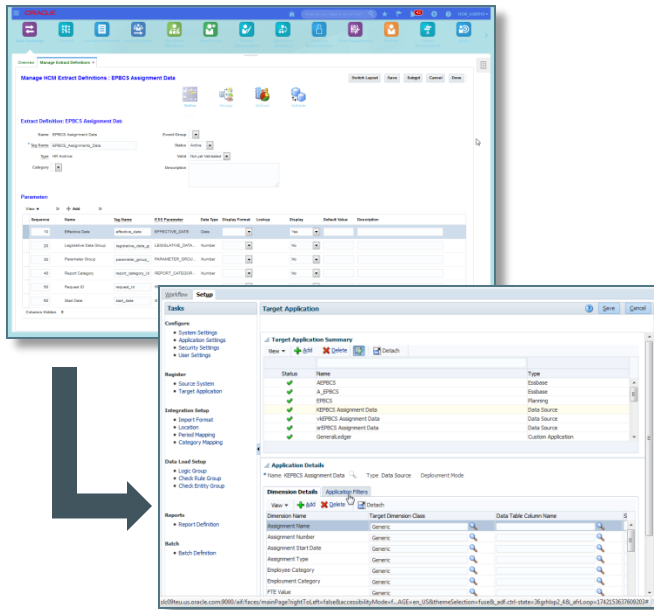
The screenshot displays the Oracle Data Management interface in Mozilla Firefox. The main window is titled "Data Management - Mozilla Firefox" and shows the "Setup" tab. The "Source System" section is active, displaying a "Source System Summary" table with columns for Name, Type, Description, and Drill Through URL. Below this, a "Configure Source Connection" dialog box is open, showing fields for User Name (FINUSER1), Password (masked), and Fusion Web Services URL (https://fuscdmvm25-fin-ext.us.oracle.com/publicFinancialCommonErpIntegration/ErpIntegrationService?WSDL). The "Configure" button is highlighted.

Below the main window, a "Data Load Setup" section is visible, showing a table with columns for Source Column, Expression, Add Expression, and Target. The "Source Column" dropdown is open, showing a list of source columns including Account, Amount, Company, Cost\_Center, Division, Intercompany, Ledger, Location, Product, and Program. The "Target" column lists the corresponding target columns: Account, Amount, Entity, HSP\_View, Product, and Version.

Source Column	Expression	Add Expression	Target
Account			Account
Account			Amount
Amount			Entity
Company			HSP_View
Cost_Center			Product
Division			Version
Intercompany			
Ledger			
Location			
Product			
Program			

# Oracle HCM Cloud to EPM

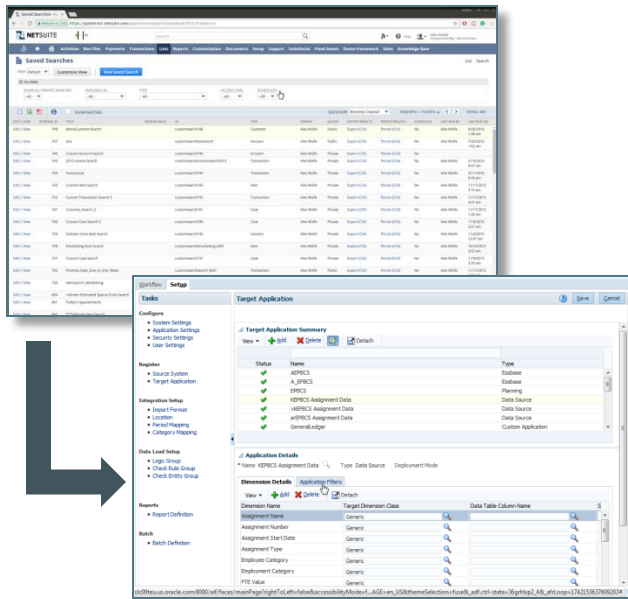
## Pre-built Integration



- Predefined content for EPBCS – Workforce Planning
  - Standard HCM Extract
    - Each person/resource in HCM
    - Customize as needed
  - Pre-built mapping in Data Management
  - Data only – user responsible for metadata
  - Supports WFP and SWFP
- Customize pre-built integration if needed
  - Framework for custom user defined HCM extracts
- Available now!

# Oracle Netsuite to EPM Cloud

## Pre-built Integration



- Netsuite “Saved Search” available as integration source
  - Any saved search - GL, AR, AP, etc.
  - Production and sandbox environments
- Available for any EPM Cloud application with Data Management
- Available now
  - Netsuite early adopter approval required

# Oracle Projects Cloud (PPM) to EPM Cloud

## Manual Process

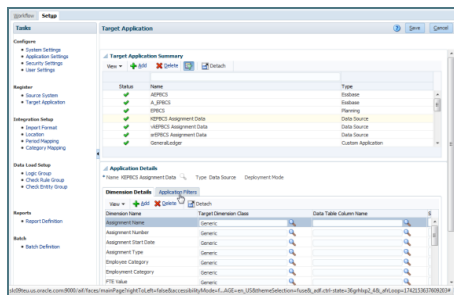
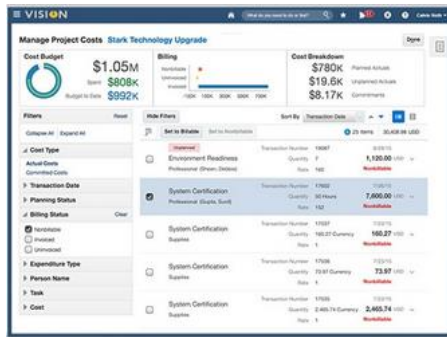
### Projects Cloud to EPM Cloud

- Export Project Details and Budgets
  - Use SOAP api or OTBI (Oracle Transactional Business Intelligence)
  - Load with Data Management or Native Planning

### EPM Cloud to Projects Cloud

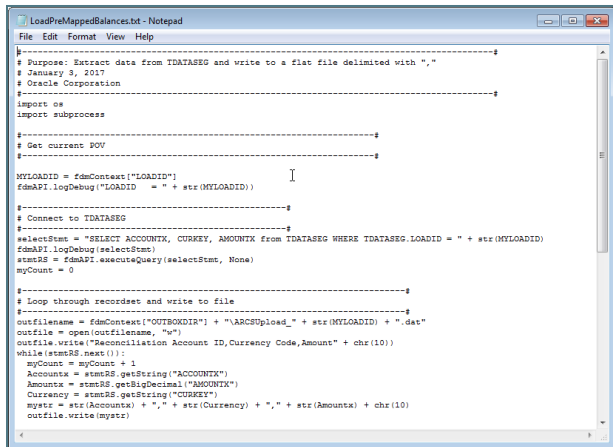
- Export using Data Management or Smart view
- Import to Projects with SOAP or FBDI
  - FBDI – File Based Data Import
    - Project and Budget spreadsheet
  - Construct SOAP payload as needed

Mapping between systems is most important step



# Hybrid for ARCS using FDMEE On-premise

## With Scripting and EPMAutomate



```
LoadPreMappedBalances.txt - Notepad
File Edit Format View Help
-----
# Purpose: Extract data from TDATASEG and write to a flat file delimited with ","
# January 3, 2017
# Oracle Corporation
-----
import os
import subprocess

#-----
# Get current POV
#-----
MYLOADID = fdmContext("LOADID")
fdmAPI.logDebug("LOADID = " + str(MYLOADID))

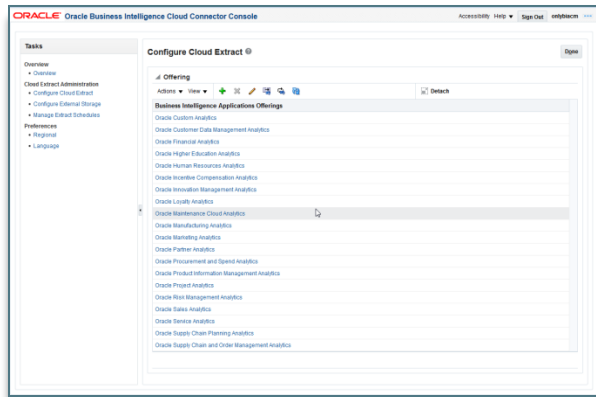
#-----
# Connect to IDATABASE
#-----
selectStmt = "SELECT ACCOUNTX, CURKEY, AMOUNTX from TDATASEG WHERE TDATASEG.LOADID = " + str(MYLOADID)
fdmAPI.logDebug(selectStmt)
stmtRS = fdmAPI.executeQuery(selectStmt, None)
myCount = 0

#-----
# Loop through recordset and write to file
#-----
outfileName = fdmContext("OUTBOOKDIR") + "ARCSUpload_" + str(MYLOADID) + ".dat"
outfile = open(outfileName, "w")
outfile.write("Reconciliation Account ID,Currency Code,Amount" + chr(10))
while (stmtRS.next()):
    myCount = myCount + 1
    AccountX = stmtRS.getString("ACCOUNTX")
    AmountX = stmtRS.getBigDecimal("AMOUNTX")
    Currency = stmtRS.getString("CURKEY")
    mystr = str(AccountX) + "," + str(Currency) + "," + str(AmountX) + chr(10)
    outfile.write(mystr)
```

- Process import file with FDMEE
- Generate export file with event script
- Post to ARCS with EPMAutomate or REST called from FDMEE
- White papers provided for standard balances and BAI file format processing.
- Inclusion in Data Management planned for 18.05

# BI Cloud Connect

## Export any Oracle ERP Cloud Data

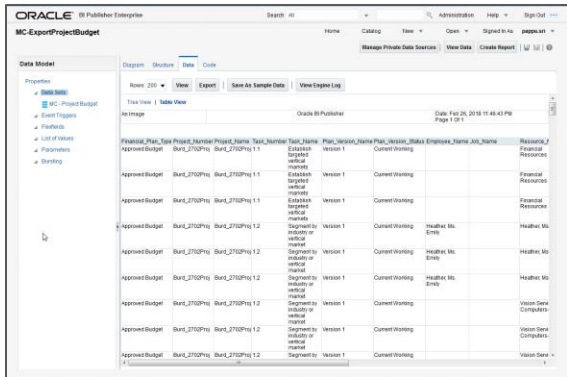


- Export desired data from cloud ERP
  - Utilizes BI extract view objects (VO)
- Exported data saved to UCM
- Download from UCM
- Load using Data Management or native loading



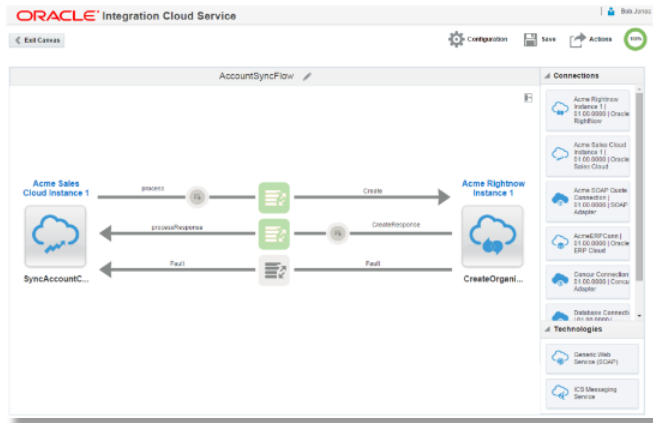
# BI Publisher

## Export any Oracle ERP Cloud Data



- Export desired data from cloud ERP
  - Use available content or custom query
- Download manually or via REST API
- Universal Content Management (UCM) not required
- Orchestrate using bat/sh file and EPMAutomate

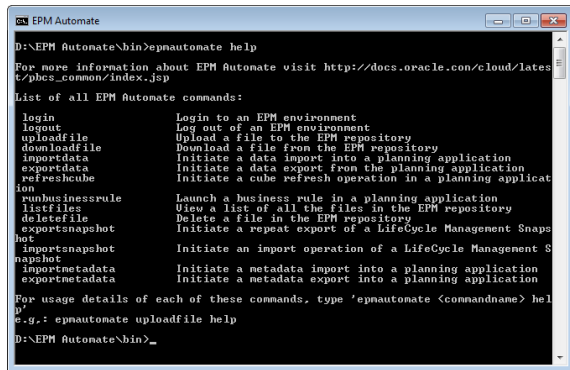
# Integration Cloud Service



- Two ways to process files
  - HTTP request with payload – 10 MB size limit
  - Via on-prem agent. Up to 10 GB
- Call REST API to upload file and import
  - Run through Data Management or Native Import
- ICS is just the “pipe” to upload data and kick off import

# Using EPMAutomate

## Standalone or called from on-premise FDMEE



```
D:\EPM Automate>epnautomate help
For more information about EPM Automate visit http://docs.oracle.com/cloud/latest/epbs_common/index.jsp
List of all EPM Automate commands:
login          Login to an EPM environment
logout         Log out of an EPM environment
uploadfile     Upload a file to the EPM repository
downloadfile   Download a file from the EPM repository
importdata     Initiate a data import into a planning application
exportdata     Initiate a data export from the planning application
refreshcube    Initiate a cube refresh operation in a planning application
runbusinessrule Launch a business rule in a planning application
listfiles      View a list of all the files in the EPM repository
deletefile     Delete a file in the EPM repository
exportsnapshot Initiate a repeat export of a LifeCycle Management Snapshot
importsnapshot Initiate an import operation of a LifeCycle Management Snapshot
importmetadata Initiate a metadata import into a planning application
exportmetadata Initiate a metadata export into a planning application
For usage details of each of these commands, type 'epnautomate <commandname> help'
e.g.: epnautomate uploadfile help
D:\EPM Automate\bin>
```

- Command line access for EPM Cloud applications
- Available for Windows and Linux
  - Easily schedule .bat or .sh files
- Integrate with other scripts for end-to-end processes
  - e.g. Use Jython to pull from on-prem or cloud source
    - White paper available
  - Host EPMAutomate on-prem or PAAS
- See documentation for full list of commands

# Cloud and Hybrid Integration Overview

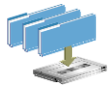
Oracle EBS,  
PeopleSoft, JDE, Fusion  
APPs, SAP R/3



Data Warehouse  
Data Mart



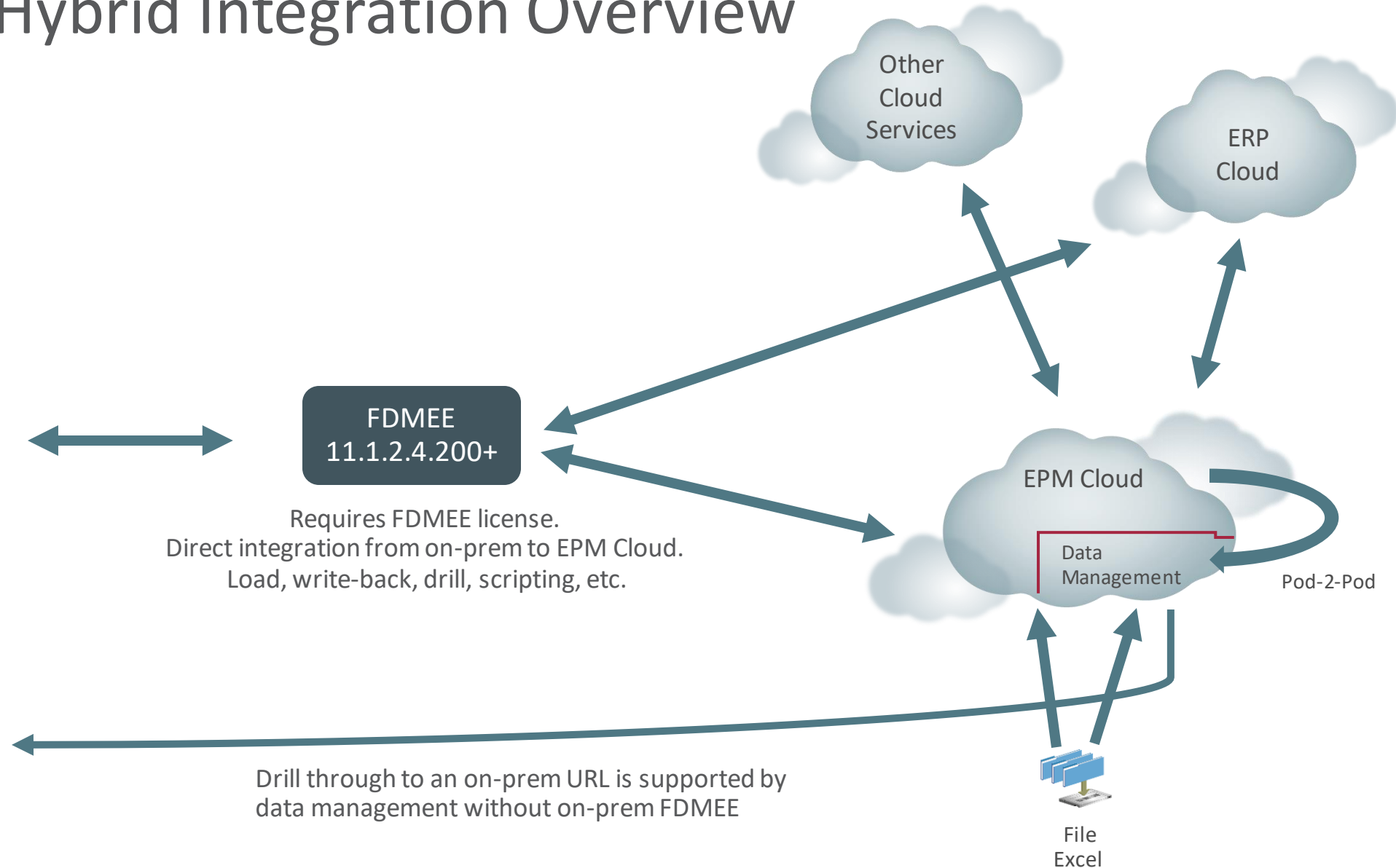
Other  
Systems



File  
Excel



ORACLE  
ENTERPRISE PERFORMANCE  
MANAGEMENT SYSTEM



# Roadmap

A man with a beard and mustache, wearing a dark suit, light blue shirt, and dark tie, is looking intently at a tablet computer. The background is a blurred cityscape at night with bokeh lights. The image is framed by a teal geometric overlay.

# Data Management and EPM Cloud Services

Release Highlights – October 2017

	Data Management Included?	On-Prem to Cloud Hybrid Support?	Export from cloud or source for pod to pod?	Load Text and Multi -Col	Load Journals	Integrate with Fusion GL Cloud
PBCS	Yes	Yes	Yes	Yes	NA	Yes
EPBCS	Yes	Yes	Yes	Yes	NA	Yes
FCCS	Yes	Yes	Yes	Yes	Yes	Yes
ARCS	Yes	TBD	TBD	NA	NA	Yes
PCMCS	Yes	Yes	Yes	Yes	NA	Yes
TRCS (Tax)	Yes	Yes	Yes	Yes	TBD	Yes

## Additional considerations:

- Data Management not currently on roadmap for EPRCS or Essbase Cloud Service

# Oracle EPM: Data Management



## Recent Highlights

- Data Management
  - Included in all services except EPRCS
- Text, Smartlist, Date support
- GL Cloud Integration
  - Data, Drill, Writeback
  - Budget and budgetary writeback only
- Netsuite
  - Saved search and drill
- HCM Cloud
- Cloud Features Backported
  - Available in 11.1.2.4.210
- Full Hybrid Support
  - Including GL Cloud
- On-Premise release 11.1.2.4.220 (Dec '17)



## R&D Underway

- Simplified UI (CY2018)
- HCM Cloud Metadata (CY2018)
  - Generic metadata via a file (17.12)
- ARCS – Transaction Matching and Bank File support (18.05)
- Projects Cloud (CY2018)
- Data Import Simplification (CY2018)
  - Additional import format expressions



## Looking Forward

- Journal Extract from FCCS
- Actuals write-back to GL cloud
- Additional Integrations
  - Enhanced ARCS Support
- Export using OLU
- Additional Direct Integrations
- Scripting
- Integration with DMCS
- Additional Integrations
  - Database Cloud Service
  - Sales cloud
  - Direct load – no map, no drill
  - Pod-2-Pod Journals from FCCS
- Oracle Cloud Financials
  - Sub-ledger
  - Auto-create from COA
  - Metadata support

# Summary of Data Management features (6-12 months)

- Netsuite Integration
  - Integration with Netsuite saved search framework
- Oracle HCM Cloud to EPBCS
  - WFP and SWFP modules
- GL Cloud Adjustment Periods
- FAHRCS Support
  - Subset of GL Cloud
- Duplicate Application Name support
  - Support data sync between test/pod and across pods
- Metadata Load via File (17.12)
  - Minor feature compared to EDMCS

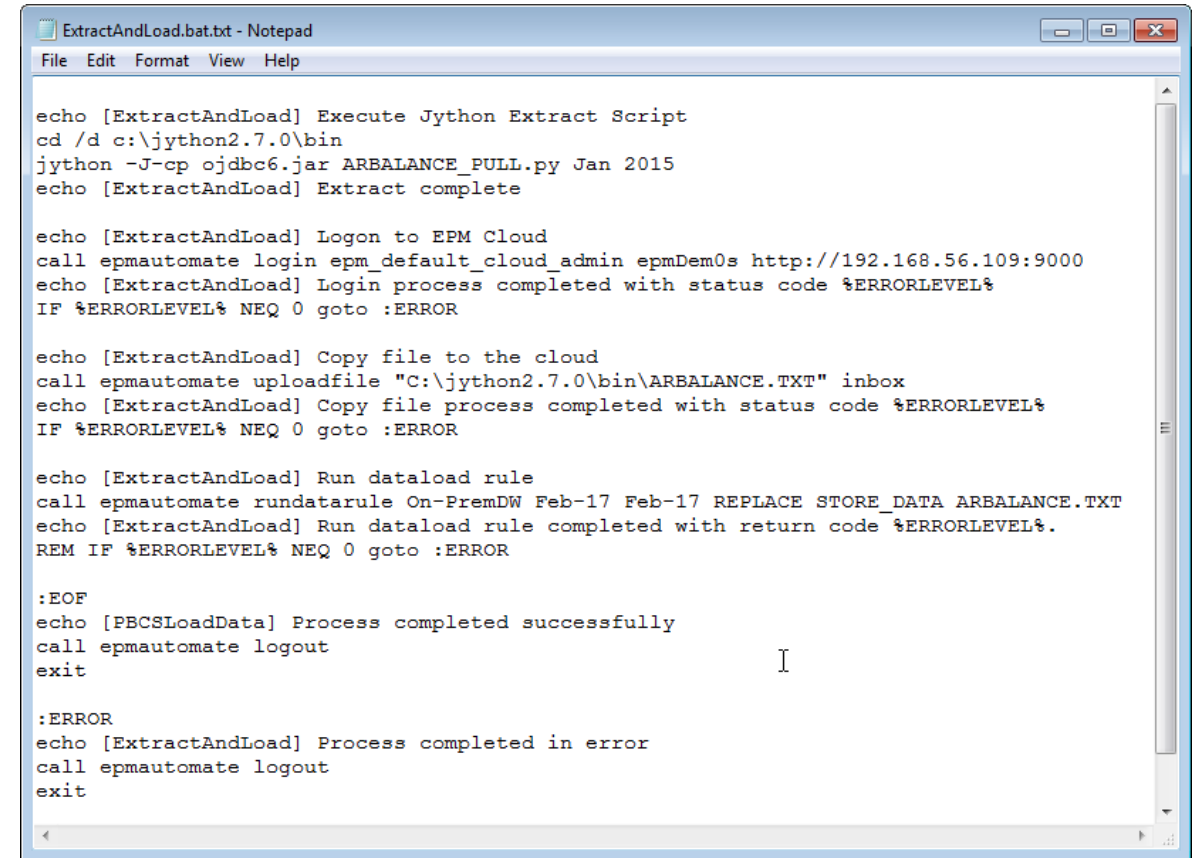


A man with a beard and mustache, wearing a dark suit, light blue shirt, and dark tie, is looking down at a smartphone he is holding. The background is a blurred cityscape at night with bokeh lights. The image is overlaid with a teal geometric pattern.

# EMPAutomate and Scripting

# Extract from Any Source and Load to the Cloud

- EPMAutomate and Scripting
  - Source from any data source
    - On-prem or cloud
    - ERP, Database, 3<sup>rd</sup> party cloud app, etc.
    - Generate file from source to upload to the cloud
  - Load with EPMAutomate
    - Upload and process file
  - Enables integration from anything to the EPM cloud
    - Check the integration box during the sales cycle.
    - See KM 2325256.1



```
ExtractAndLoad.bat.txt - Notepad
File Edit Format View Help

echo [ExtractAndLoad] Execute Jython Extract Script
cd /d c:\jython2.7.0\bin
jython -J-cp ojdbc6.jar ARBALANCE_PULL.py Jan 2015
echo [ExtractAndLoad] Extract complete

echo [ExtractAndLoad] Logon to EPM Cloud
call epmautomate login epm_default_cloud_admin epmDem0s http://192.168.56.109:9000
echo [ExtractAndLoad] Login process completed with status code %ERRORLEVEL%
IF %ERRORLEVEL% NEQ 0 goto :ERROR

echo [ExtractAndLoad] Copy file to the cloud
call epmautomate uploadfile "C:\jython2.7.0\bin\ARBALANCE.TXT" inbox
echo [ExtractAndLoad] Copy file process completed with status code %ERRORLEVEL%
IF %ERRORLEVEL% NEQ 0 goto :ERROR

echo [ExtractAndLoad] Run dataload rule
call epmautomate rundatarule On-PremDW Feb-17 Feb-17 REPLACE STORE_DATA ARBALANCE.TXT
echo [ExtractAndLoad] Run dataload rule completed with return code %ERRORLEVEL%.
REM IF %ERRORLEVEL% NEQ 0 goto :ERROR

:EOF
echo [PBCSLoadData] Process completed successfully
call epmautomate logout
exit

:ERROR
echo [ExtractAndLoad] Process completed in error
call epmautomate logout
exit
```

A man with a beard and mustache, wearing a dark suit, light blue shirt, and dark tie, is looking down at a smartphone he is holding. The background is a blurred cityscape at night with bokeh lights. The image is overlaid with a teal geometric pattern.

# Metadata Loading - Demo

A man with a beard and mustache, wearing a dark suit, light blue shirt, and dark tie, is looking down at a smartphone he is holding. The background is a blurred cityscape at night with bokeh lights. The image is overlaid with a teal geometric pattern.

# Netsuite Integration - Demo



# Questions and Answers

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