APOS

Extend Analytics Data Connectivity -Unified Data Access

Today's Session

Key Topics

- Live vs Import Connectivity
- Unify Data Connectivity
  - SAC Planning
  - SAP Data Platforms
  - Other BI Platforms
  - Semantic Layer Migration
- Q&A – see webinar console

APOS

Today's Presenters

ALLAN PYM

Chief Operating Officer
APOS

ALAN GOLDING

Solution Consulting Manager APOS

Who is APOS?

- Formed in 1992
- Enabling BI platform management, administration, migration, governance and compliance
- Simplifying, automating, extending SAP BusinessObjects and SAP Analytics Cloud
- Strategic SDK development and consulting
- Hundreds of customers globally

SAP Partner

APOS
SAP BusinessObjects
Hybrid BI
SAP Analytics Cloud

HOUSEKEEPING

You will have access to the slides via email

You will get the recording within 24 hours

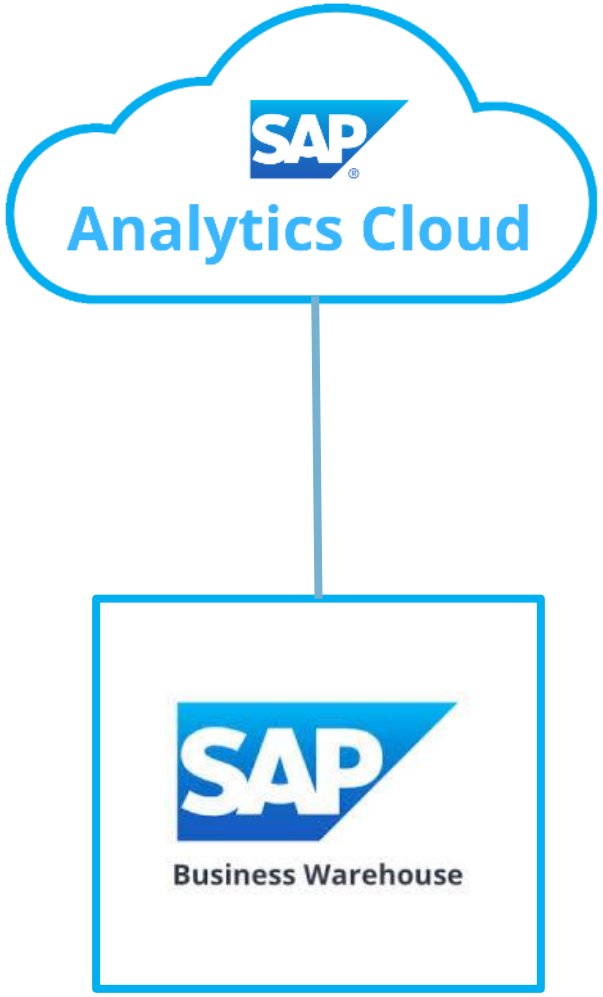
Tell us how we did in the survey

SAP Analytics Cloud - SAC

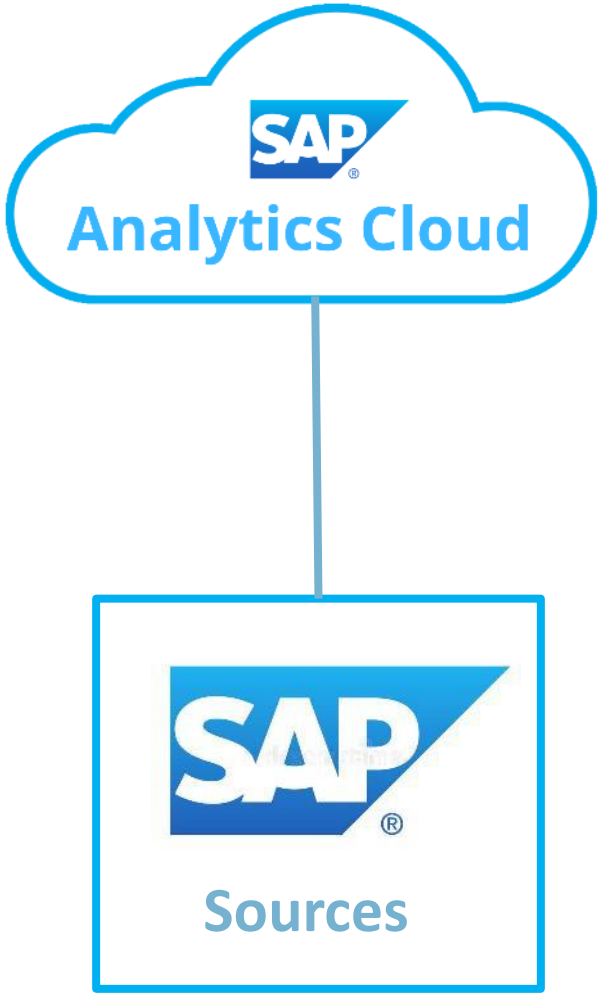
SAC Connectivity

SAC Connectivity

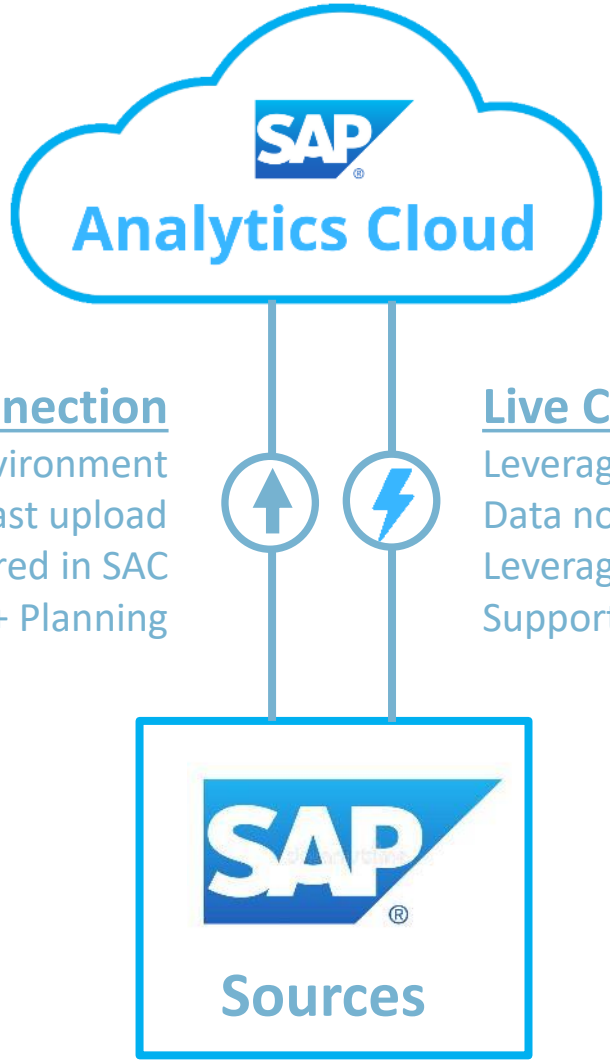
SAC Connectivity



SAC Connectivity



Live & Import Connectivity



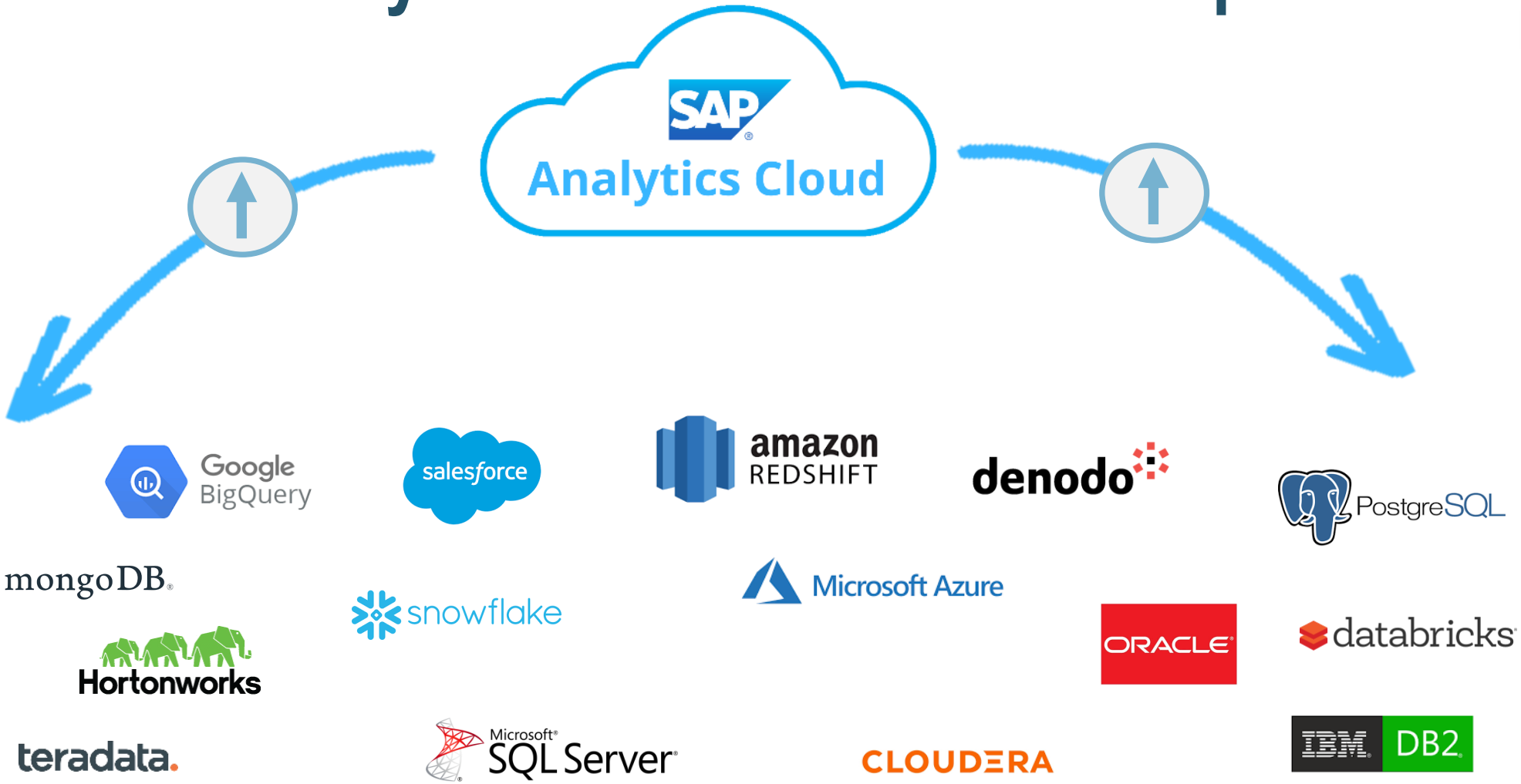
Import Connection

Data moved into SAC data environment
Data uploaded on a schedule, current to last upload
Modelled & secured in SAC
Supports Business Intelligence + Planning

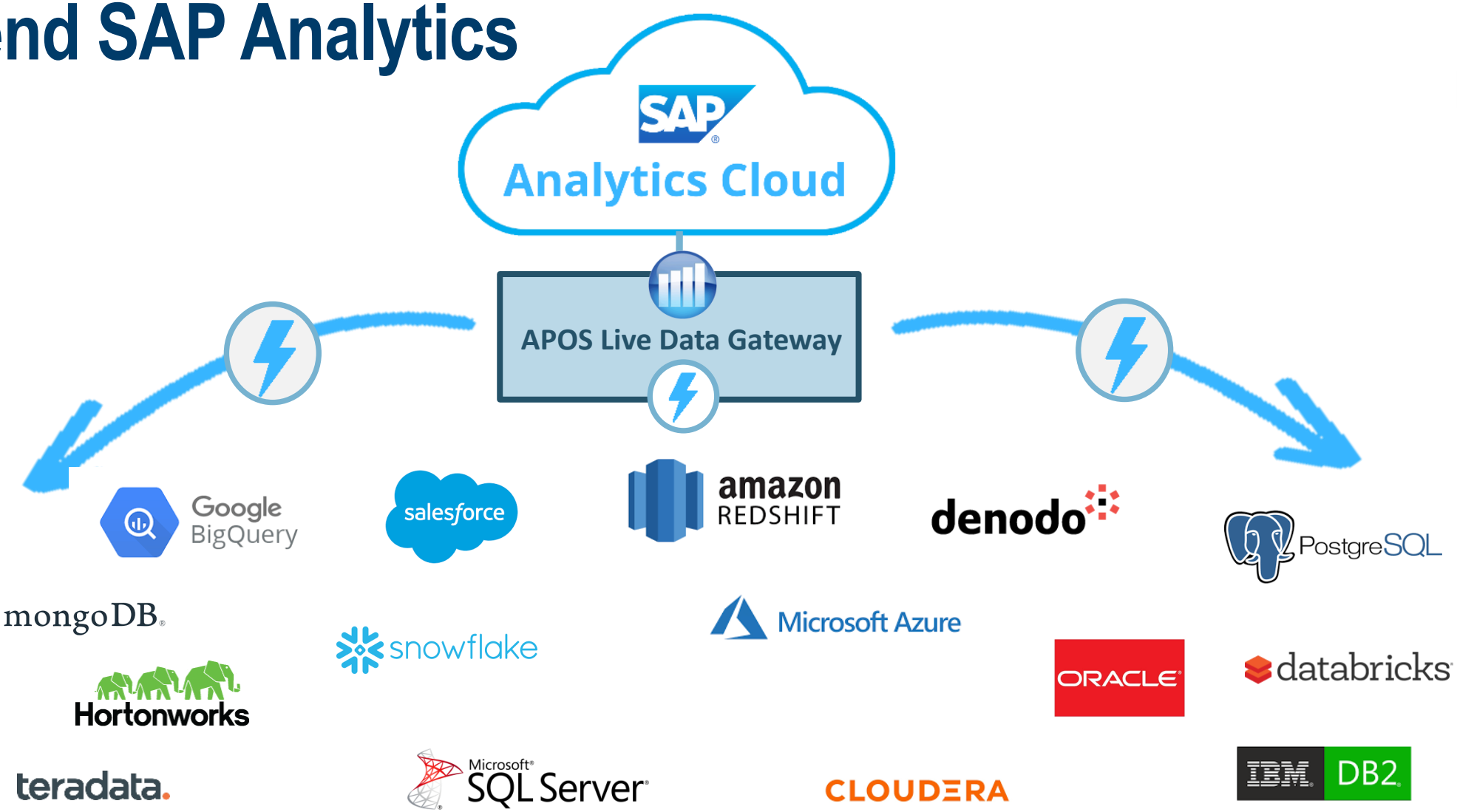
Live Connection

Leverage data from existing location
Data not moved and does note leave, always current
Leverage existing modelling & security
Supports Business Intelligence

SAC Connectivity to Non-SAP Sources - Import



Extend SAP Analytics



Alan Golding
Solution Consulting Manager
APOS

APOS Live Data Gateway – Unlock Live Data

APOS Live Data Gateway enables live data connectivity and expanded data source options for SAP Analytics Cloud, with a primary focus on **non-SAP data sources**.

- Leverage data from its current location
- No movement or importing of data
- Leverage existing data modelling
- Leverage existing security models
- Data is always current
- Data never leaves the firewall
- No added data storage requirements
- Reduce data bandwidth requirements

APOS Live Data Gateway – Unlock Live Data

Supported Data Sources

- Amazon Athena
- Amazon EMR
- Amazon Redshift / Redshift Spectrum
- Amazon S3
- Azure Analysis Services
- Azure Blob
- Azure Cosmos DB
- Azure Data Lake
- Azure SQL Database
- Azure SQL Data Warehouse
- Cloudera
- Databricks
- DB2
- Denodo
- Google BigQuery
- Google Cloud Platform
- Hortonworks
- Informix
- Microsoft SQL Server
- Microsoft Analysis Services
- Mongo DB, Mongo DB Atlas
- MySQL
- Netezza
- Oracle
- Oracle Essbase
- Oracle Exadata
- Postgres
- Presto
- Salesforce
- Snowflake
- Sybase IQ, Sybase SQL Anywhere
- Teradata

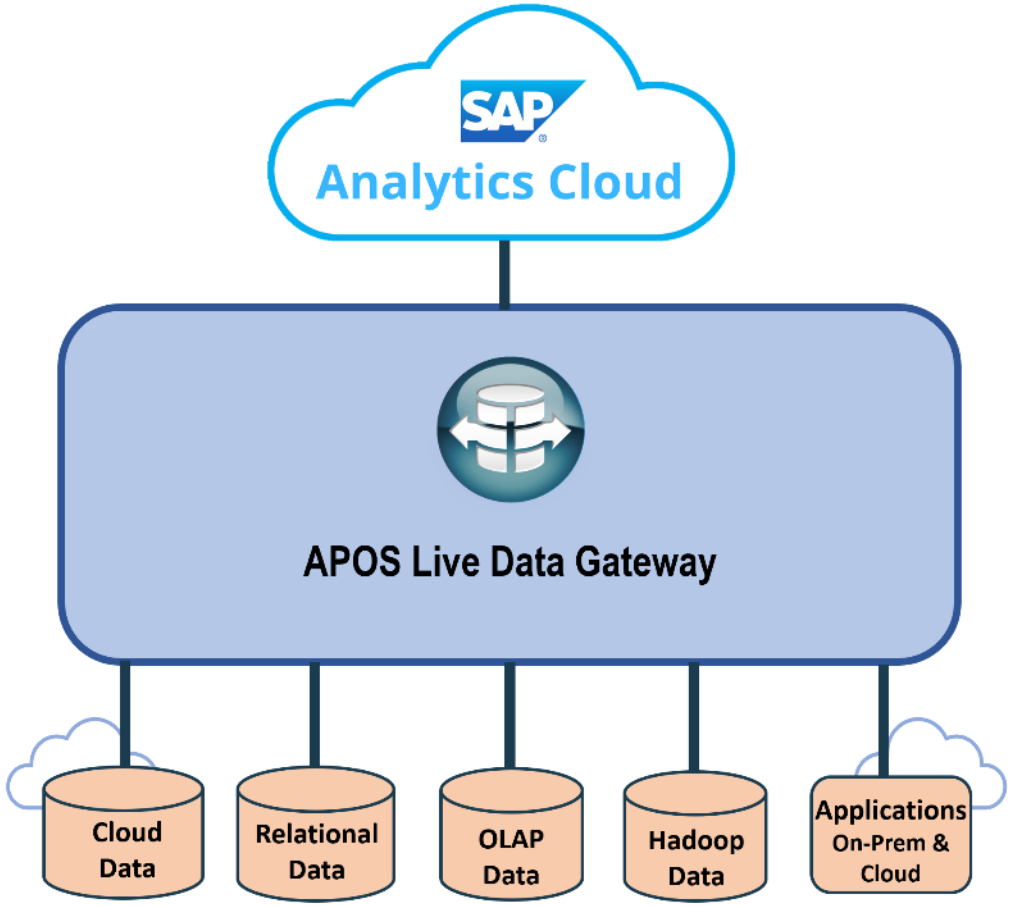
- SAP BW - version 7.3 and higher
- SAP BusinessObjects Universes (UNV, UNX)

- JDBC connectivity

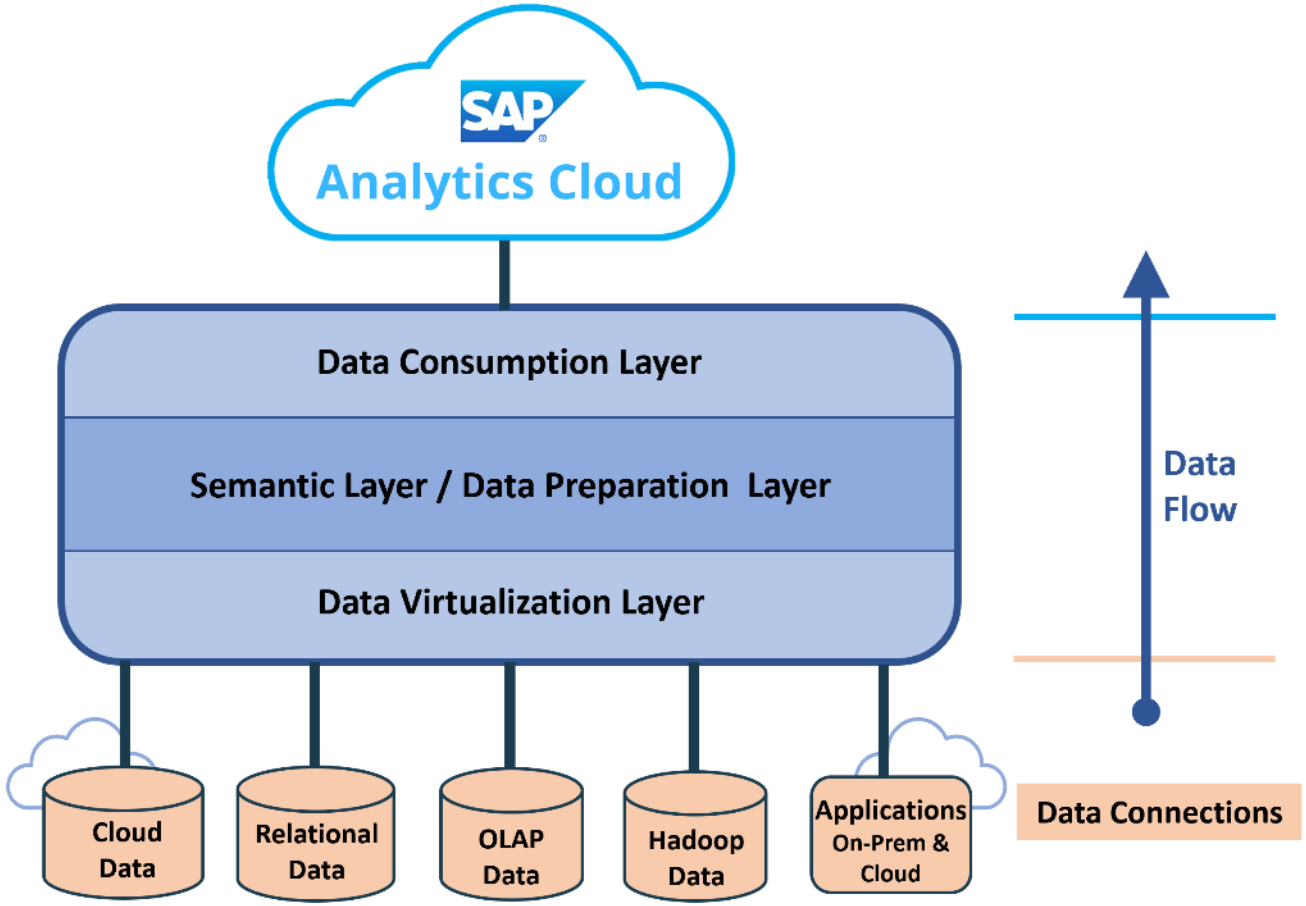
Extended Data Sources: 100+ Additional data source and application connection options

https://www.apos.com/content/apos-live-data-gateway-data-sources-supported

APOS Live Data Gateway – Unlock Live Data

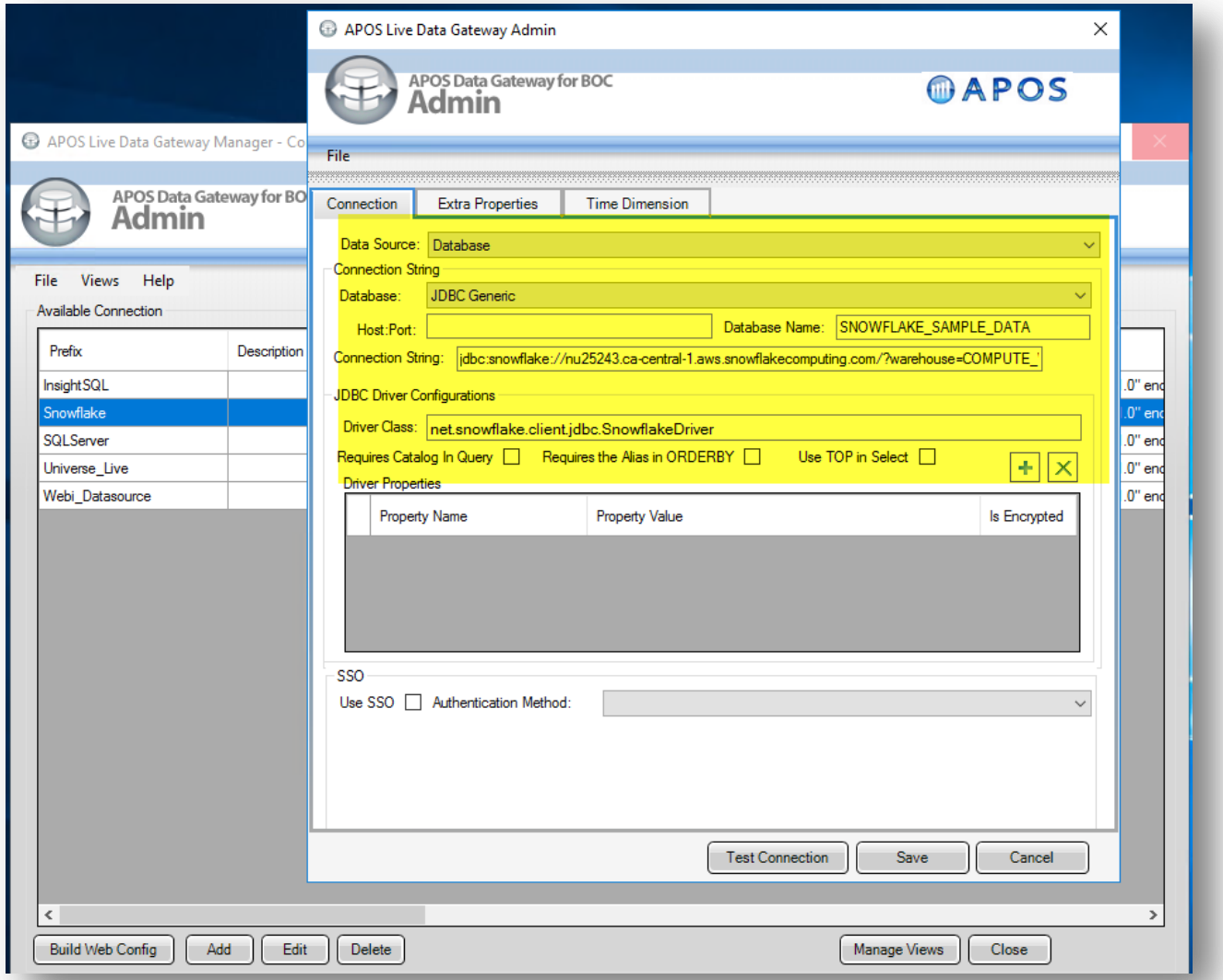


APOS Live Data Gateway – Unlock Live Data



APOS Live Data Gateway – Unlock Live Data

Data Virtualization Layer is used to create the connections to the various data sources

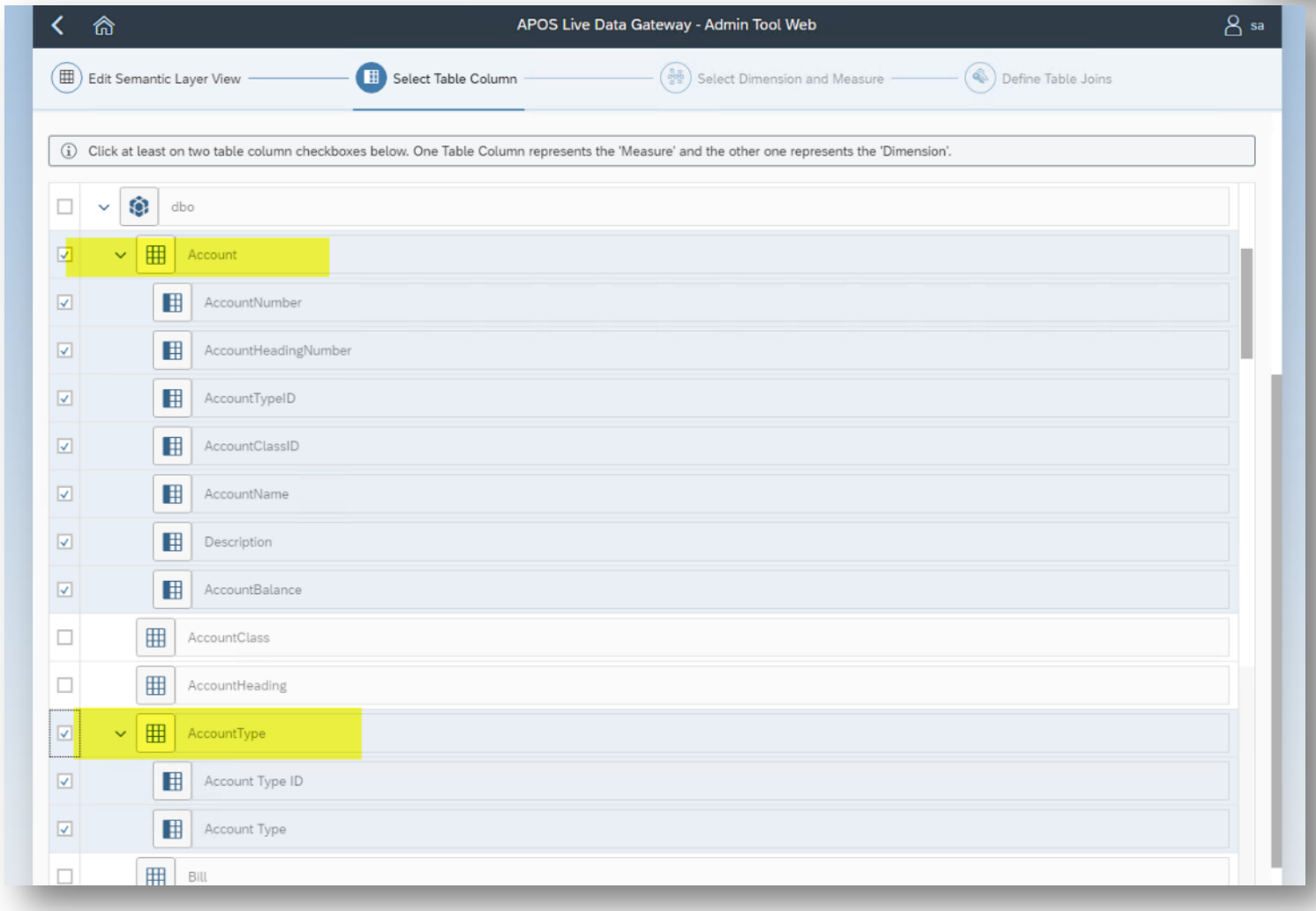


APOS Live Data Gateway – Unlock Live Data

Semantic Layer / Data Preparation Layer is used to create data views.

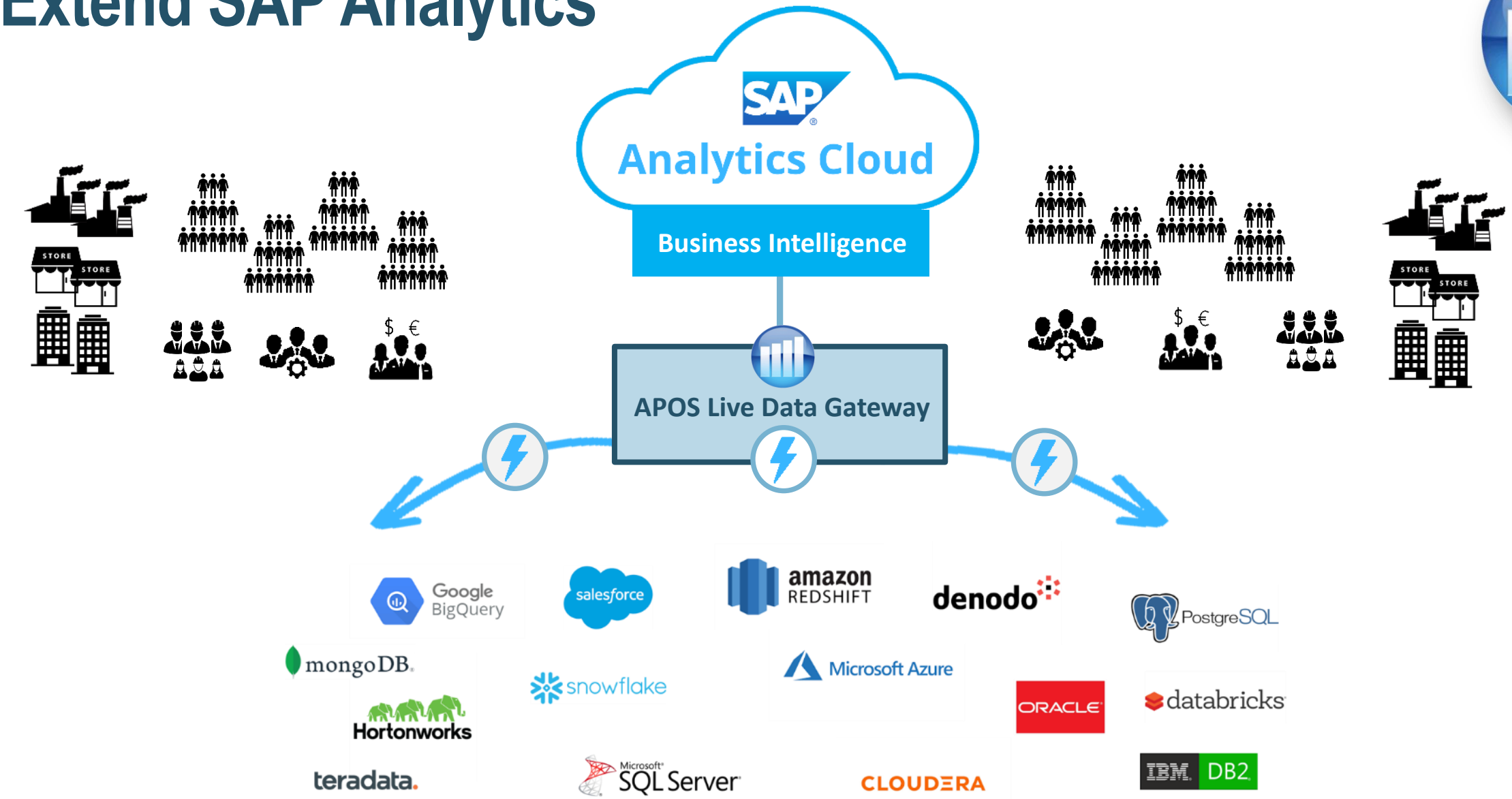
Data views (APOS Views) enable:

- Define what data is exposed
- Define measures and dimensions
- Manage data links & joins
- Set meaningful field names

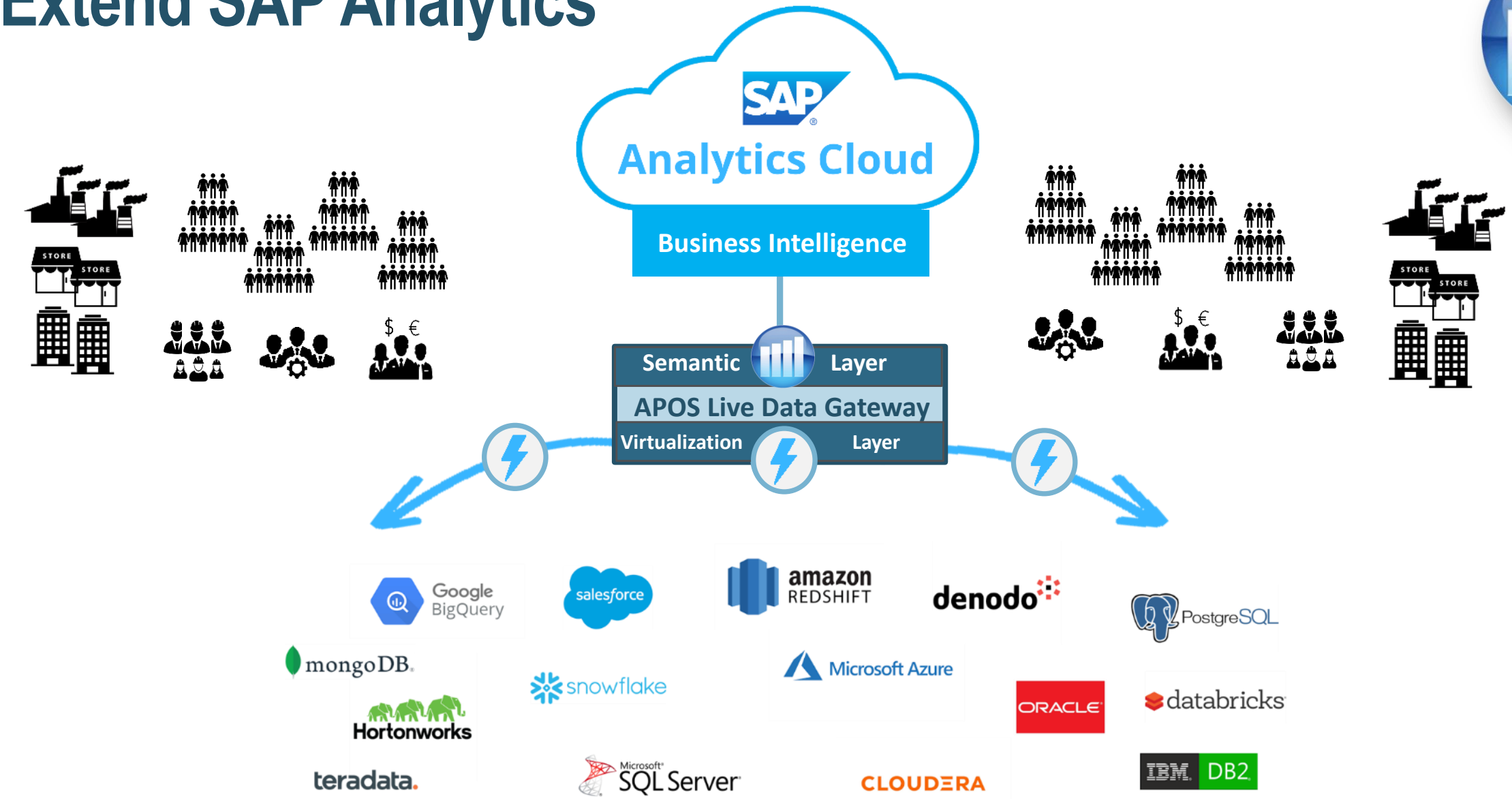


SAC Business Intelligence

Extend SAP Analytics



Extend SAP Analytics



Unify Analytics Data Connectivity

- SAC Planning
- SAP Data Platforms
- Other BI Platforms
- Semantic Layer Migration

Unify Analytics Data Connectivity

SAC Planning

- Data must be Imported into SAC for Planning
- Wide range of data sources supported by SAC for Import
- Unify connectivity and business layer

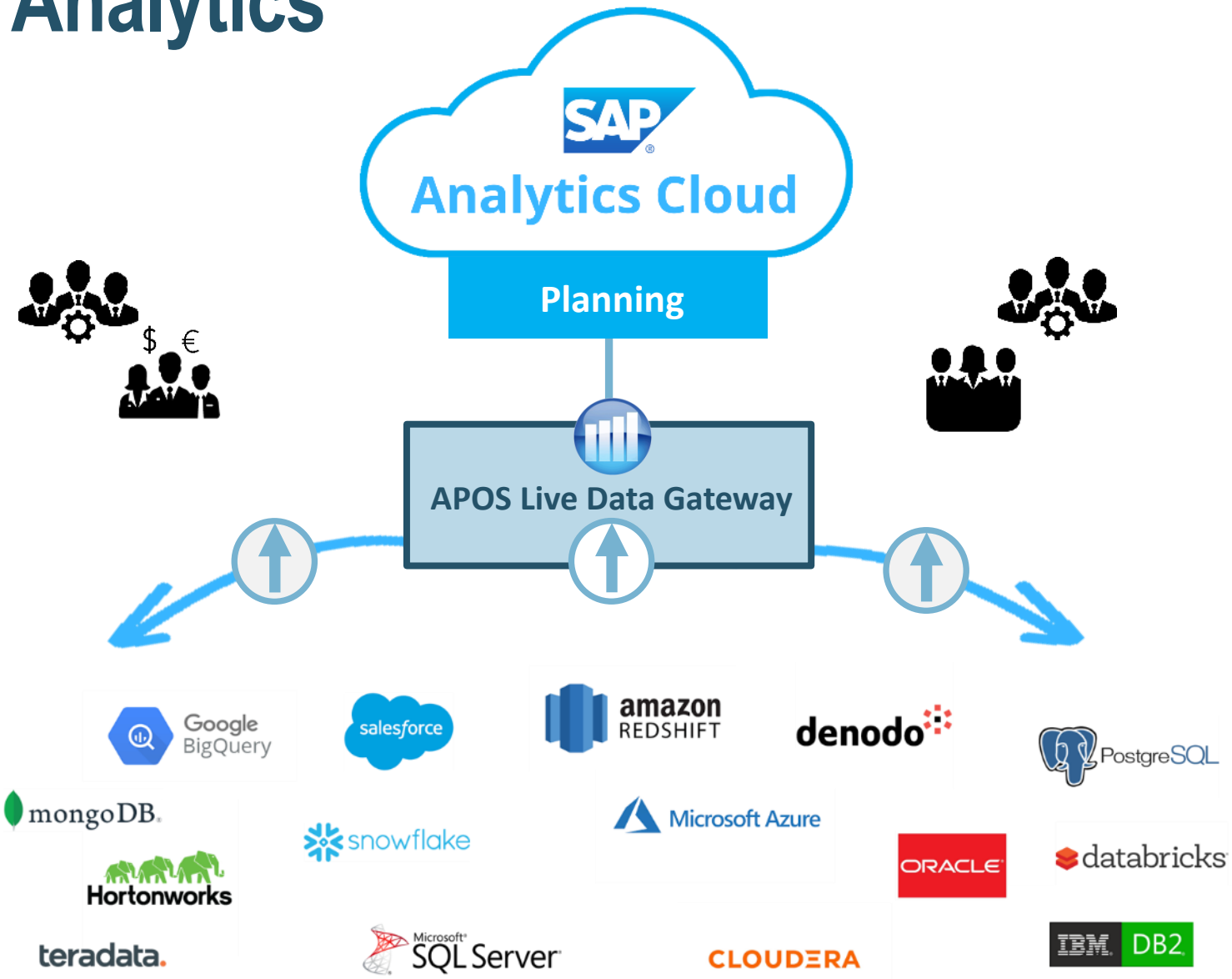
SAC Planning

Finance

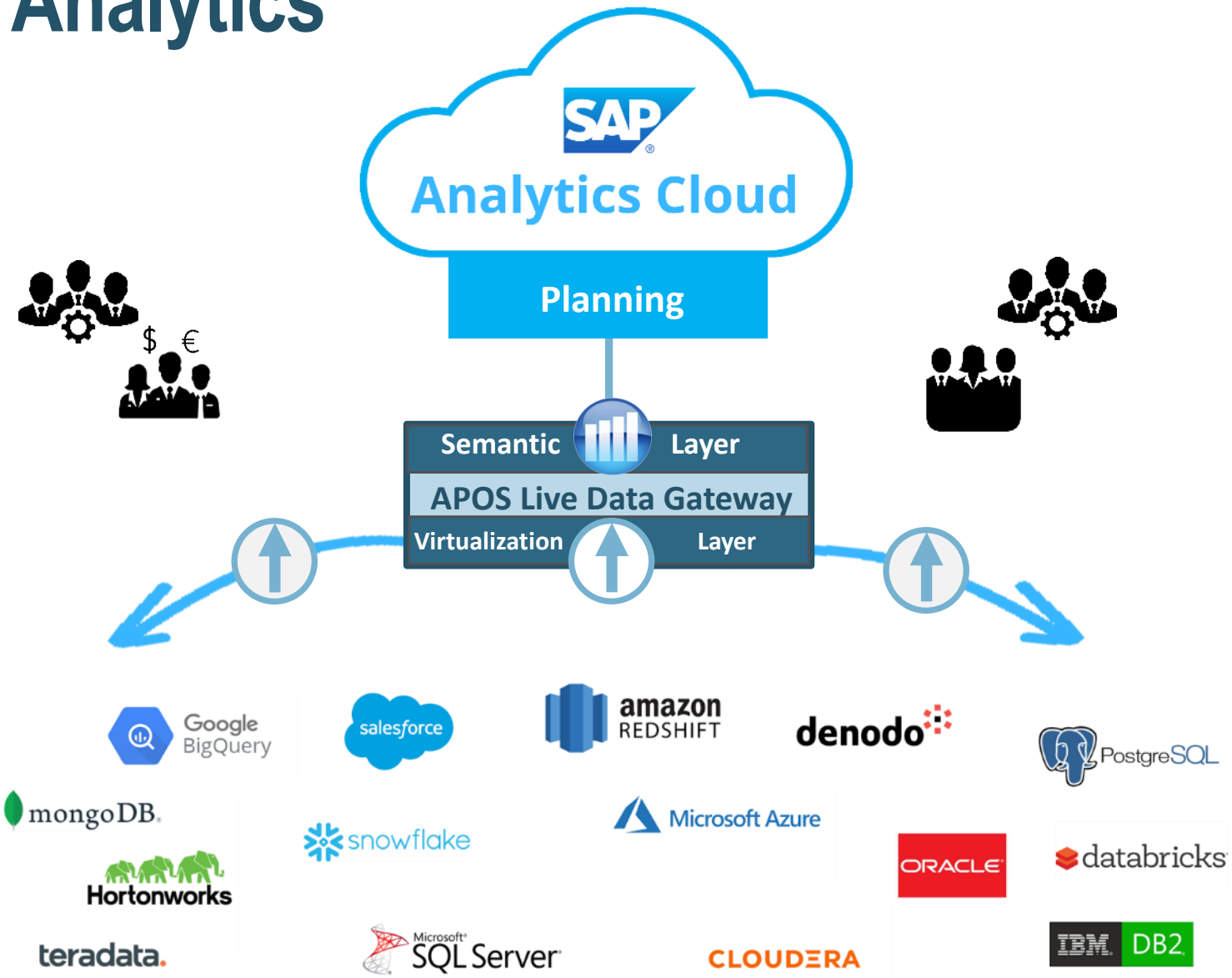
Executives

Sr. Management

Unify SAP Analytics



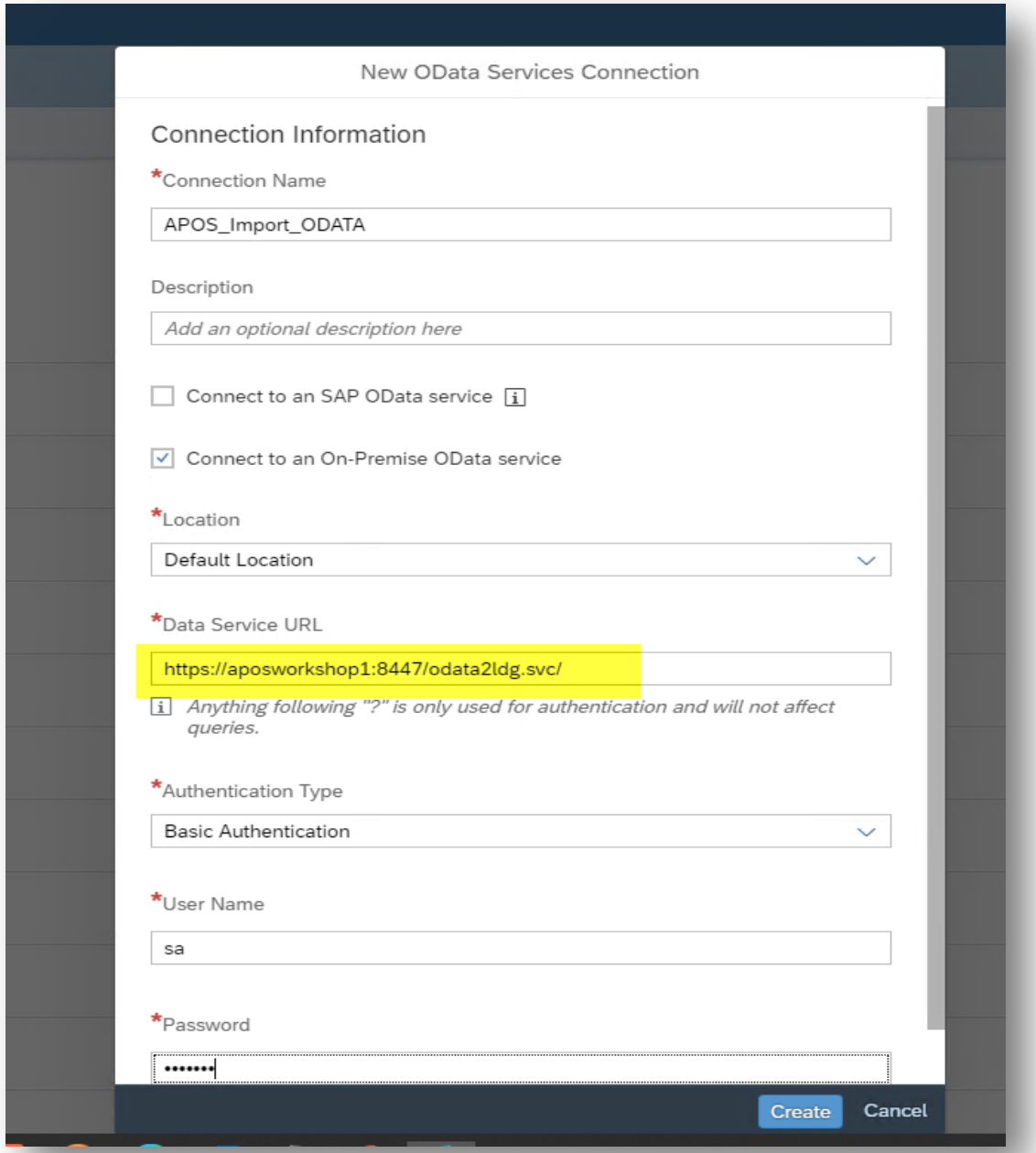
Unify SAP Analytics



SAC Planning

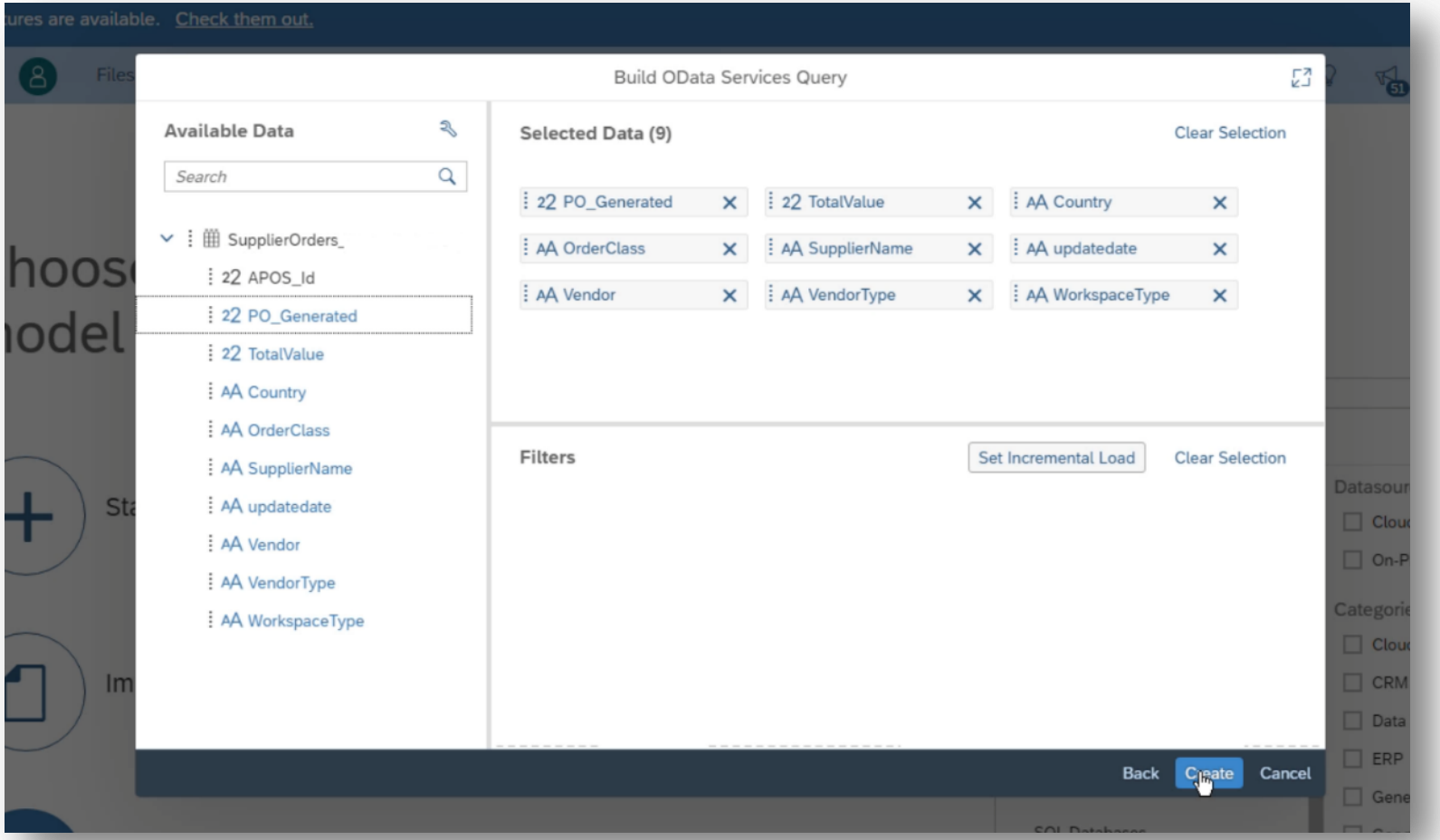
Create Import connection in SAC

APOS ODATA service provides endpoint for Import in SAC



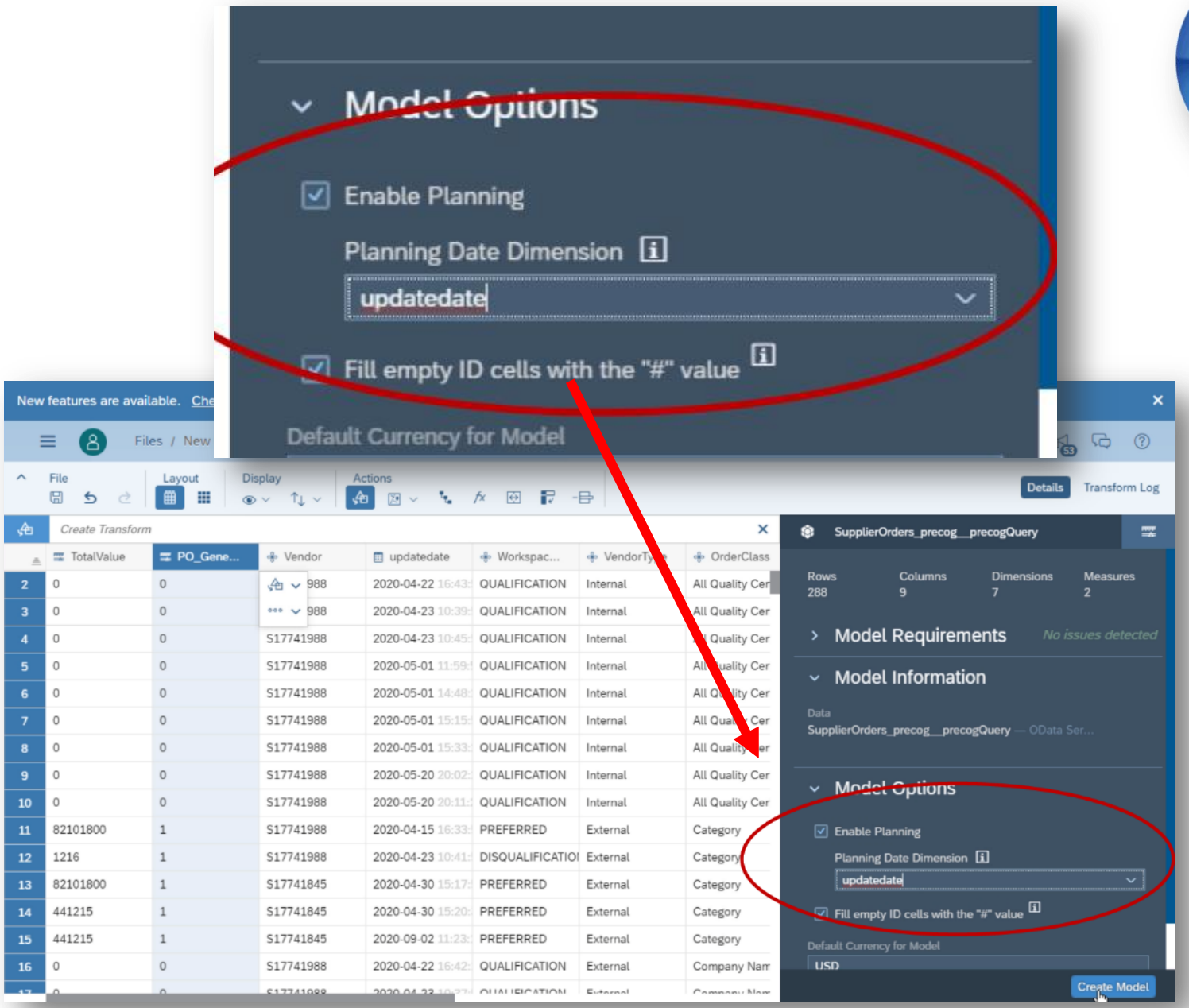
SAC Planning

Select fields from APOS View to be used for the SAC Model for planning



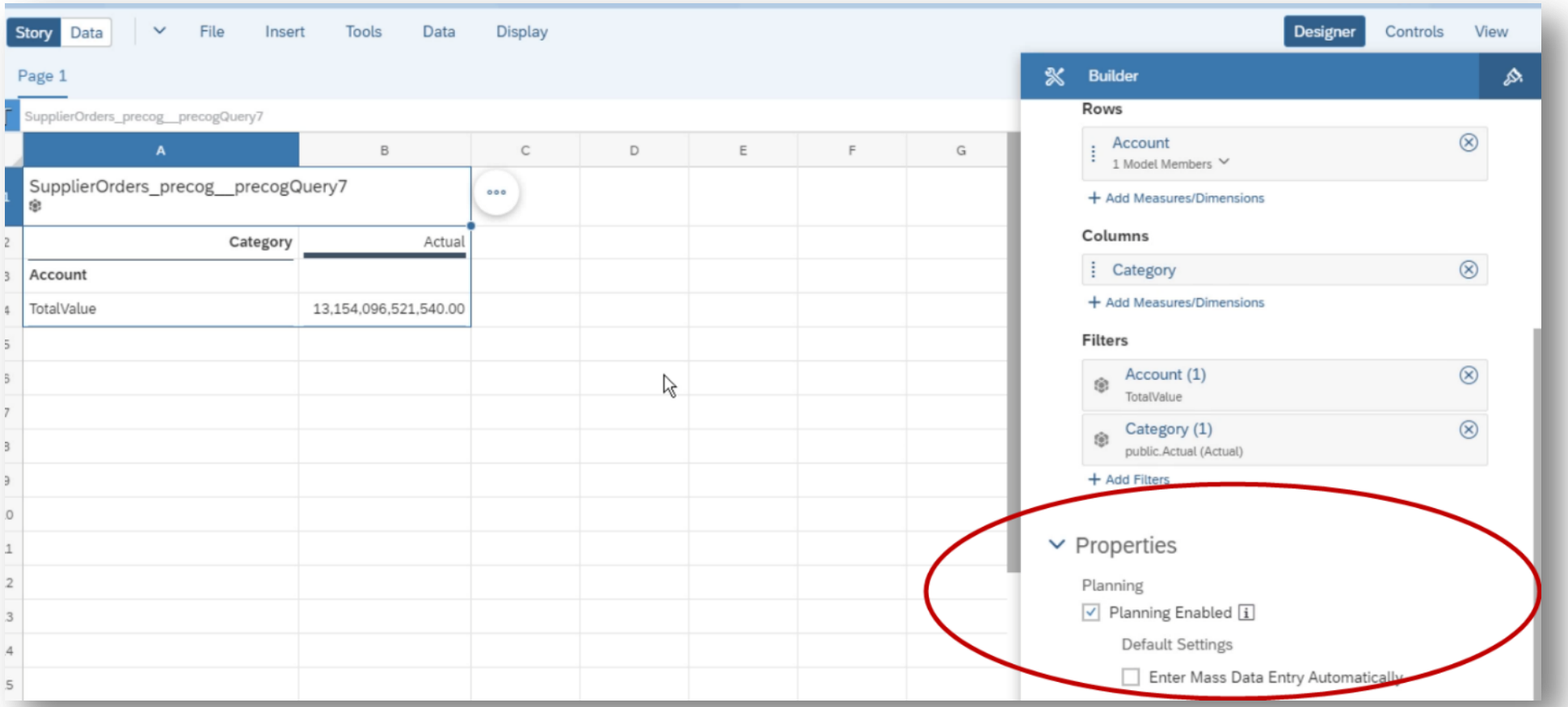
SAC Planning

SAC Model is now enabled for use with SAC Planning



SAC Planning

You can now build stories with Planning enabled against non supported SAP data sources



Use Case Scenario

Global Soft Drink Manufacturer

- Live Connectivity to Snowflake for business intelligence purposes was a critical requirement in order for a successful SAC deployment. In addition to BI workflows, elements of the Snowflake data was beneficial for use in forecasting and business planning processes.

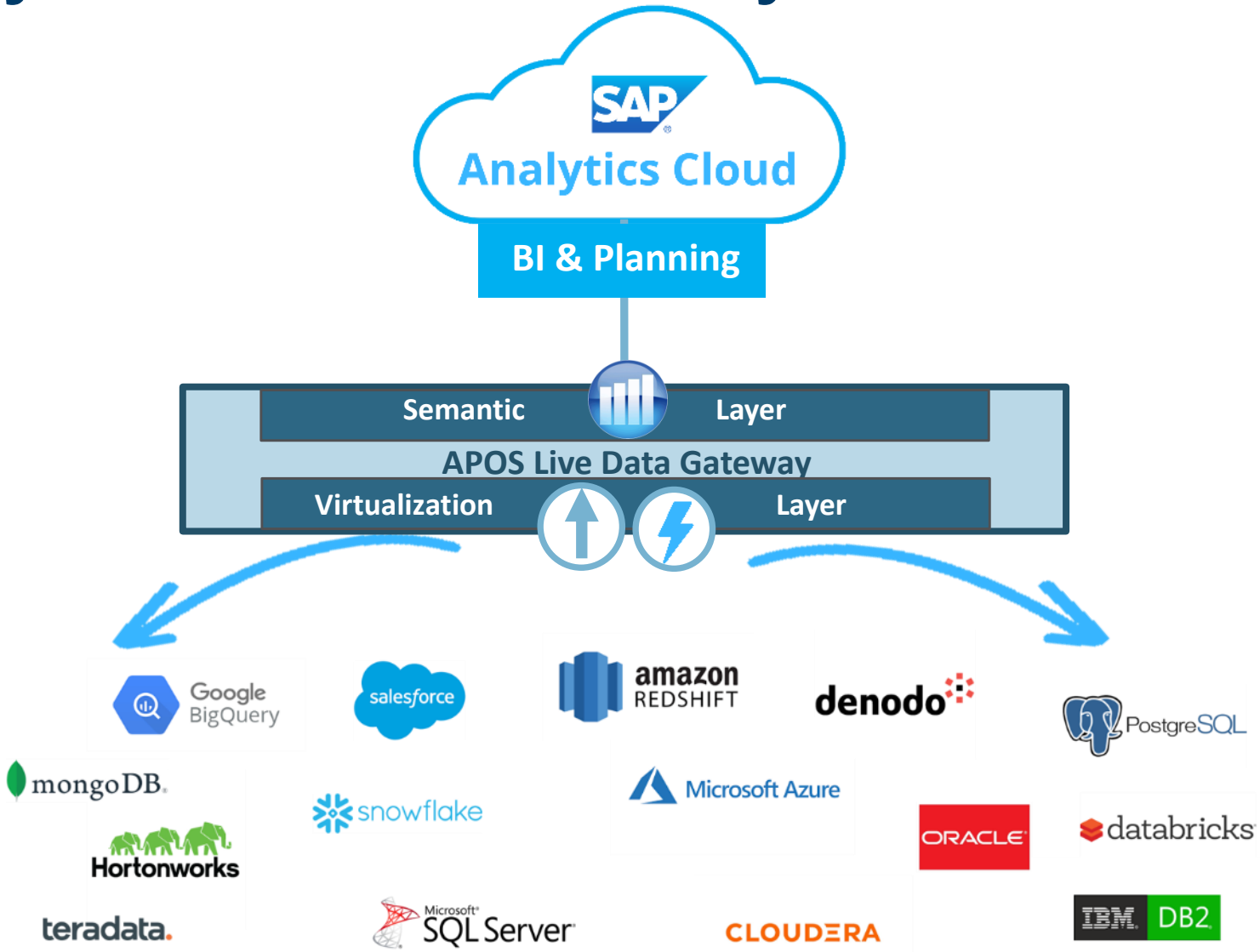
- Live Data Gateway serves data from Snowflake for both SAC Business Intelligence (Live connection) and SAC Planning (Import connection). The APOS Views used to simplify the complexities of the data, and act as a simplified business view into the Snowflake data for both BI and Planning.

Unify Analytics Data Connectivity

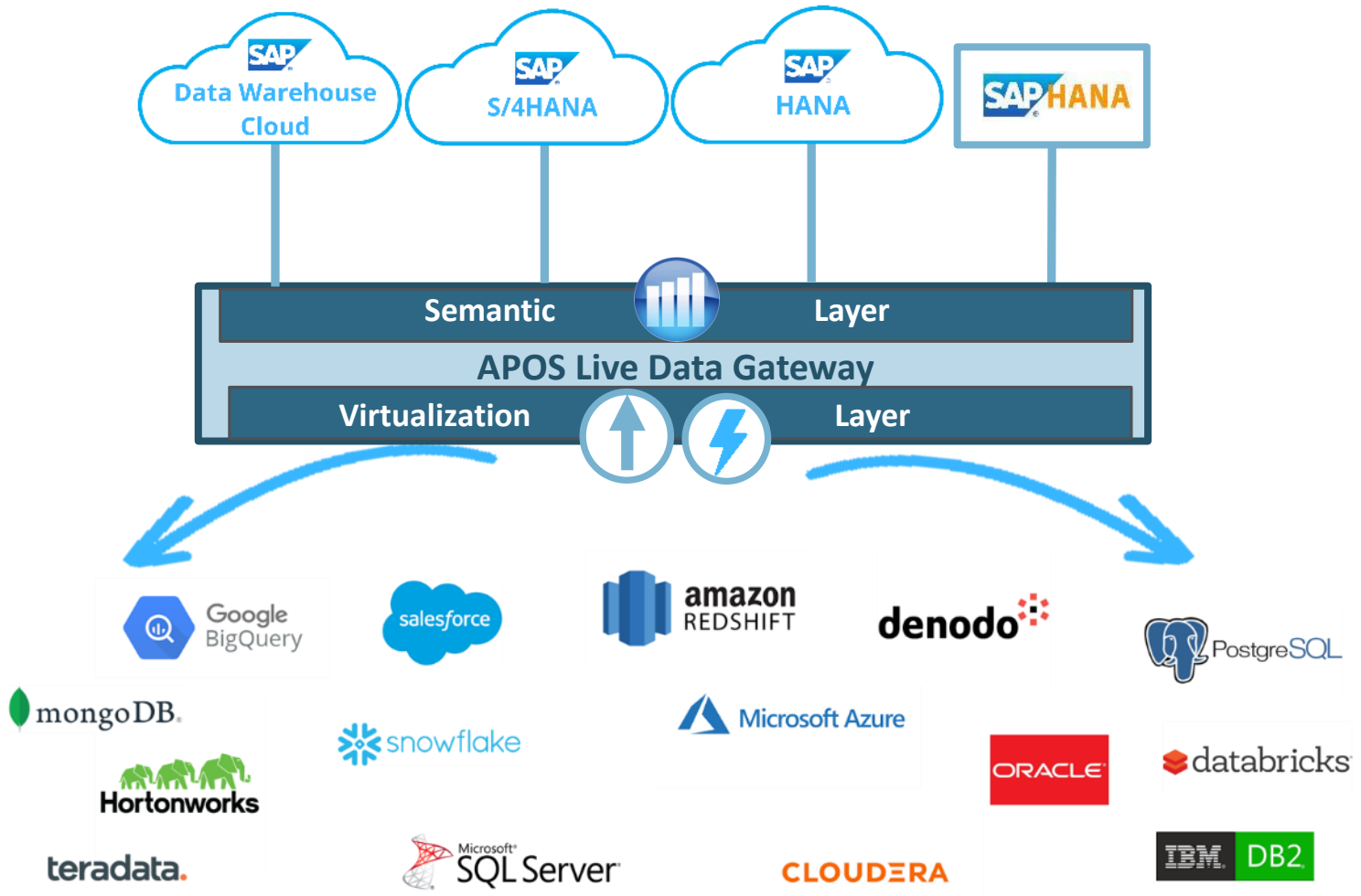
SAP Data Platforms

- SAP data environments leverage non-SAP data & Big Data sources
- Expanded Consumption protocols
- Live data and Import data

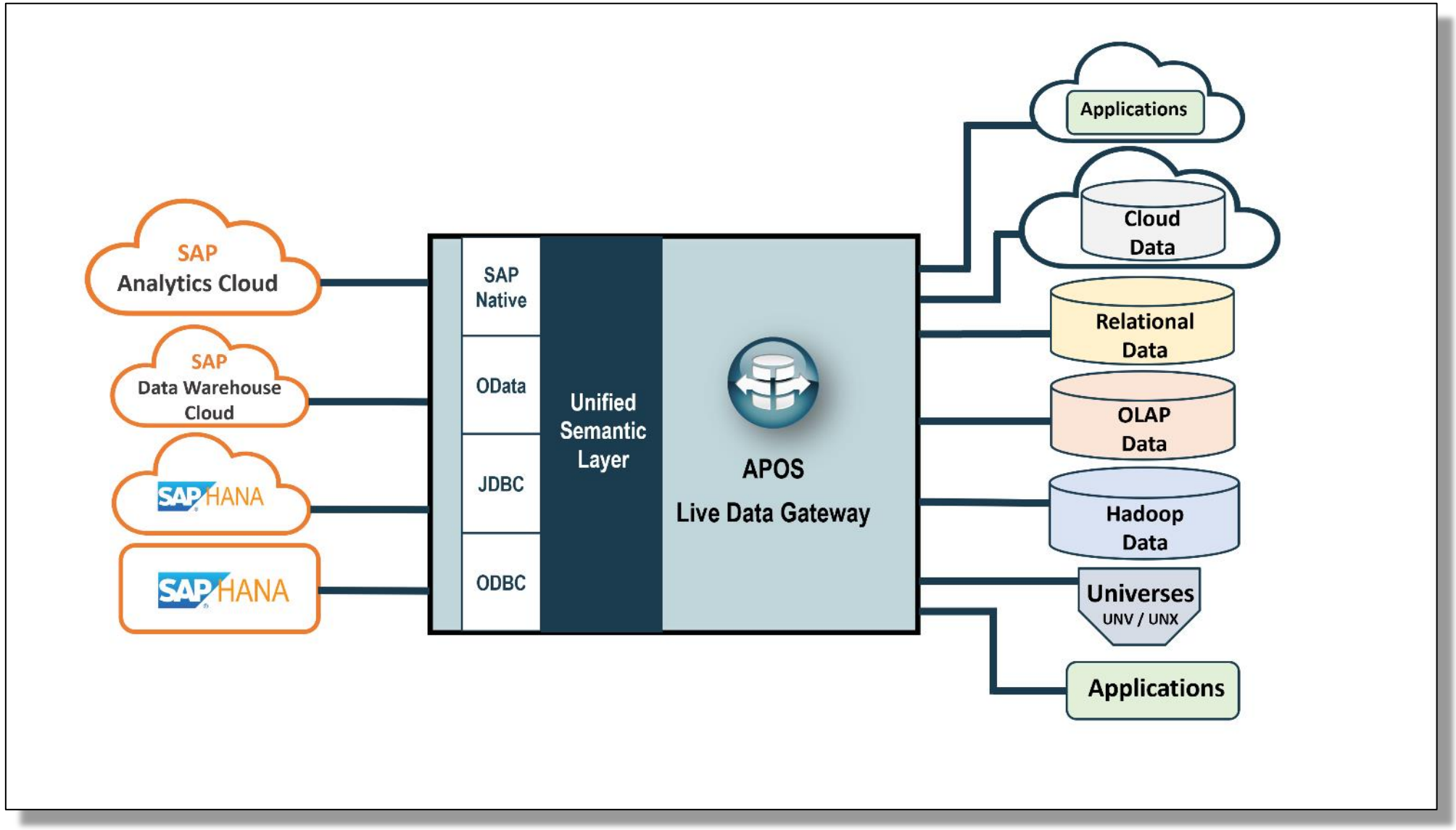
Unify Analytics Data Connectivity



Unify Analytics Data Connectivity

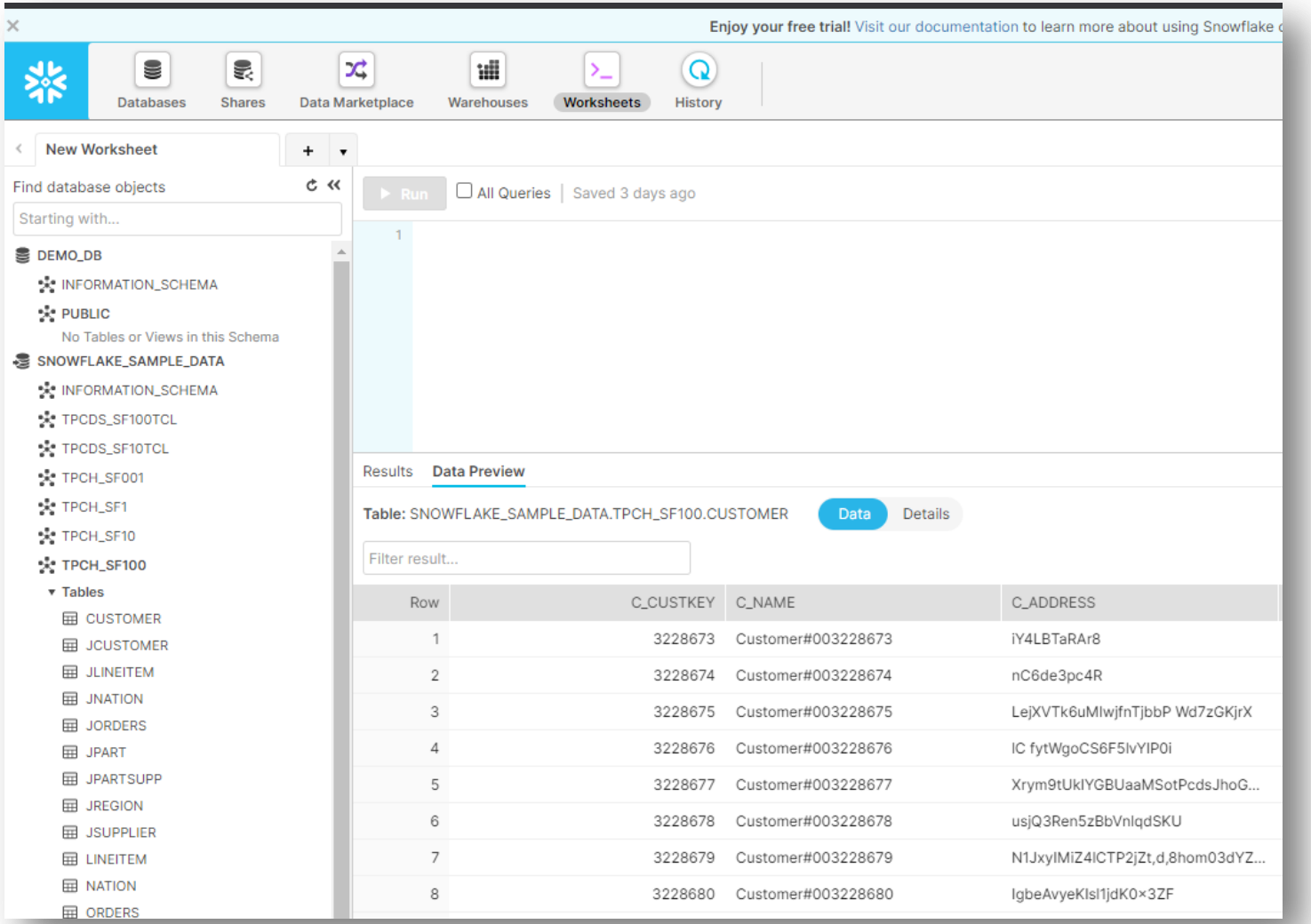


Unify Analytics Data Connectivity



Unify Analytics Data Connectivity - DWC

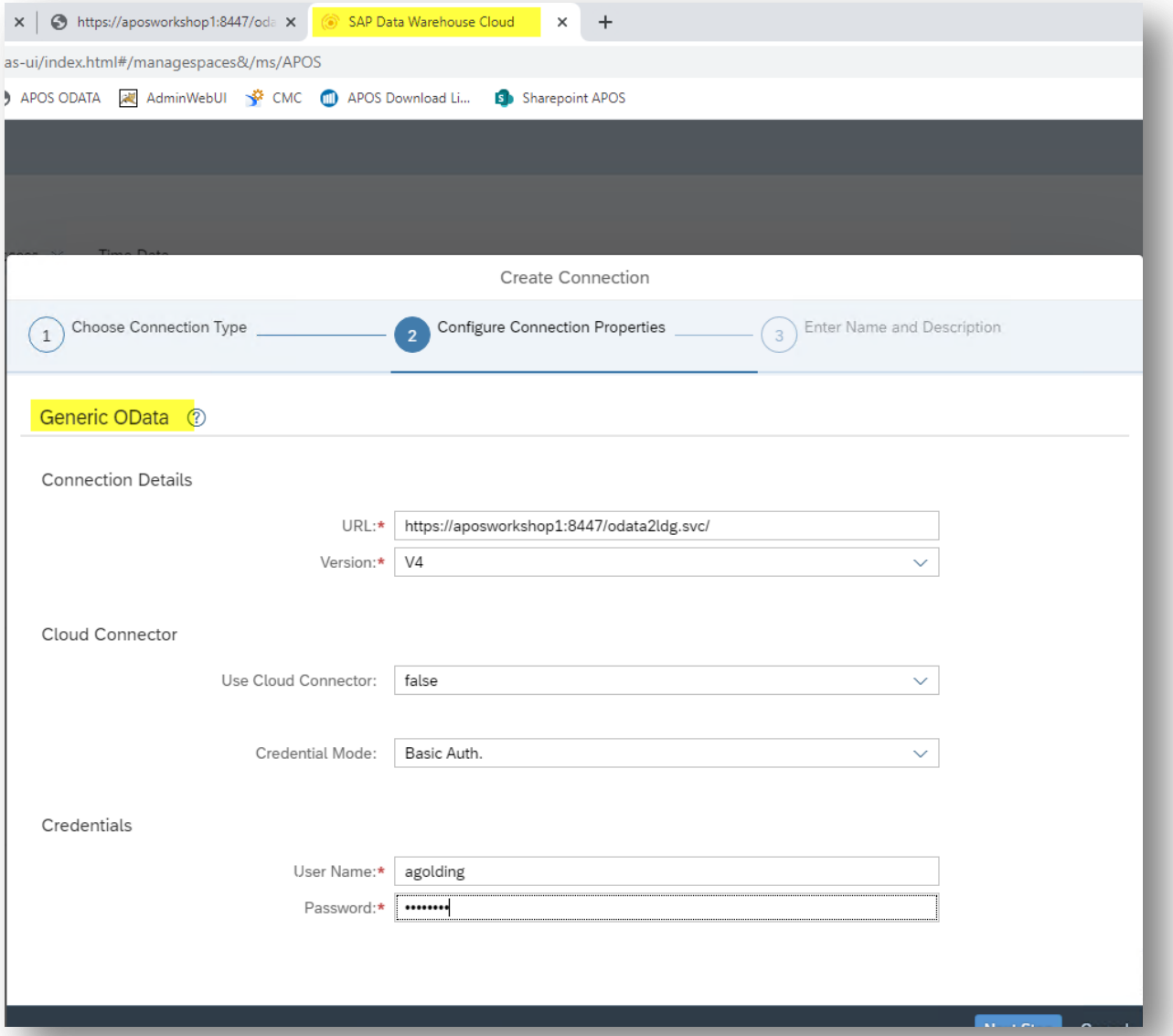
Snowflake data to be utilized with SAP Data Warehouse Cloud



Unify Analytics Data Connectivity - DWC

Create connection in DWC

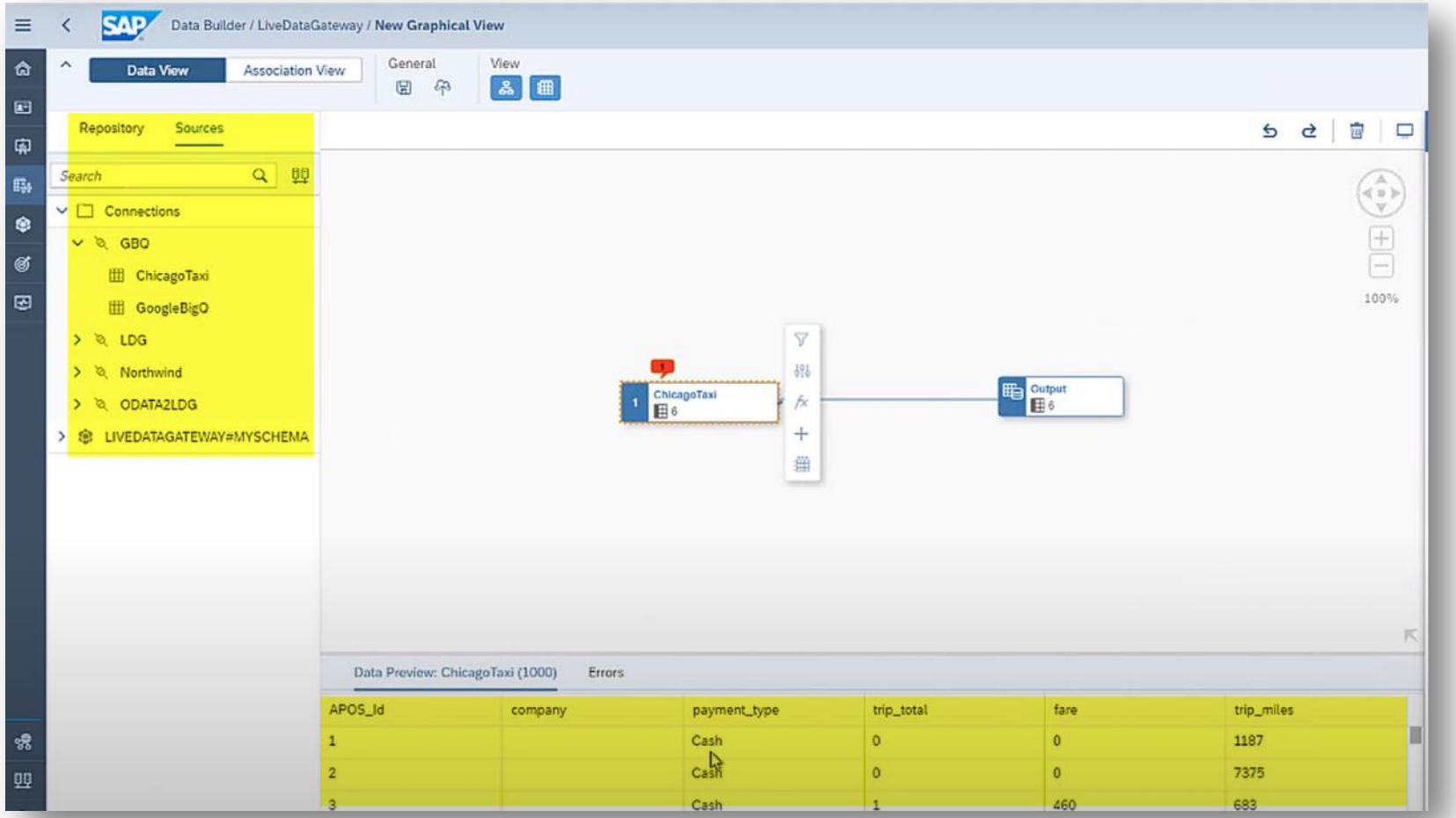
APOS ODATA service provides endpoint for DWC



Unify Analytics Data Connectivity - DWC

APOS Semantic Layer Views are available as data sources in DWC

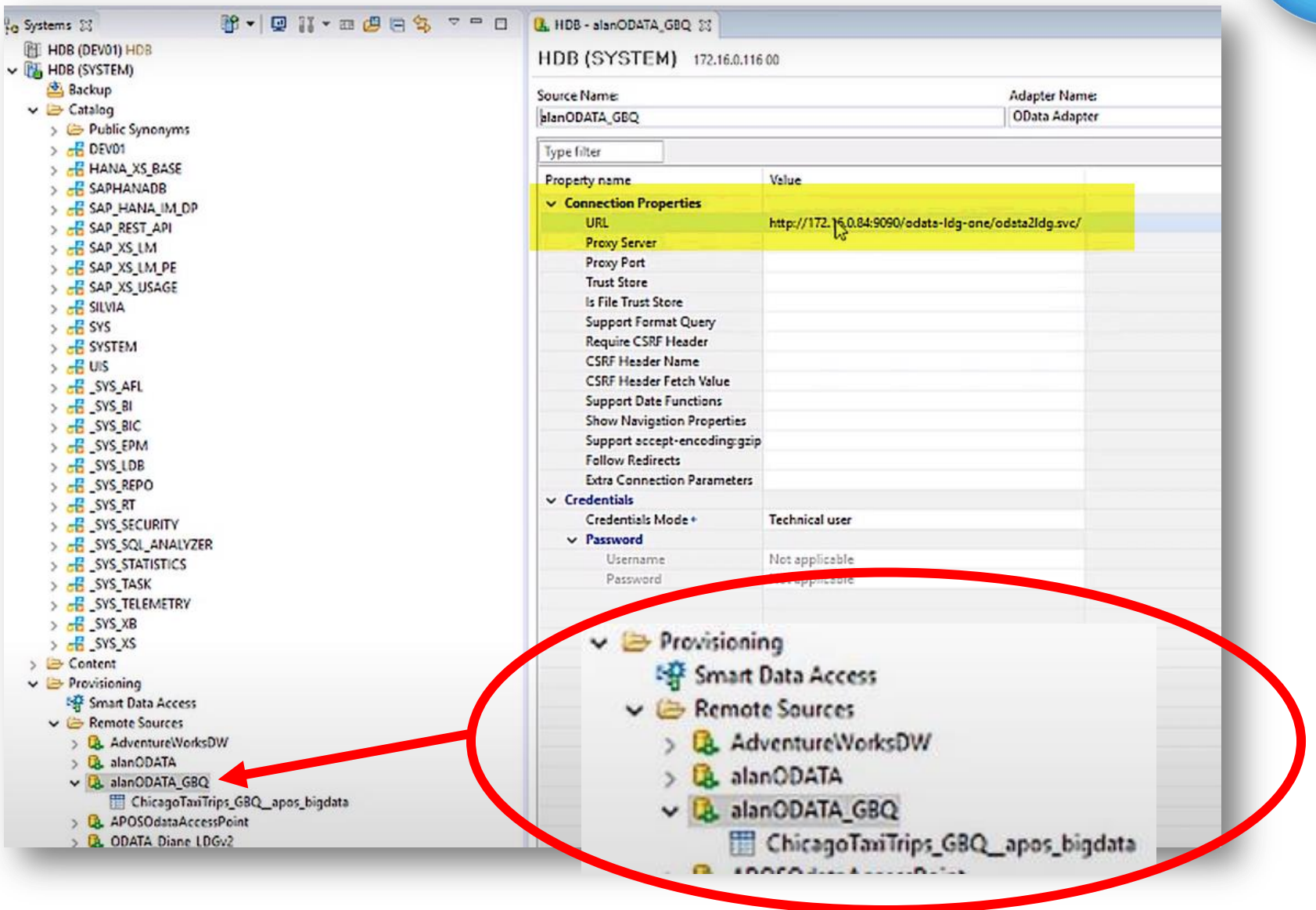
APOS ODATA service provides endpoint for DWC



Unify Analytics Data Connectivity – SAP HANA

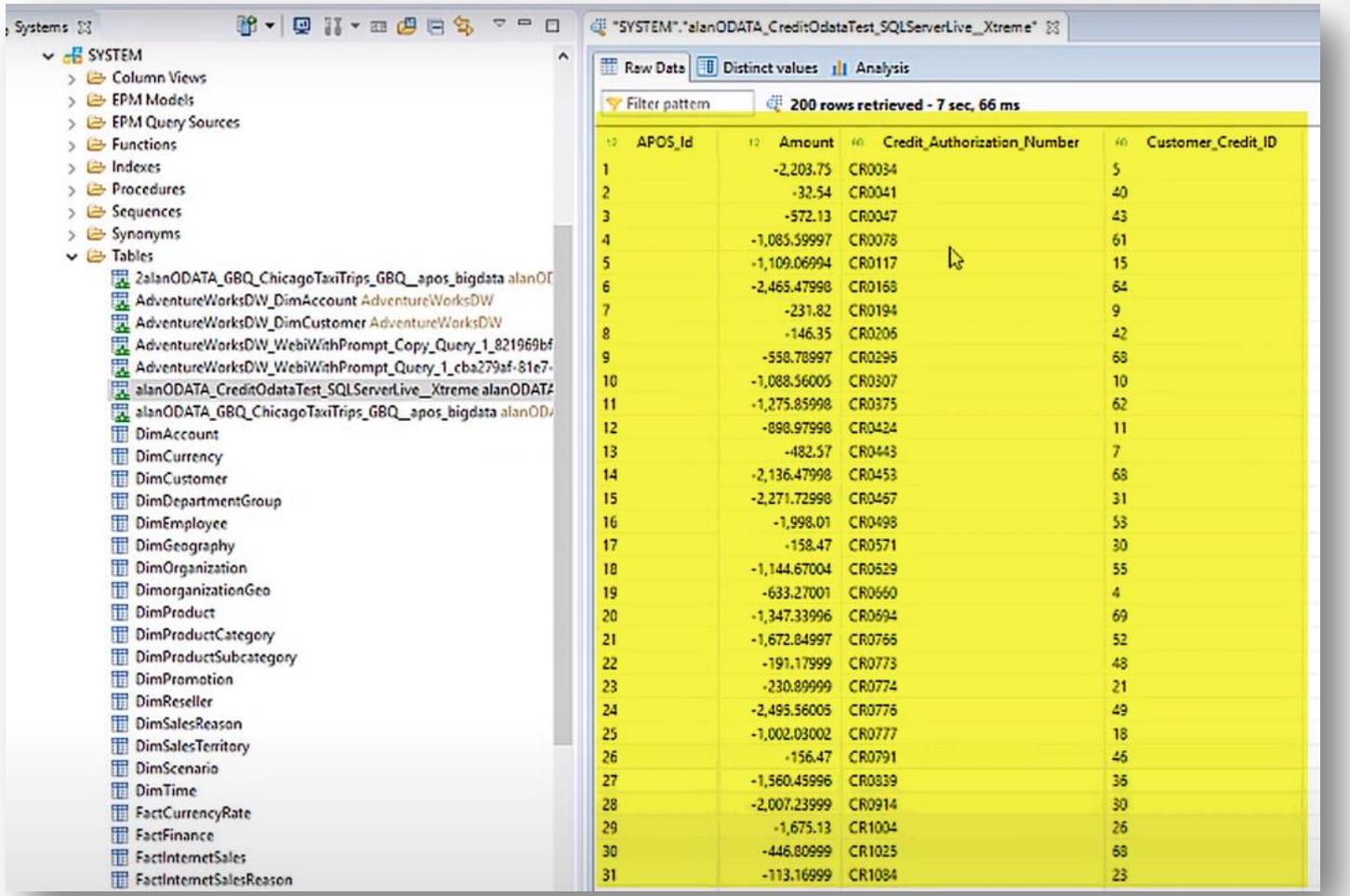
The same connection and dataset can be consumed in SAP HANA

APOS ODATA serves as a connection for SAP HANA SDA Connection



Unify Analytics Data Connectivity – SAP HANA

Virtual Tables can be created in HANA based on SDA connections using APOS Live Data Gateway

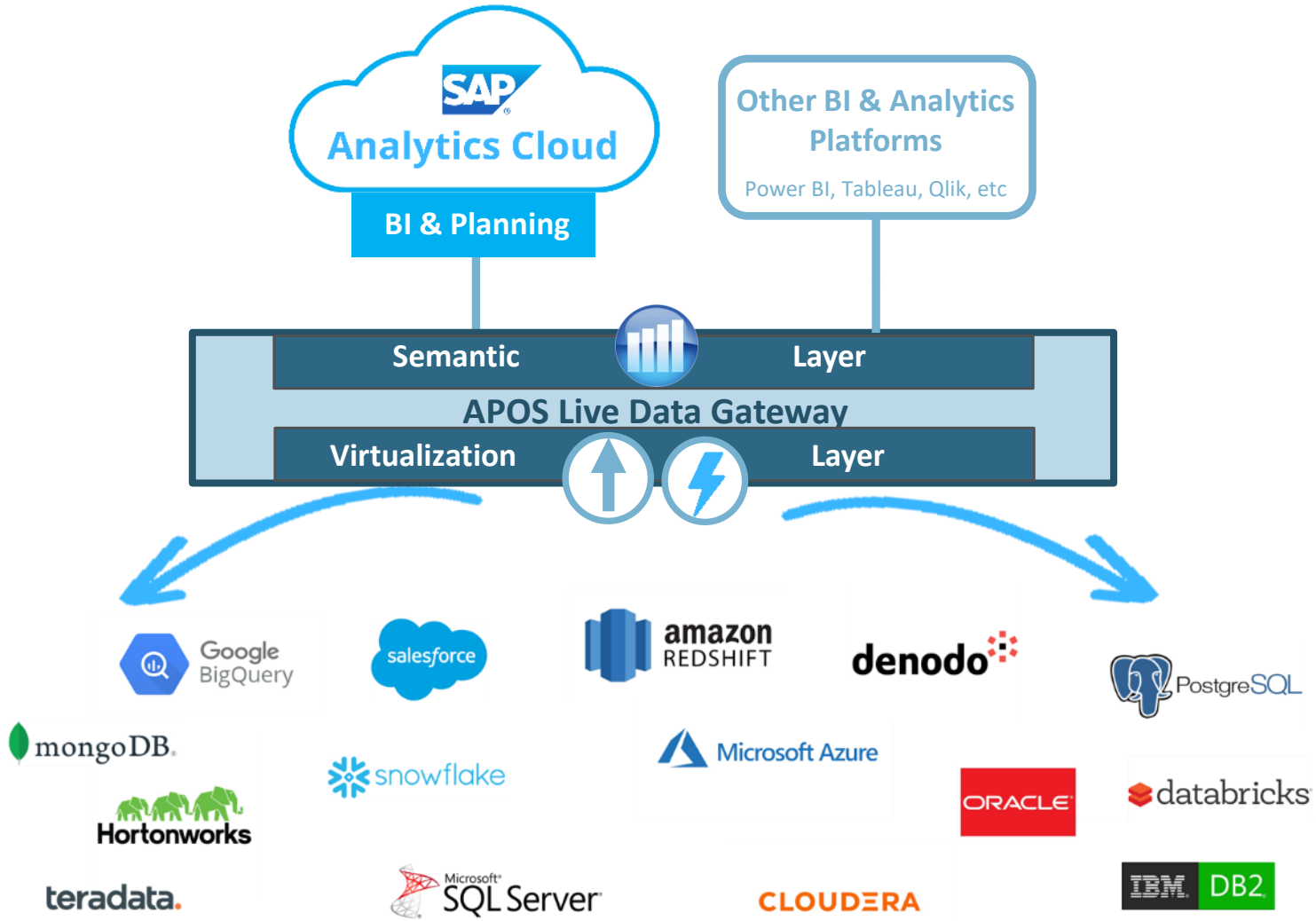


Unify Analytics Data Connectivity

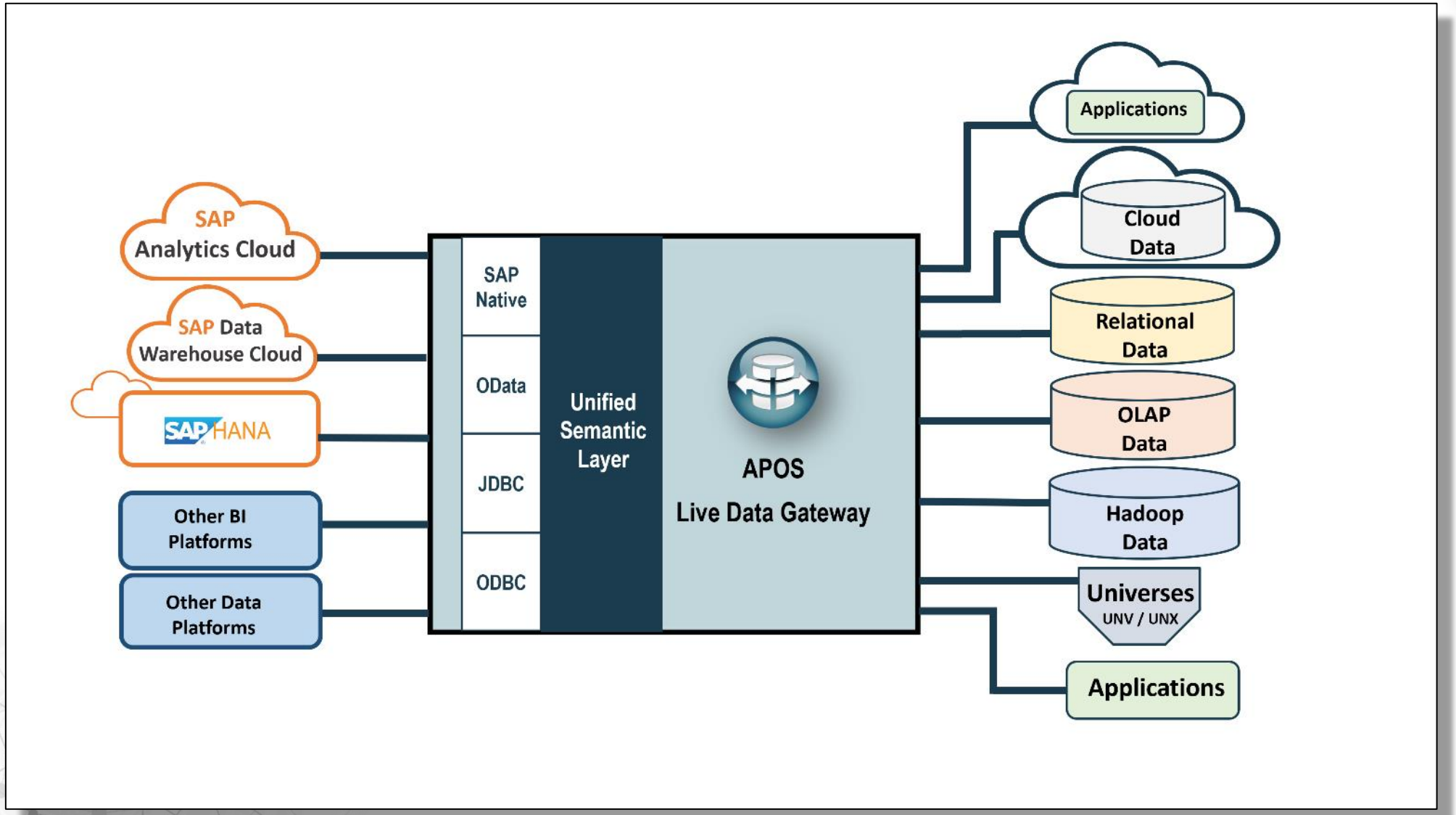
Other BI Platforms

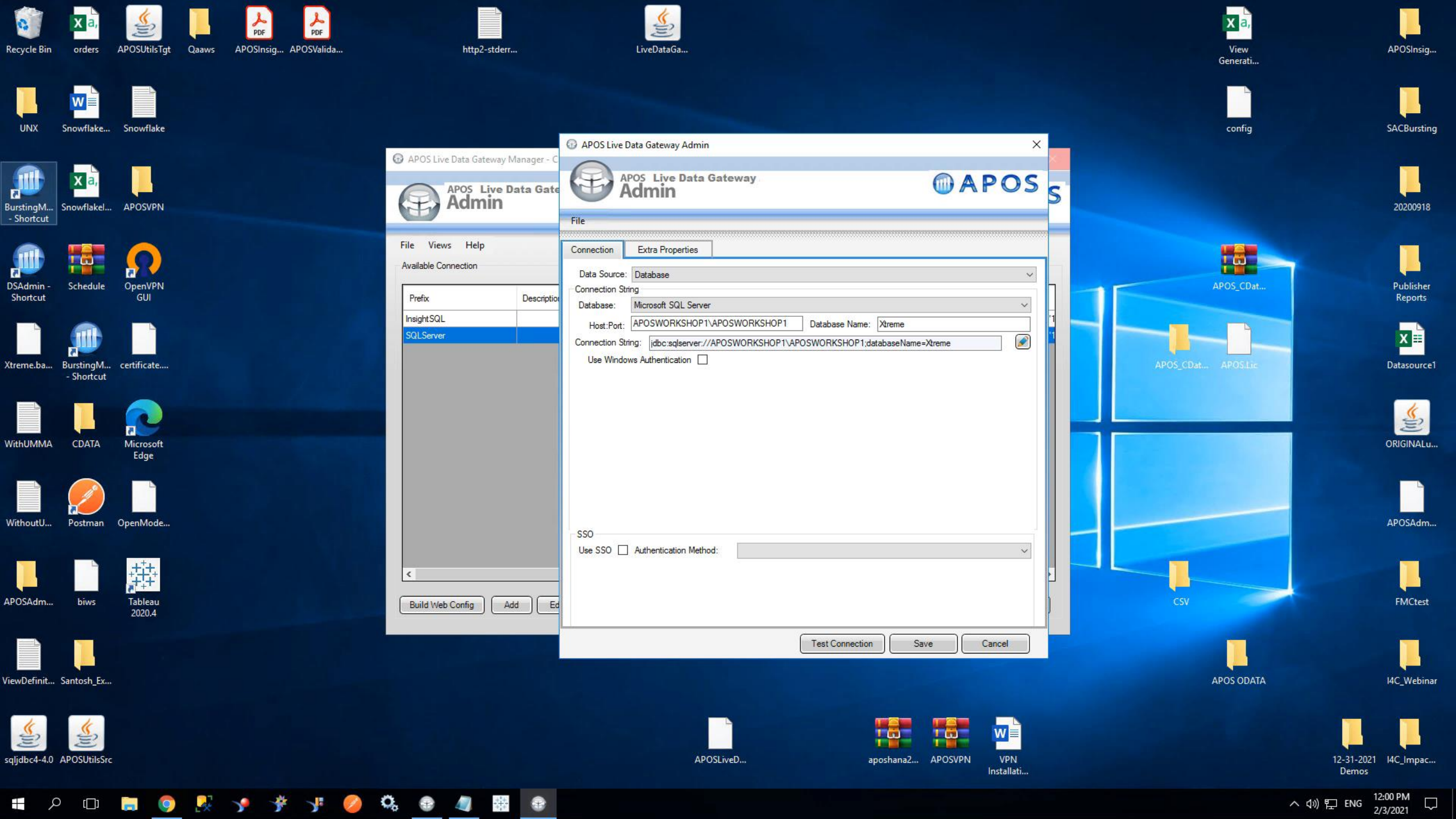
- Consistent connectivity important for all BI environments
- Simplified business layer beneficial for all BI environments
- Unified connectivity and semantic layer that can be utilized across BI environments

Unify BI & Analytics



Other BI Platforms – Consumption Protocols




APOS Live Data Gateway Admin
APOS Live Data Gateway
Admin
APOS
File
Connection
Extra Properties
Data Source:
Database
Connection String
Database:
Microsoft SQL Server
Host:Port:
APOSWORKSHOP1\APOSWORKSHOP1
Database Name:
Xtreme
Connection String:
jdbc:sqlserver://APOSWORKSHOP1\APOSWORKSHOP1;databaseName=Xtreme
Use Windows Authentication
SSO
Use SSO
Authentication Method:
Test Connection
Save
Cancel
APOS Live Data Gateway Manager - C
File
Views
Help
Available Connection
Prefix
InsightSQL
SQLServer
Build Web Config
Add
Recycle Bin
orders
APOSUtilsTgt
Qaaws
APOSInsig...
APOSValida...
http2-stderr...
LiveDataGa...
View Generati...
APOSInsig...
UNX
Snowflake...
Snowflake
config
SACBursting
BurstingM... - Shortcut
Snowflakel...
APOSVPN
20200918
DSAdmin - Shortcut
Schedule
OpenVPN GUI
APOS_CDat...
Publisher Reports
Xtreme.ba...
BurstingM... - Shortcut
certificate....
APOS_CDat...
APOS.Lic
Datasource1
WithUMMA
CDATA
Microsoft Edge
ORIGINALu...
WithoutU...
Postman
OpenMode...
APOSAdm...
APOSAdm...
biws
Tableau 2020.4
CSV
FMCtest
ViewDefinit...
Santosh_Ex...
APOS ODATA
I4C_Webinar
sqljdbc4-4.0
APOSUtilsSrc
APOSLiveD...
aposhana2...
APOSVPN
VPN Installati...
12-31-2021 Demos
I4C_Impac...
ENG
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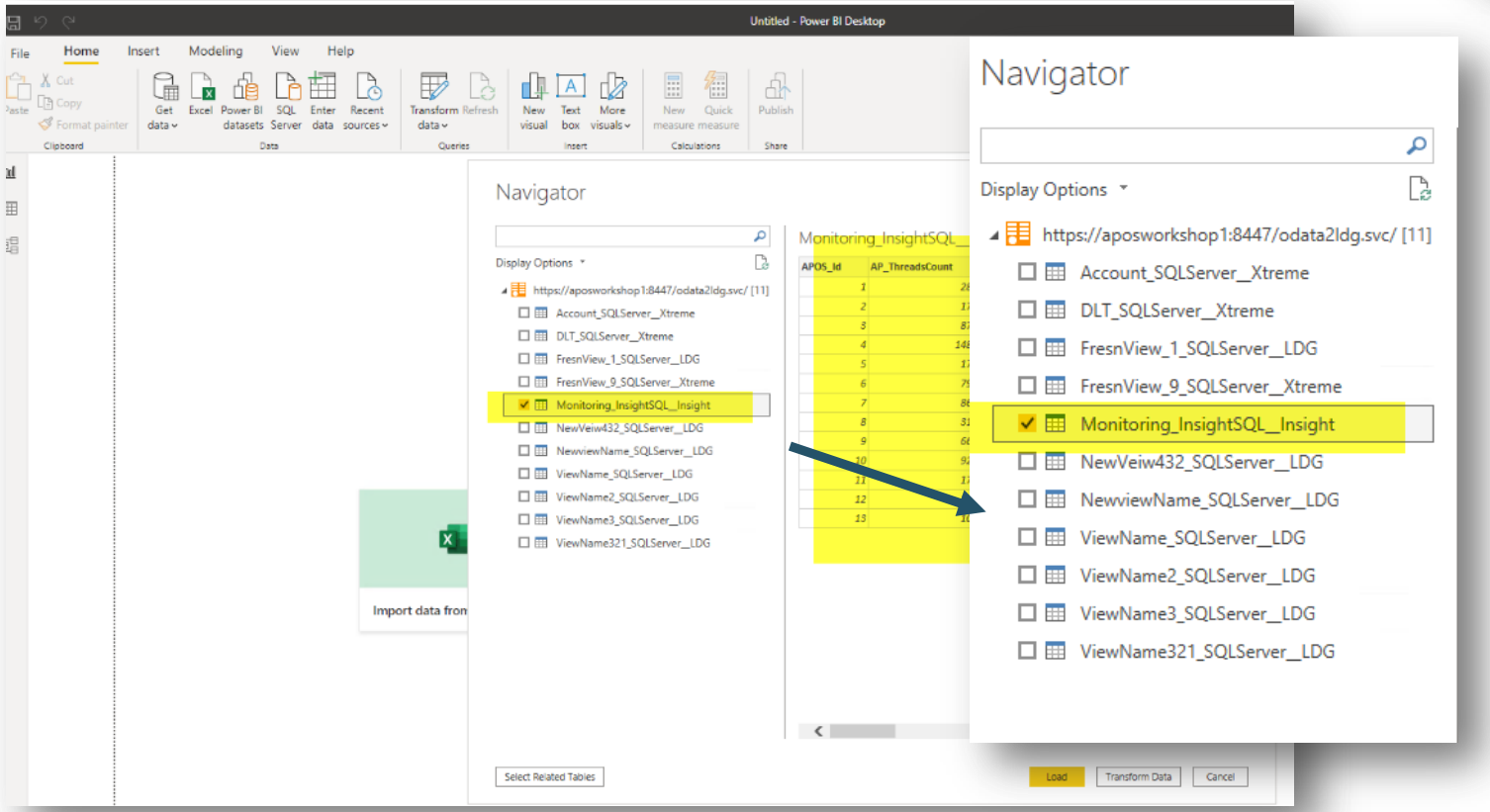
Other BI Platforms

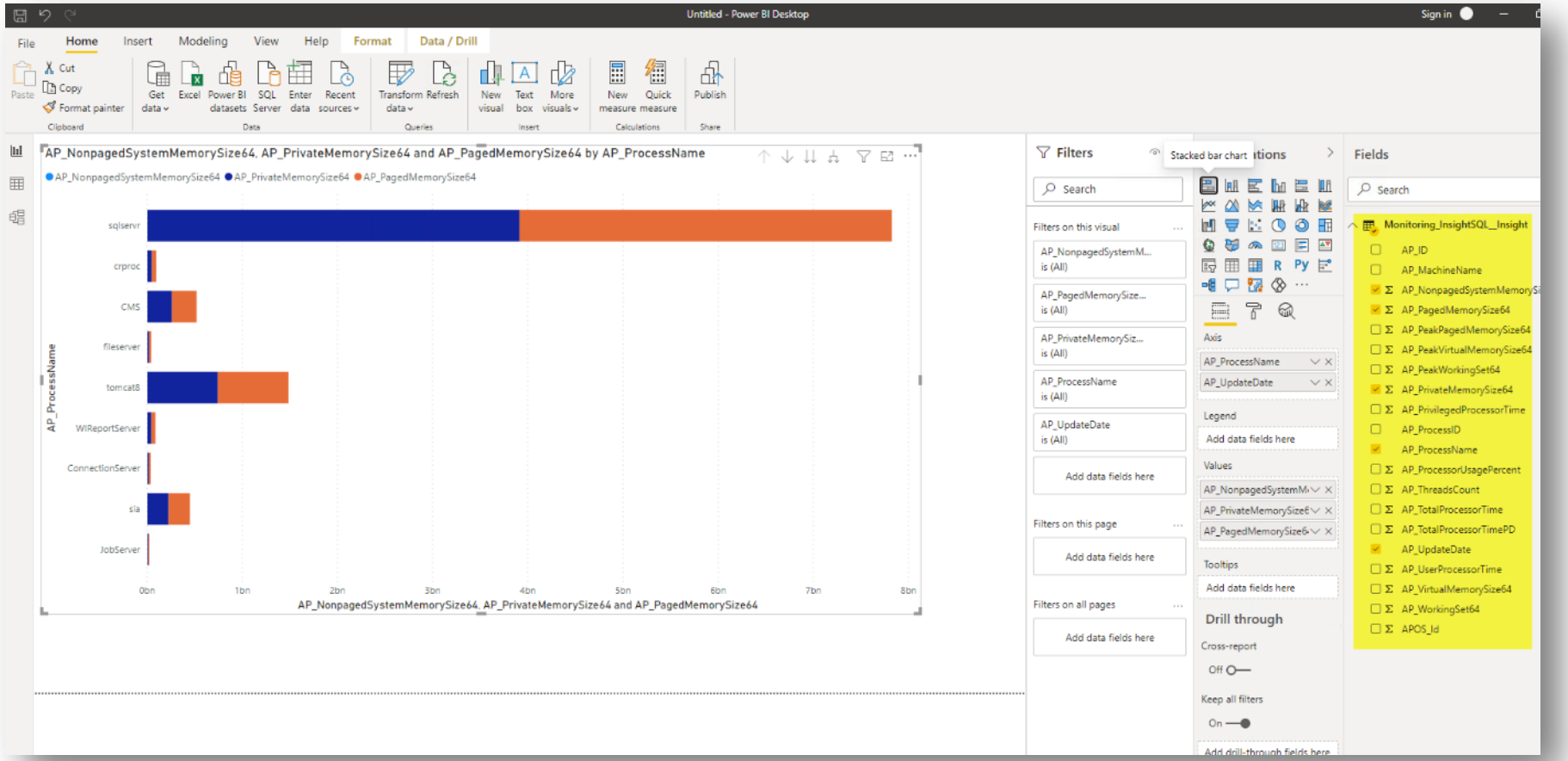
Similar example but with Power BI

APOS Views are visible once connected to Live Data Gateway



Other BI Platforms

Power BI dashboards built using APOS Live Data Gateway and the unified Semantic Layer

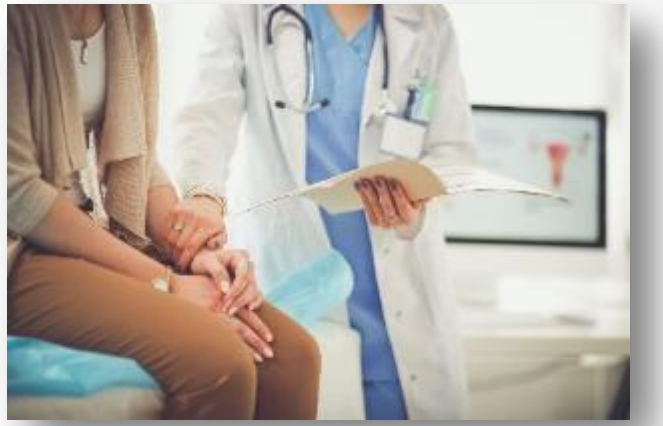


Use Case Scenario

Leading Healthcare Organization

- Multiple BI platforms are being utilized, and an objective was to have a data connectivity and semantic layer solution that could be shared across those BI environments, which includes Tableau and PowerBI

- Rather than having to recreated models/views on the database, Live Data Gateway can serve as the shared data connectivity platform, and the APOS Views within Live Data Gateway serve as the common business layer for their BI platforms, often targeting the same datasets for each platform



Unify Analytics Data Connectivity

Semantic Layer Migration

- Significant investment made into SAP BI modelling logic
- Leverage the value of that modelling logic

Semantic Layer Migrator

Translate SAP BI Modelling

Solution objectives:

- Automated, wizard-driven process to transition modelling
- Capture the data connections and data modelling logic from SAP BI that connect to relational data sources, and replicate the data connections and data modelling logic into Live Data Gateway modelling or HANA modelling
- Speed movement into Hybrid BI by leveraging SAP BI logic investment

SAP BusinessObjects

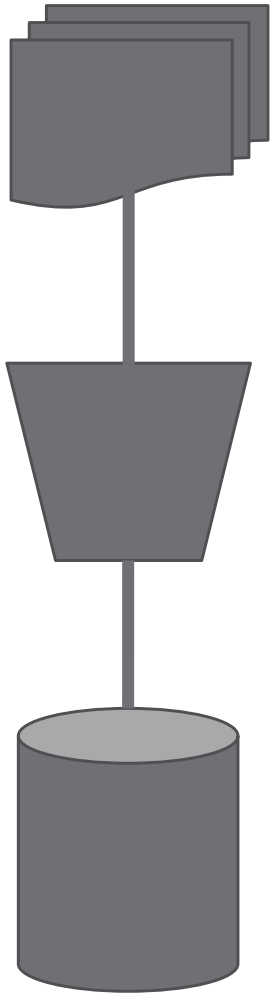
APOS Semantic Layer Migrator

Live Data Gateway

Web Intelligence Reports

Universes
UNV / UNX

Relational Data Sources



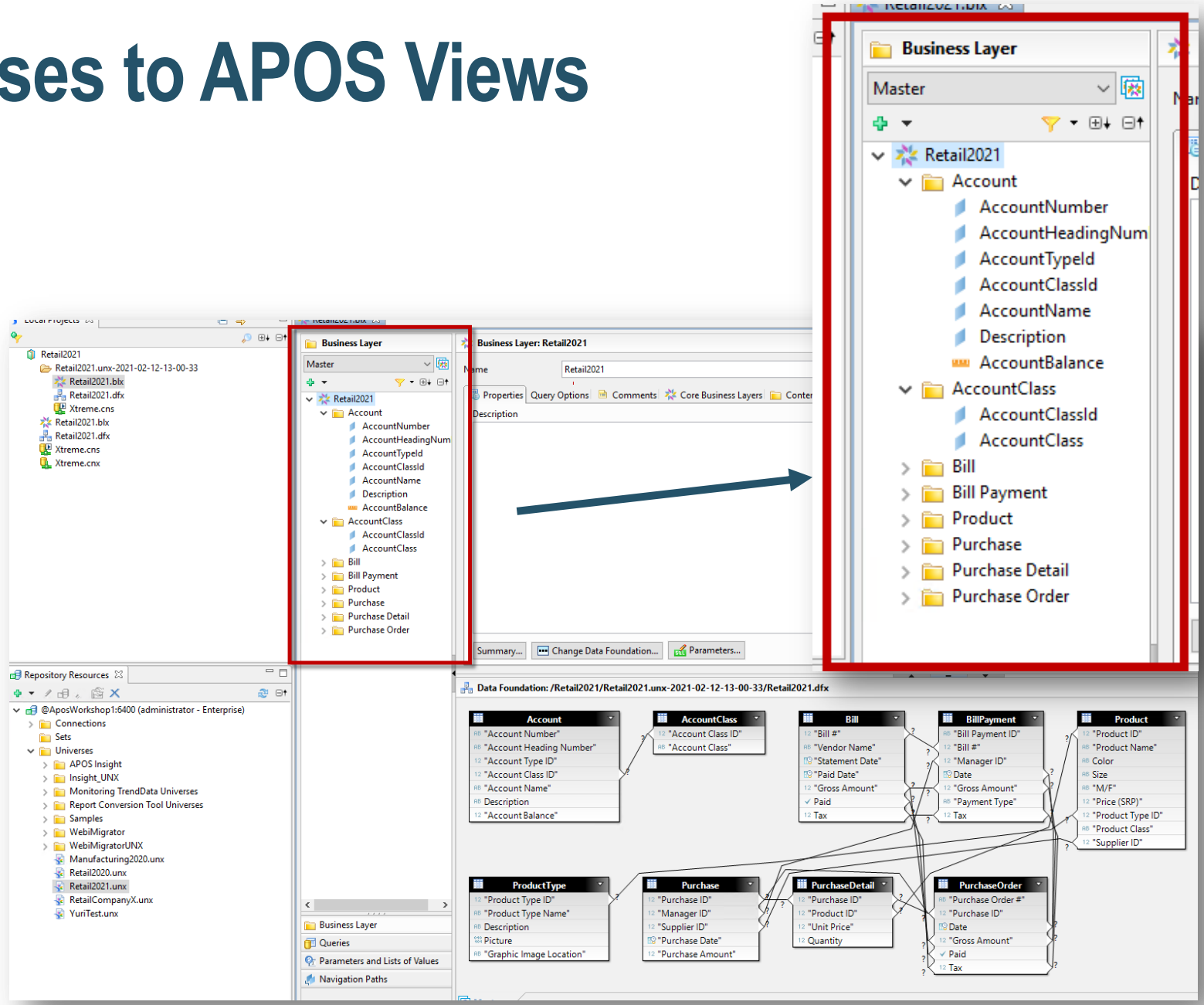
APOS Views
Web Intelligence SQL Statements are captured, optimized, and utilized to generate APOS Free-Hand SQL Views

APOS Views
Universe modelling logic (data connections, table selections, table linking & joins, field selections, field names) are translated into an APOS Semantic View.

Source Data Unchanged
No movement or disruption of source data. Database views created to support modelling replication process. No data is stored or cached in Live Data Gateway.

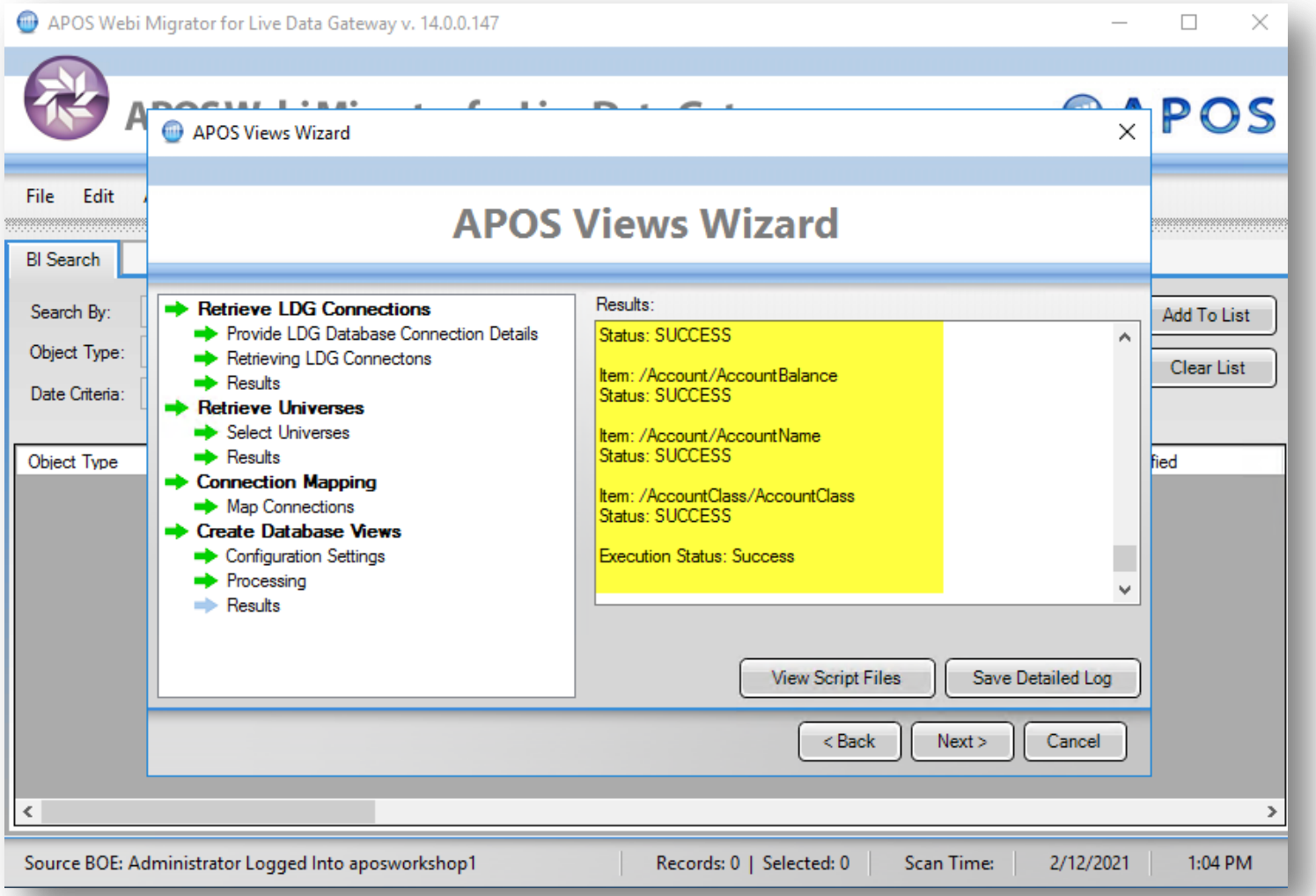
SAP BI Universes to APOS Views

Example of a Universe and the modelling logic to be translated



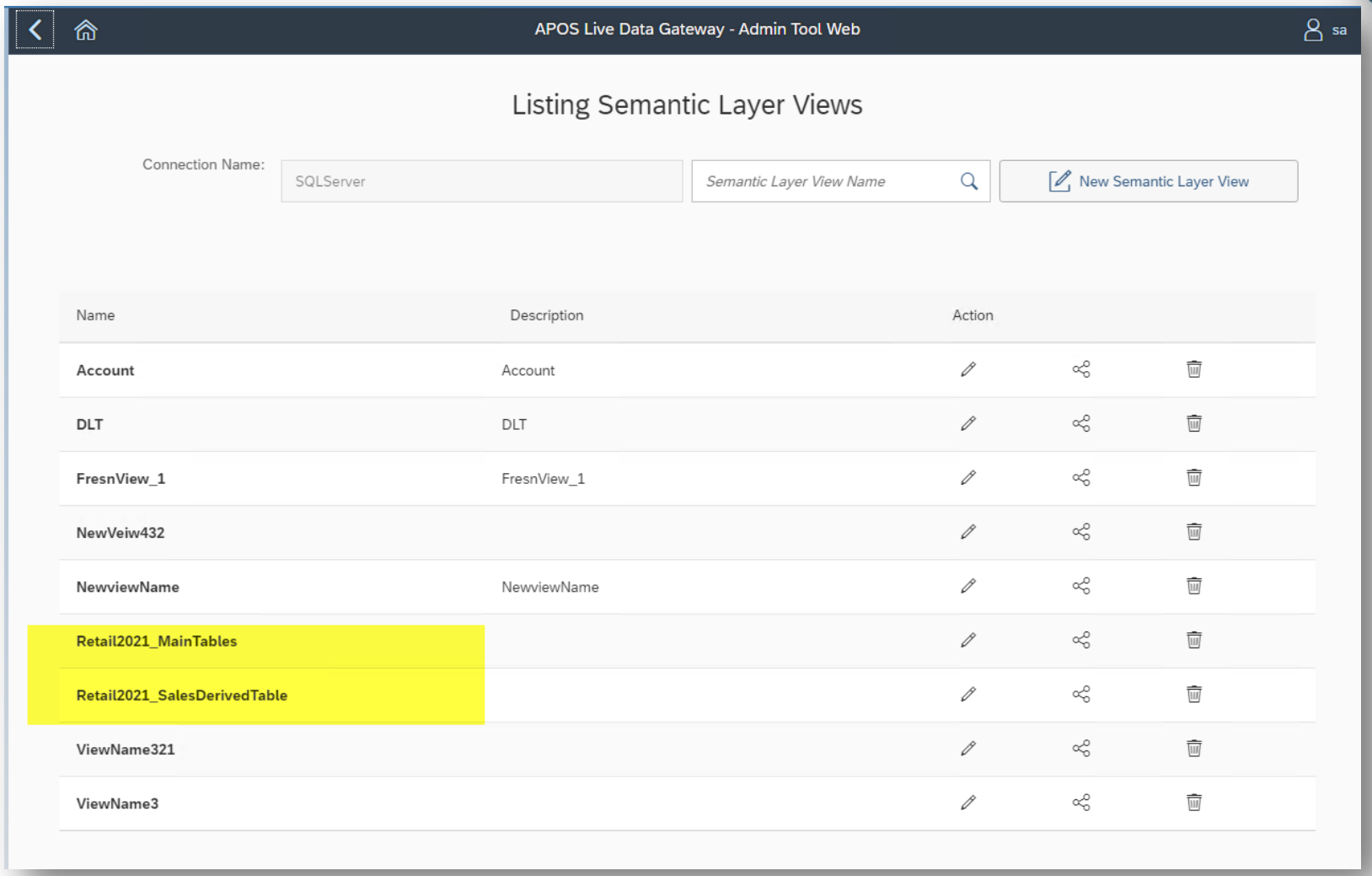
SAP BI Universes to APOS Views

APOS Semantic Layer Migrator allows you to translate the Universe modelling logic into an APOS View



SAP BI Universes to APOS Views

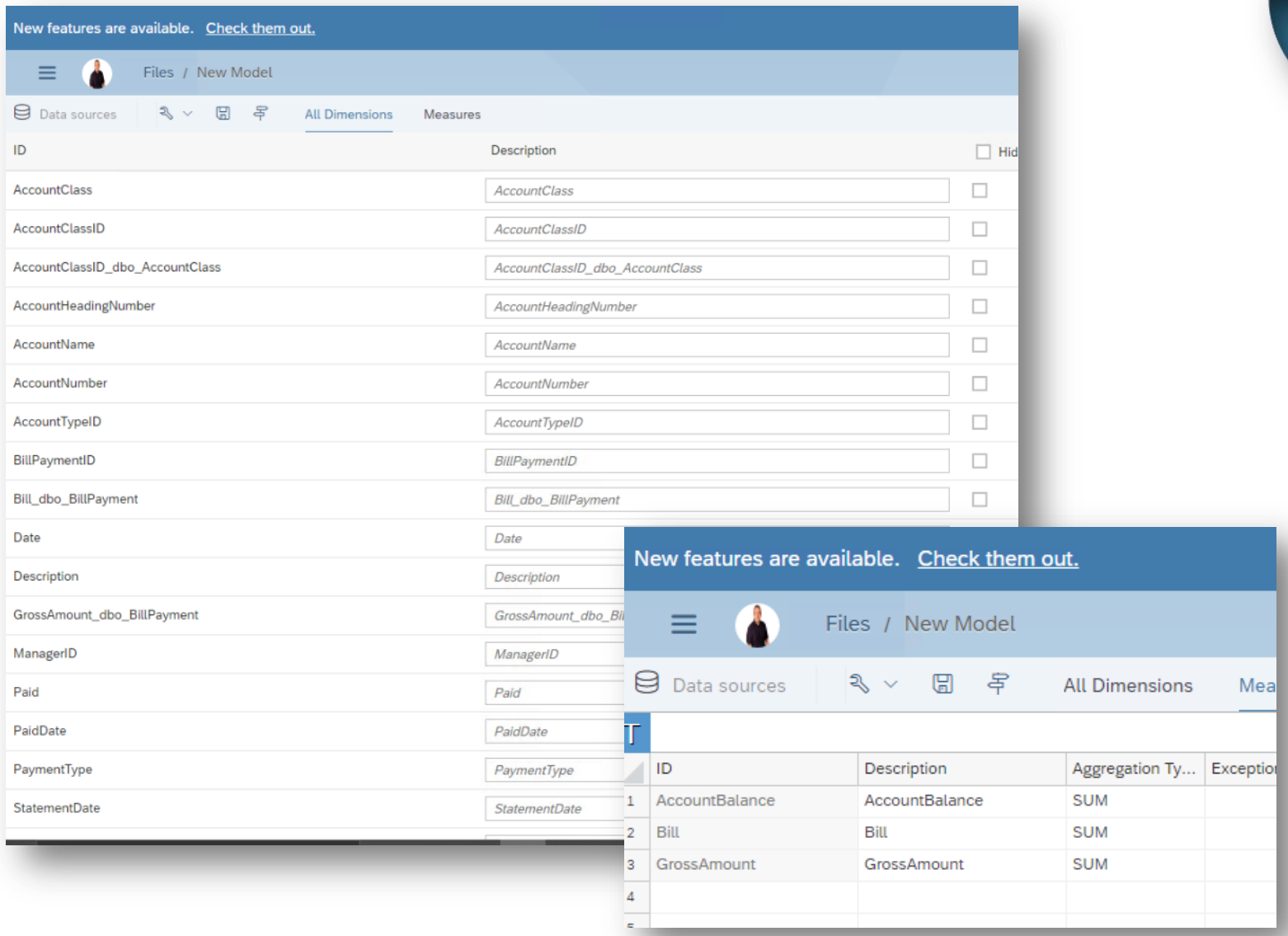
The resulting APOS Views are then available for use within the Live Data Gateway



SAP BI Universes to APOS Views

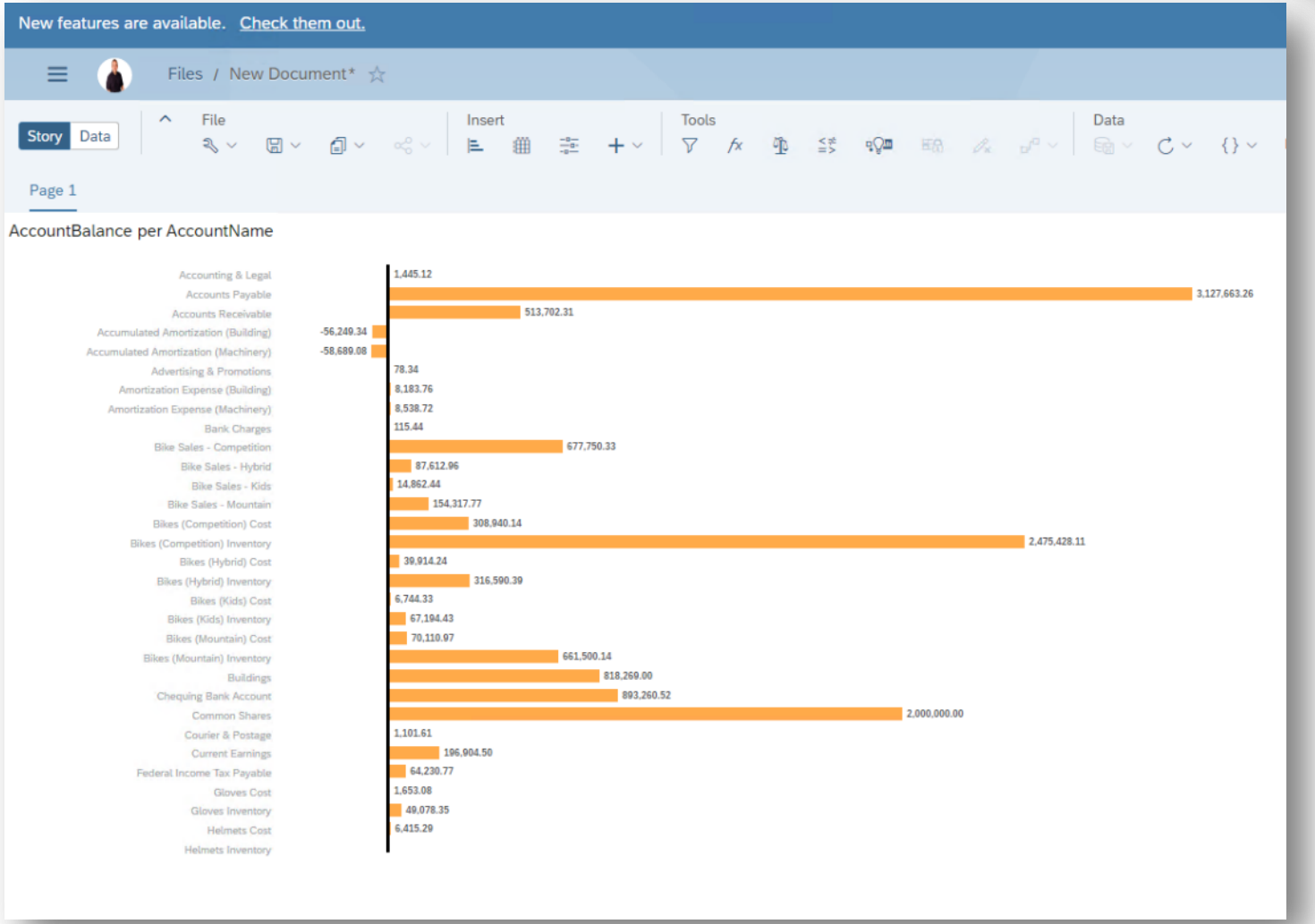
SAC models can be built against the translated APOS Views

Measures and dimensions have come from the translated Universe



SAP BI Universes to APOS Views

SAC stories can be built connecting live to the relational database, but with the Universe modelling logic incorporated



SAP BusinessObjects

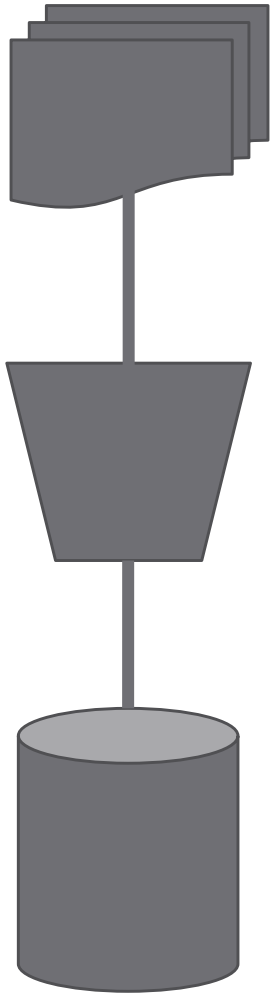
APOS Semantic Layer Migrator

SAP HANA

Web Intelligence Reports

Universes
UNV / UNX

Relational Data Sources



HANA Calculation Views
Web Intelligence SQL Statements are captured, optimized, and utilized to generate HANA Calculation Views

HANA SDA Connections
HANA SDA connections are created for each table listed in the Universe. Universe derived tables replicated as database views.

Source Data Unchanged
No movement or disruption of source data. Database views created to support modelling replication process.

Use Case Scenario

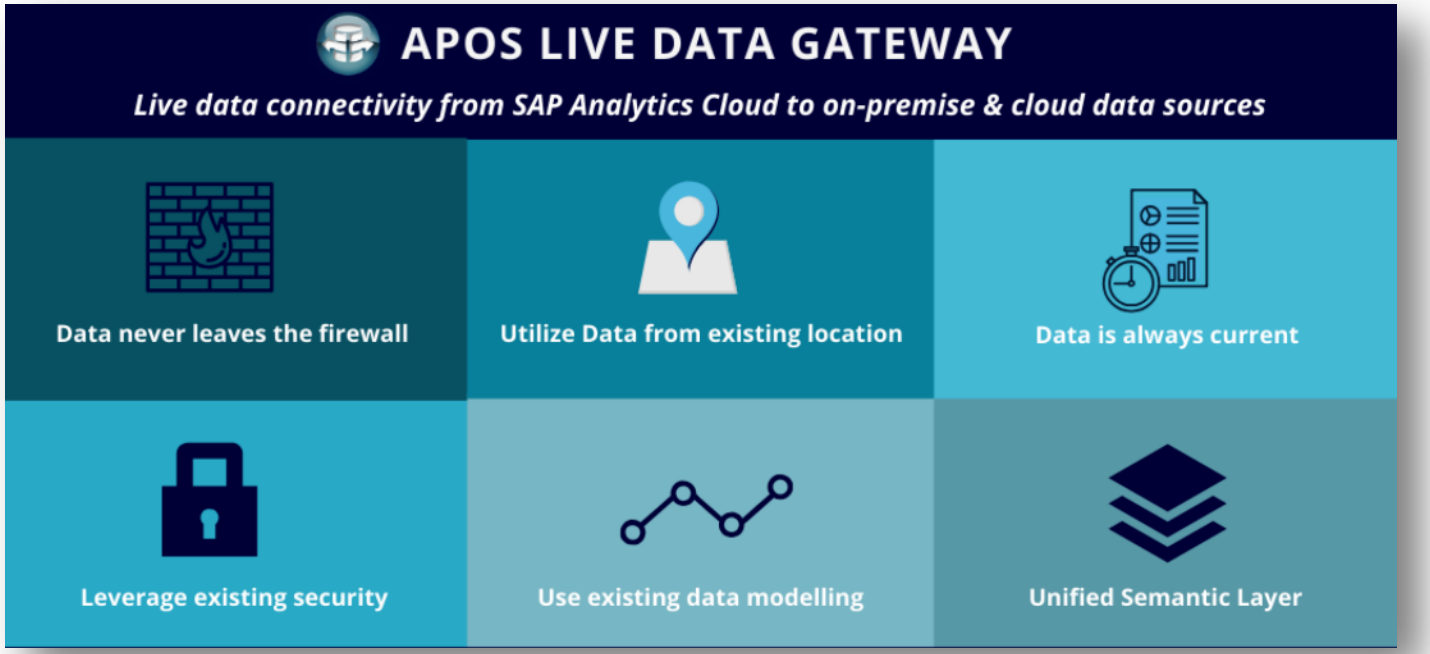
Large Aerospace Organization

- They have heavily invested in the SAP BI platform, and use BOE Universes as their main semantic layer for reporting.
- They want to leverage the modelling logic behind these Universes for other tools (Tableau) and need a way to allow their report designers to create reports based off that modelling.
- Semantic Layer Migrator allows translation of the Universe logic into APOS Semantic Layer Views, and then utilize those APOS Views as the data connectivity point, with modelling logic retained.

Unify Analytics Data Connectivity

- SAC Planning
- SAP Data Platforms
- Other BI Platforms
- Semantic Layer Migration

APOS Live Data Gateway



Next Steps:

- Questions
- Solution Videos – www.apos.com
- Solution Demonstration – APOS Account Manager
- Evaluation / Proof of Concept

APOS Solutions for SAP Analytics Cloud

APOS Live Data Gateway

- Live Connectivity from SAC to wide range of data sources

APOS Semantic Layer Migrator

- Automated translation of SAP BI Modelling to HANA and Live Data Gateway

APOS Publisher for Cloud

- Bursting and Distribution of SAC content

APOS Insight for Cloud

- Enhanced Monitoring, Auditing and Validation of SAP Analytics Cloud

APOS Solutions for SAP BusinessObjects

APOS Insight

BI System Auditing

- System Inventory
- Security Analysis
- System Usage Analysis
- Report Impact Analysis

BI Report Testing

- Automated Report Testing
- Regression Testing
- Validation of Report Data
- Report Performance Testing

BI System Monitoring

- Advanced System Monitoring
- Operating Environment Monitoring
- Database Monitoring
- Process Monitoring

BI Query Surveillance

- Real-time BI Query Monitoring
- Query Performance Alerting & Auditing
- Query Intervention; Remote Cancelling
- Sensitive Data Audit

APOS Administrator

Object Management

- Bulk Security Management
- Bulk Settings Management
- System Objects Promotion
- Connections Maintenance

Schedule Management

- High-volume schedule management
- Multiple schedule properties editing
- Grid scheduling interface
- Repeatable scheduling templates

Instance Management

- Manage entire instance inventory
- Granular instance search
- Stop, pause, release, reschedule
- Rapid recovery to failed schedules

Web Intelligence Migration

- Bulk conversion of Universes from UNV to UNX
- High-Volume Repoint Web Intelligence reports
- Success validation
- Controlled, project-based workflow

APOS Storage Center

- System Backup
- Content Archiving
- Content Versioning
- Selective Restoration
- Automated System Clean Up

APOS Publisher

- Systematic Content Delivery
- Advanced Document Bursting
- Enhanced Content Distribution
- Security and Encryption
- Statement Generation

Upcoming Events

Extend Analytics Content with Distribution of Tailored Content - *Webinar*

March 4, 2021 – 11 am EST

Distributing SAP Analytics Cloud content is all about getting the right content (and only the right content) in the right format to the right people at the right time. Getting distribution right comes down to:

- **Formats –** Consider the most usable format for the recipients.
- **Destinations –** Consider which destinations work best for recipients.
- **Bursting –** Schedule timely delivery of content.
- **Selective Page Distribution –** Give users only the content they need to succeed.

Register at www.apos.com

Upcoming Events

Simplify Your SAP BusinessObjects Upgrade Migration Execution - *Webinar*

March 18, 2021 – 11 am EDT

In a previous webinar, we discussed planning and preparation for upgrading your SAP BI deployment. In this webinar we discuss activities to assist in efficient and effective migration execution, including:

- **Migrating content –** moving reports, universes, users, groups & security settings
- **Simplifying & optimizing –** excluding unused reports, combining similar reports, adjusting BI licensing, converting to UNX universes
- **Securing & protecting –** setting folder security by user group, implementing a content backup & restore strategy
- **Creating validation projects –** implement your test plan using

Register at www.apos.com

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Join easily by searching "SAP Analytics Cloud (SAC)" & Request to Join on LinkedIn!

Please enter your questions in the Q&A panel.

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Thank You!

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