

WEBINAR

## *Ignite Analytics:*

**New Connectivity Options  
for SAP Analytics Cloud to  
non-SAP Data Sources**

# Today's Session

## *Key Topics*

- Introduction
- SAC Connectivity Options
- Expanded Import Connectivity for non-SAP Data
- Extract and Export SAC Planning Data
- Direct Live Connectivity to non-SAP Data
  
- Q&A – see webinar console

## Today's Presenters:



**ALLAN PYM**

COO  
APOS



**ALAN GOLDING**

Solution Consulting Manager  
APOS



## Who is APOS?

- Formed in 1992
- Focus on BI & Analytics solutions
- Software solutions to enable BI platform management, BI report publishing, and analytics data connectivity
- Simplifying, automating, extending SAP Analytics Cloud, SAP BusinessObjects, and SAP data analytics
- Strategic SDK development and consulting
- Hundreds of customers globally



# HOUSEKEEPING



You will have access to the **slides** via email



You will get the **recording** within 24 hours



Download the **handouts** in the panel



Tell us how we did in the **survey**

# APOS Solutions for SAP Analytics Cloud



## APOS Publisher for Cloud

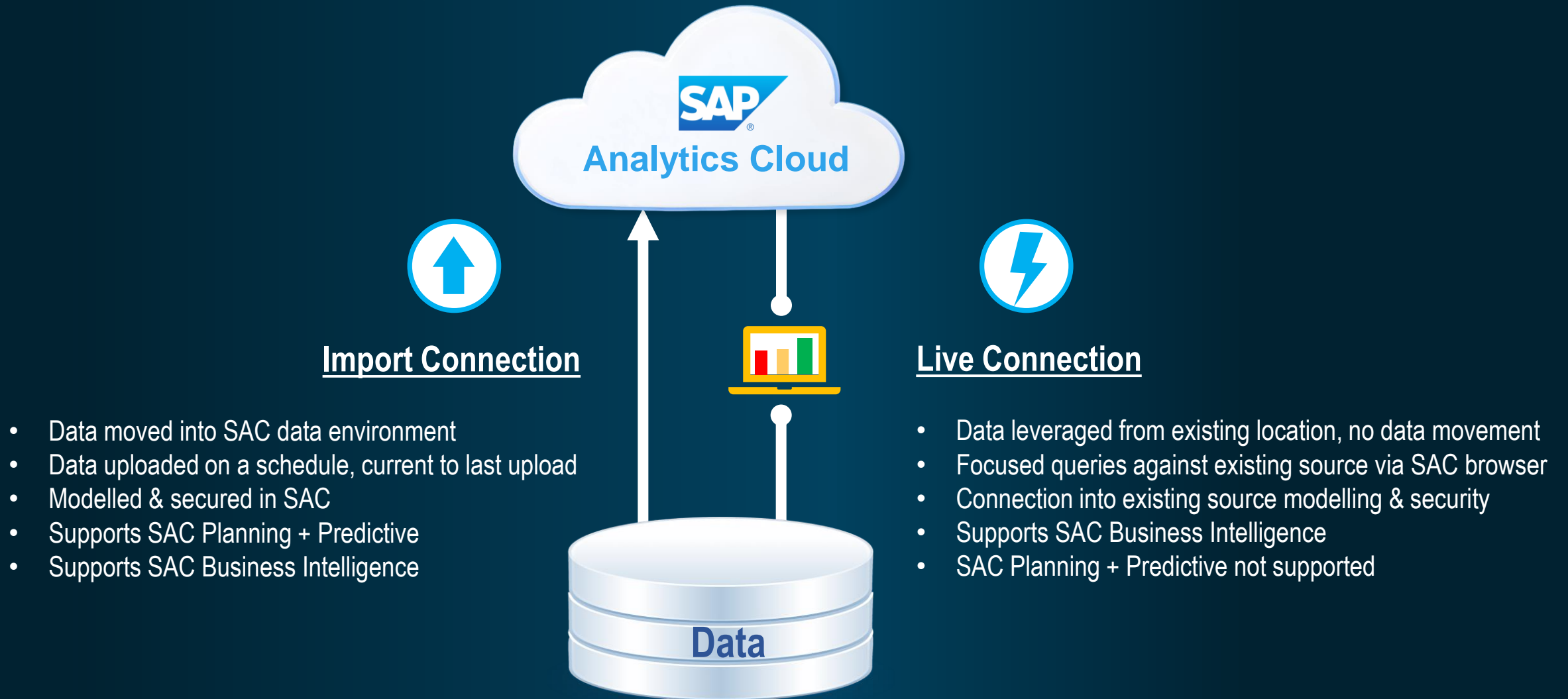
- Automated broadcasting and distribution of personalized SAC reports to target user groups
- Distribute reports to the right people, right time, right location, right format



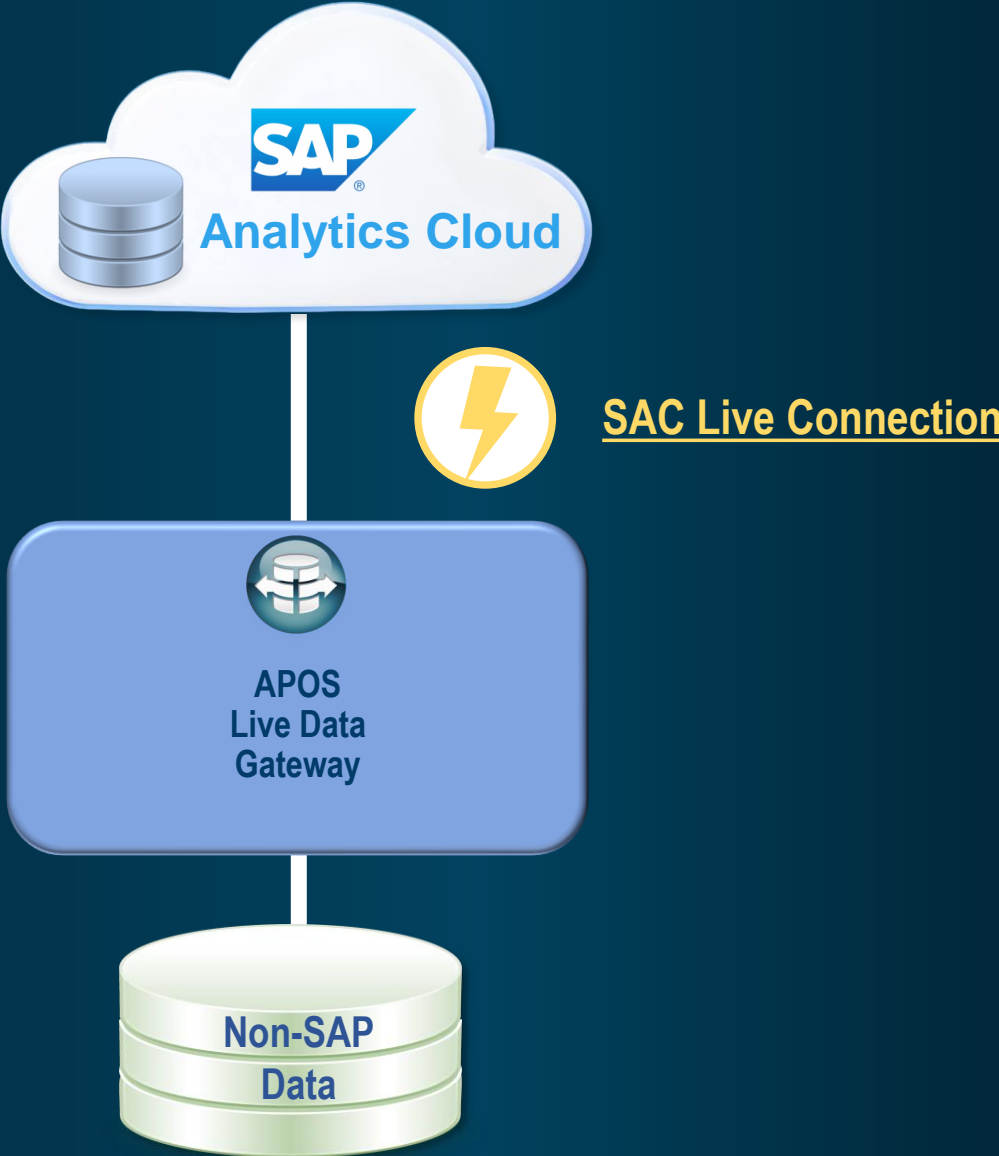
## APOS Data Gateway

- Live connectivity from SAC to wide range of data sources
- Import data from wide range of sources into SAC
- Extract and Export data from SAC

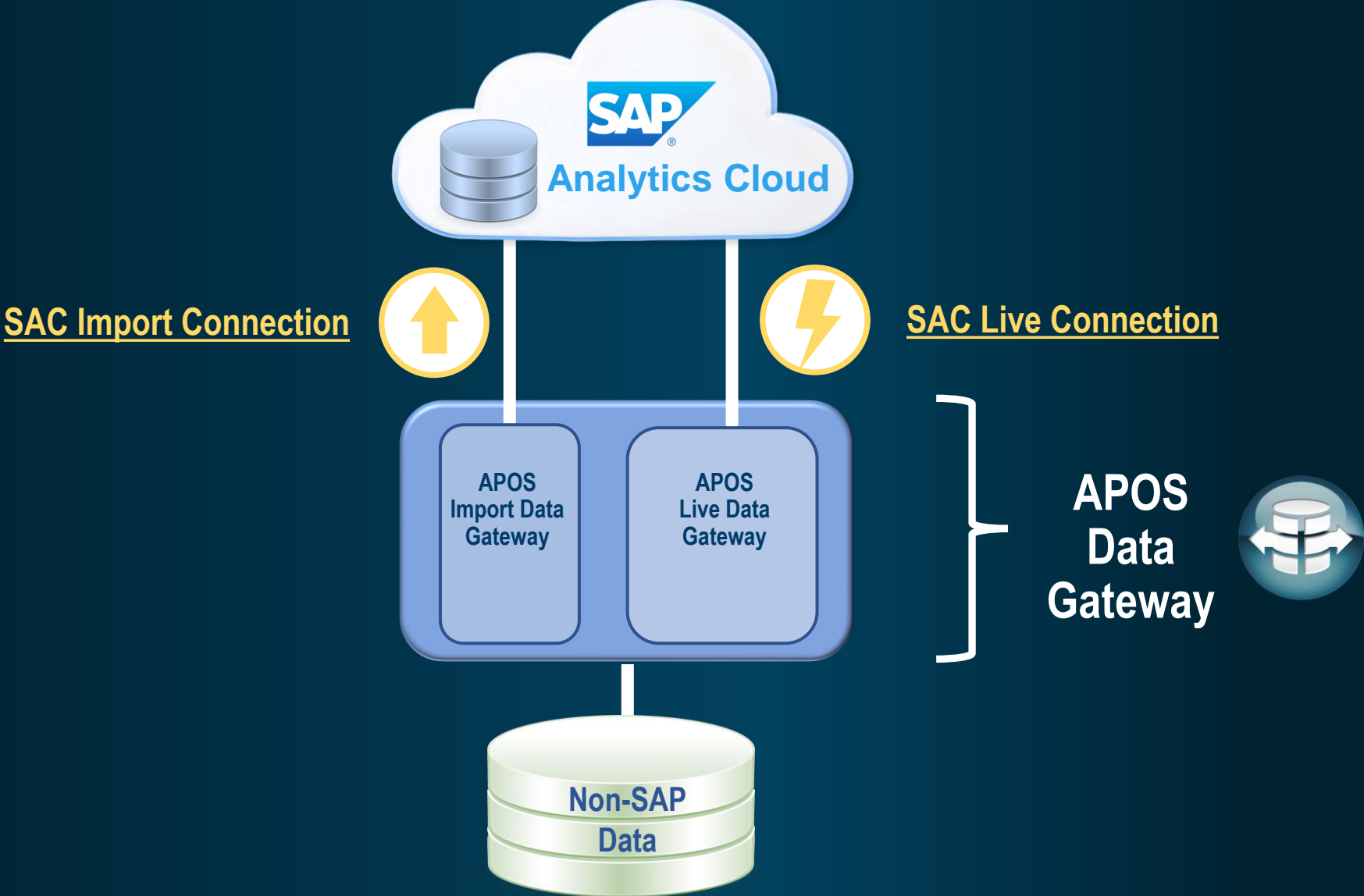
# SAC Connectivity



# SAC Connectivity

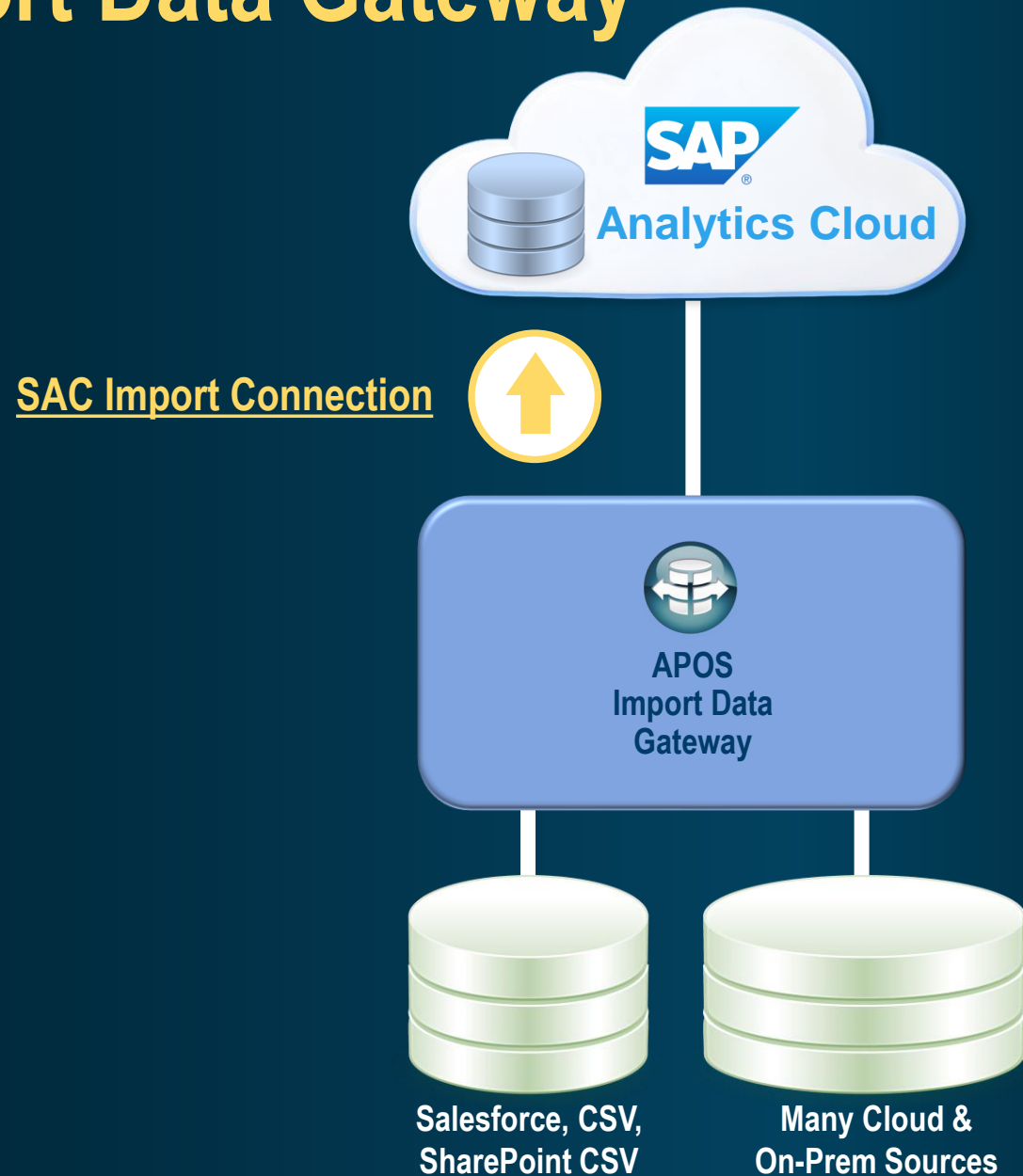


# SAC Connectivity

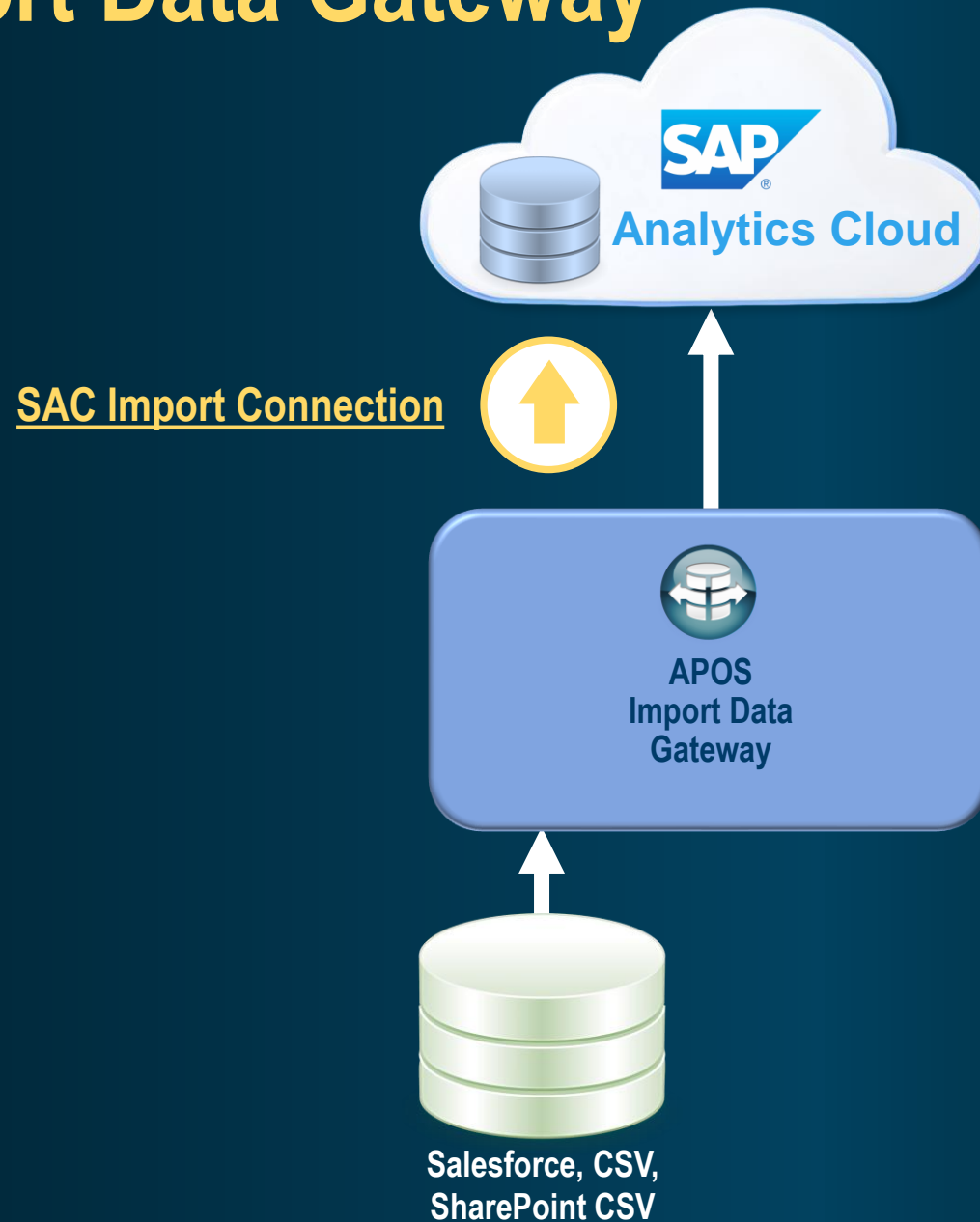




# APOS Import Data Gateway



# APOS Import Data Gateway



# APOS Import Data Gateway

The screenshot shows the SAP Help Portal interface. The top navigation bar includes the SAP logo, 'Help Portal (Documentation)', and links for 'Browse by Product', 'SAP Learning Journeys', and 'What's New'. Below the navigation bar, there are utility icons for 'Favorite', 'Download PDF', and 'Share'. The left sidebar contains a list of navigation items, with 'Import Data Connection to Salesforce' highlighted in blue. The main content area features the title 'Import Data Connection to Salesforce', a brief description, and a 'Prerequisites' section. A 'Caution' box is present, containing a warning message about the deprecation of the Salesforce connection in QRC4 2024 and a recommendation to use a SQL Database connection or the APOS Live Data Gateway.

**SAP** Help Portal (Documentation) Browse by Product SAP Learning Journeys What's New

↓ ☰ ↑ ⏪

☆ Favorite PDF Download PDF 🔄 Share

## Import Data Connection to Salesforce

You can create a connection that allows you to import data from salesforce.com (SFDC).

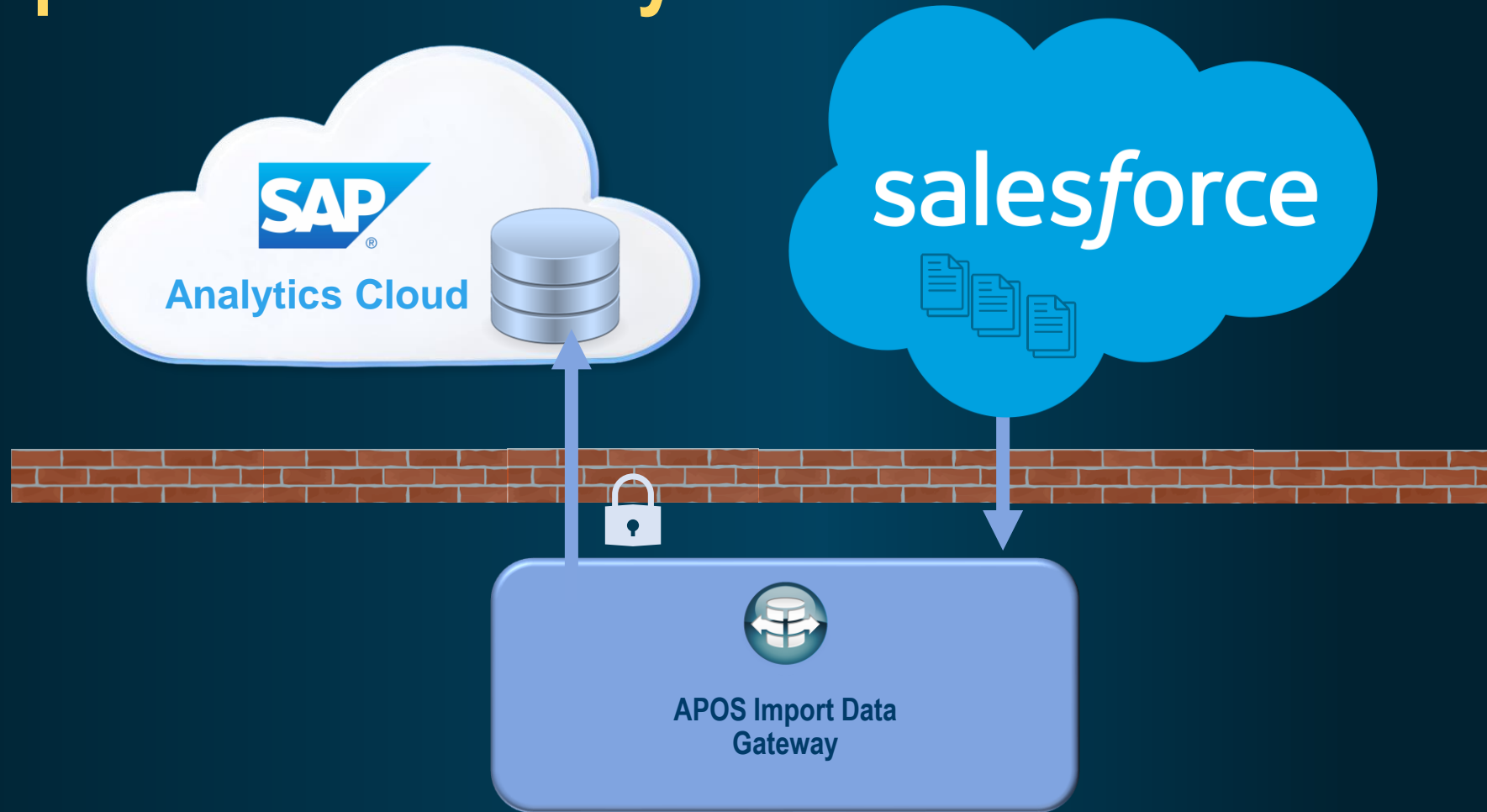
### Prerequisites

**⚠ Caution**

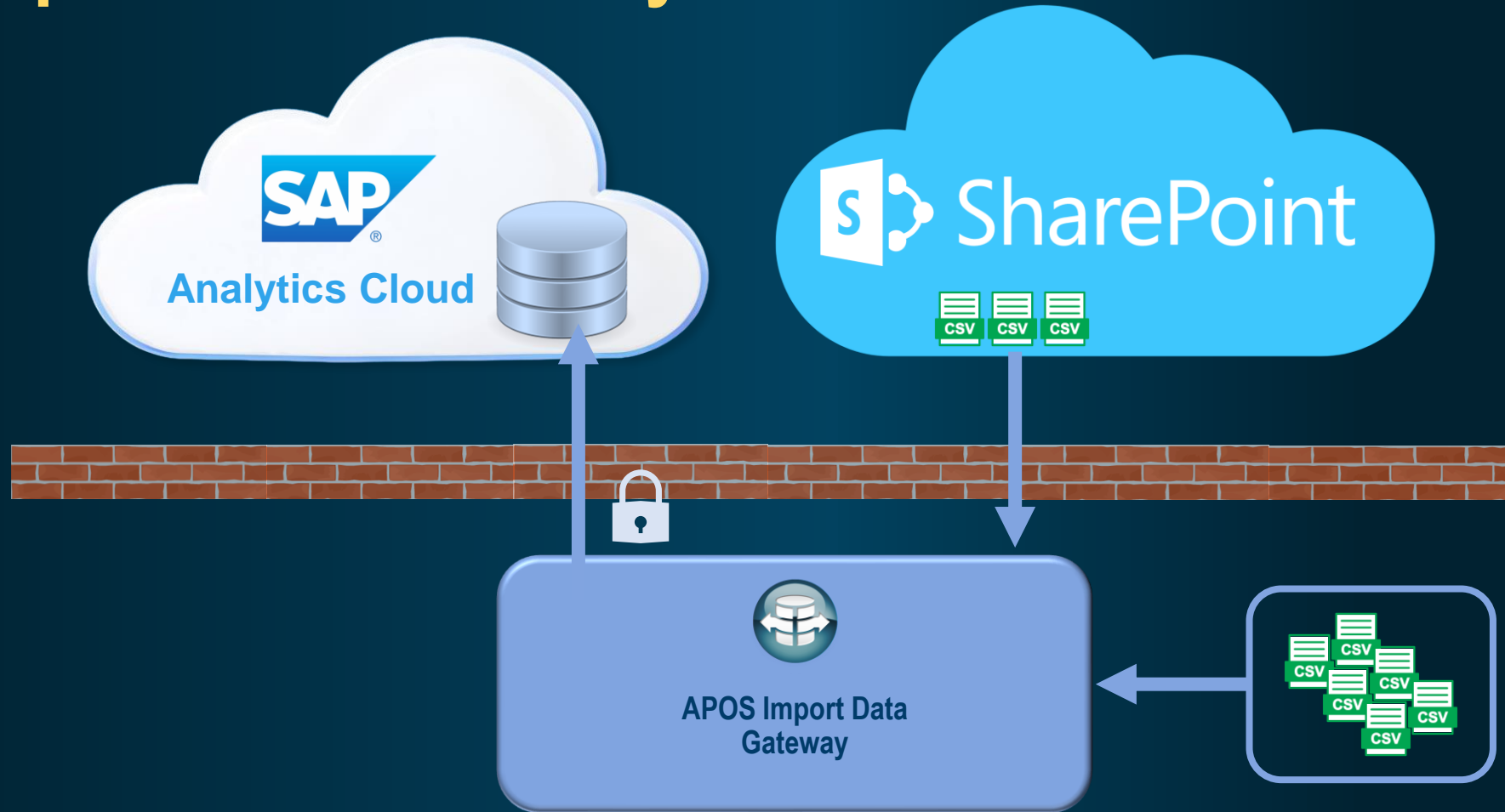
Salesforce connection will be deprecated in QRC4 2024. Please utilize a SQL Database connection using JDBC or APOS Live Data Gateway for Acquired Connections. See SAP Note [3402695](#).

- Import Data Connection to OData Services
- Import Data Connection to SAP Integrated Business Planning
- Import Data Connection to Salesforce**
- Import Data Connection to an SQL Database
- Import Data Connection to Qualtrics
- > Use SAP Integration Suite Open Connectors
  - Sharing an Import Data Connection
- > Creating Export Data Connections
- > Data Preparation and Wrangling (Datasets and Models)
- > Data Analyzer

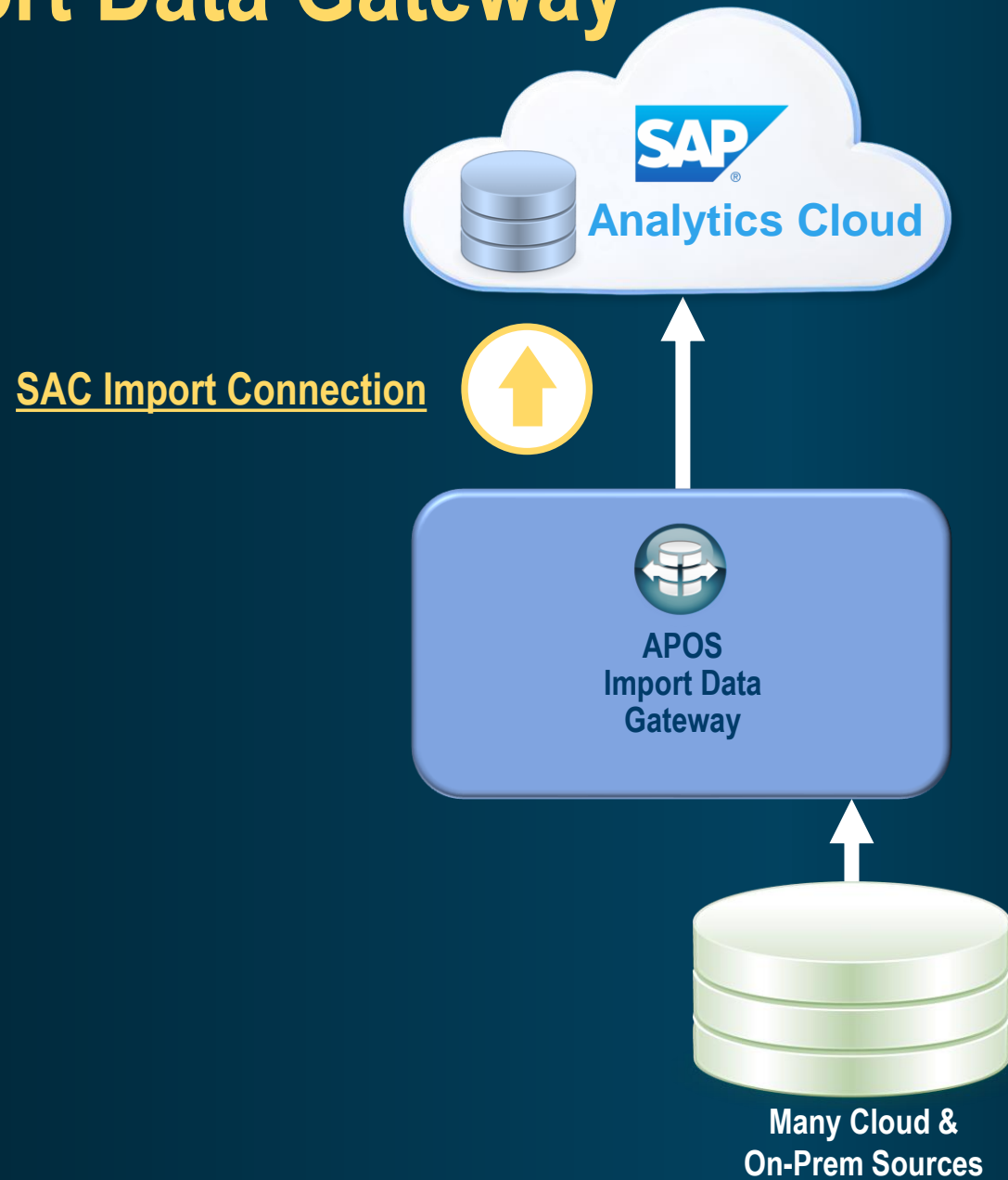
# APOS Import Data Gateway



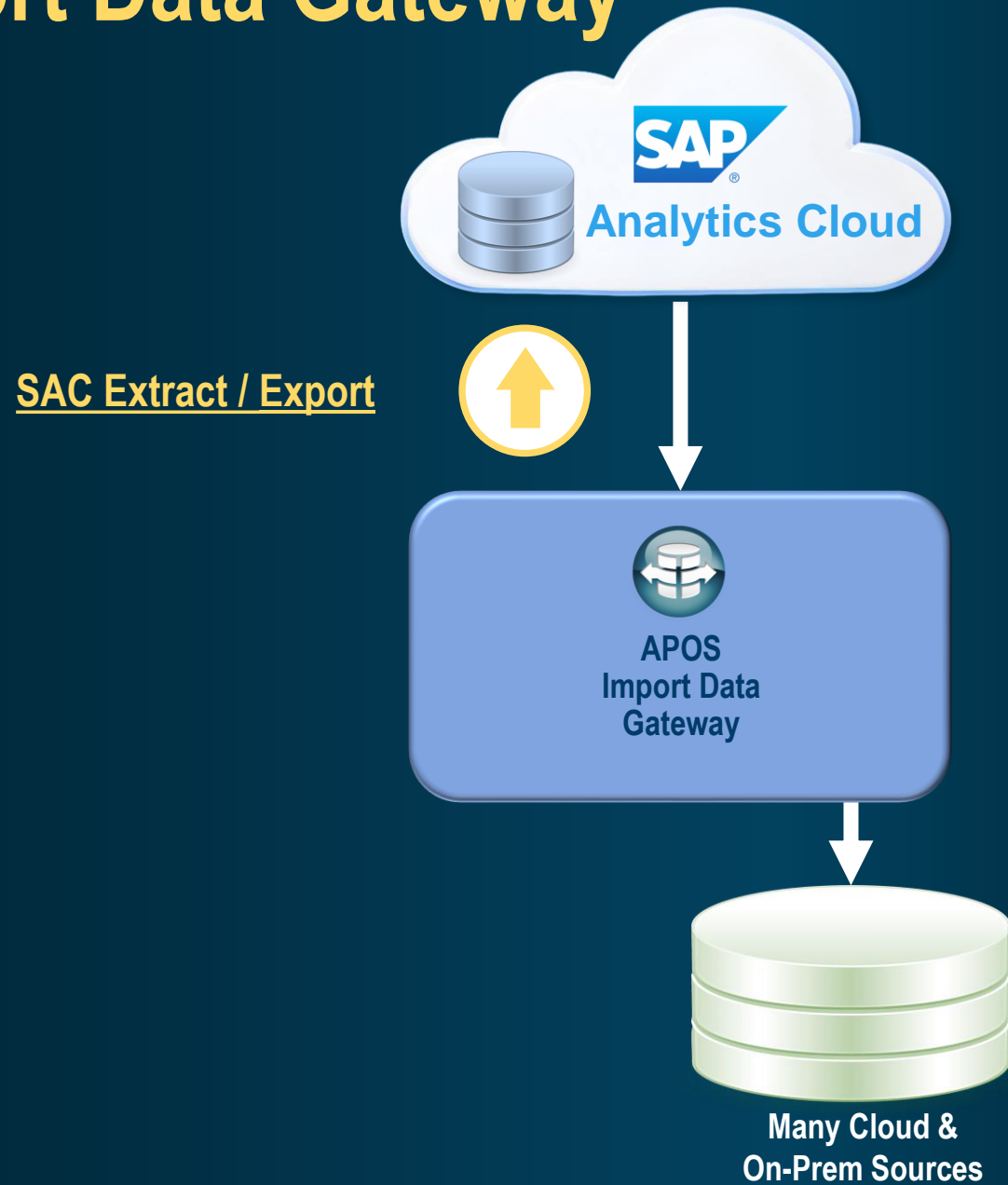
# APOS Import Data Gateway



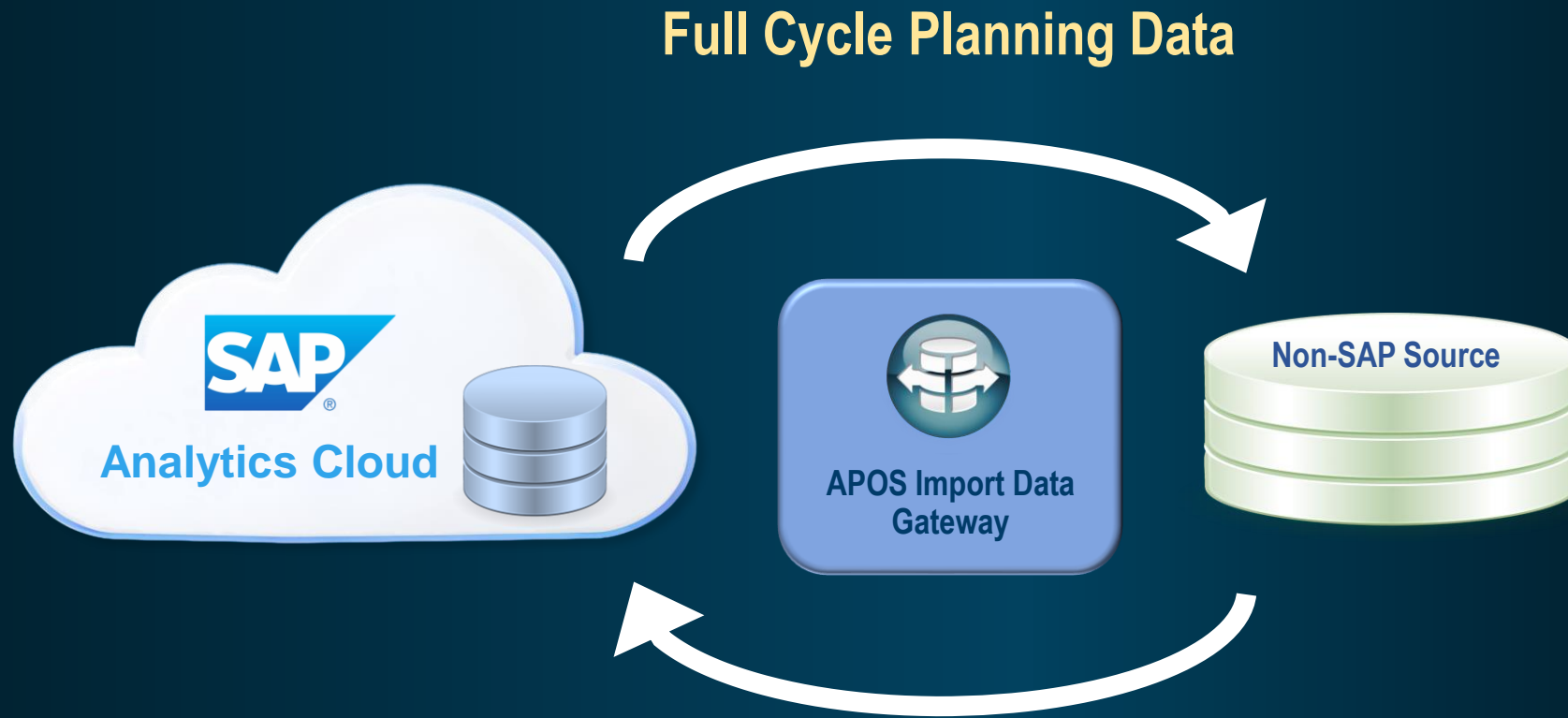
# APOS Import Data Gateway



# APOS Import Data Gateway



# APOS Import Data Gateway



Bi-Directional Data Process





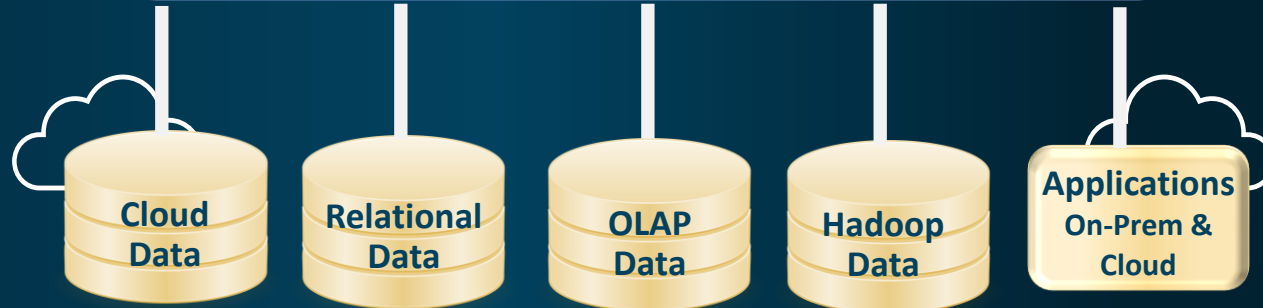
**Alan Golding**  
Solution Consulting Manager  
APOS

# APOS Import Data Gateway

## Direct SAC Import connection

No SAP Cloud Connector/Agent required

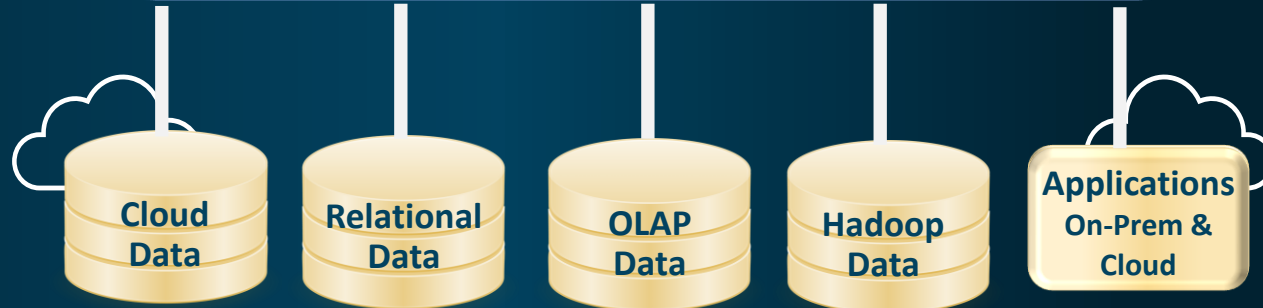
- Easy to deploy
- Secure communication
- Scheduled data uploads
- Full or Delta data uploads
- Field Mapping
- Data Modelling



# APOS Import Data Gateway

## Direct Extract and Load of SAC data

- Secure communication
- Scheduled data exports
- Extract SAC Planning data
  - Load into external database
  - Load into CSV file (coming soon)



# Supported Data Sources

- Amazon Athena
- Amazon Aurora
- Amazon EMR
- Amazon Redshift / Redshift Spectrum
- Amazon S3
- Azure Analysis Services
- Azure Cosmos DB
- Azure Data Lake
- Azure SQL Database
- Azure SQL Data Warehouse
- Cloudera
- Databricks
- DB2
- Denodo
- Google Analytics
- Google BigQuery
- Google Cloud Platform
- Hortonworks
- Informix
- Microsoft SQL Server
- Microsoft Analysis Services
- Azure Blob
- Mongo DB, Mongo DB Atlas
- MySQL
- Netezza
- Oracle
- Oracle Exadata
- Palantir
- Postgres
- Presto
- Salesforce
- Snowflake
- Sybase IQ, Sybase SQL Anywhere
- Teradata
- SAP BusinessObjects Universes (UNV, UNX)
- SAP BW - version 7.3 and higher
- 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>

# Import Data Gateway

## Secure Communication

- OAuth is used when communicating with SAC, SharePoint and Salesforce via API access
- Secure communication to databases happens through JDBC drivers and user authentication

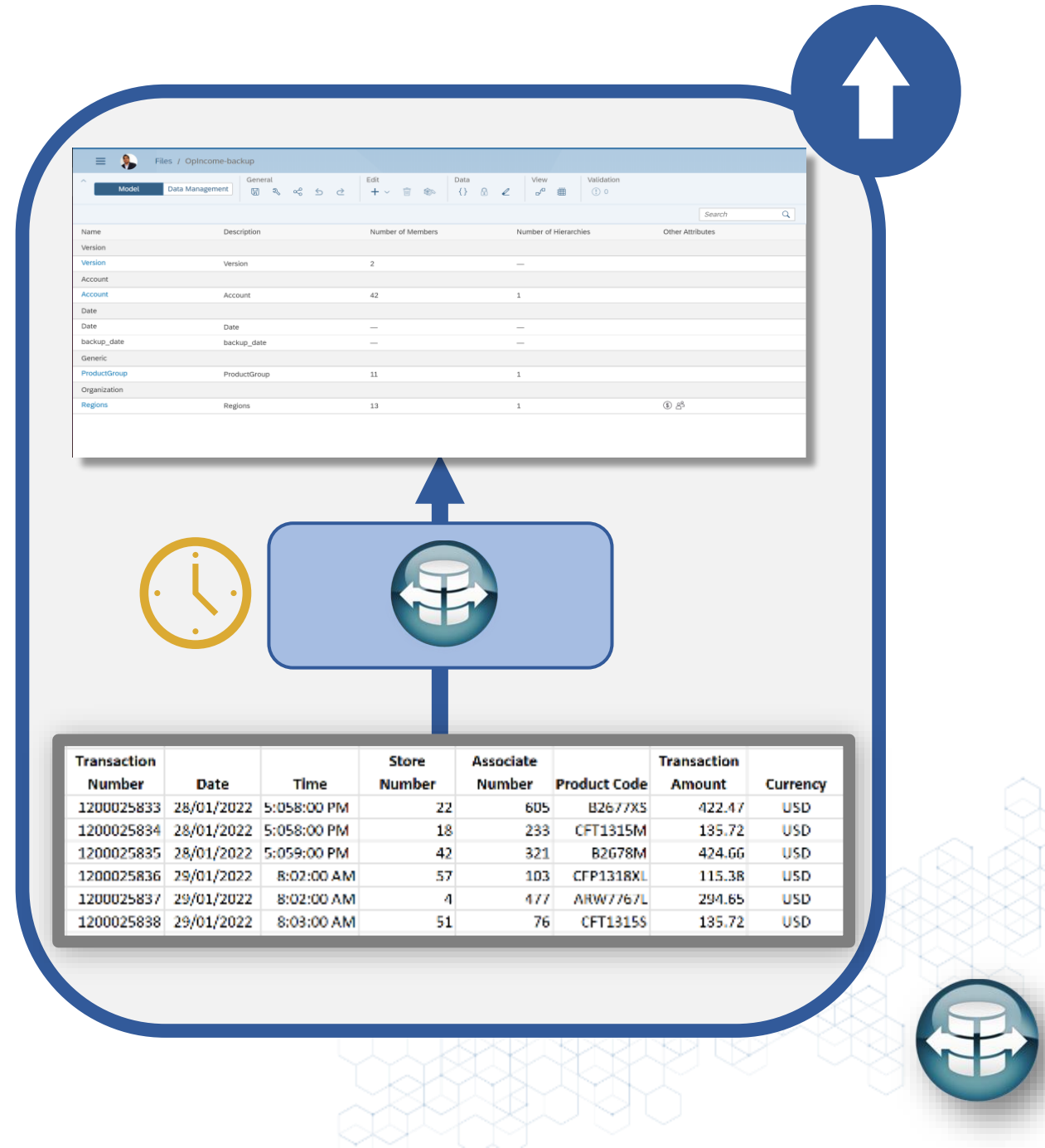


# Import Data Gateway

## Scheduled Data Uploads

Data loads can be set up on a recurring schedule

- Hourly
- Daily
- Weekly
- Monthly
- On-demand



# Import Data Gateway

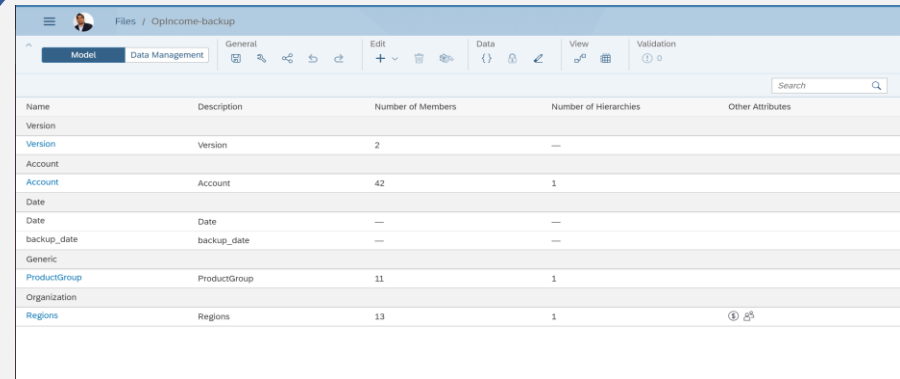
## Full or Partial Data Uploads

Multiple data load options offered

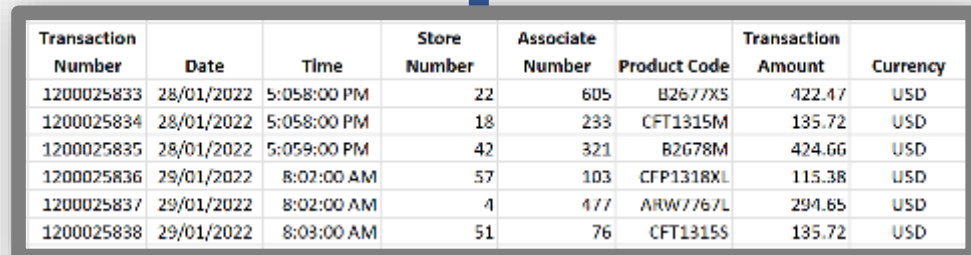
- Full load
- Incremental load
- Truncate data first
- Overwrite

SAC Import methods supported

- Master and fact data – update
- Master data – update
- Fact data – append
- Fact data – clean and replace
- Fact data – update



Name	Description	Number of Members	Number of Hierarchies	Other Attributes
Version	Version	2	—	
Account	Account	42	1	
Date	Date	—	—	
backup_date	backup_date	—	—	
Generic				
ProductGroup	ProductGroup	11	1	
Organization				
Regions	Regions	13	1	



Transaction Number	Date	Time	Store Number	Associate Number	Product Code	Transaction Amount	Currency
1200025833	28/01/2022	5:058:00 PM	22	605	B2677XS	422.47	USD
1200025834	28/01/2022	5:058:00 PM	18	233	CFT1315M	135.72	USD
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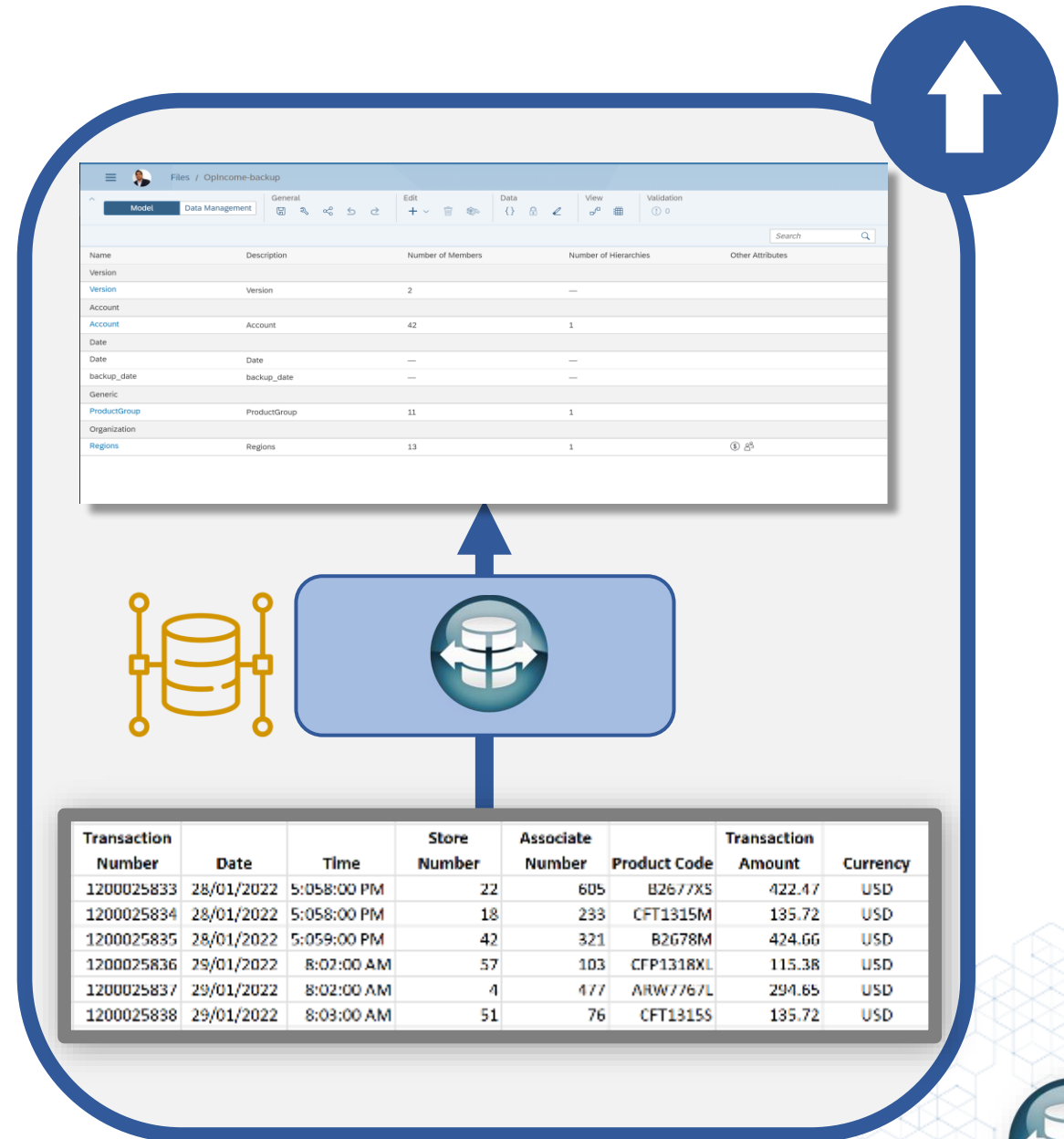


# Import Data Gateway

## Field Mapping

You can map your source and destination fields so that data is correctly and effectively imported.

This is possible whether you are importing data into an SAC Model, or to any other type of database.





# Import Data Gateway

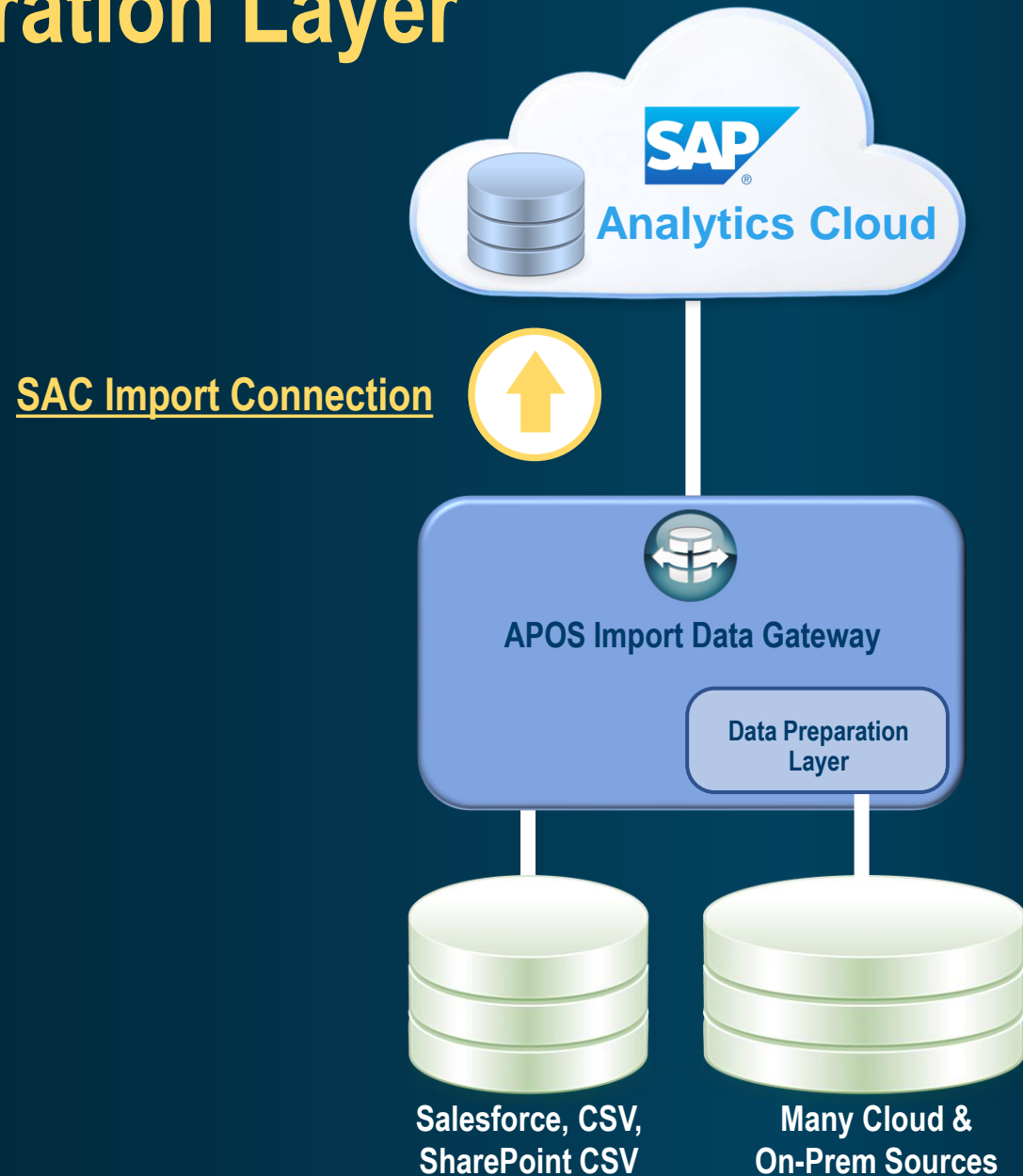
## Data Modelling

There is also the option to model your data in our web-based Data Preparation Layer.

This allows you to target specific datasets you wish to import, rather than importing a full database.



# Data Preparation Layer

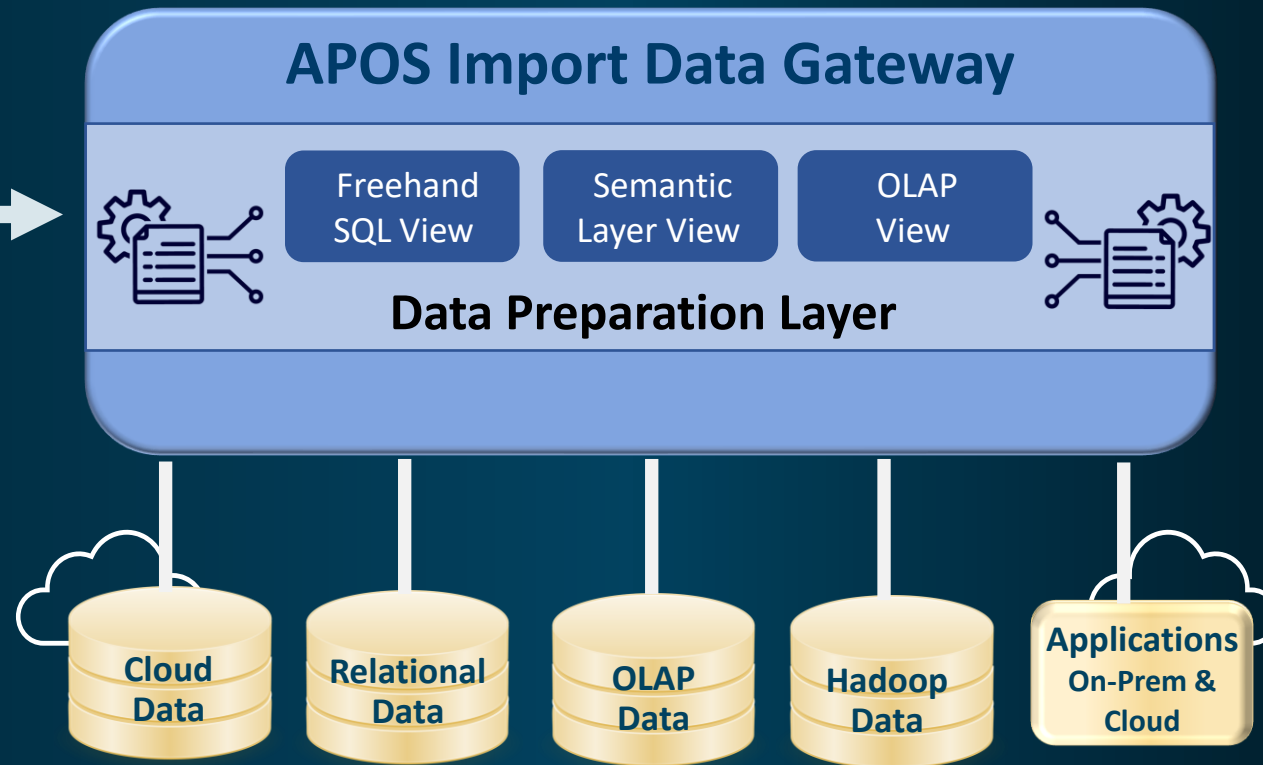
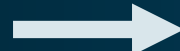


# Data Preparation Layer

## Data Preparation Layer

### Key Functions

- Define Measures and Dimensions
- Define what data fields are exposed
- Manage table joins
- Optimize with data transformations



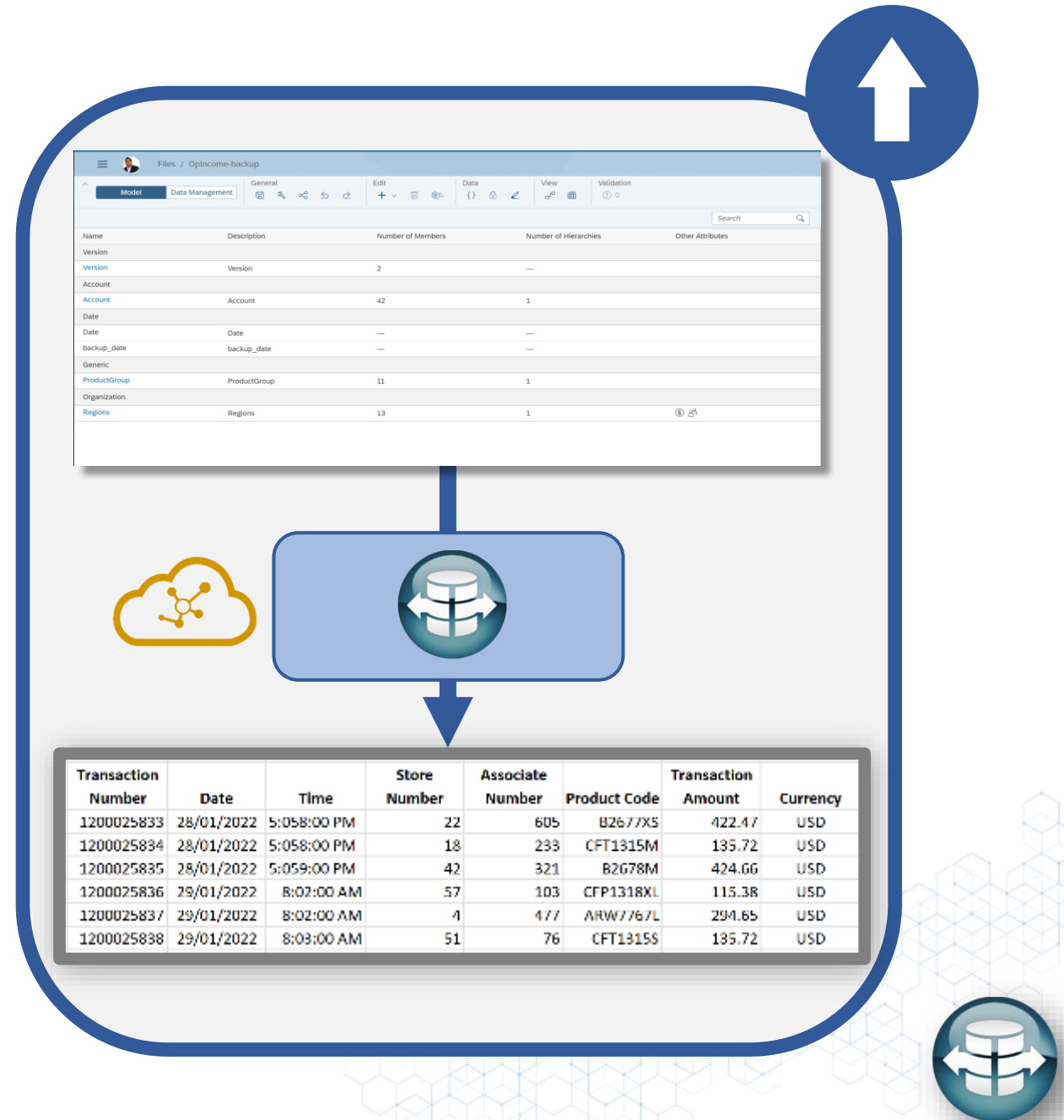
# Import Data Gateway

## SAC Planning Data Extract

On top of being able to import data into an SAC Planning model we offer the ability to extract data out of an SAP Planning model.

This extraction process allows you to load data back to the source database.

- Load SAC Budgeting data back into original source system
- Leverage enhanced SAC Planning data in other related processes



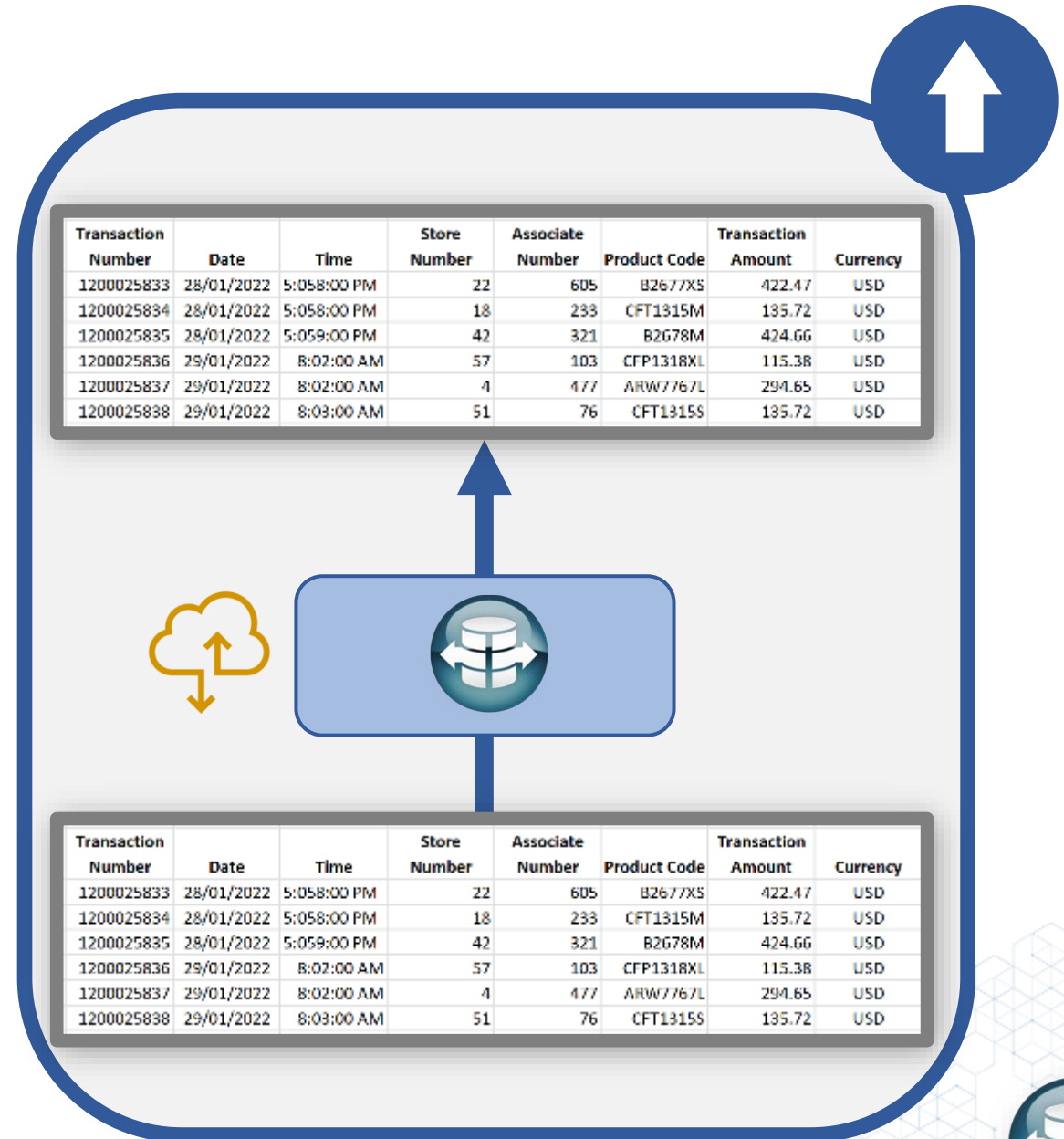
# Import Data Gateway

## Strategic Data Movement

For non-SAC scenarios:

Scheduled data loads between different database platforms.

Removes complexities of data migrations and allows for data transformations between migrations.



# Solution Overview

To View this Demo, watch the  
webinar [on demand](#)

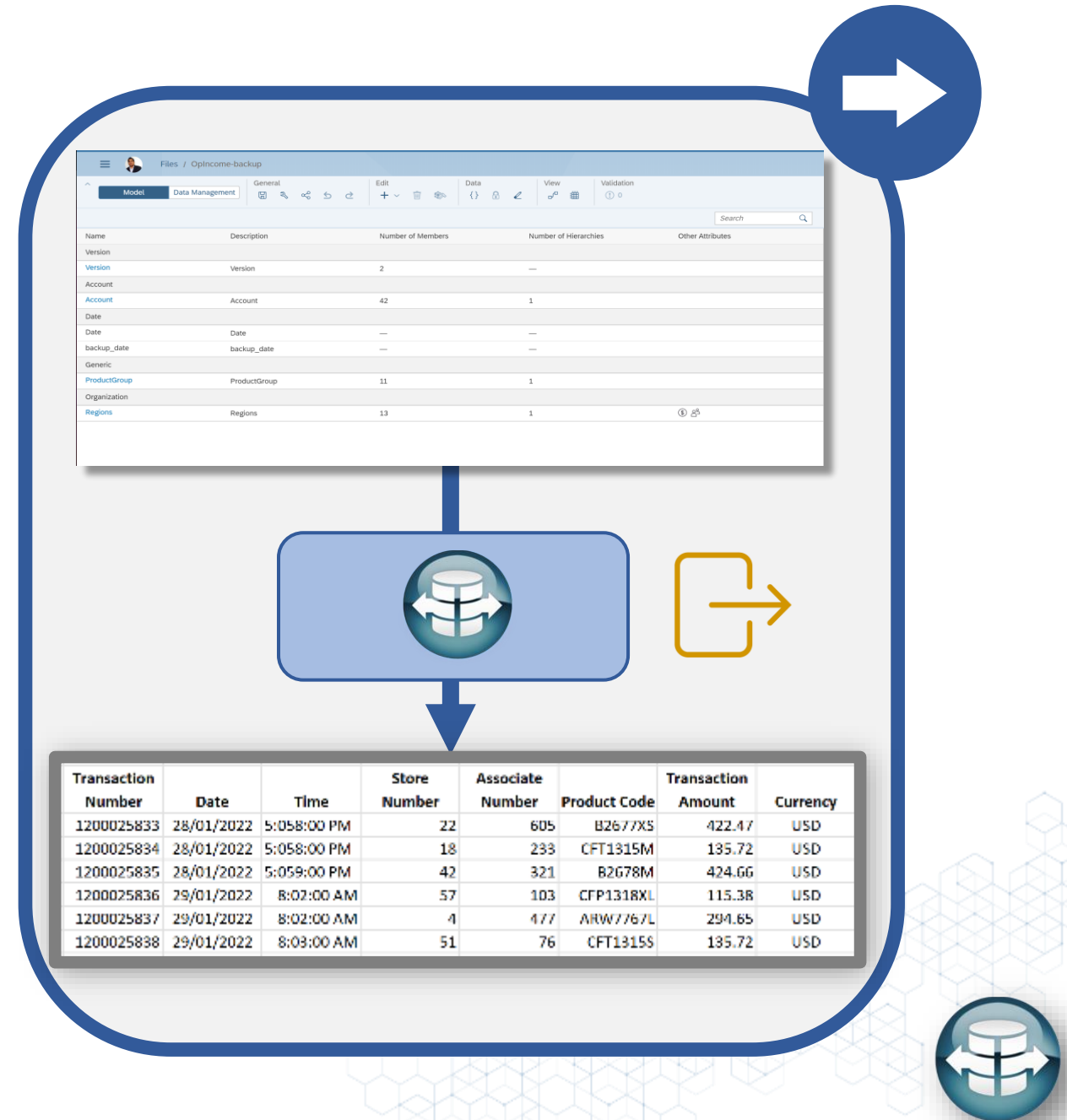


# Export Data Gateway

(coming soon)

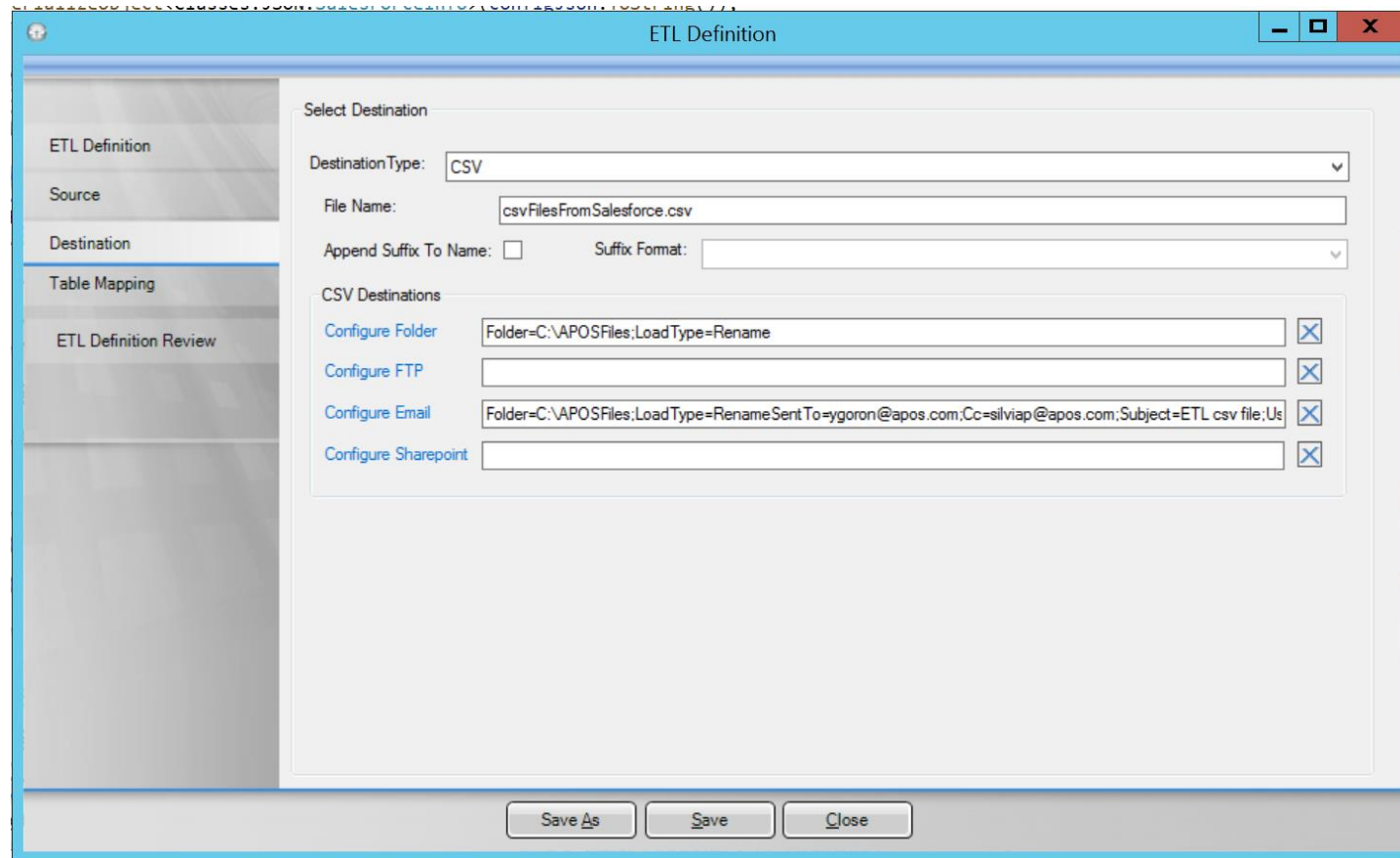
## Export Data to Strategic File

- High volume data exports to CSV output
- Scheduled on recurring basis
- Automated delivery to
  - Network File shares
  - FTP
  - Email
  - Sharepoint
- On Demand data dumps



# Export Data Gateway

- Export data from SAC/Database to CSV
- Schedule on recurring basis
- Select your destination – Folder, Email, FTP, SharePoint



The screenshot shows the 'ETL Definition' window with the following configuration:

- Select Destination:**
  - DestinationType: CSV
  - File Name: csvFilesFromSalesforce.csv
  - Append Suffix To Name:
  - Suffix Format: [Empty]
- CSV Destinations:**
  - Configure Folder: Folder=C:\APOSFiles;LoadType=Rename
  - Configure FTP: [Empty]
  - Configure Email: Folder=C:\APOSFiles;LoadType=RenameSent To=ygoron@apos.com;Cc=silviap@apos.com;Subject=ETL csv file;Us
  - Configure Sharepoint: [Empty]

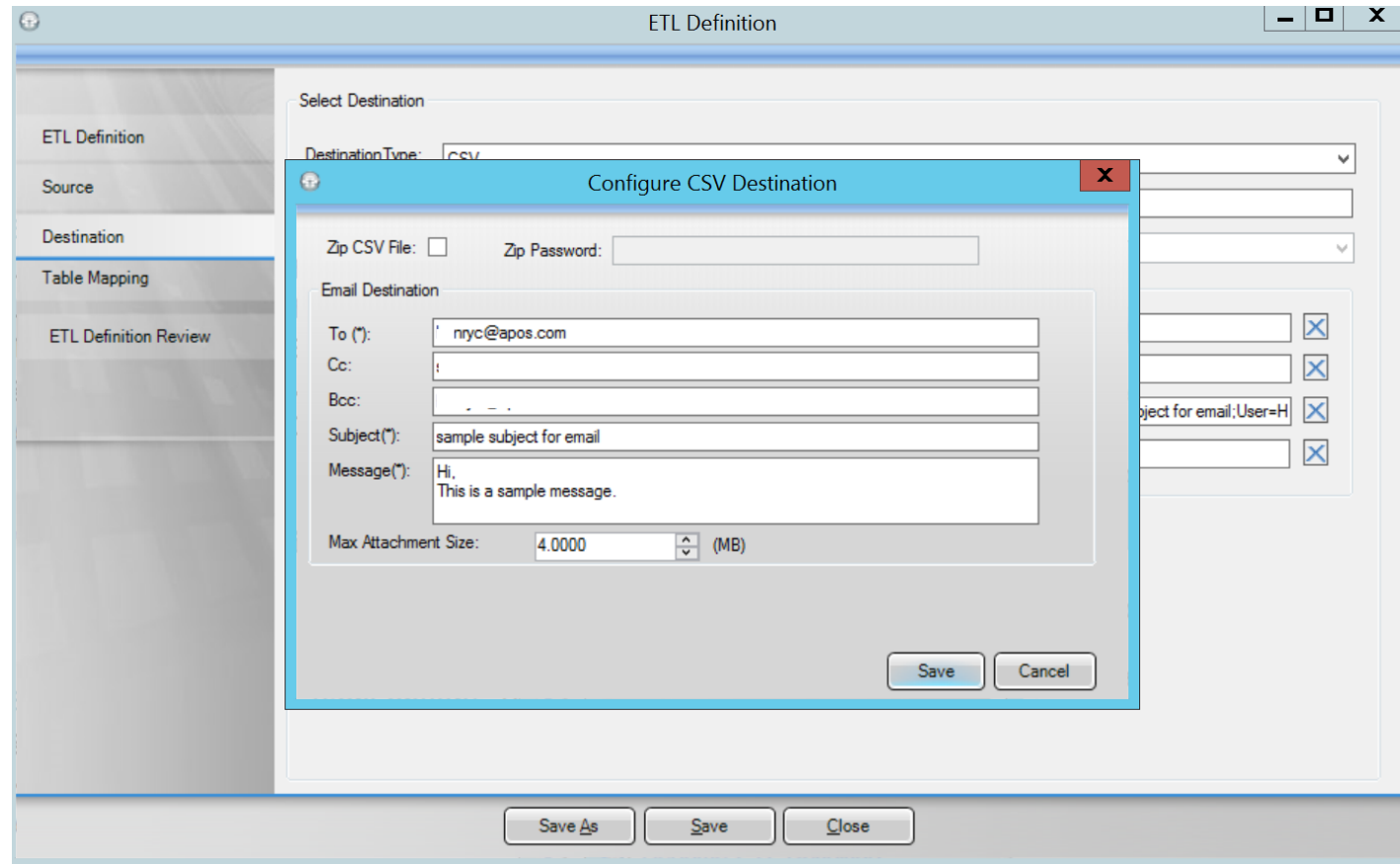
Buttons at the bottom: Save As, Save, Close.



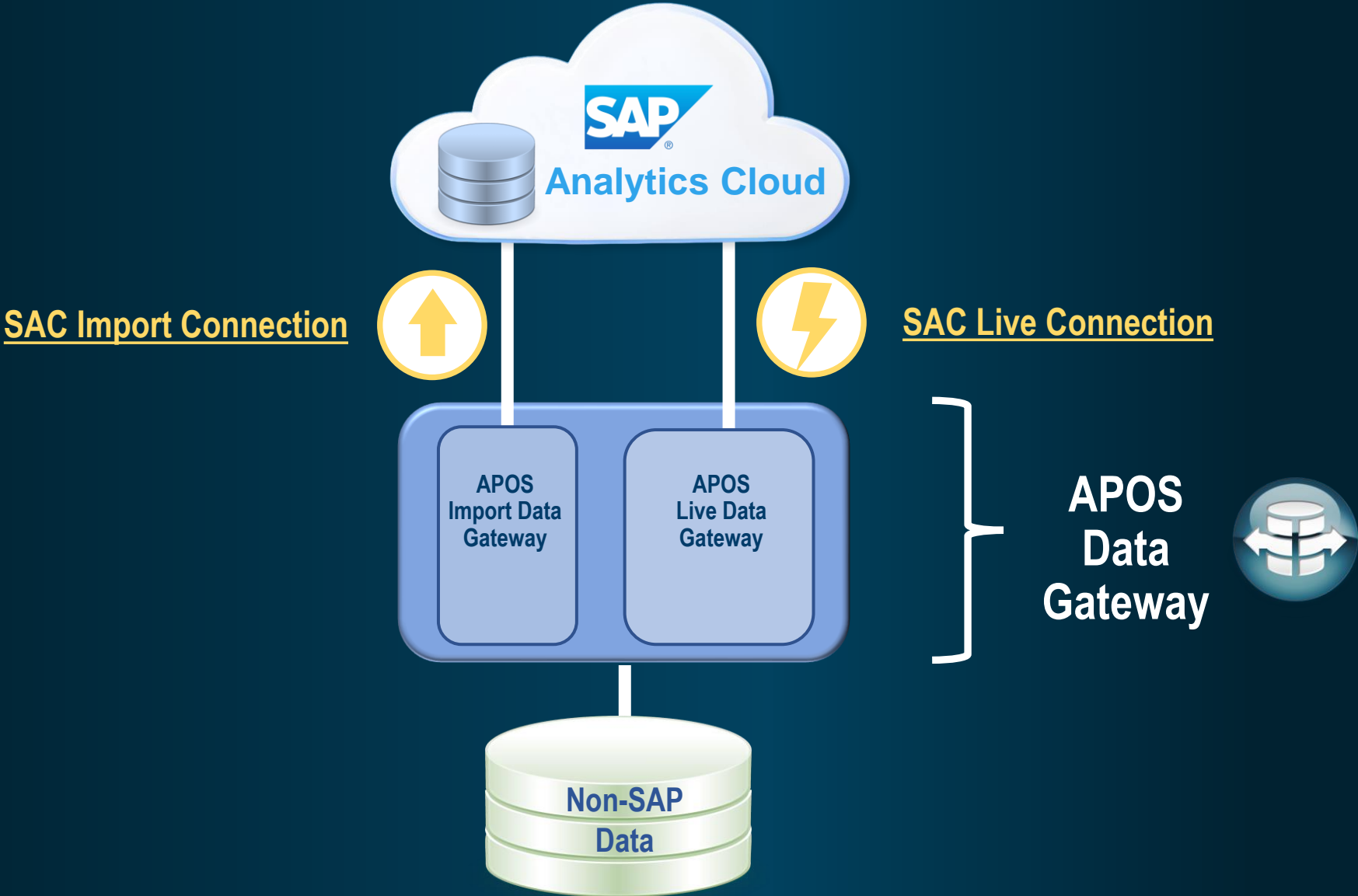


# Export Data Gateway – Send to Email

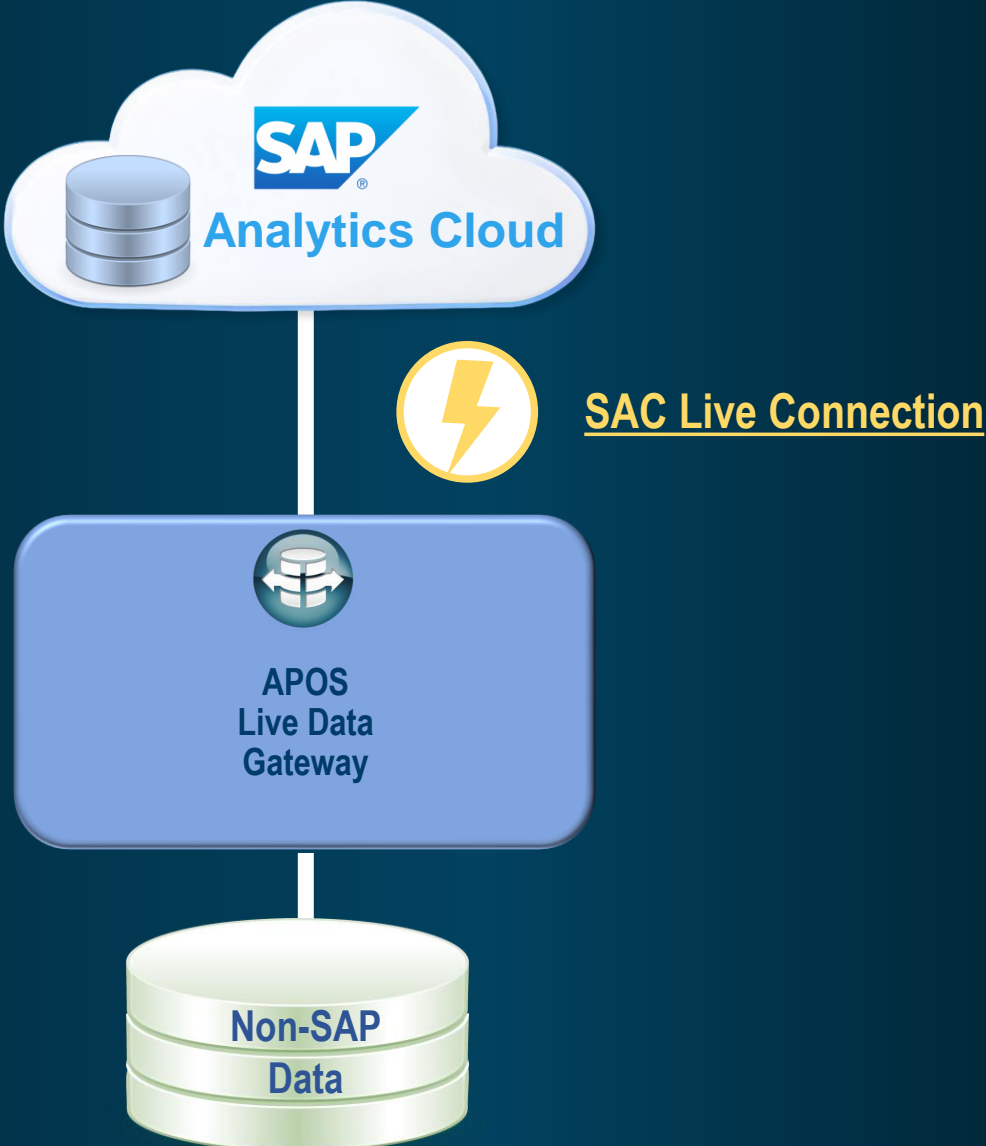
- Zip CSV file for compression and password protected
- Set Max attachment size
- Configure Email recipients



# SAC Connectivity



# APOS Live Data Gateway



# APOS Live Data Gateway – Unlock Live Data



**APOS Live Data Gateway** is a middleware platform which provides virtualized data connection and data transformation to enable 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 – Expand Live Options

The screenshot shows the SAP Help Portal interface. The top navigation bar includes the SAP logo, 'Help Portal (Documentation)', and links for 'Browse by Product' and 'Learning Journeys'. Below this is an 'Advanced Search' bar. The main content area is divided into a left sidebar and a main article. The sidebar contains a list of topics, with 'Using the APOS Live Data Gateway' highlighted in blue. The main article has a title 'Using the APOS Live Data Gateway' and a blue-bordered text box containing the following text: 'The APOS Live Data Gateway provides live data connectivity from SAP Analytics Cloud to an expanded set of on-premise data sources and cloud data sources. Data provided through APOS Live Data Gateway is kept safely behind the firewall, with no data replication or data upload requirements, and no need to re-create or duplicate data models or data security.' Below this, it states 'The APOS Live Data Gateway is available on the SAP App Center.' The article also features a section titled 'Data Source Types Supported' with a list of supported data sources: Relational Data Sources (Microsoft SQL Server, Oracle, IBM DB2, Sybase IQ, Sybase SQL Anywhere, MySQL) and Data Appliances (Teradata, Netezza).

SAP Help Portal (Documentation) Browse by Product Learning Journeys

Advanced Search

← Previous ☆ Favorite Download PDF Share Next →

Setting the Default Language for Live Data Connections

Using the 'None' Authentication Option

**Using the APOS Live Data Gateway**

Error: Failed to connect to system

- > Creating Import Data Connections
- > Creating Export Data Connections
- > Data Preparation and Wrangling (Datasets and Models)
- > Data Analyzer
- > Data Visualization (Stories)
- > Digital Boardroom Presentation
- > Analytic Application Design (Analytics Designer)
- > Microsoft Office Integration
- > Augmented Analytics (Smart Features)
- > Planning
- > Workflow Organization (Calendar)
- > System Administration

## Using the APOS Live Data Gateway

The APOS Live Data Gateway provides live data connectivity from SAP Analytics Cloud to an expanded set of on-premise data sources and cloud data sources.

Data provided through APOS Live Data Gateway is kept safely behind the firewall, with no data replication or data upload requirements, and no need to re-create or duplicate data models or data security.

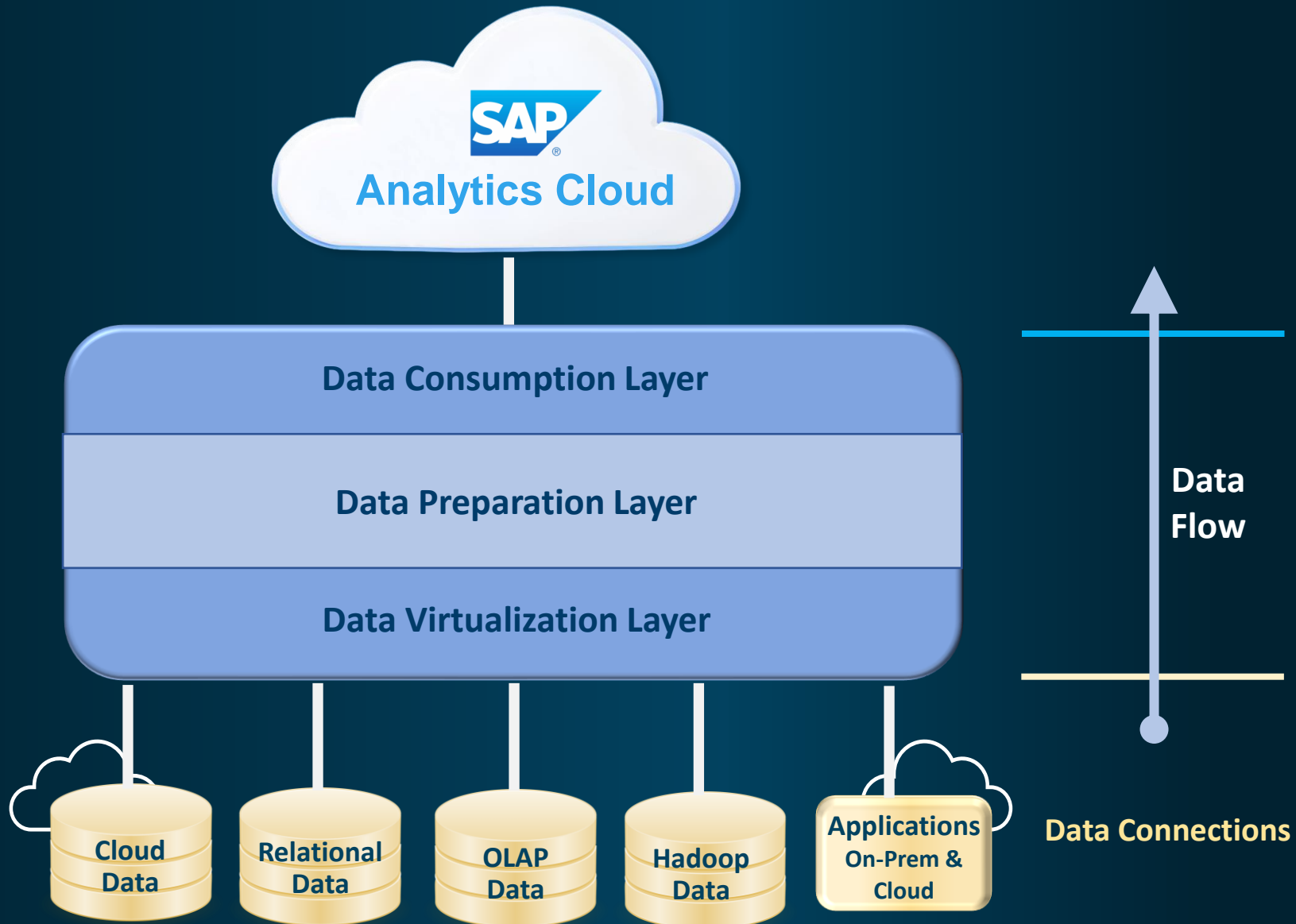
The APOS Live Data Gateway is available on the [SAP App Center](#).

### Data Source Types Supported

The APOS Live Data Gateway provides live data connectivity for numerous data sources of OLAP, relational, data appliances, cloud, and legacy SAP data source types:

- Relational Data Sources: Microsoft SQL Server, Oracle, IBM DB2, Sybase IQ, Sybase SQL Anywhere, MySQL
- Data Appliances: Teradata, Netezza

# APOS Live Data Gateway

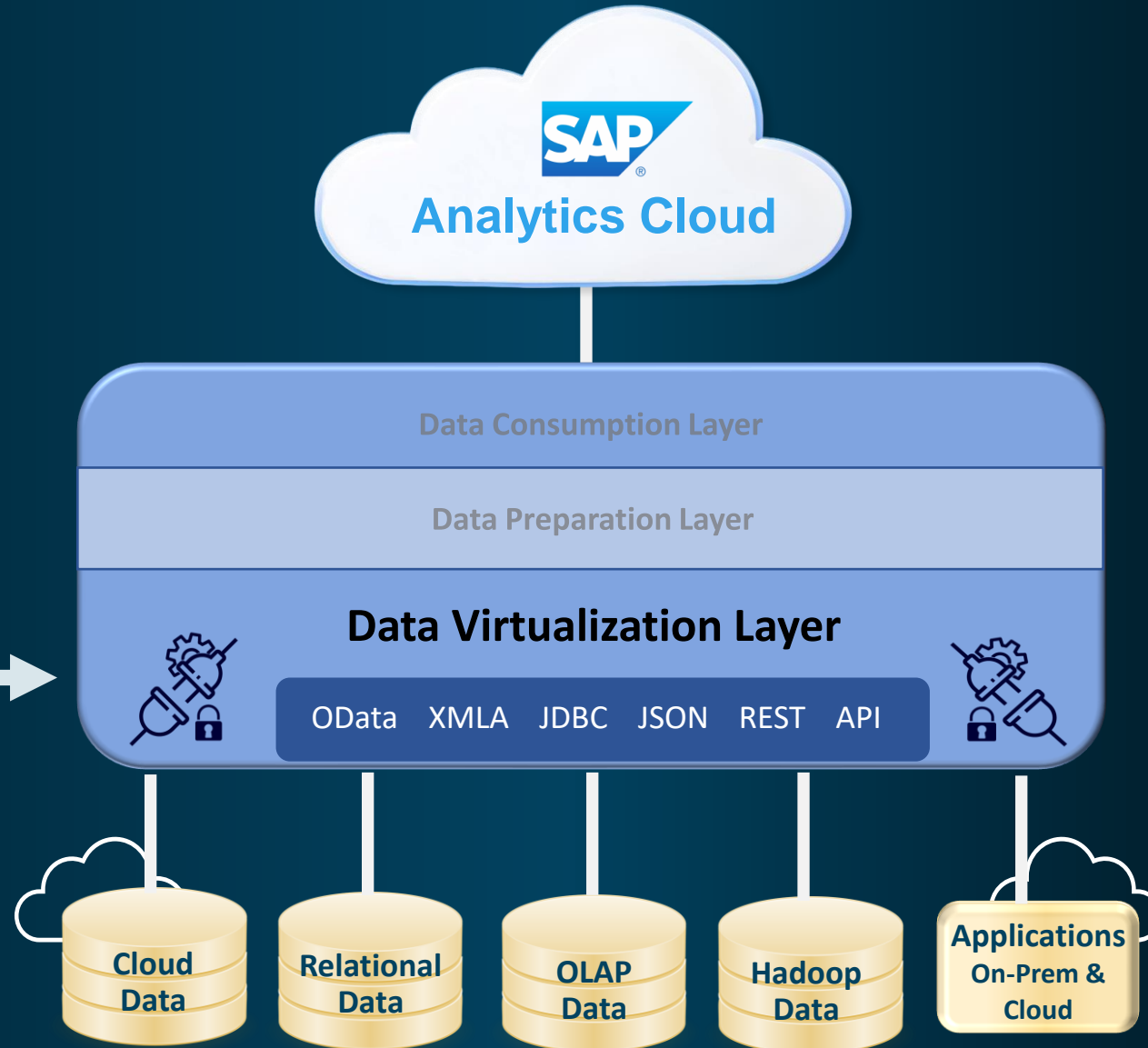


# Database Virtualization Layer

## Data Virtualization Layer

### Key Functions

- Establish direct connectivity and communication with data source
- Communicate query requests and receive query results
- Manage database authentication and security integration, SSO
- Additional connectivity options: (Data, XMLA, JSON, REST, API, etc)

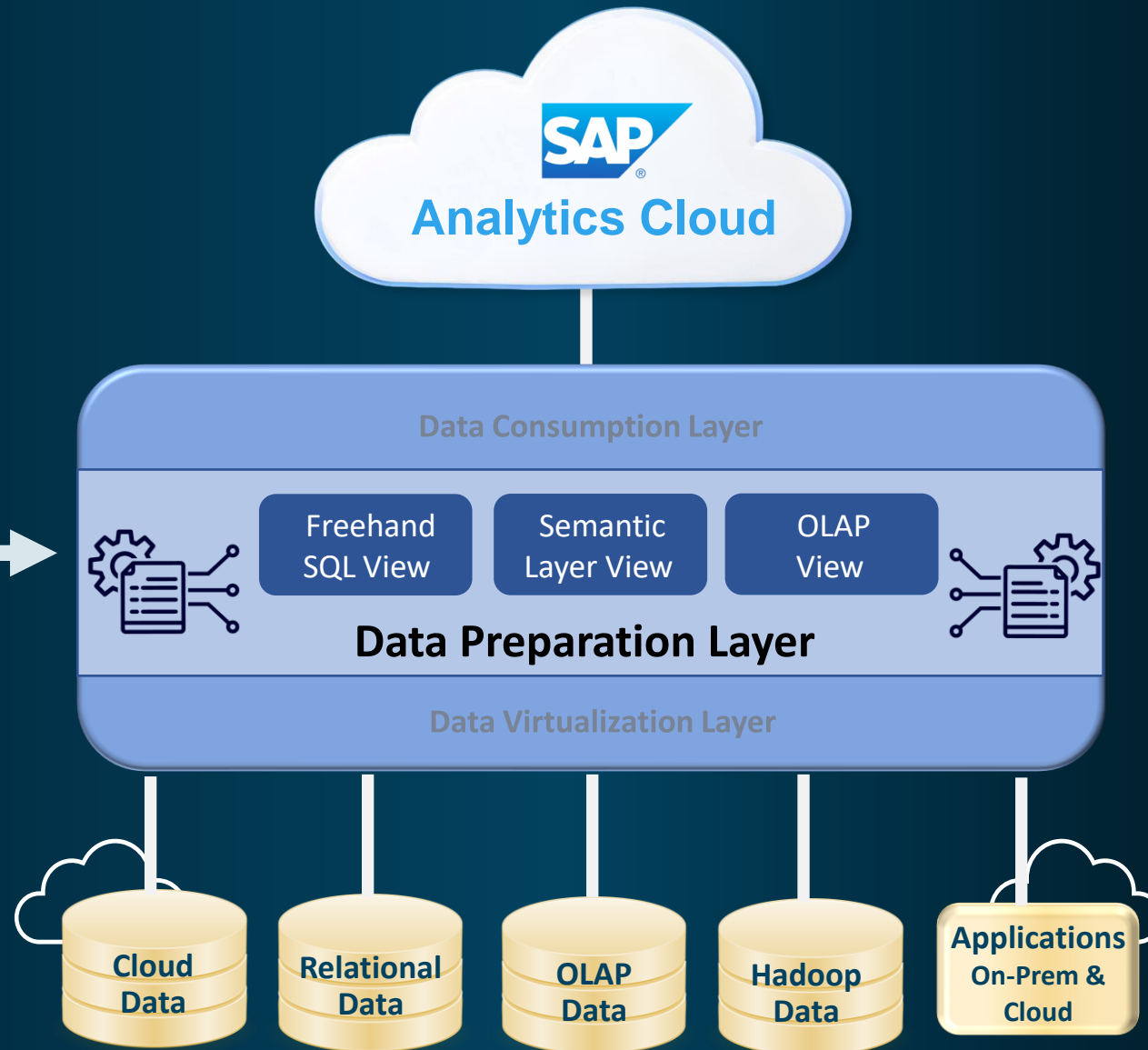


# Database Preparation Layer

## Data Preparation Layer

### Key Functions

- Define Measures and Dimensions
- Define what data fields are exposed
- Manage table links and joins
- Set meaningful field names
- Optimize with data transformations



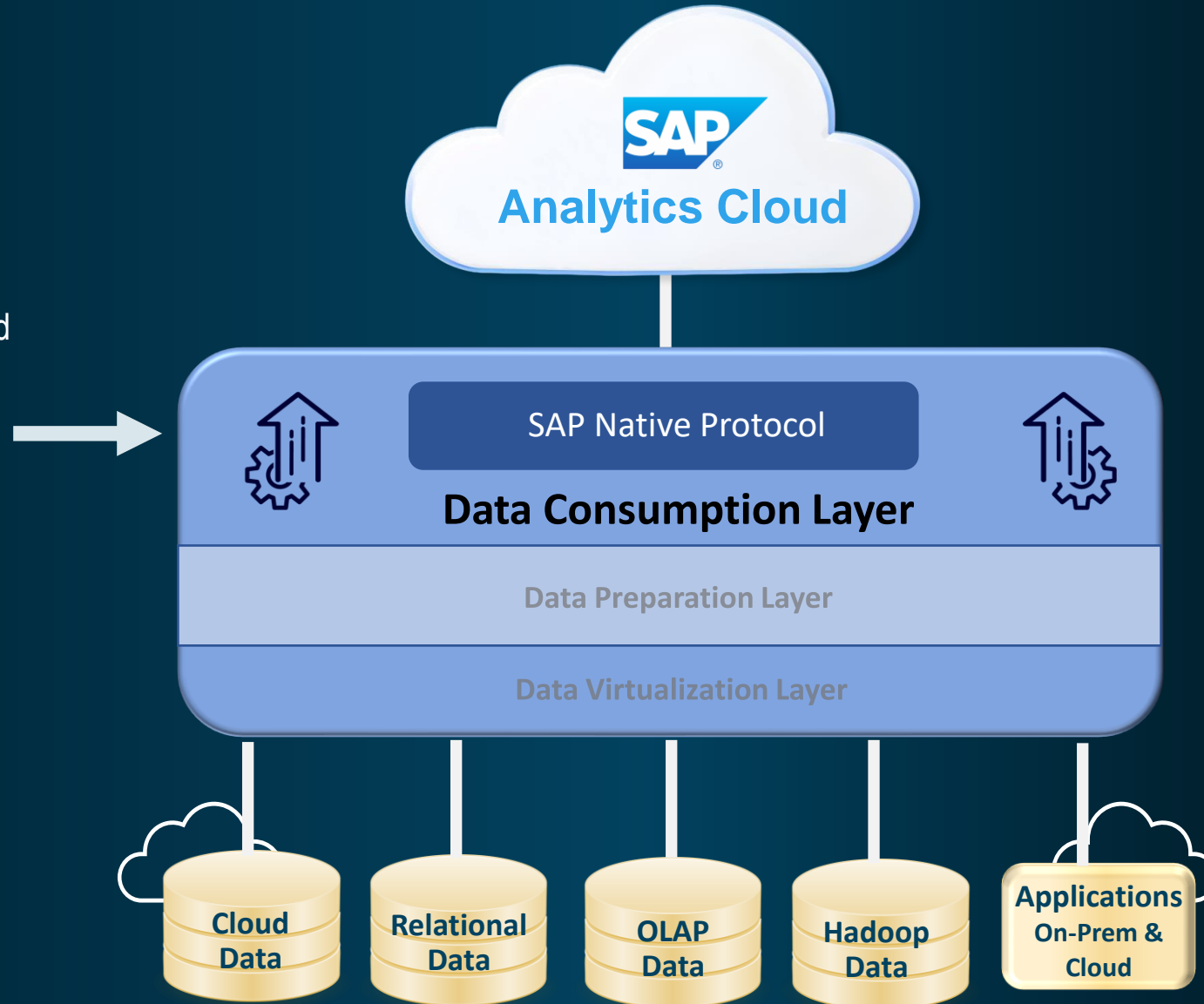


# Database Consumption Layer

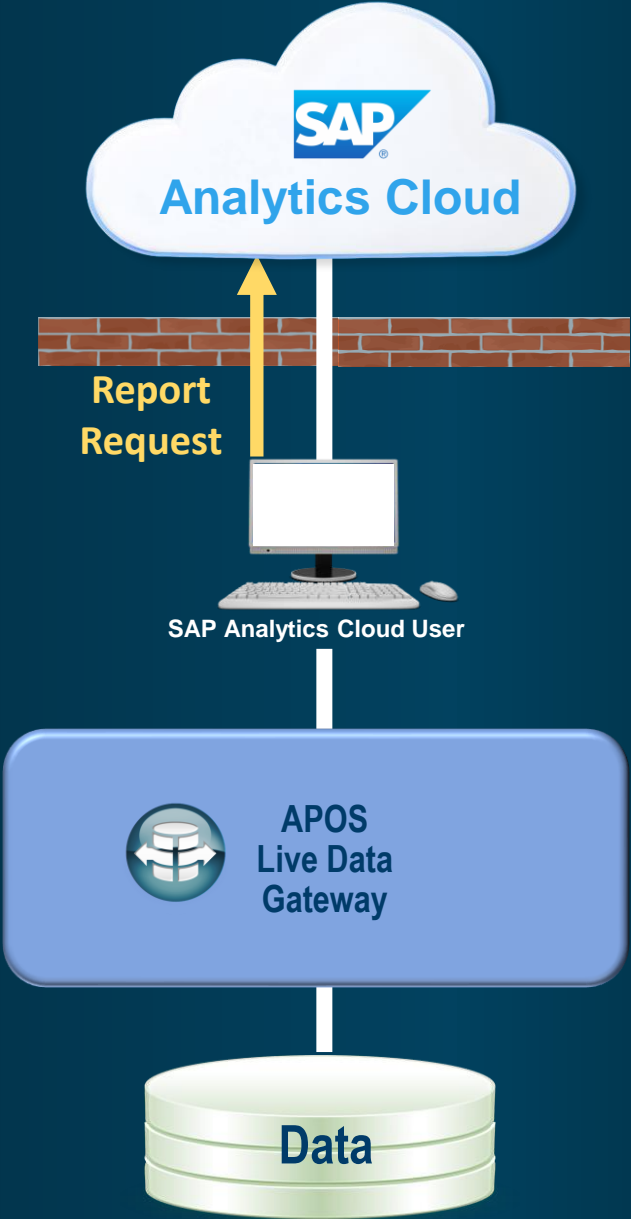
## Data Consumption Layer

### Key Functions

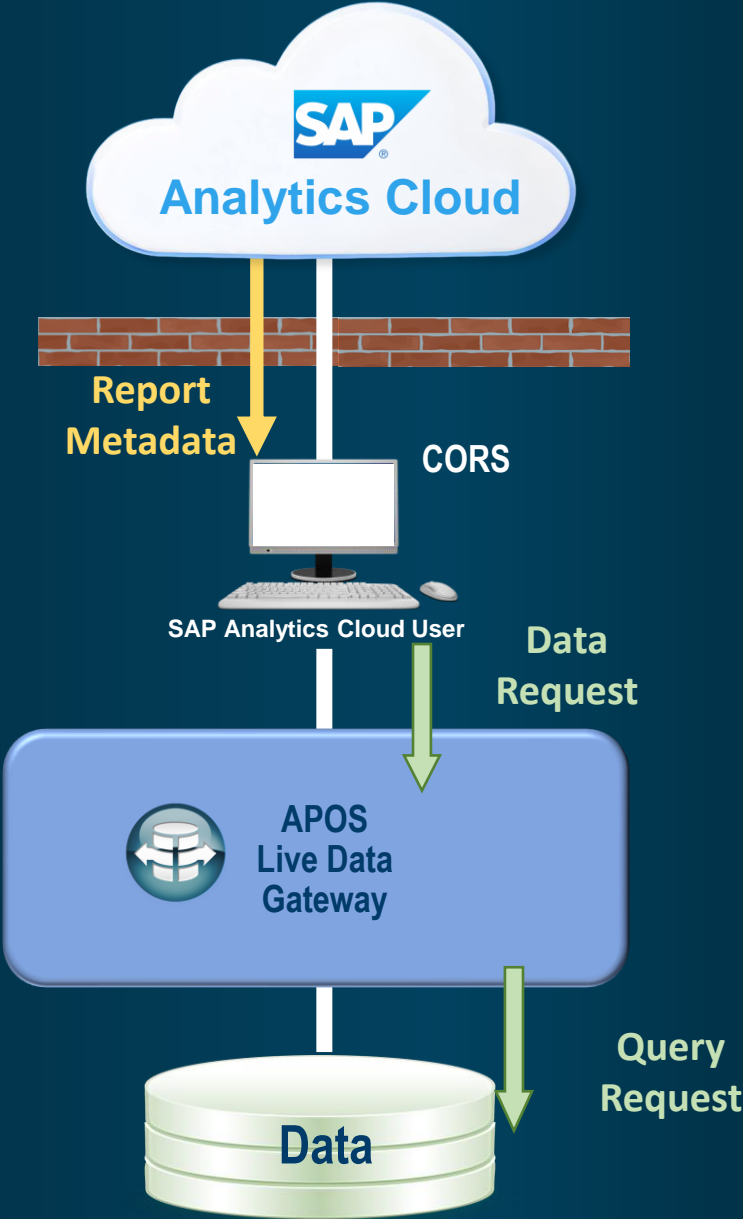
- Establish direct connectivity and communication with SAC User browser
- Supply data via SAP Native Protocol for SAC Story and SAC Application actions



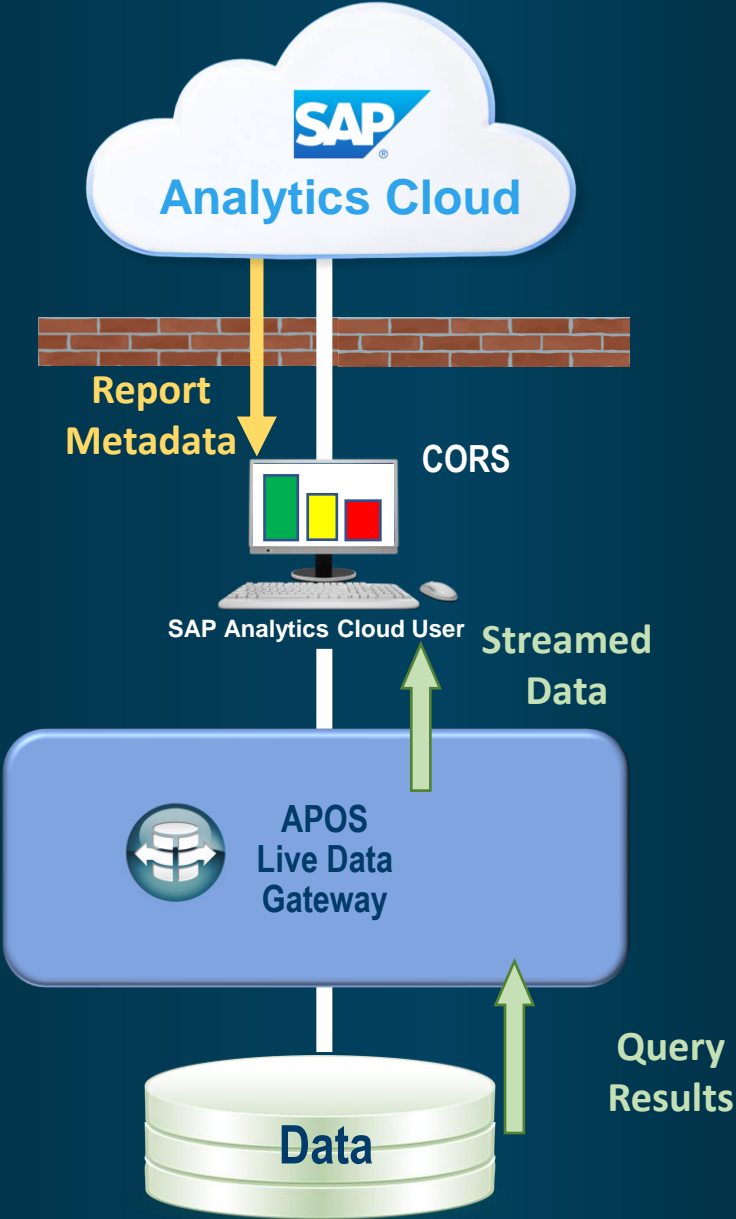
# Live Data Consumption Flow



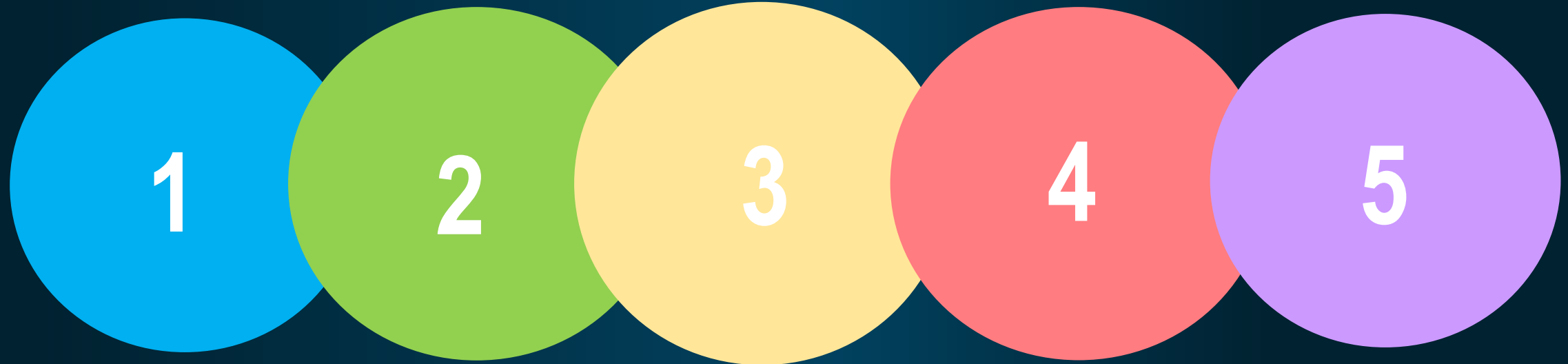
# Live Data Consumption Flow



# Live Data Consumption Flow



# 5 Simple Steps to Live Connectivity



**Create Connection**  
from Live Data Gateway to  
data source

**Create View**  
in Live Data Gateway

**Create Connection**  
from SAC to Live Data  
Gateway

**Create Model**  
in SAC

**Create Report**  
in SAC

# Demonstrating the 5 Steps



Create SAC Report



Create Model in SAC



Create Connection from SAC to Live Data Gateway



SAC Story Creator



SAC Consumers

Data Consumption Layer

Create View in Live Data Gateway



LDG View Builder

Data Preparation Layer

Create Connection from Live Data Gateway to data source



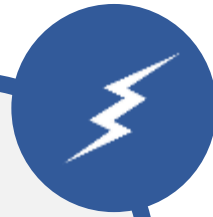
LDG Administrator

Data Virtualization Layer

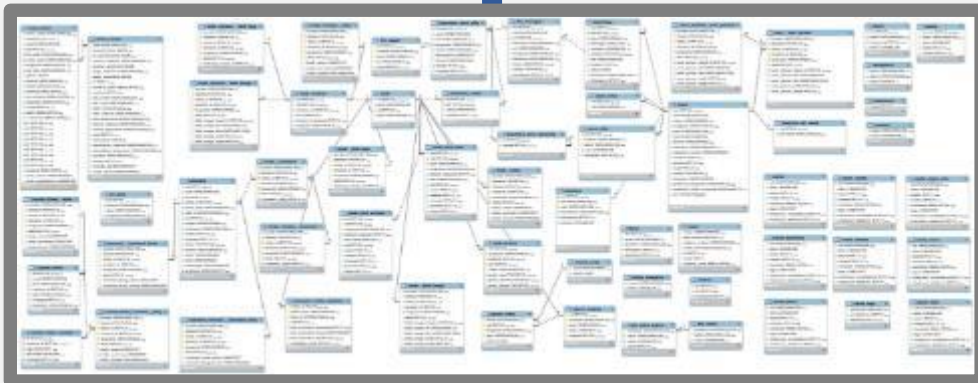
# Data Preparation Layer

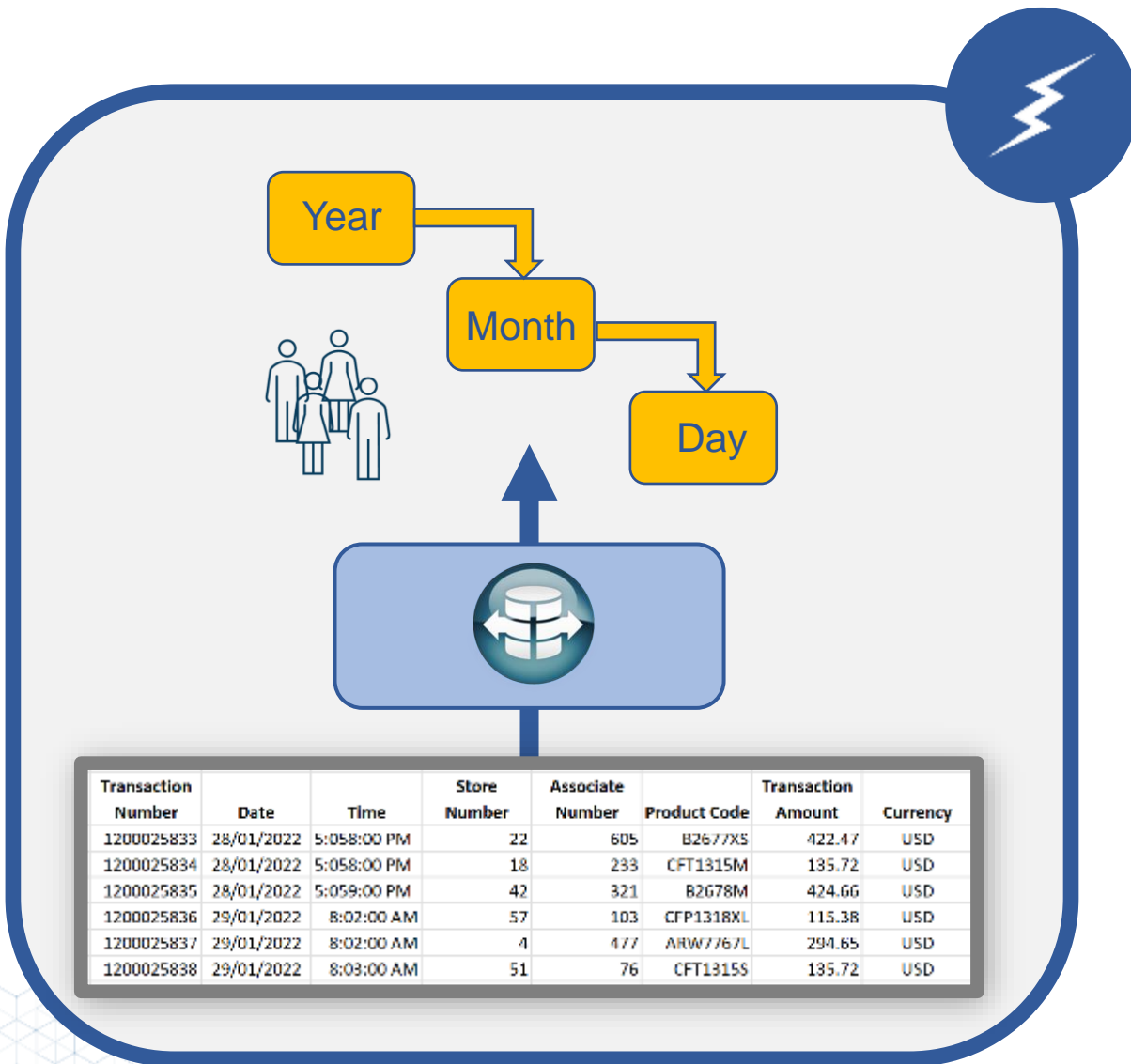
## Self-Service Data Modelling

- Self-service creation of data modelling assets
- Expand from self-service analytics to self-service modelling
- Strengthen independence of analytics team
- Reduce IT dependence
- Web-based modelling interface
- Controlled user access to modelling
- SSO enabled
- Multiple options for building views



Field Name	Format	Data Type
Address	Text	Text
City	Text	Text
State	Text	Text
County	Text	Text
Zip	Text	Text
Age	Text	Text
Gender	Text	Text
Income	Text	Text





Transaction Number	Date	Time	Store Number	Associate Number	Product Code	Transaction Amount	Currency
1200025833	28/01/2022	5:058:00 PM	22	605	B2677XS	422.47	USD
1200025834	28/01/2022	5:058:00 PM	18	233	CFT1315M	135.72	USD
1200025835	28/01/2022	5:059:00 PM	42	321	B2678M	424.66	USD
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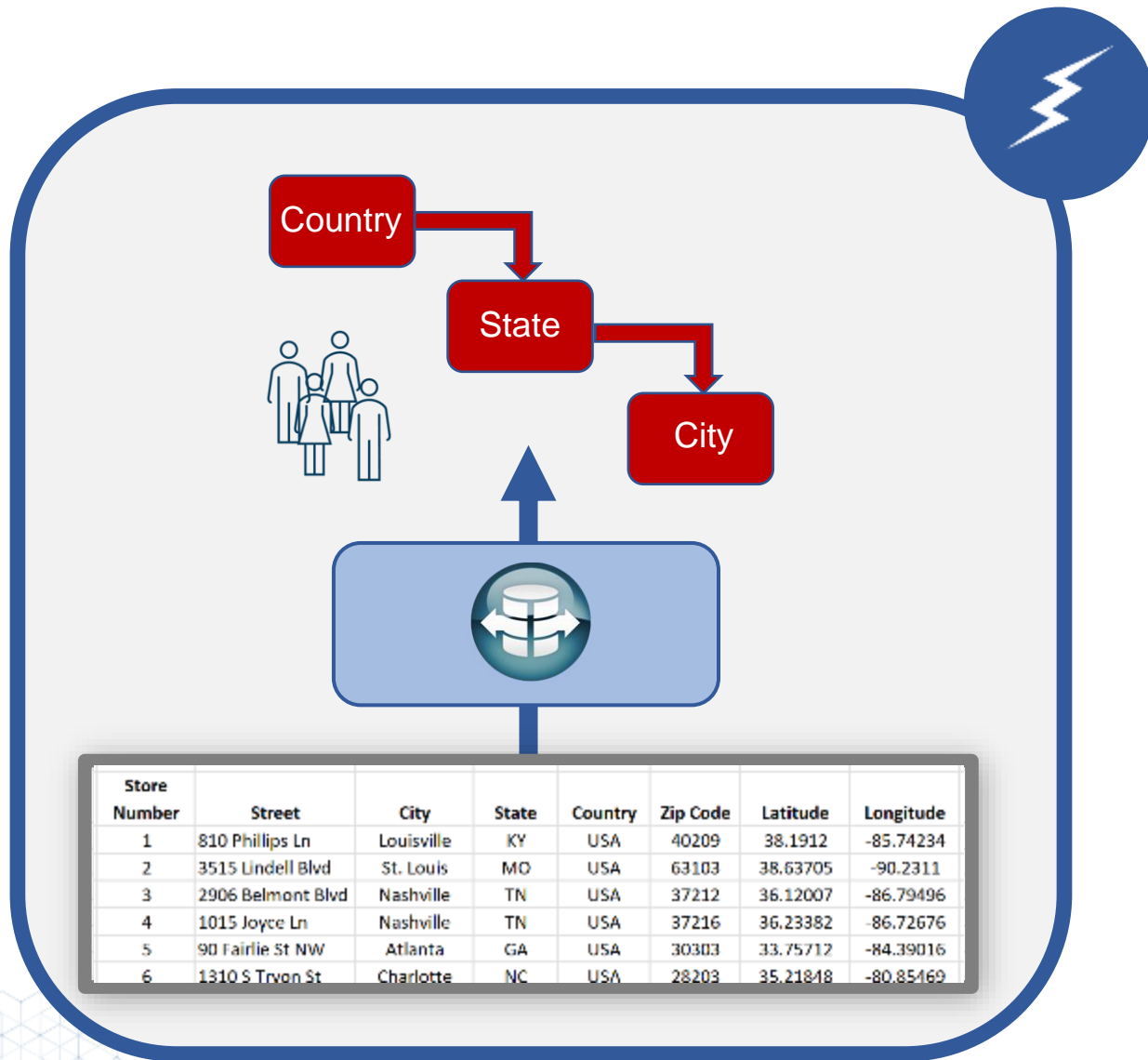
# Data Transformation

## Date Dimensions

- Create date hierarchies on non-hierarchical data
- Simplified user navigation and experience
- Improved analysis
- Custom date dimensions support
- Hierarchical date dimension support
  - Drill Down
  - Time Series Charts
  - Variance Charts
- Hierarchies available as individual dimensions







# Data Transformation

## Custom Hierarchies

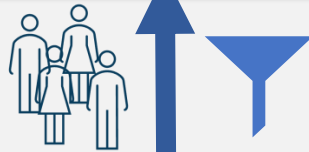
- Create custom hierarchies on non-hierarchical data
- Simplified user navigation and experience
- Improved analysis
- Provide ability to create custom dimensions on non-hierarchical data
- Simplified user experience for building and consuming analytics
- Drill down functionality for non-date-based dimensions
- Level Type Hierarchies will be supported



# Data Transformation

## Variables Support

- Powerful data filtering
- Simplified user experience
- Improved analysis
  
- Create custom variables
- Supported in both Client Tool and Web UI
- Utilize formulas
- Utilize full set of values or custom set of values



Transaction Number	Date	Time	Store Number	Associate Number	Product Code	Transaction Amount	Currency
1200025833	28/01/2022	5:058:00 PM	22	605	B2677X5	422.47	USD
1200025834	28/01/2022	5:058:00 PM	18	233	CFT1315M	135.72	USD
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1200025838	29/01/2022	8:03:00 AM	51	76	CFT1315S	135.72	USD



# Data Transformation

## Geospatial Data

- Supply data for representation on a map
- Highly visual analytics
- Improved analysis
- Geospatial dimensions support
- Multiple projections supported
- Multiple datasource types supported
- Configure multiple geo dimensions

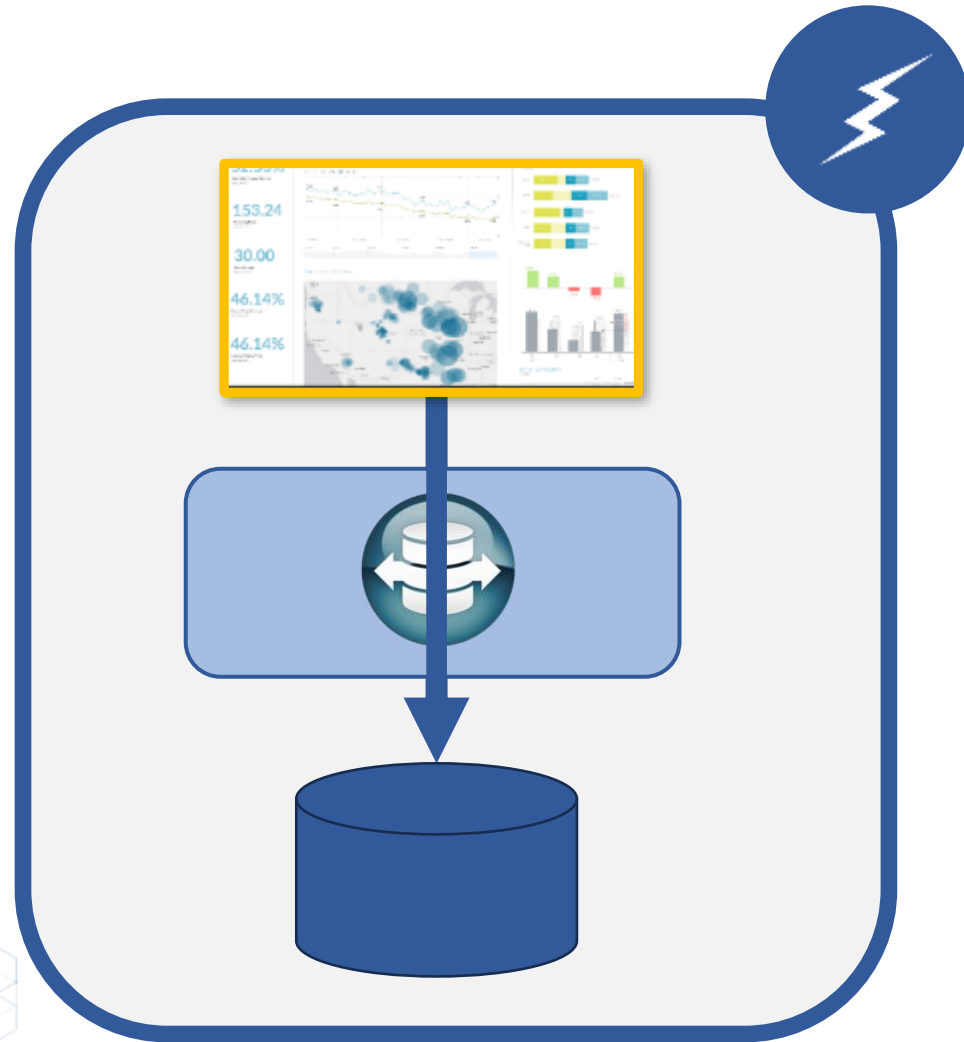


Transaction Number	Date	Time	Store Number	Associate Number	Product Code	Transaction Amount	Currency
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12000258							
12000258							

Store Number	Street	City	State	Country	Zip Code	Latitude	Longitude
1	810 Phillips Ln	Louisville	KY	USA	40209	38.1912	-85.74234
2	3515 Lindell Blvd	St. Louis	MO	USA	63103	38.63705	-90.2311
3	2906 Belmont Blvd	Nashville	TN	USA	37212	36.12007	-86.79496
4	1015 Joyce Ln	Nashville	TN	USA	37216	36.23382	-86.72676
5	90 Fairlie St NW	Atlanta	GA	USA	30303	33.75712	-84.39016
6	1310 S Tryon St	Charlotte	NC	USA	28203	35.21848	-80.85469





# Data Transformation

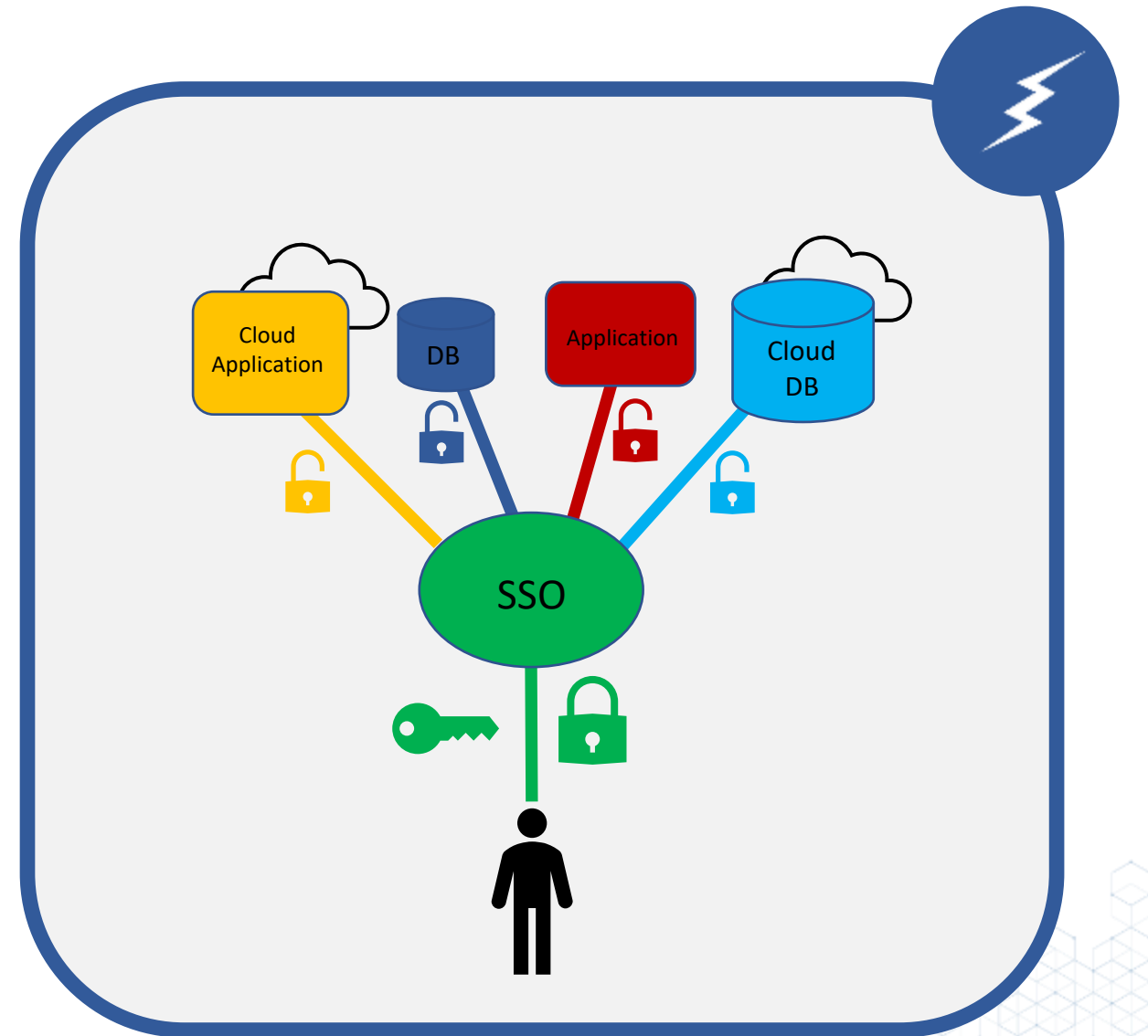
## Database Passthrough

- Optional database passthrough rather than building APOS semantic layer views
- Direct access to database tables or views
- Automated defining of measures & dimensions
- Removes need for duplicate modelling when already exists
- Access full database catalogue

# APOS Live Data Gateway – Security

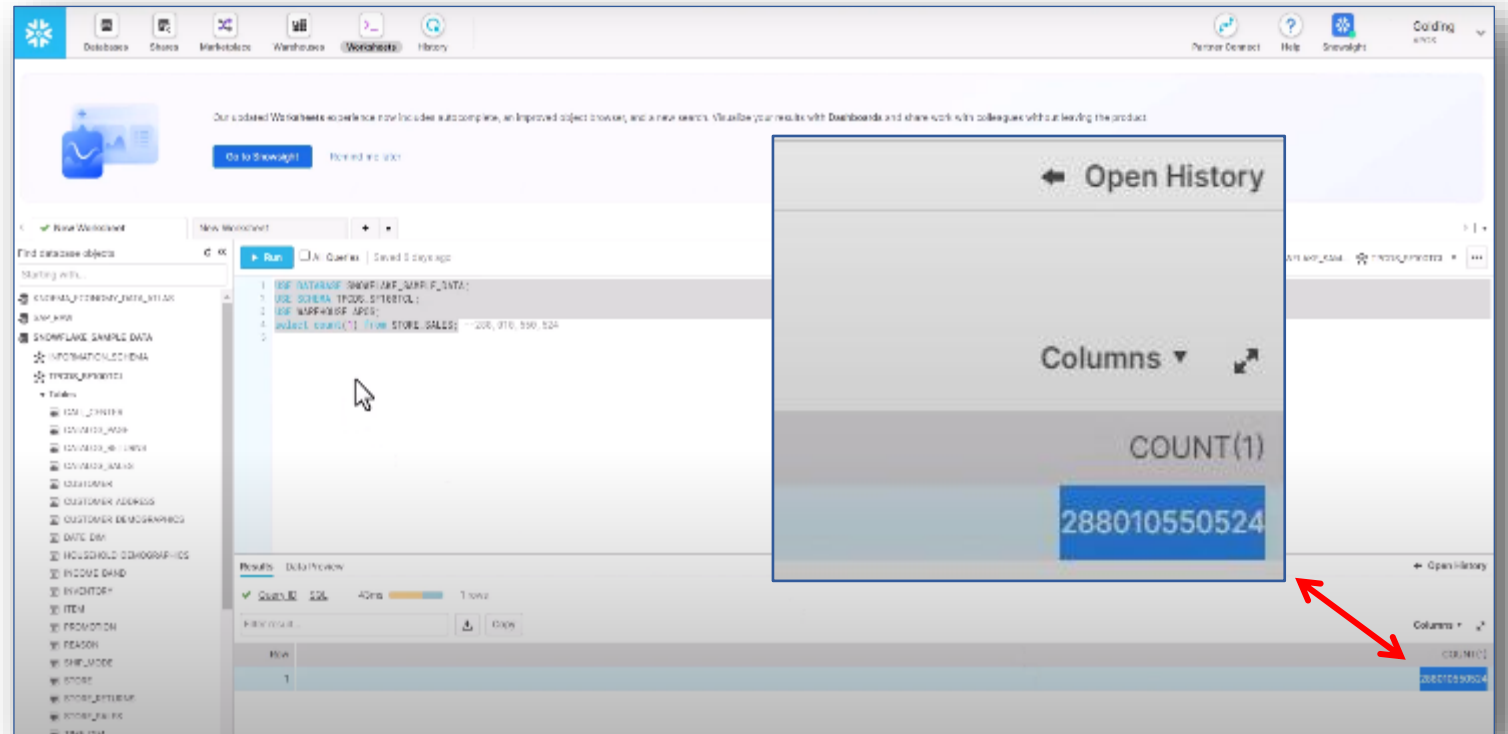
## Single Sign On

- Unified security authentication
- Integrated to enforce data base security
- Simplified user experience
- Various SSO options supported
- SSO Technologies we work with:
  - SAML
  - Azure AD
  - OKTA
  - Google Cloud IDP
  - OAuth
  - Kerberos with WinAD
  - Keypair Authentication
  - User Impersonation
  - Pre-Defined Cached User



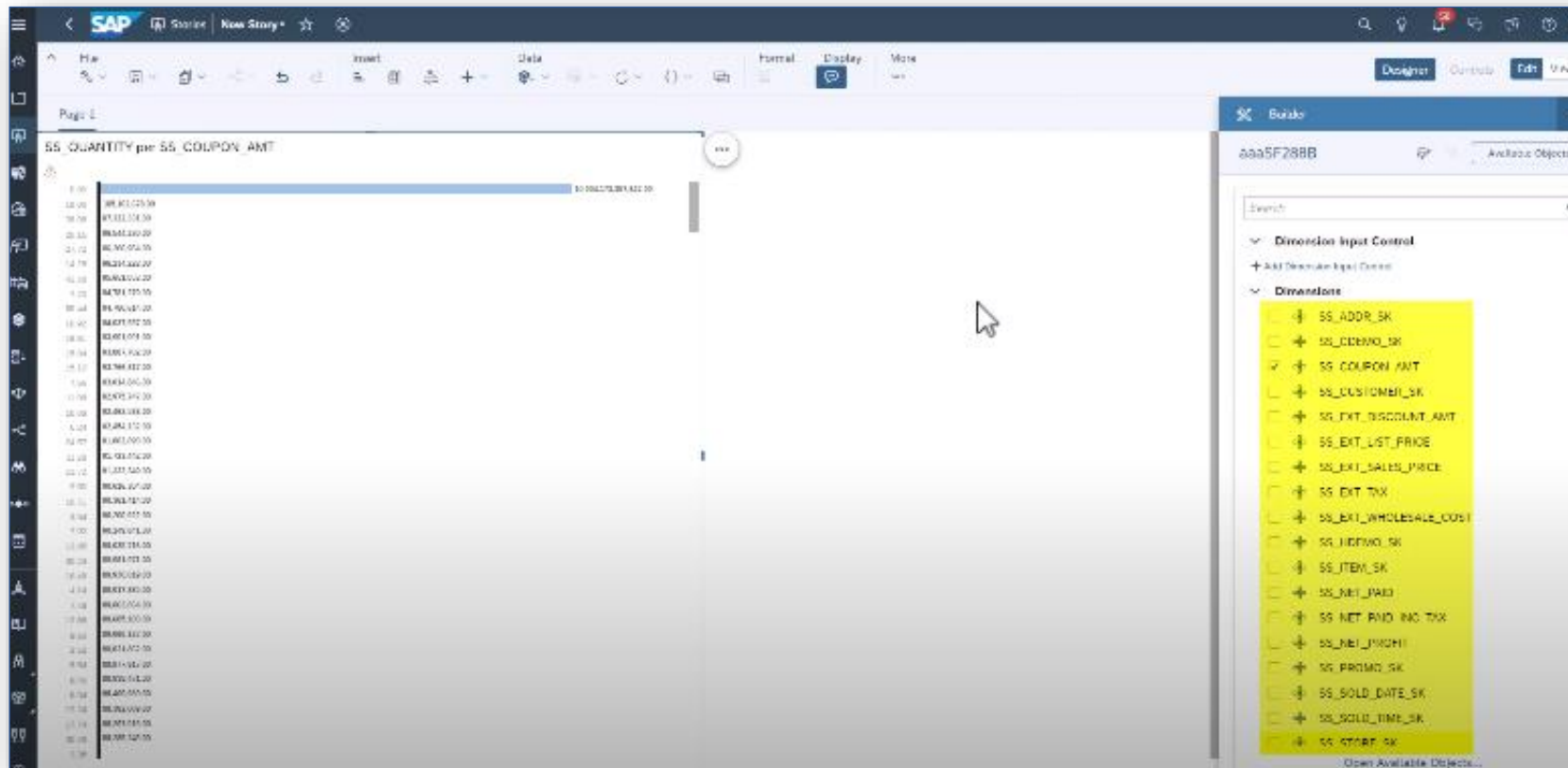
# Performance Considerations

- No data being stored
- Data being read from source database
- No caching of data
- New queries initiated with each data request within SAC



# APOS Live Data Gateway – Performance Results

- 288 billion row data set
- 10.5 Terabytes
- On-the-fly aggregated queries
- Sub-2 second response time !



# Solution Overview

To View this Demo, watch the  
webinar [on demand](#)





# APOS Data Gateway – Session Summary

- APOS Import Data Gateway
  - Expanded and simplified Import connectivity for SAC
  - Extract and Export SAC Planning data
  - Strategic data movement
- APOS Live Data Gateway
  - Direct Live connection options for SAC
  - Data Transformation
  - Performance
  - Security

# Upcoming Event

## *Technical Deep Dive: APOS Data Gateway*



Join this session for a deep dive with APOS solution consultants into this solution with in-depth demos and live Q&A.

March 7 - 11am Eastern Time

*Watch for your email for your invitation!*

Register at [www.apos.com](http://www.apos.com)



# APOS Data Gateway

## Free 30-Day Evaluation

APOS will provide the software and technical resources needed for you to test drive APOS Data Gateway in your environment

[www.apos.com](http://www.apos.com)

[info@apos.com](mailto:info@apos.com)

# 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

## 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

## APOS Web Intelligence Migrator



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

# STREAMLINE YOUR MOVE TO UNX UNIVERSE



## Freemium Upgrade Offer

## APOS Web Intelligence Migrator



### INVENTORY SYSTEM CONTENT

Detailed view of universes and reports for effective project planning



### BULK CONVERSION OF UNIVERSES

High-volume conversion of universes from UNV to UNX format



### HIGH VOLUME REPOINTING OF REPORTS

Scan and repoint Web Intelligence reports in bulk from old UNV to new UNX



### VALIDATE UPGRADE SUCCESS

Automated testing of reports to validate successful and accurate migration



### STRONG PROCESS CONTROLS

Enterprise-grade controls to synchronize and scale your migration processes

## APOS Freemium Offer

Free Production deployment use of APOS Web Intelligence Migrator:

- Scan and inventory your SAP BI systems
- Bulk convert all UNV universes to UNX
- Bulk repoint up to 200 WebI reports
- Validate migration success
- 100 days of free use
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# QUESTIONS?

Please enter your questions in the Q&A panel.





# Thank you!

## Get in touch

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