Webinar
Leverage Live Data Analytics
Unlock Value with
APOS Live Data Gateway
APOS

Today's Session

Key Topics

- SAC Connectivity Options
- Live Data Connectivity for SAC
- Data Preparation
- Advanced Features
- Expanded Connection Support
- Expanded Consumption Support

- Q&A – see webinar console

APOS

Today's Presenters

ALLAN PYM

Chief Operating Officer
APOS

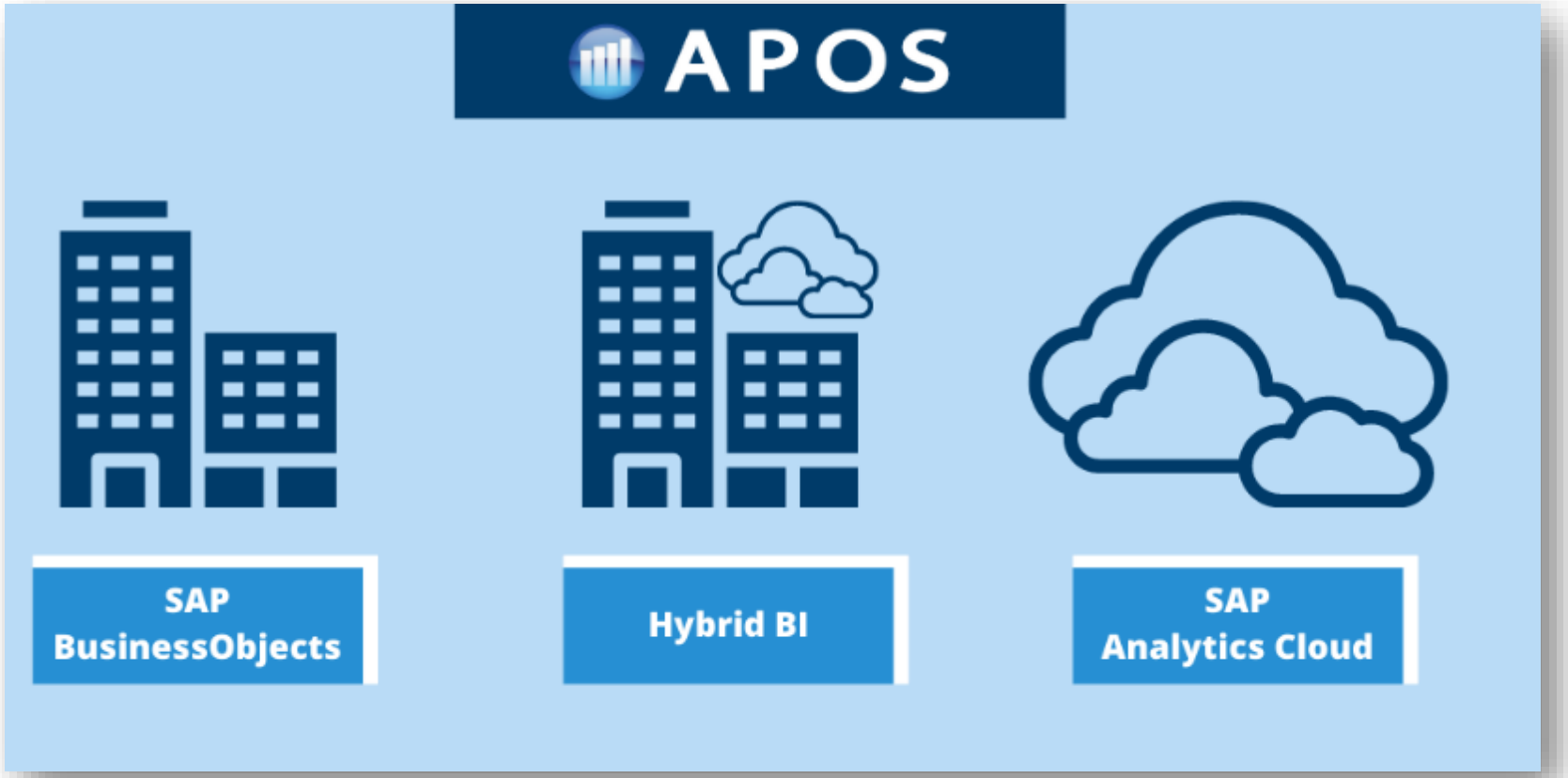
ALAN GOLDING

Solution Consulting Manager
APOS

Who is APOS?

- Formed in 1992
- Enabling BI data connectivity, 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



EXTEND
SAP ANALYTICS

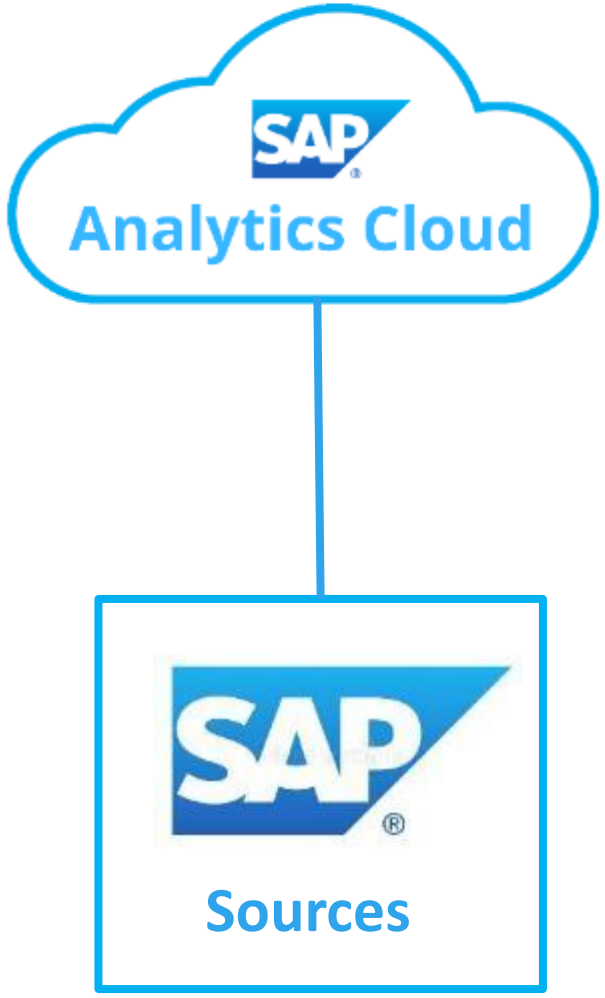
HOUSEKEEPING

You will have access to the slides via email

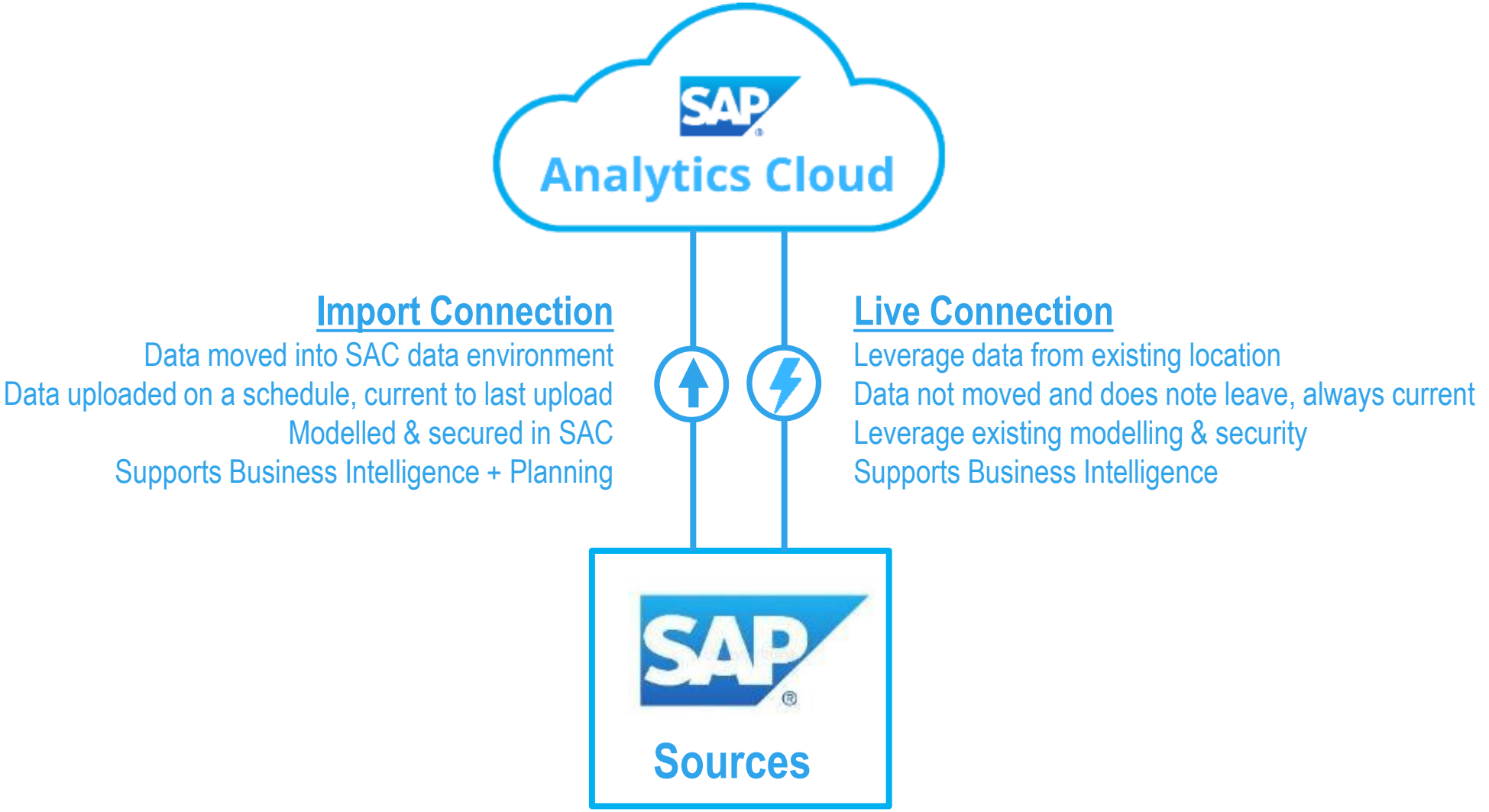
You will get the recording within 24 hours

Tell us how we did in the survey

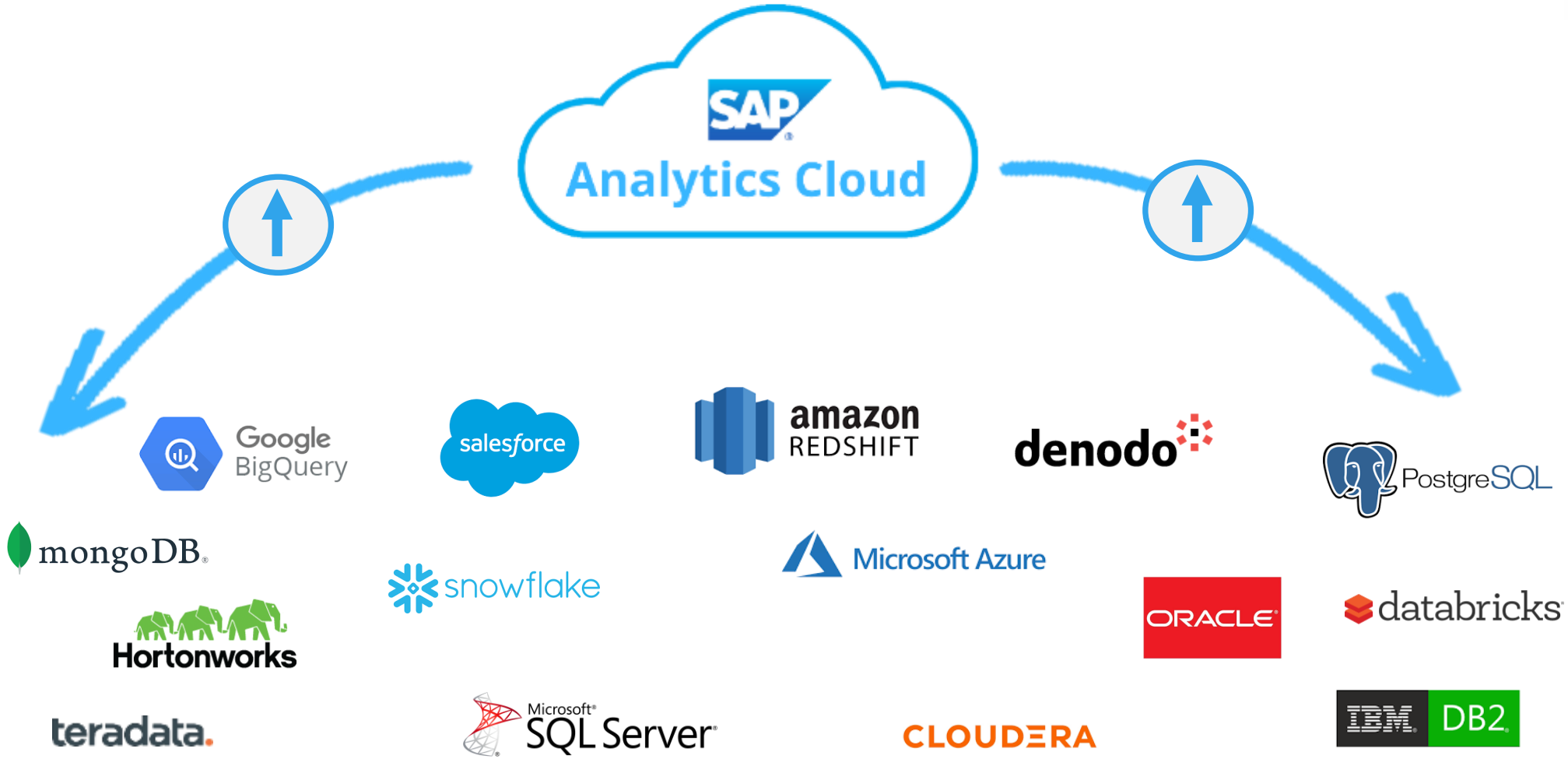
SAC Connectivity



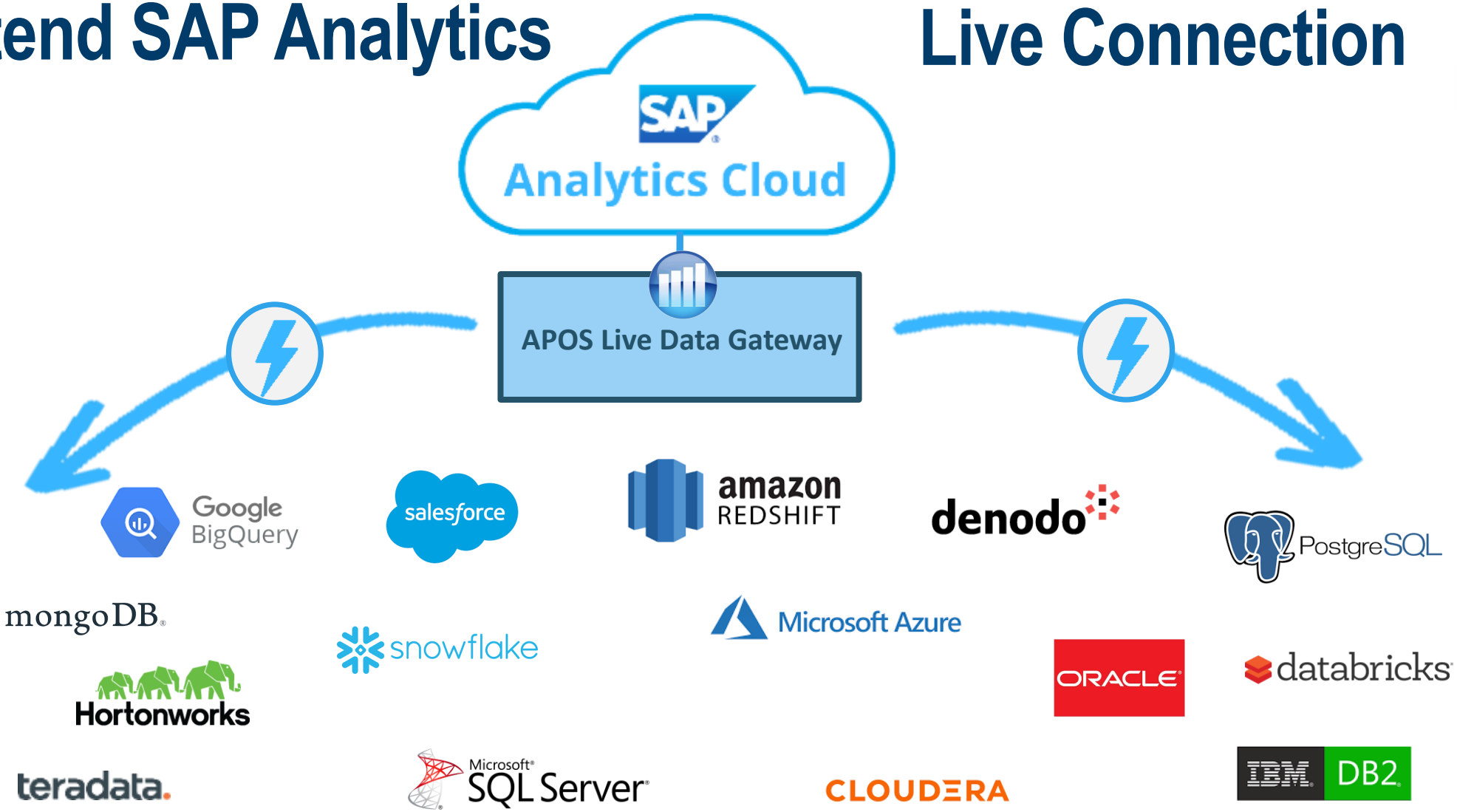
Live & Import Connectivity



SAC Connectivity to Non-SAP Sources - Import



Extend SAP Analytics Live Connection



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

Available on SAP Store

APOS Live Data Gateway

Core 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 BigQuery
- Google Cloud Platform
- Hortonworks
- Informix
- Microsoft SQL Server
- Microsoft Analysis Services
- Azure Blob
- Mongo DB, Mongo DB Atlas
- MySQL
- Netezza
- Oracle
- Oracle Essbase
- Oracle Exadata
- Postgres
- Presto
- Salesforce
- Snowflake
- Sybase IQ, Sybase SQL Anywhere
- Teradata

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

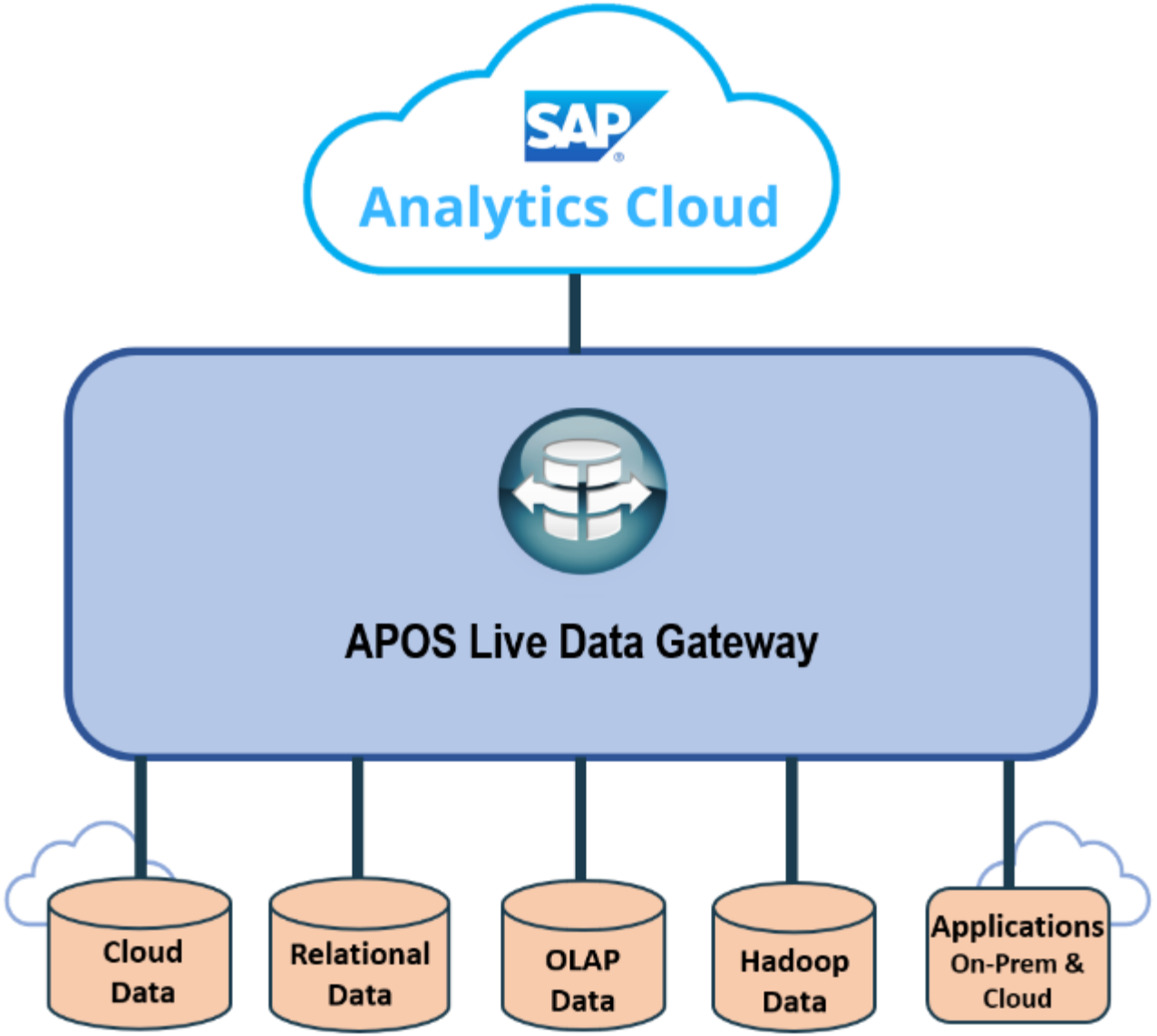
- JDBC connectivity

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

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

Available on SAP Store

APOS Live Data Gateway



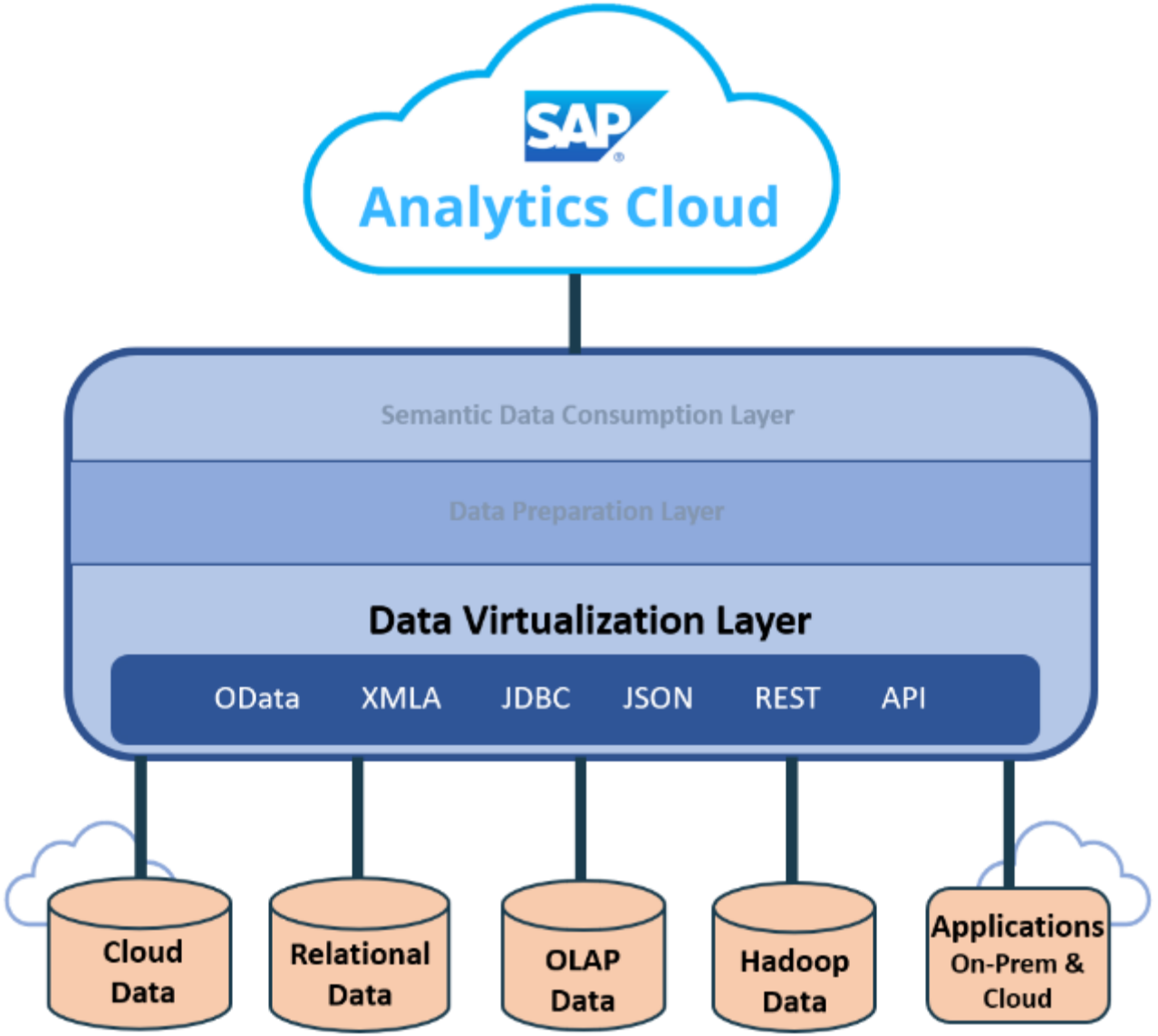
Alan Golding
Solution Consulting Manager
APOS

Live Connectivity for SAC

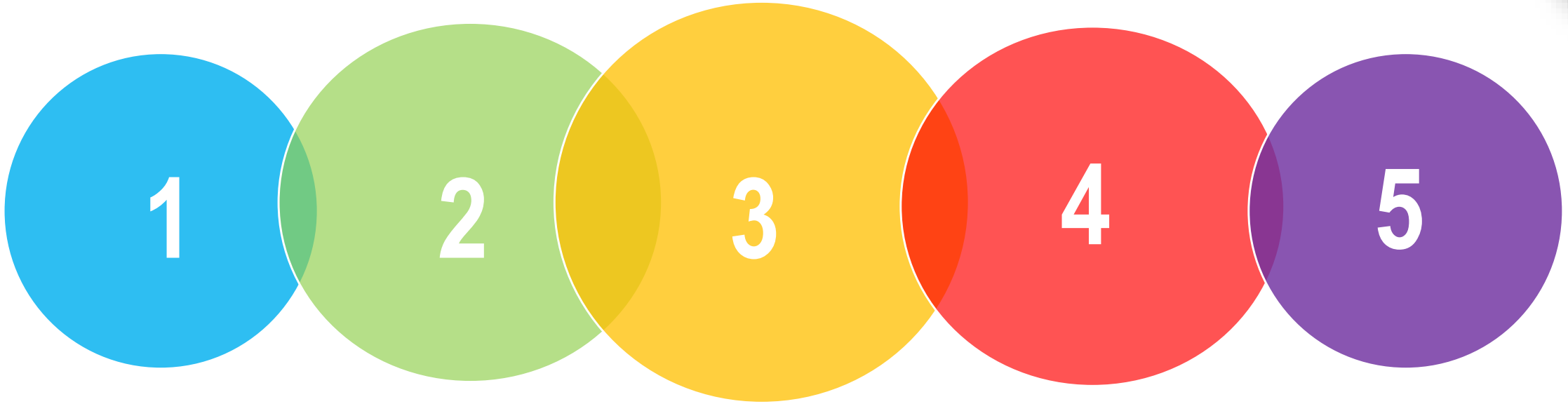
Live Connectivity for SAC

- Server level connectivity
  - Single point of connection to data sources
- Connect to wide range of sources + unique sources
- Data security
  - Respecting database security
  - Integrated SSO

Live Connectivity for SAC



5 Simple Steps to Live Connectivity



1. Create connection to Data Source
2. Create view in Data Preparation Layer
3. Create connection
4. Create Model / Data Set
5. Create Report

Note: to see the demo, please view the webinar on demand at:
www.apos.com/content/webinar-leverage-live-data-analytics-on-demand

Live Data Gateway

Data Preparation

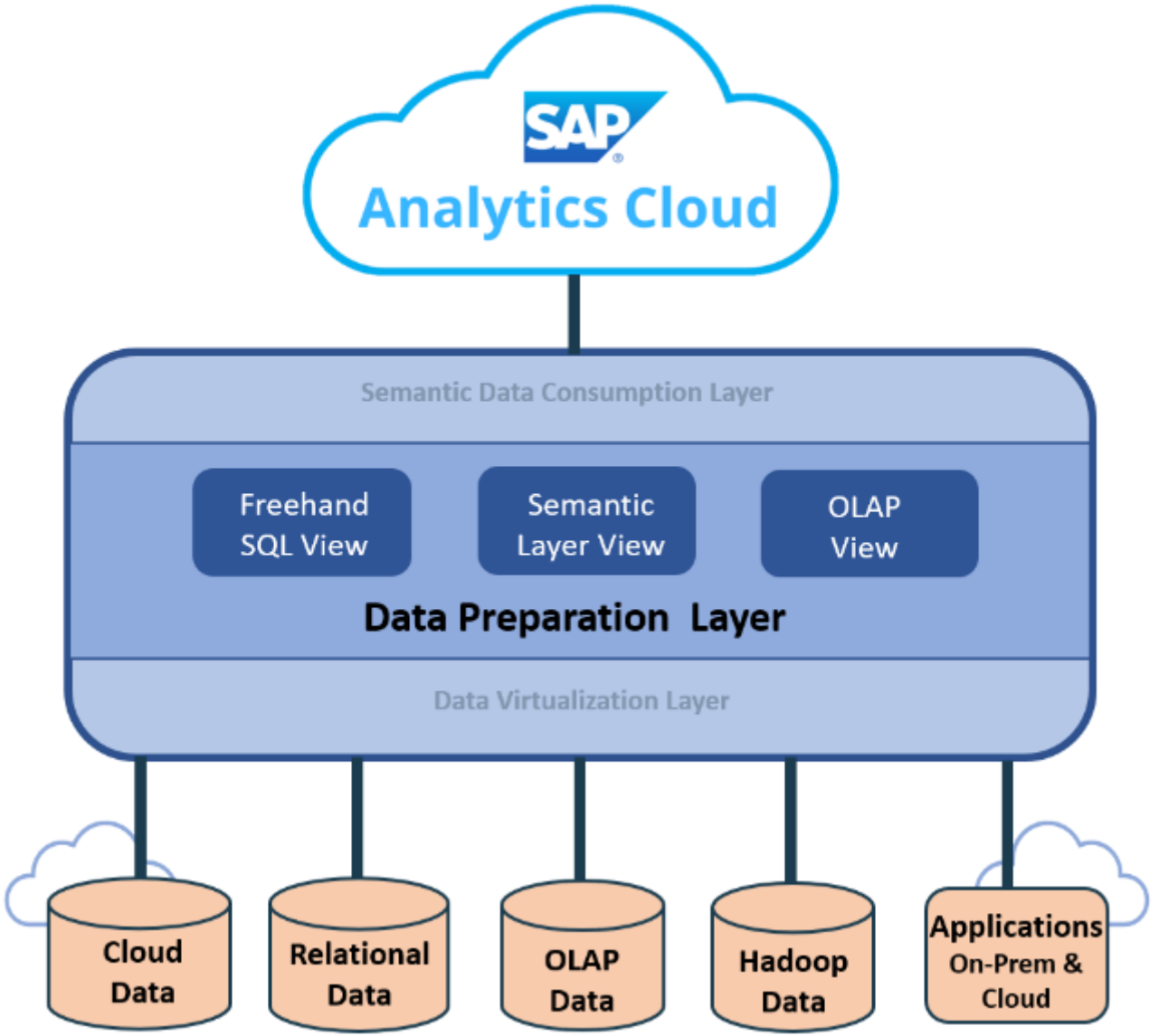
- Business layer / semantic layer
- Simplify data access for report builders
  - Self-service data modelling
- Control and govern access to data

Data Preparation Layer

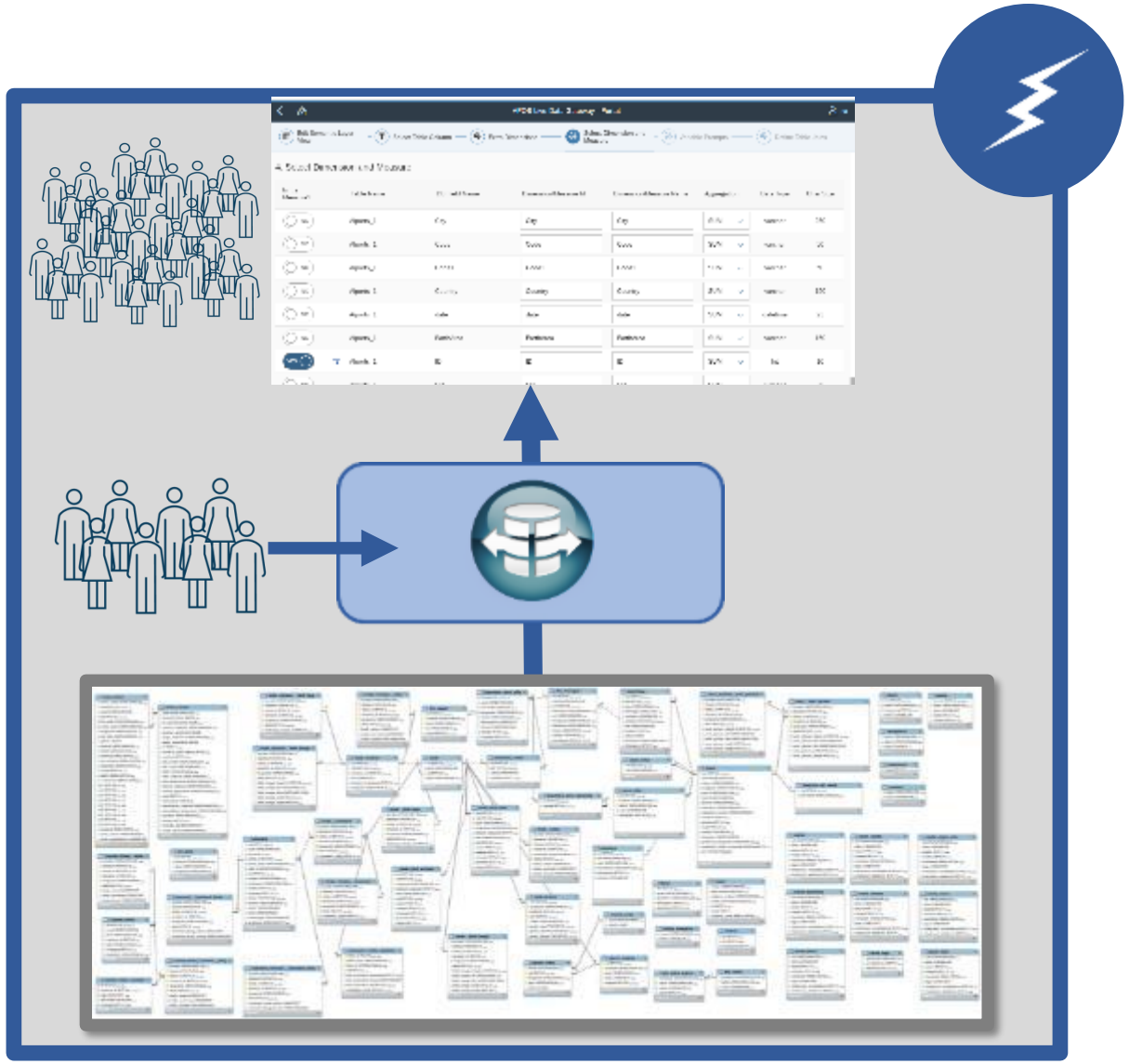
Data Preparation Layer

Key Functions

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



APOS Live Data Gateway – Solution Update



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

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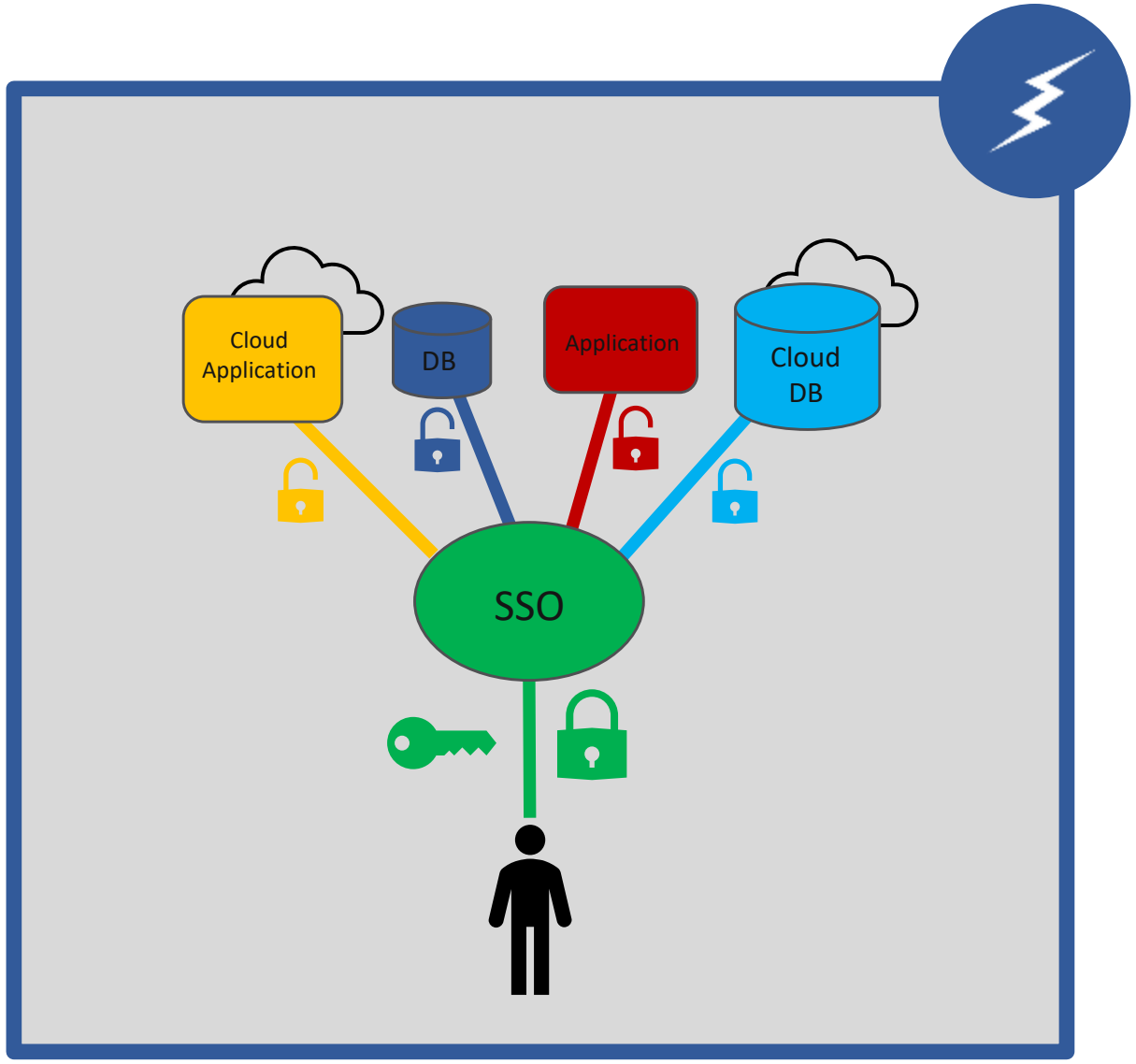
Live Data Gateway

Advanced Features

- SSO
- Shared Connections
- Custom & Date Hierarchies
- Variables
- Geospatial Support

APOS Live Data Gateway – Advanced Features



Single Sign On

- Unified security authentication
- Integrated to enforce data base security
- Simplified user experience

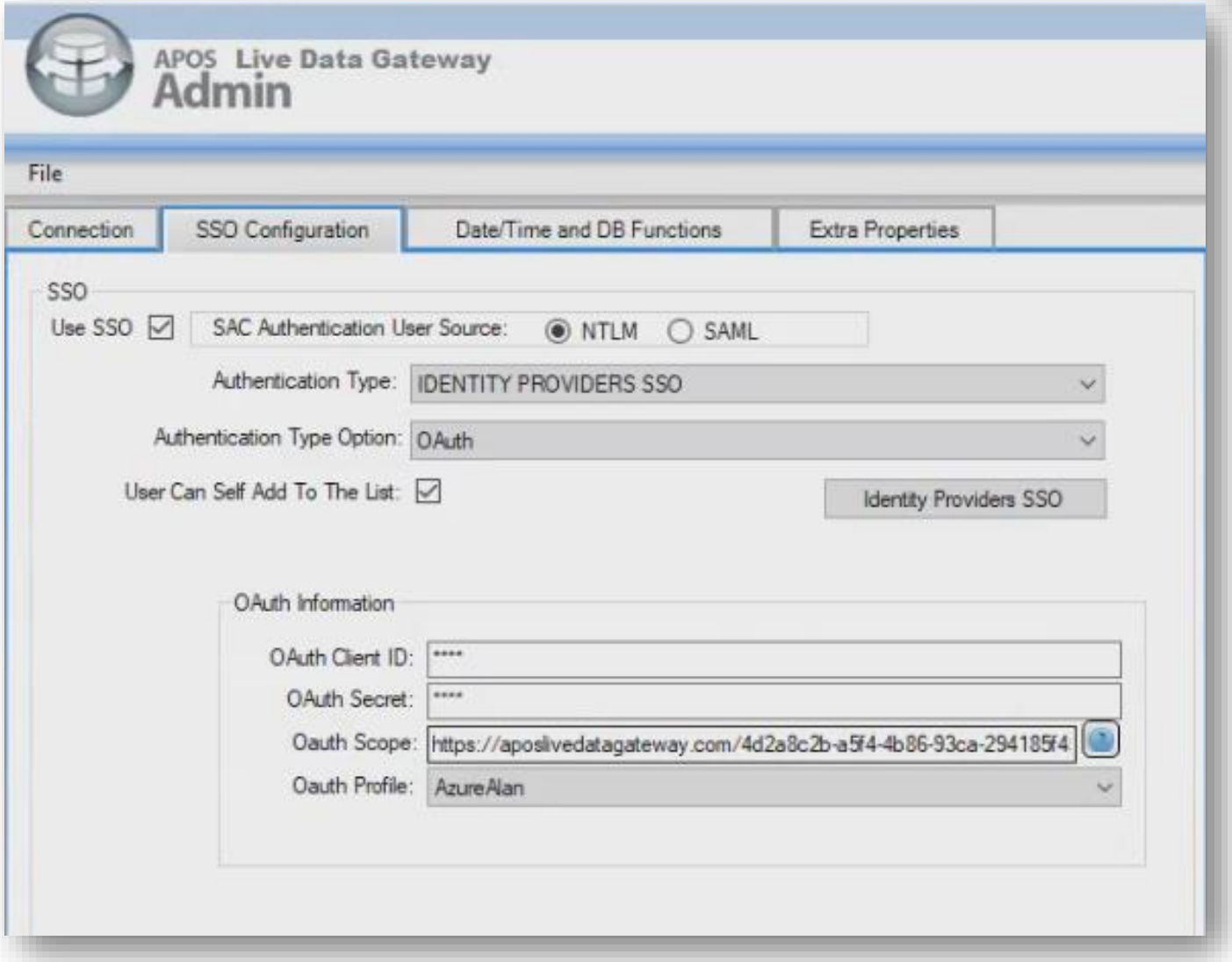
- Various SSO options supported
- SSO Technologies we work with:
  - SAML
  - Azure AD
  - OKTA
  - Google Cloud IDP
  - OAuth
  - Kerberos with WinAD
  - Keypair Authentication
  - User Impersonation
  - Pre-Defined Cached User

APOS Live Data Gateway – Advanced Features

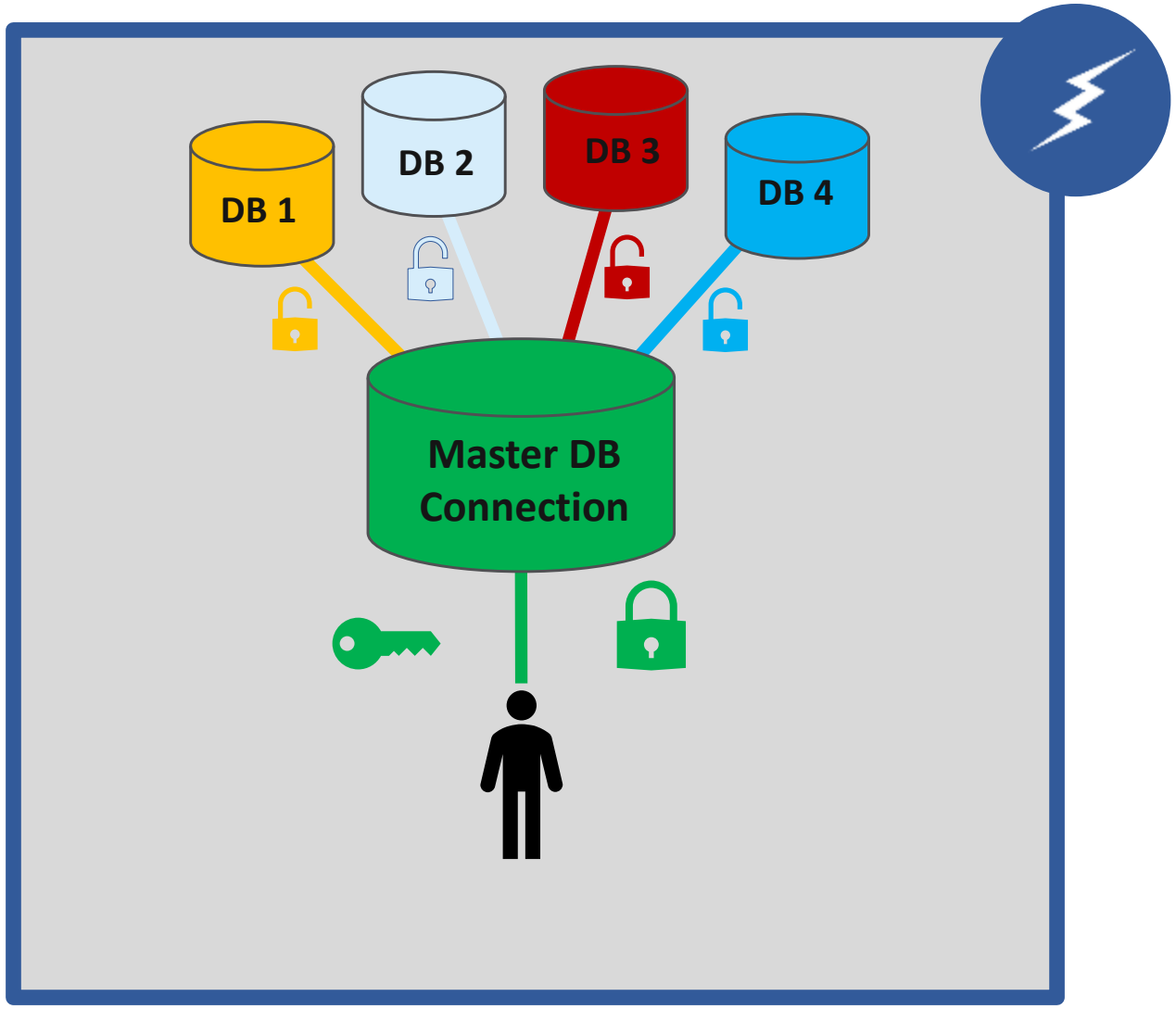
Single Sign On

Example

- End to End SSO with SAC and Snowflake
- Integrating SAML with oAuth and Azure AD



APOS Live Data Gateway – Advanced Features



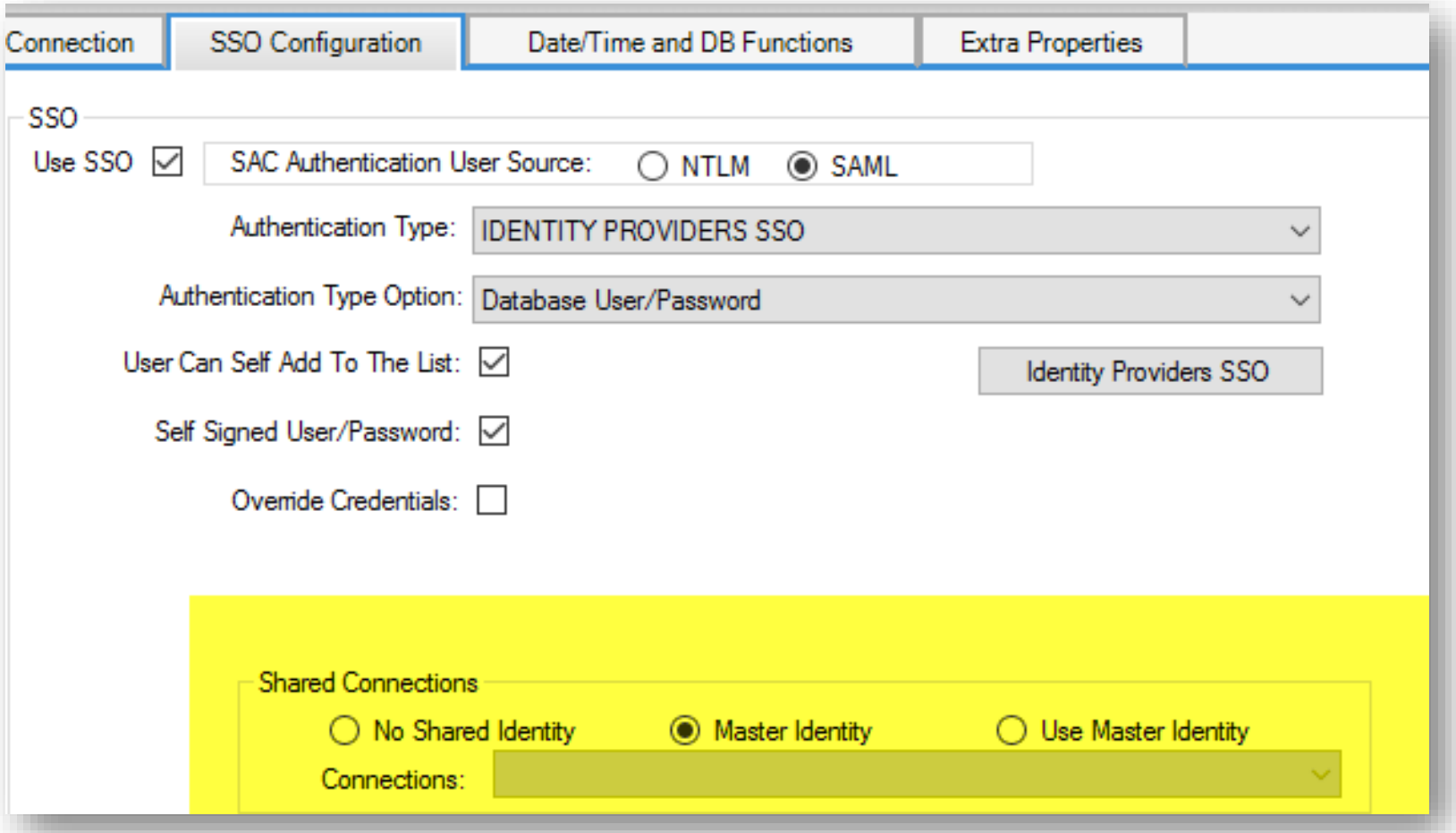
Shared Connectivity

- Single point of SSO for multiple connections
- Master connection can have multiple child connections associated with it
- Removes need for multiple SAC connections

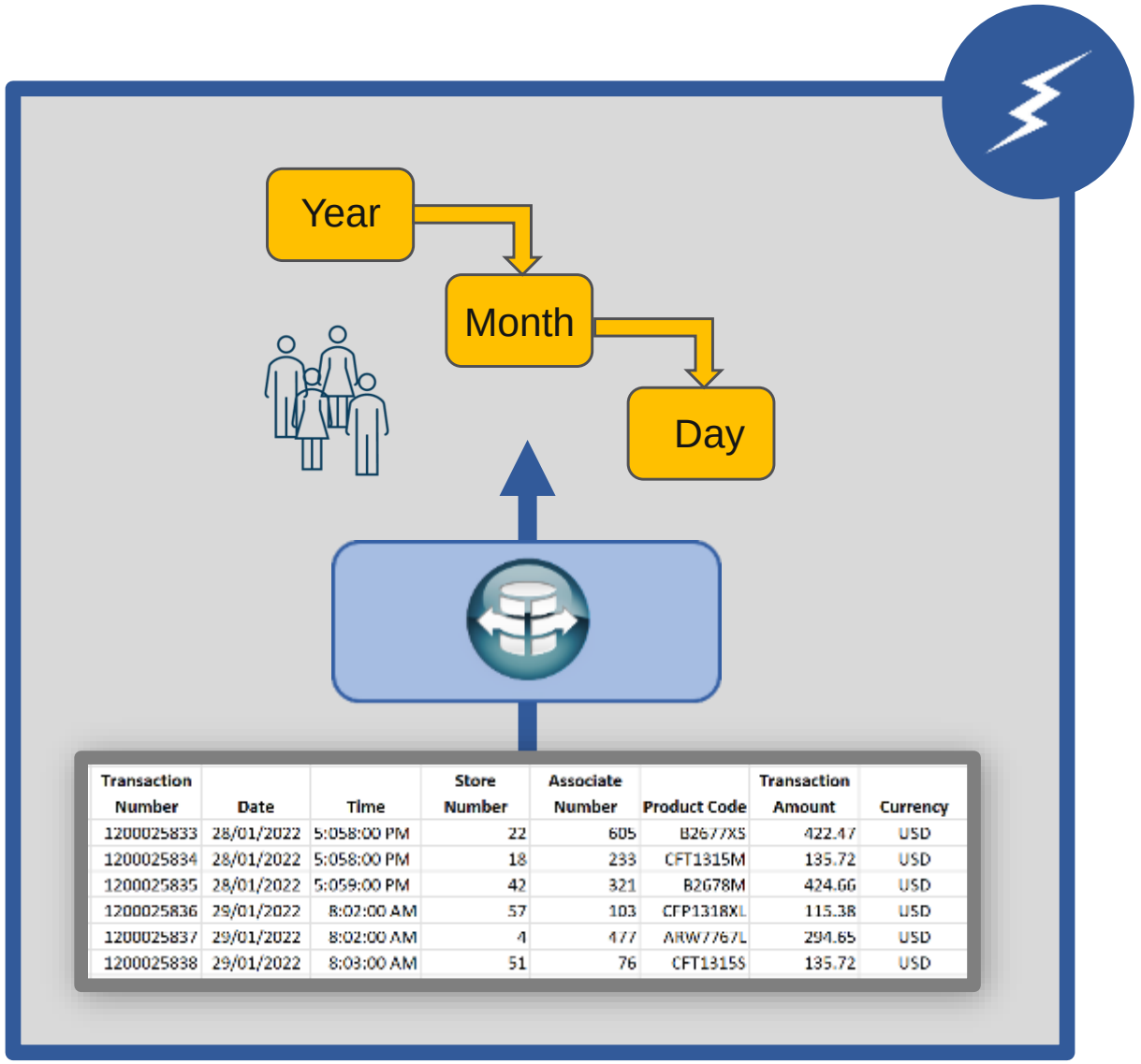
APOS Live Data Gateway – Advanced Features

Shared Connectivity

- Select which connection will be the Master then associate other connections to use the Master connection



APOS Live Data Gateway – Advanced Features



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1200025835	28/01/2022	5:059:00 PM	42	321	B2678M	424.66	USD
1200025836	29/01/2022	8:02:00 AM	57	103	CFP1318XL	115.38	USD
1200025837	29/01/2022	8:02:00 AM	4	477	ARW776/L	294.65	USD
1200025838	29/01/2022	8:03:00 AM	51	76	CFT1315S	135.72	USD

Date Dimension Support

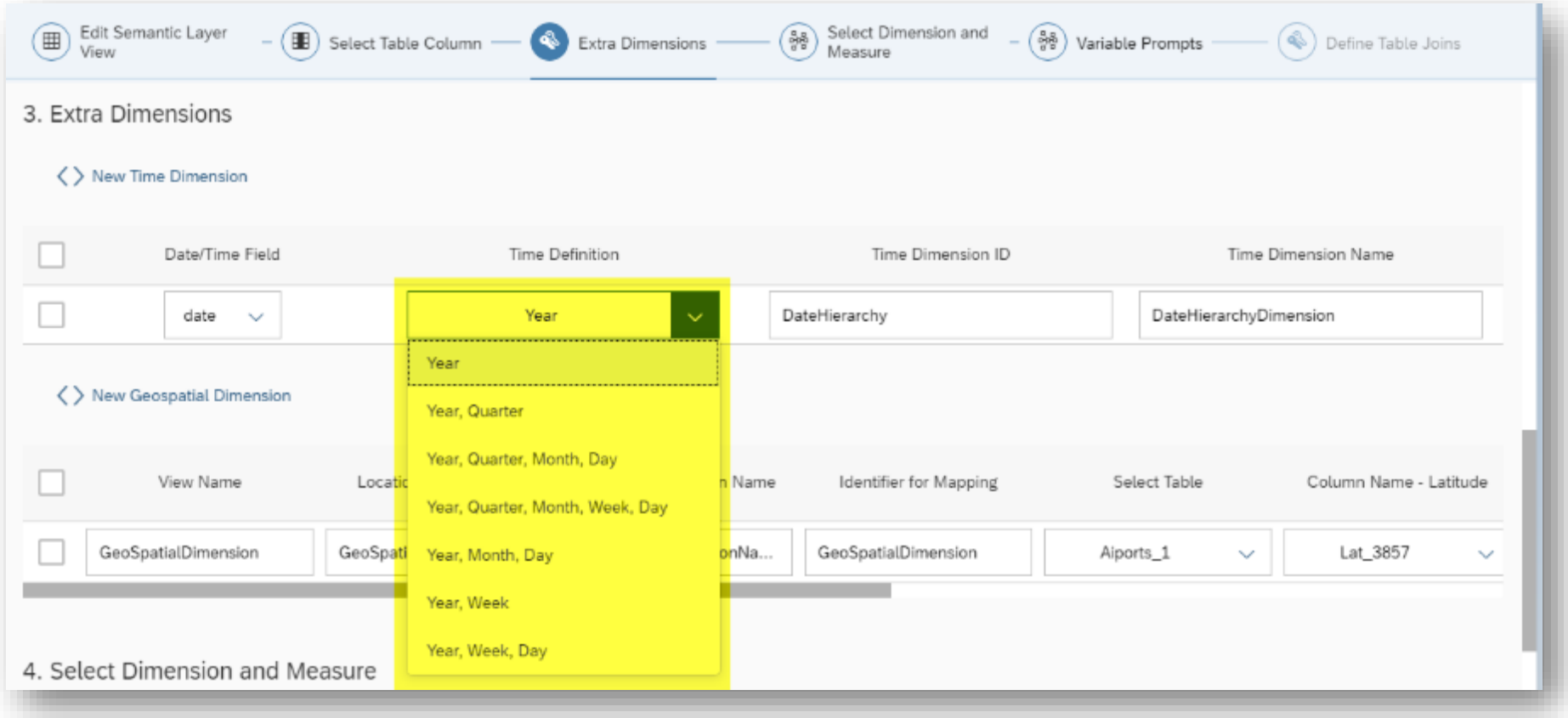
- Create date hierarchies on non-hierarchical data
- Simplified user navigation and experience
- Improved analysis

- Custom date dimensions support
- Hierarchical date dimension support
  - Drill Down
  - Time Series Charts
  - Variance Charts
- Hierarchies available as individual dimensions

APOS Live Data Gateway – Advanced Features

Date Dimension Support

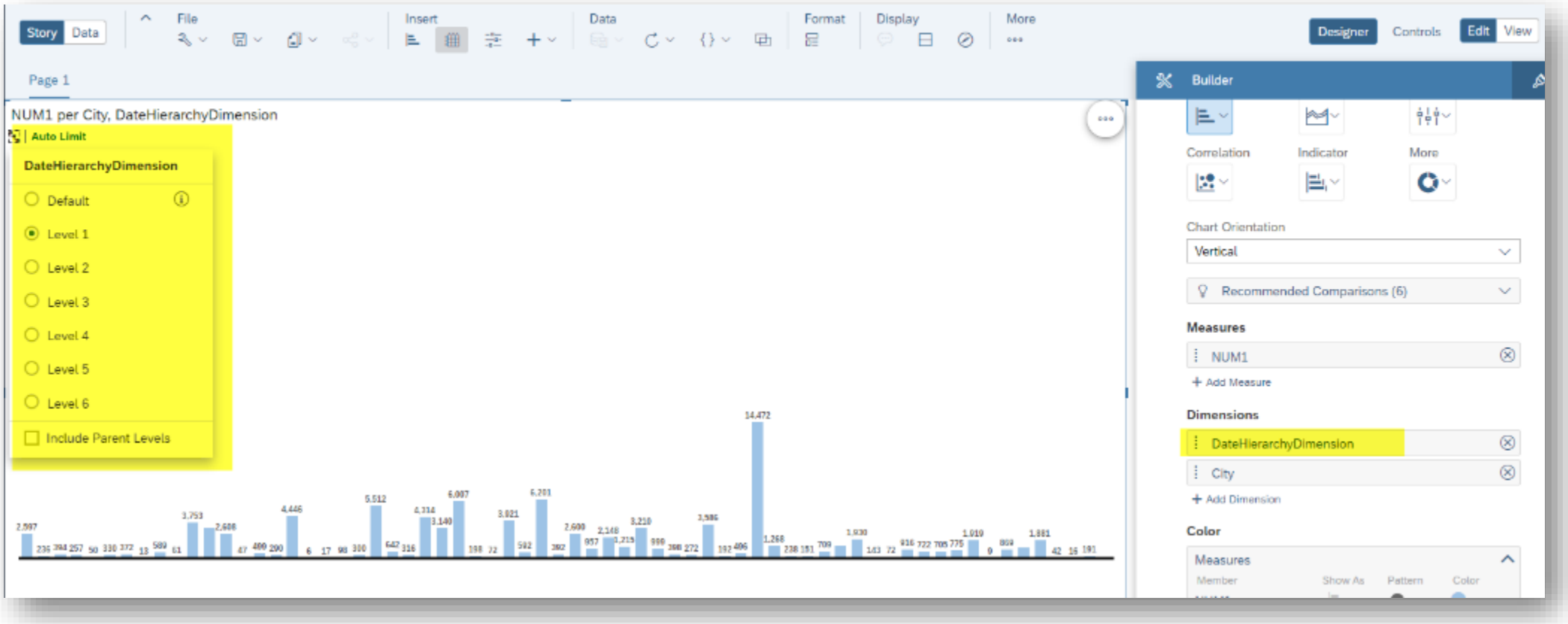
- Select custom level of hierarchy needed
- Each level available as individual dimension also



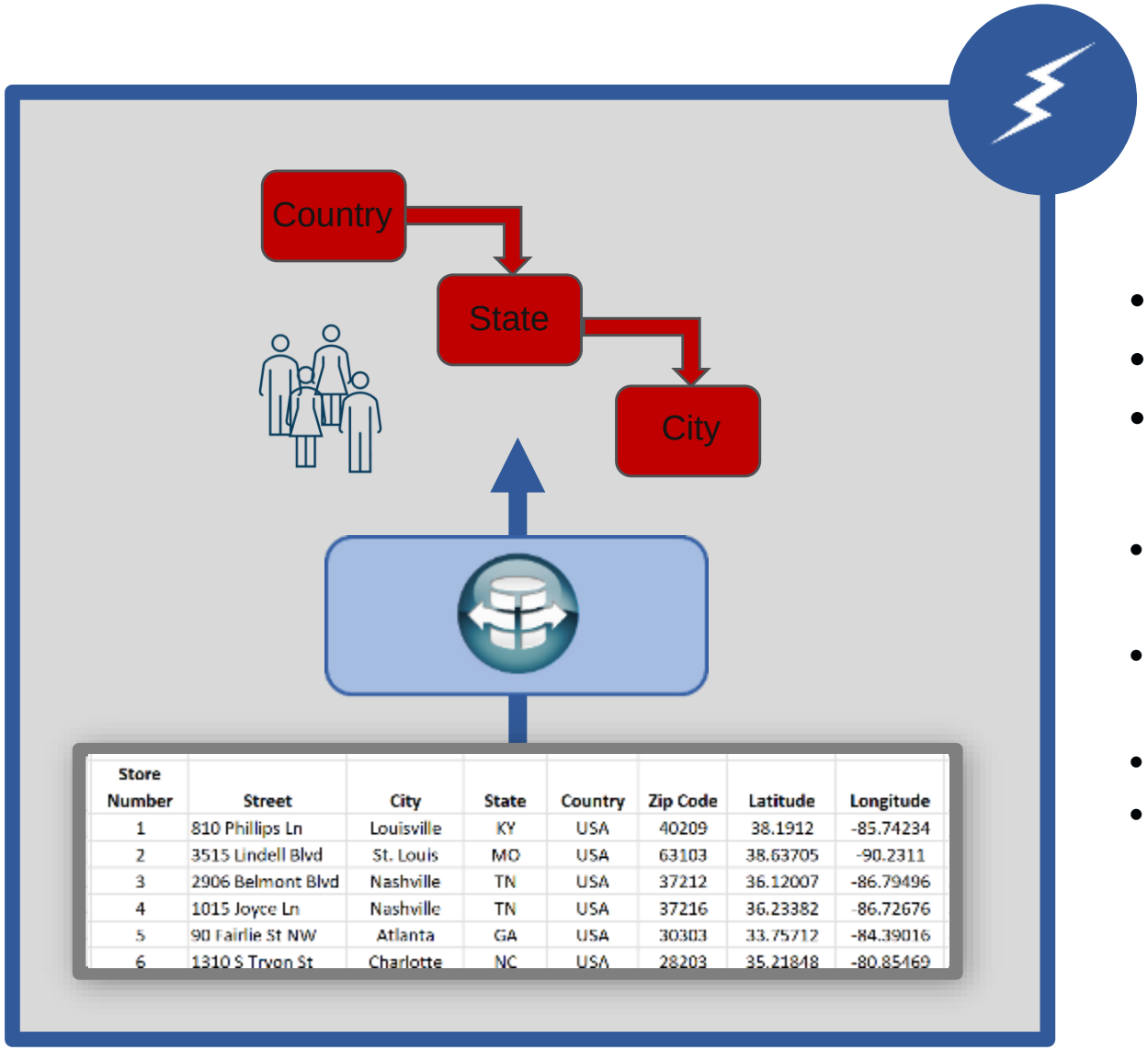
APOS Live Data Gateway – Advanced Features

Date Dimension Support

- Drill Down
- Time Series Charts
- Variance Charts



APOS Live Data Gateway – Advanced Features



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

Custom Hierarchy Support

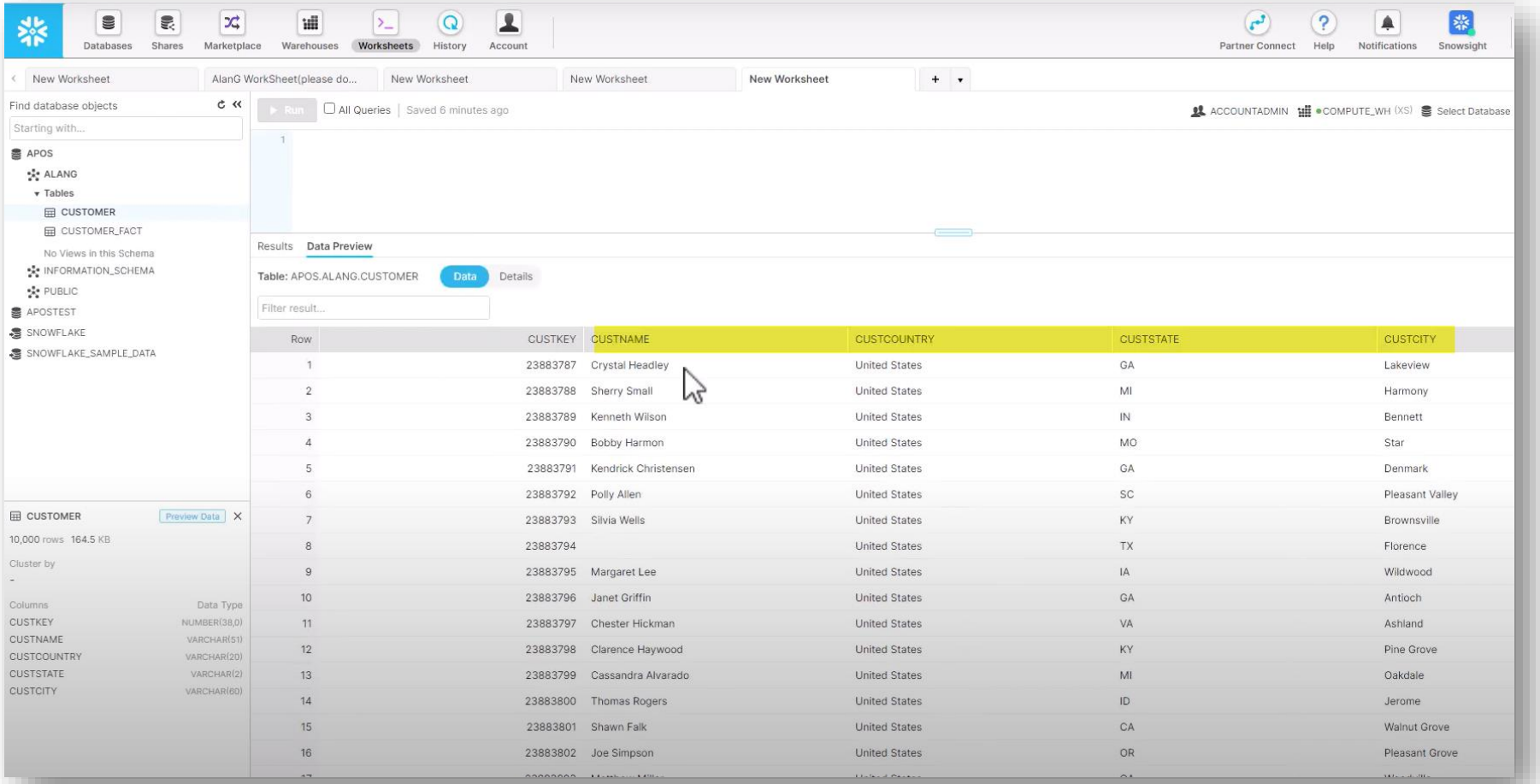
- Create custom hierarchies on non-hierarchical data
- Simplified user navigation and experience
- Improved analysis

- 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

APOS Live Data Gateway – Advanced Features

Custom Hierarchy Support

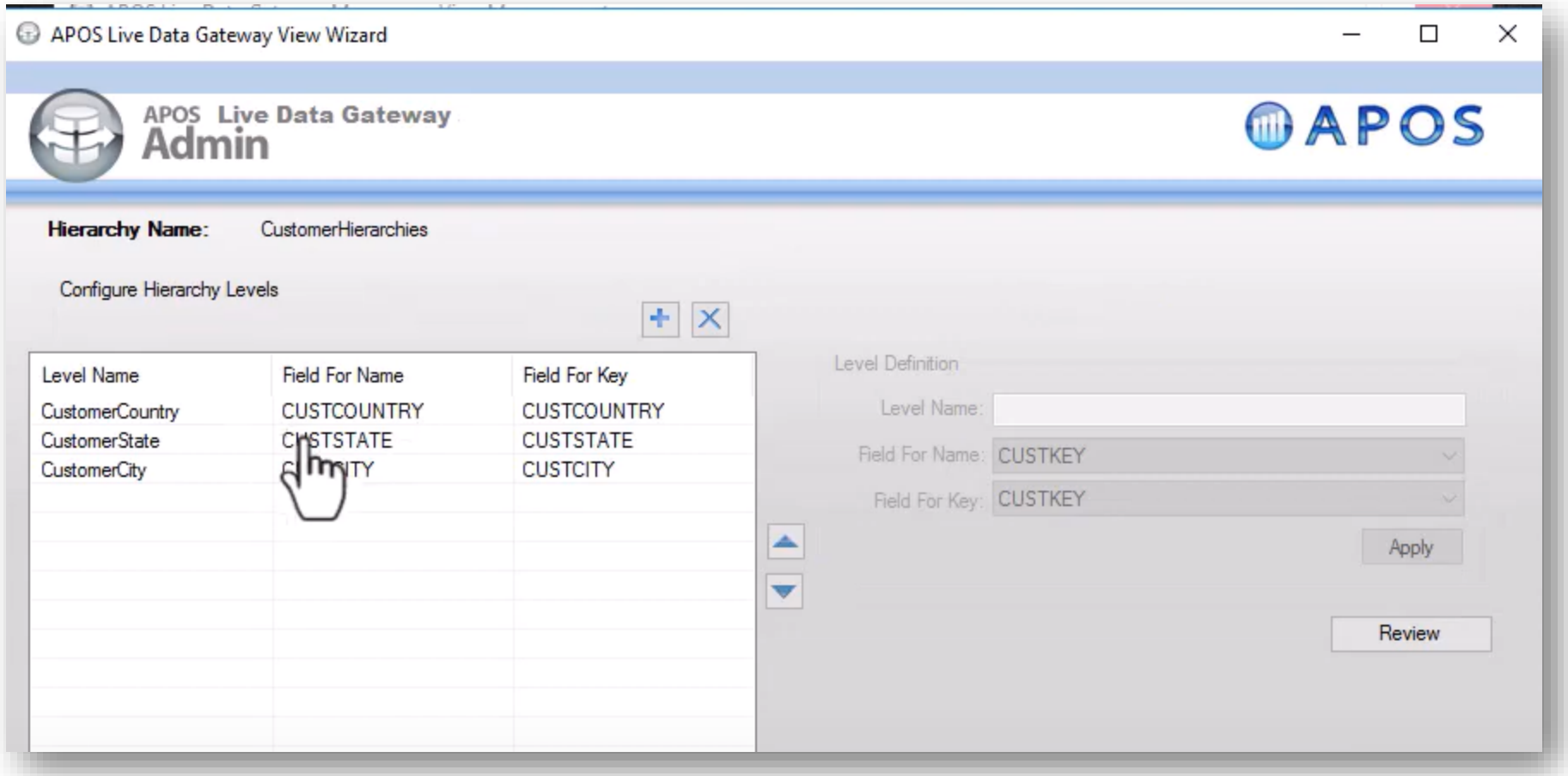
- Create custom hierarchies from your fact/dimension tables



APOS Live Data Gateway – Advanced Features

Custom Hierarchy Support

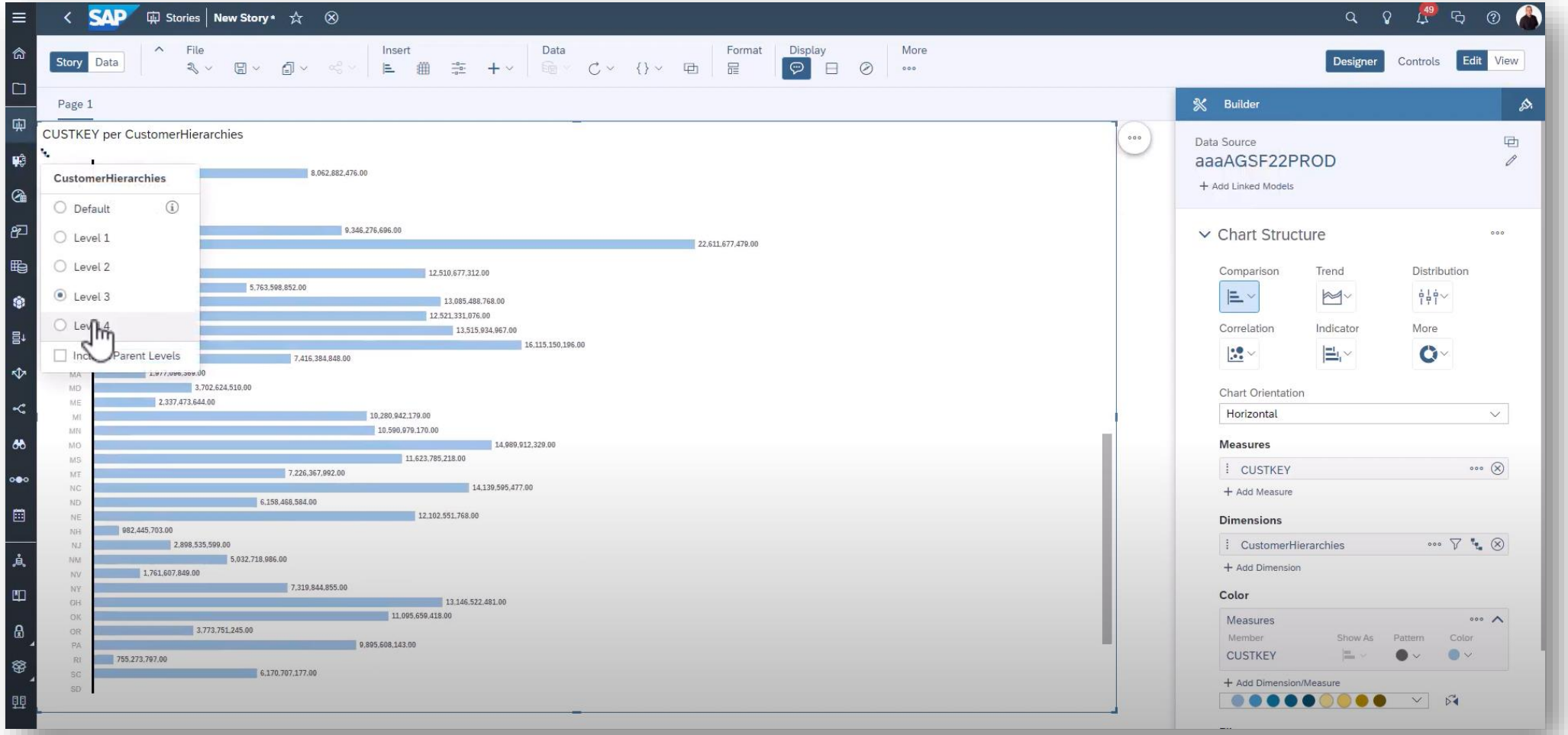
- Level based hierarchy supported
- Can work with parent/child hierarchies also



APOS Live Data Gateway – Advanced Features

Custom Hierarchy Support

- Drill down using your custom hierarchies in SAC



APOS Live Data Gateway – Advanced Features

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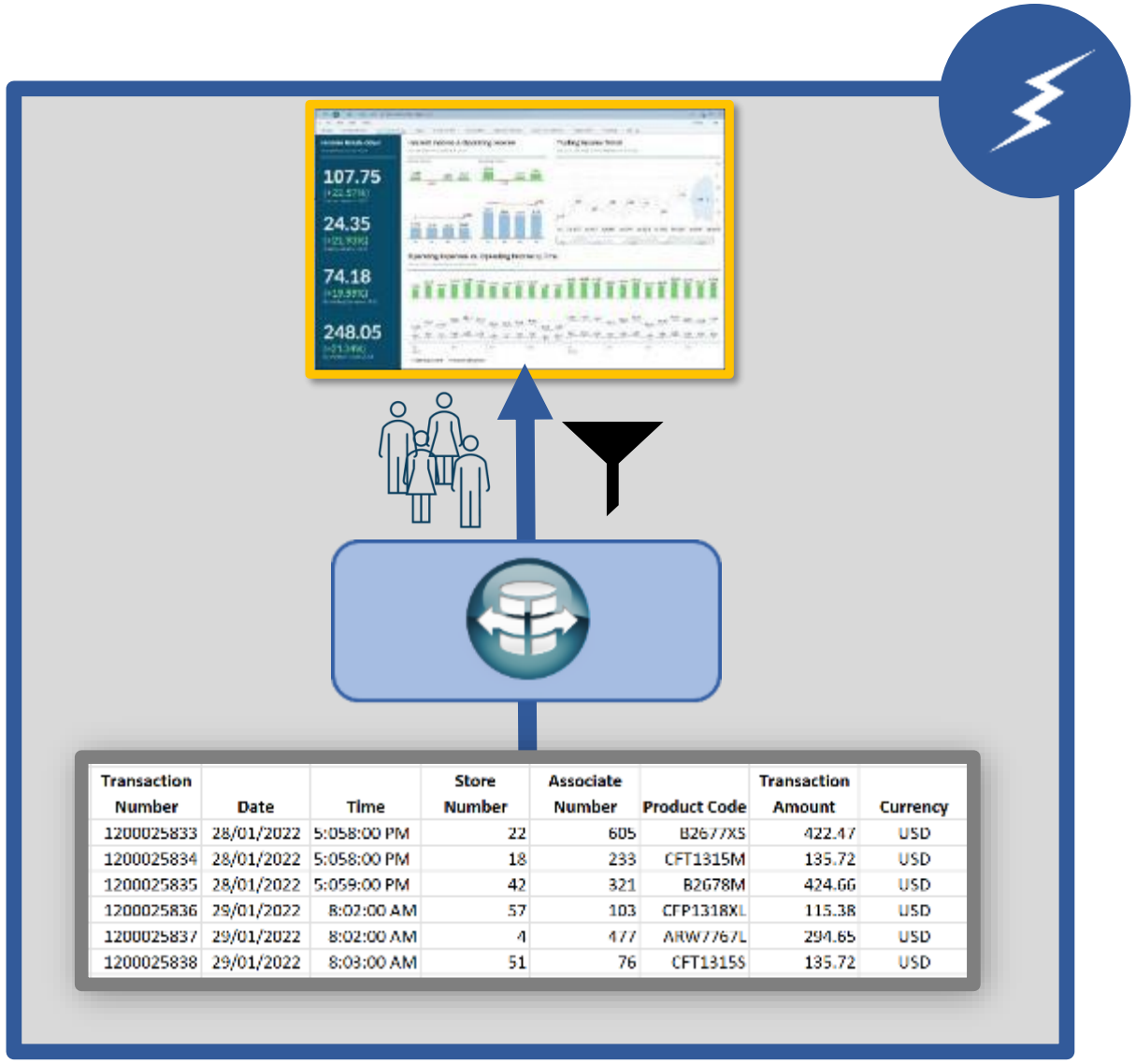

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Variables Support

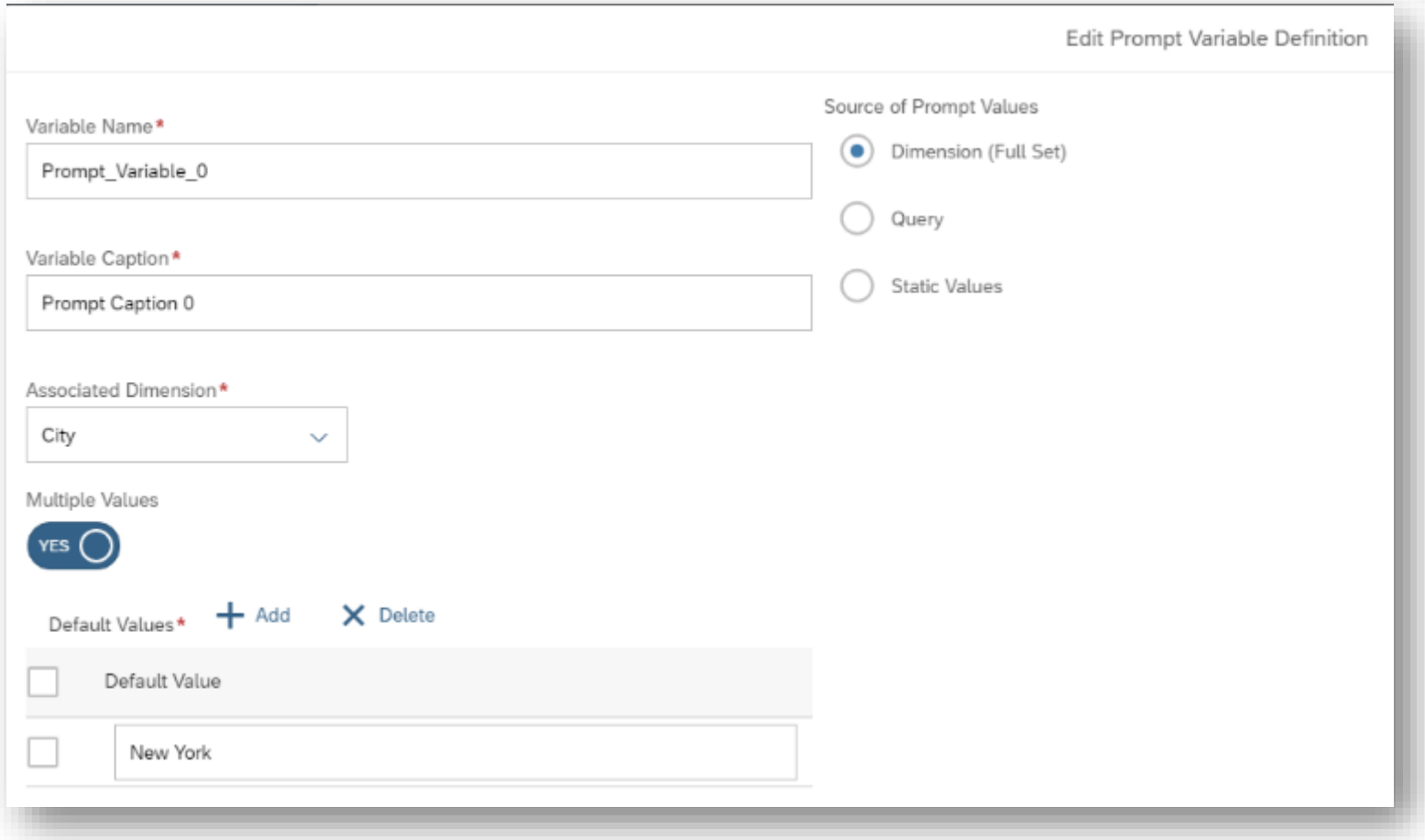
- Powerful data filtering
- Simplified user experience
- Improved analysis

- Create custom variables
- Supported in both Client Tool and Web UI
- Utilize formulas
- Utilize full set of values or custom set of values

APOS Live Data Gateway – Advanced Features

Variables Support

- Choose dimension
- Allow multiple values
- Set defaults
- Utilize formulas
- Set full set of values, or query, or static values



APOS Live Data Gateway – Advanced Features

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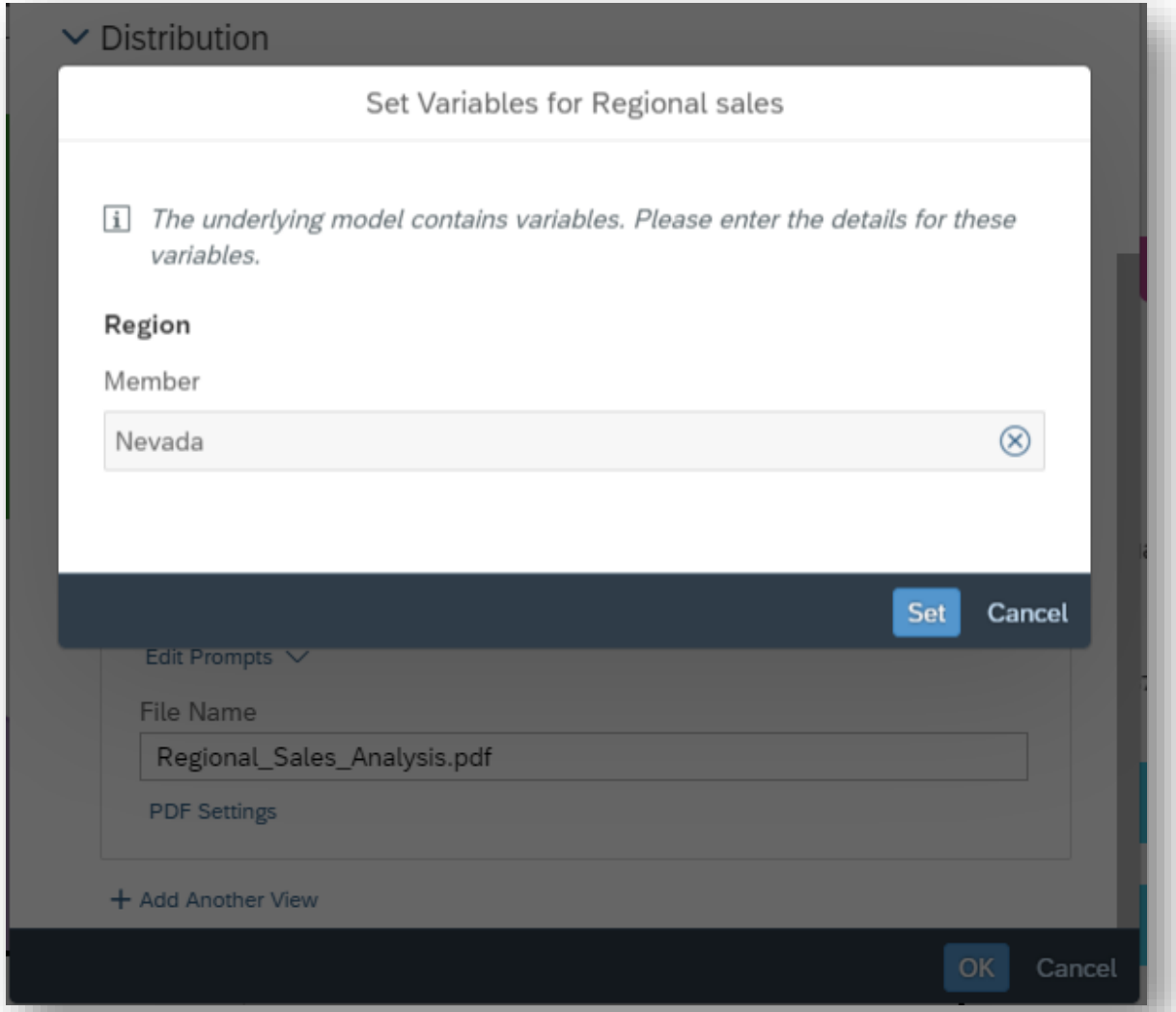
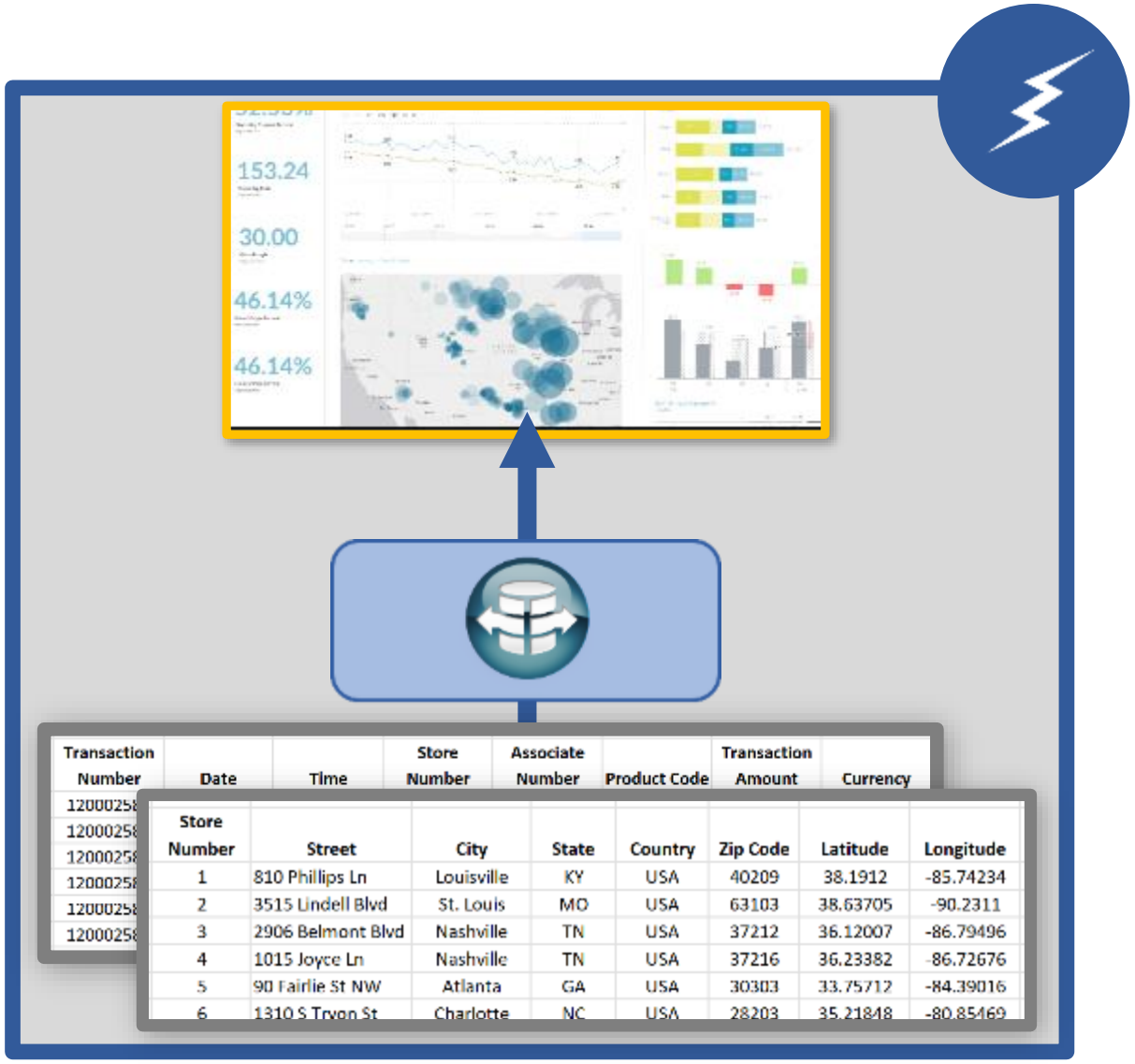


APOS Live Data Gateway – Advanced Features



Geospatial Data Support

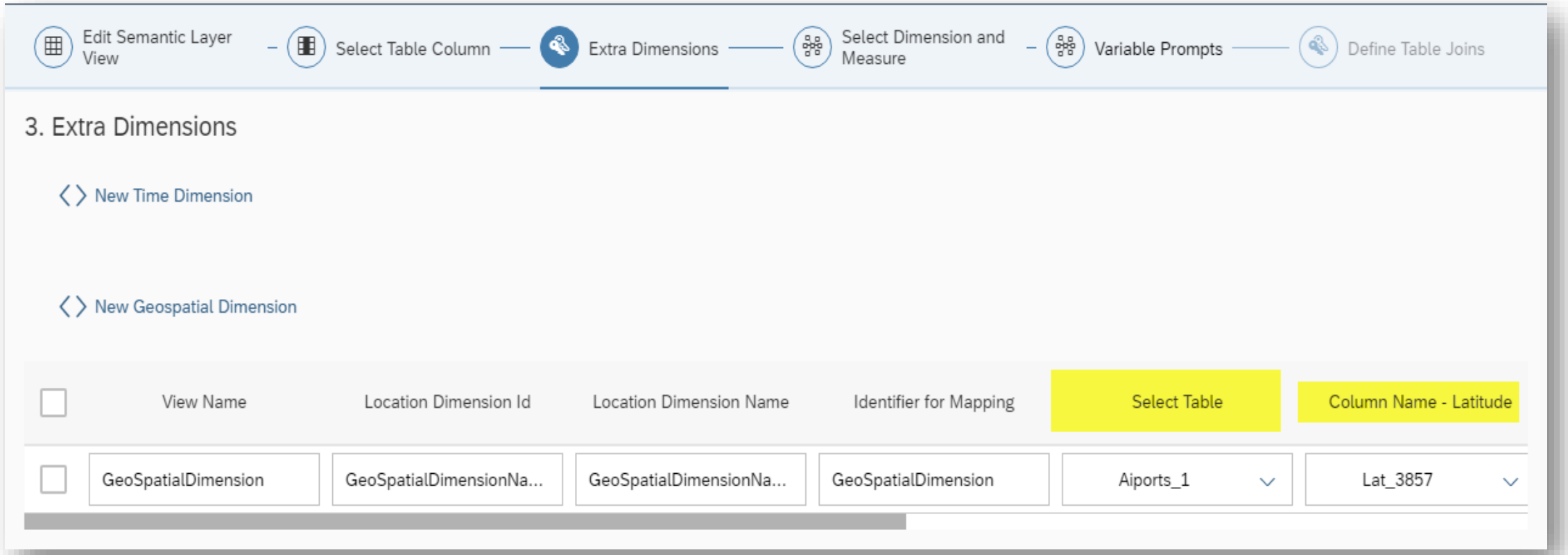
- Supply data for representation on a map
- Highly visual analytics
- Improved analysis

- Geo Spatial Dimensions support
- Multiple Projections supported
- Multiple Datasource Types supported
- Configure Multiple Geo Dimensions

APOS Live Data Gateway – Advanced Features

Geospatial Data Support

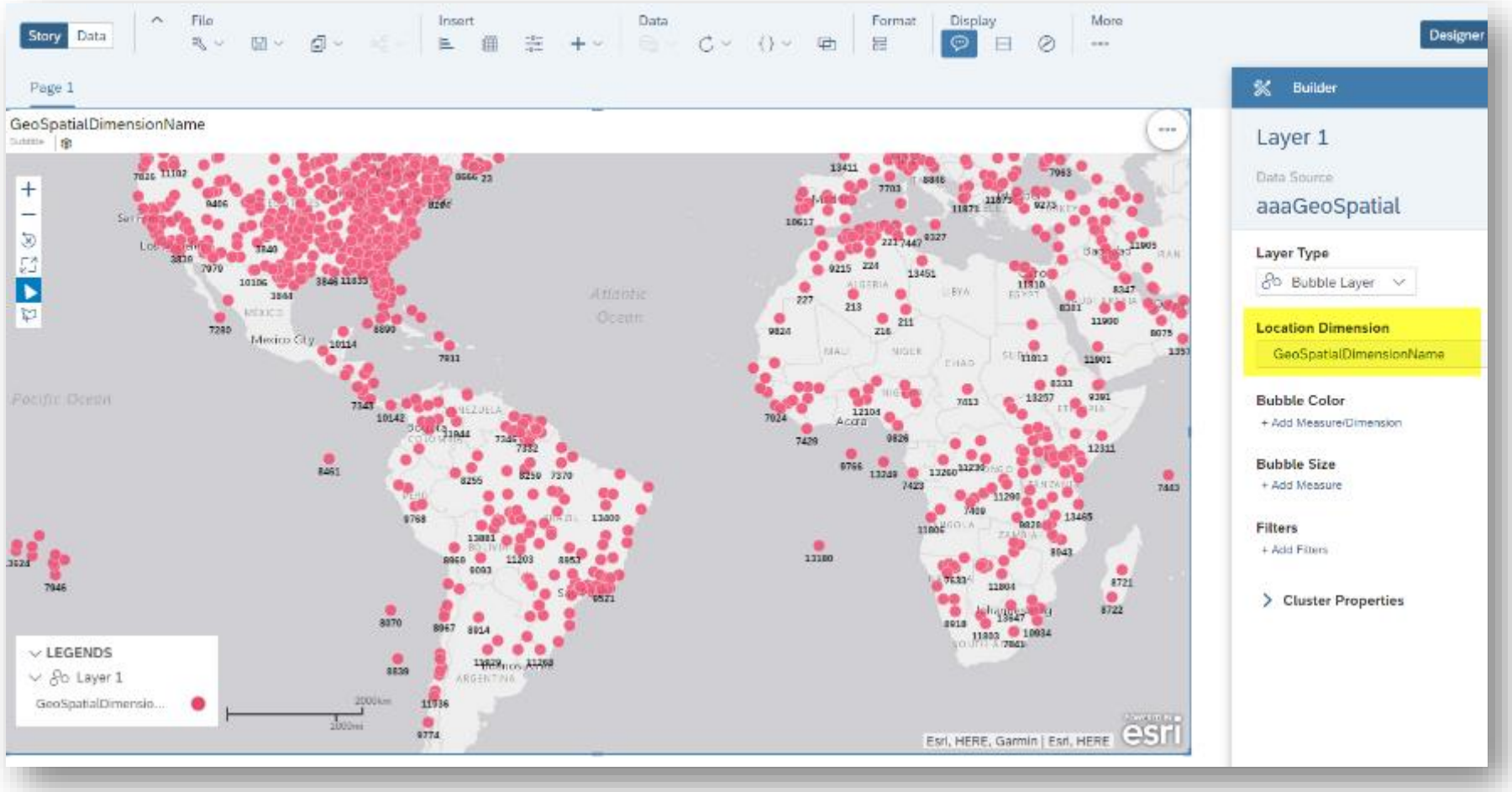
- Create GeoSpatial dimensions from WebUI with ease



APOS Live Data Gateway – Advanced Features

Geospatial Data Support

- Create Geo Maps on your stories in SAC

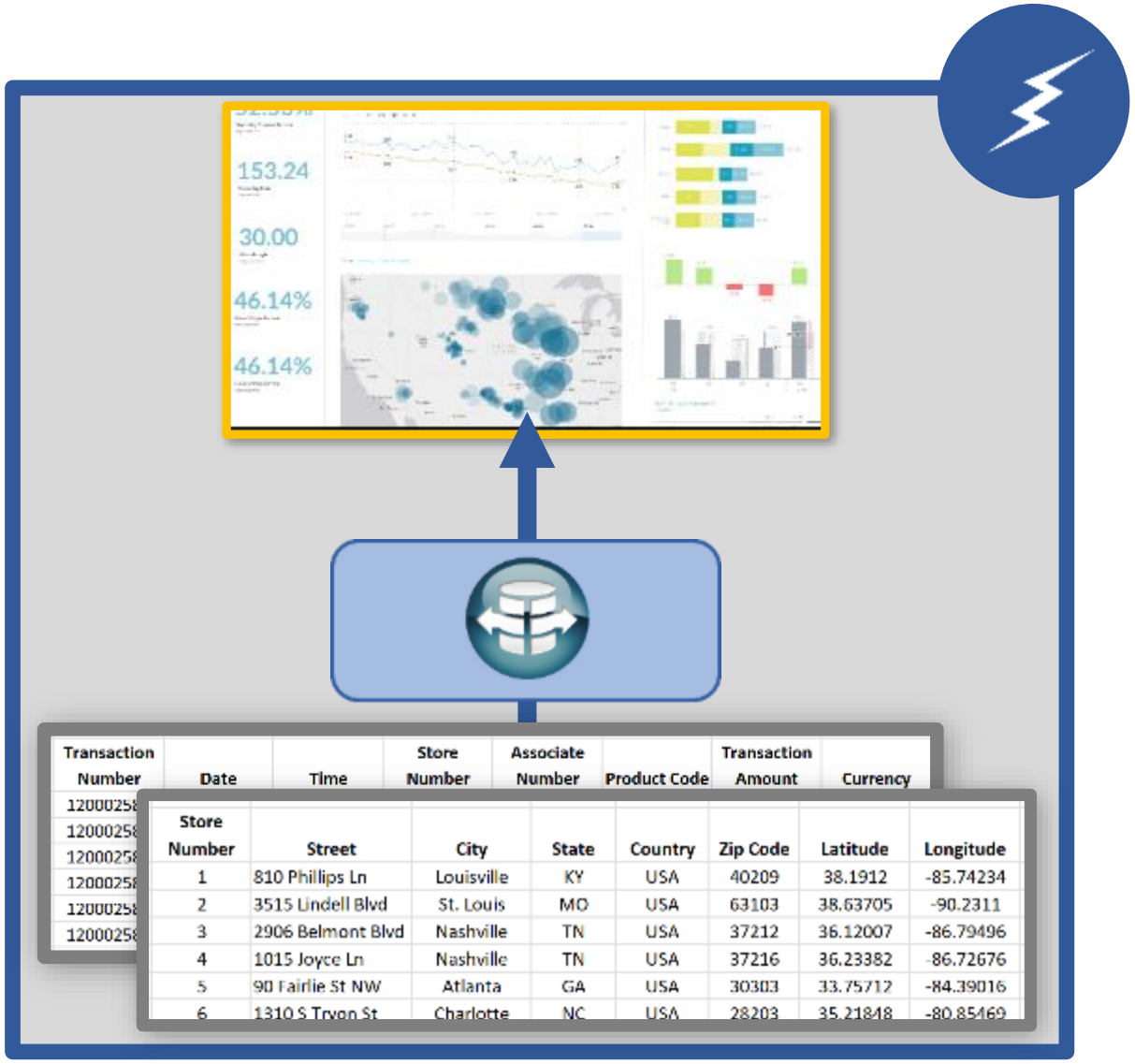


Live Data Gateway

Expanded Live Data Connection Support

- Unique Data Sources
  - Sharepoint, Salesforce, Google Analytics
- Cloud Data Sources
  - Snowflake, Google BigQuery, AWS, Azure
- JDBC Connectivity
- SAP Ariba
- SAP Data Warehouse Cloud

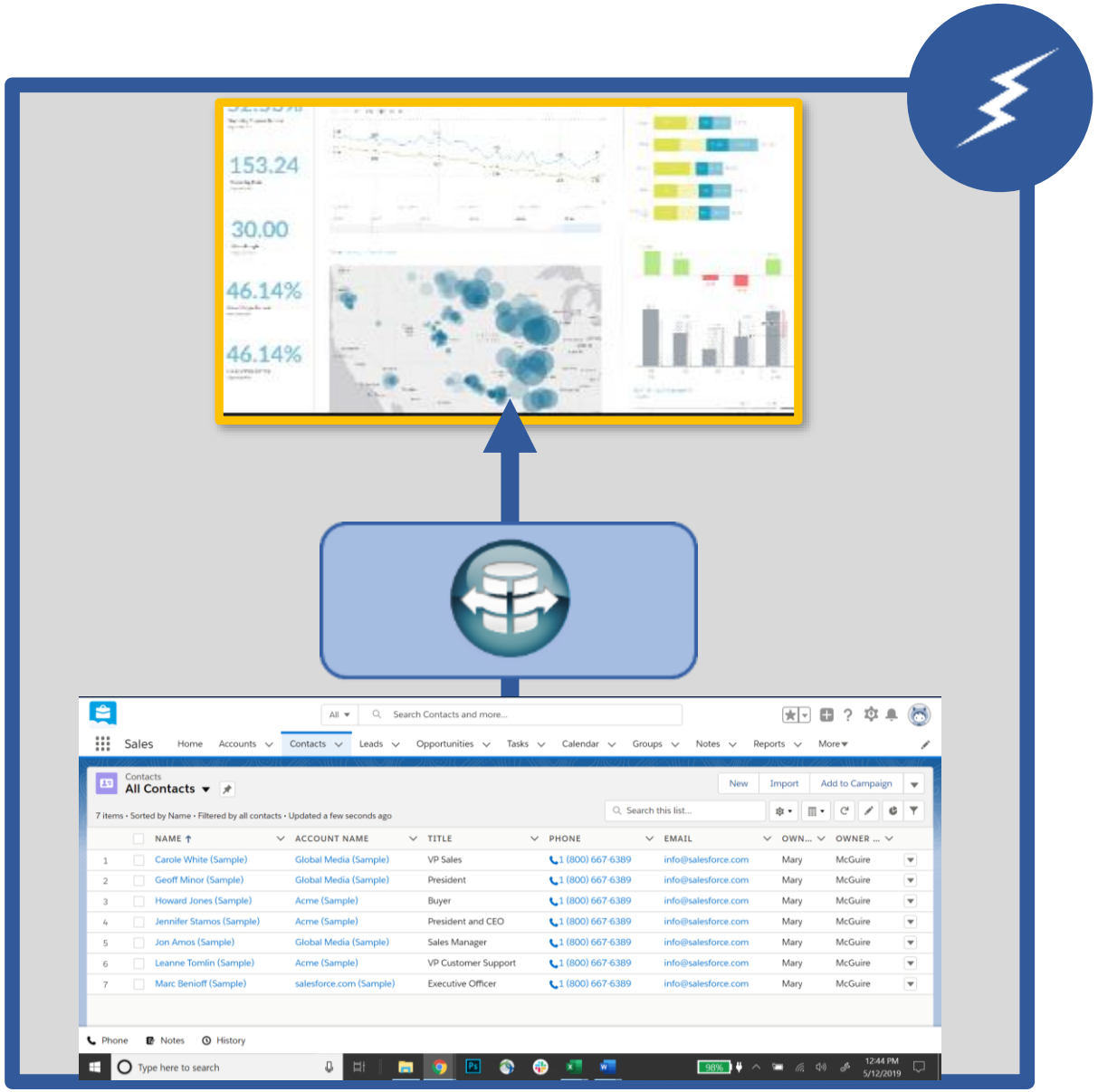
APOS Live Data Gateway – Unique Data Sources



SharePoint

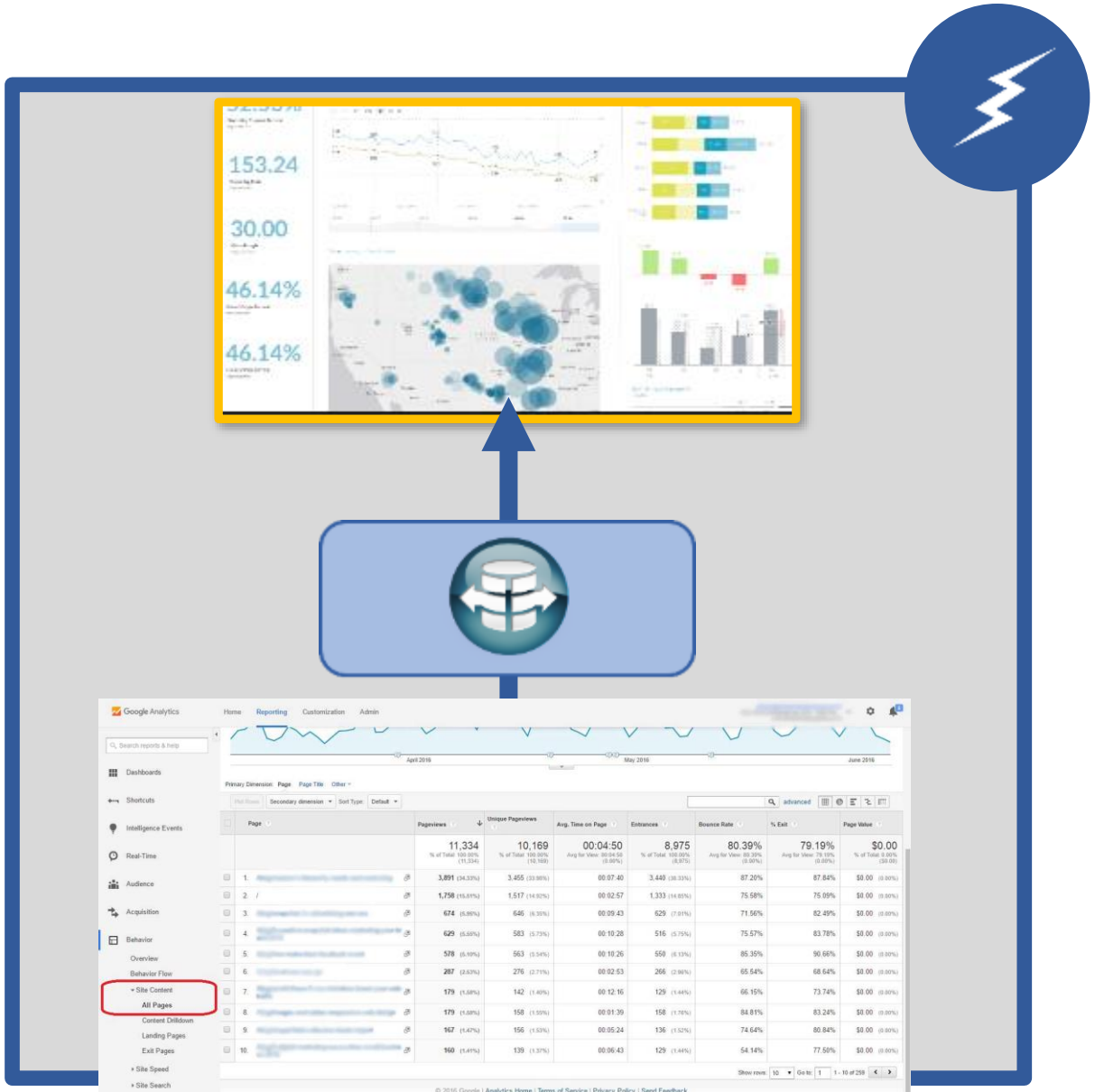
- ✓ Sharepoint Site Metadata
- ✓ Sharepoint Lists
- ✓ Sharepoint Storage
  - ✓ Excel
  - ✓ CSV

APOS Live Data Gateway – Unique Data Sources



- ✓ Salesforce Accounts
- ✓ Salesforce Opportunities
- ✓ Salesforce Customers
- ✓ etc.

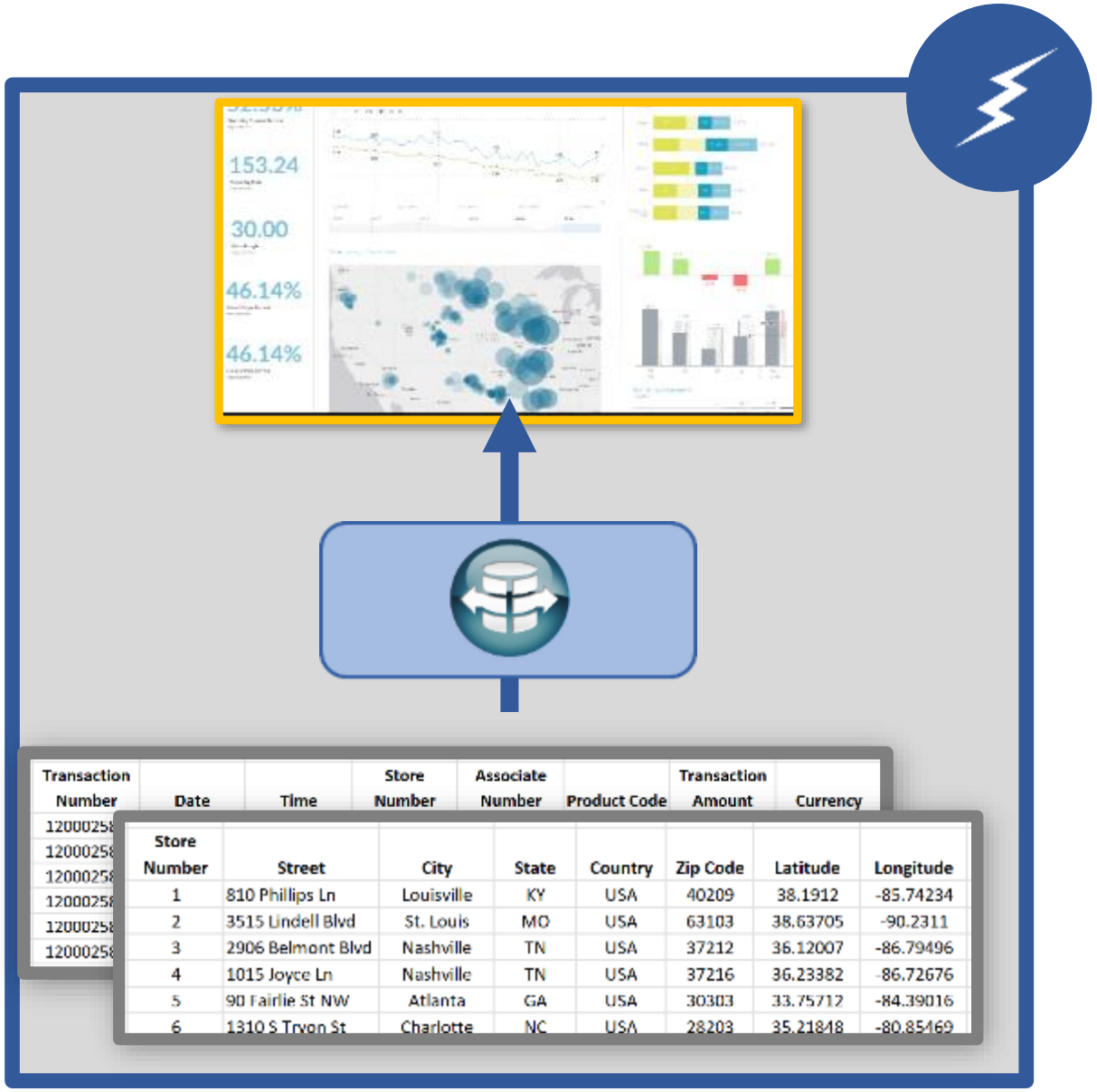
APOS Live Data Gateway – Unique Data Sources



Google Analytics

- ✓ Google site traffic
- ✓ User Information
- ✓ Session Statistics
- ✓ Insights into your applications

APOS Live Data Gateway – Cloud Data Sources



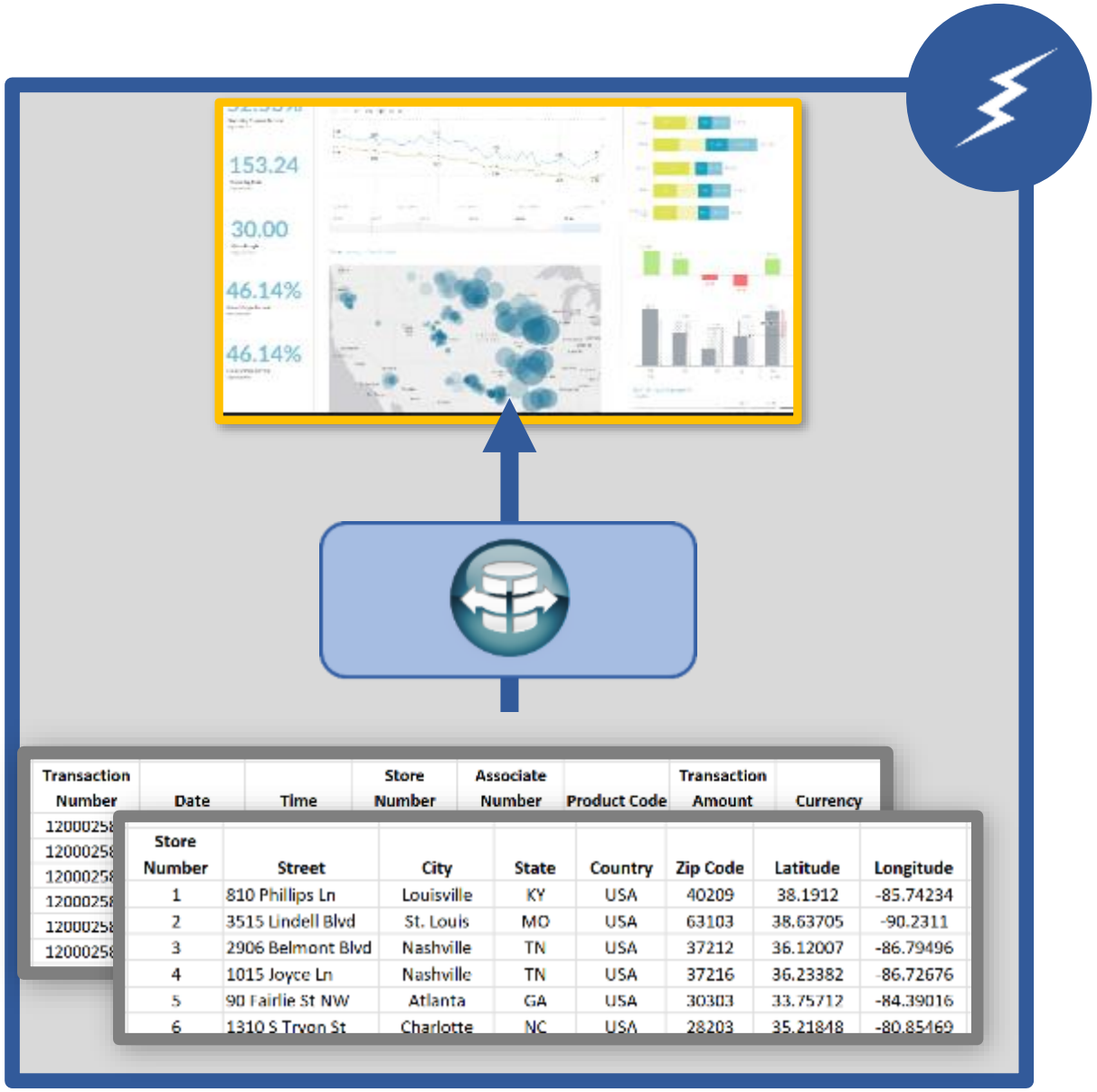
snowflake

BigQuery

aws

Microsoft Azure

APOS Live Data Gateway – Generic JDBC Connectivity



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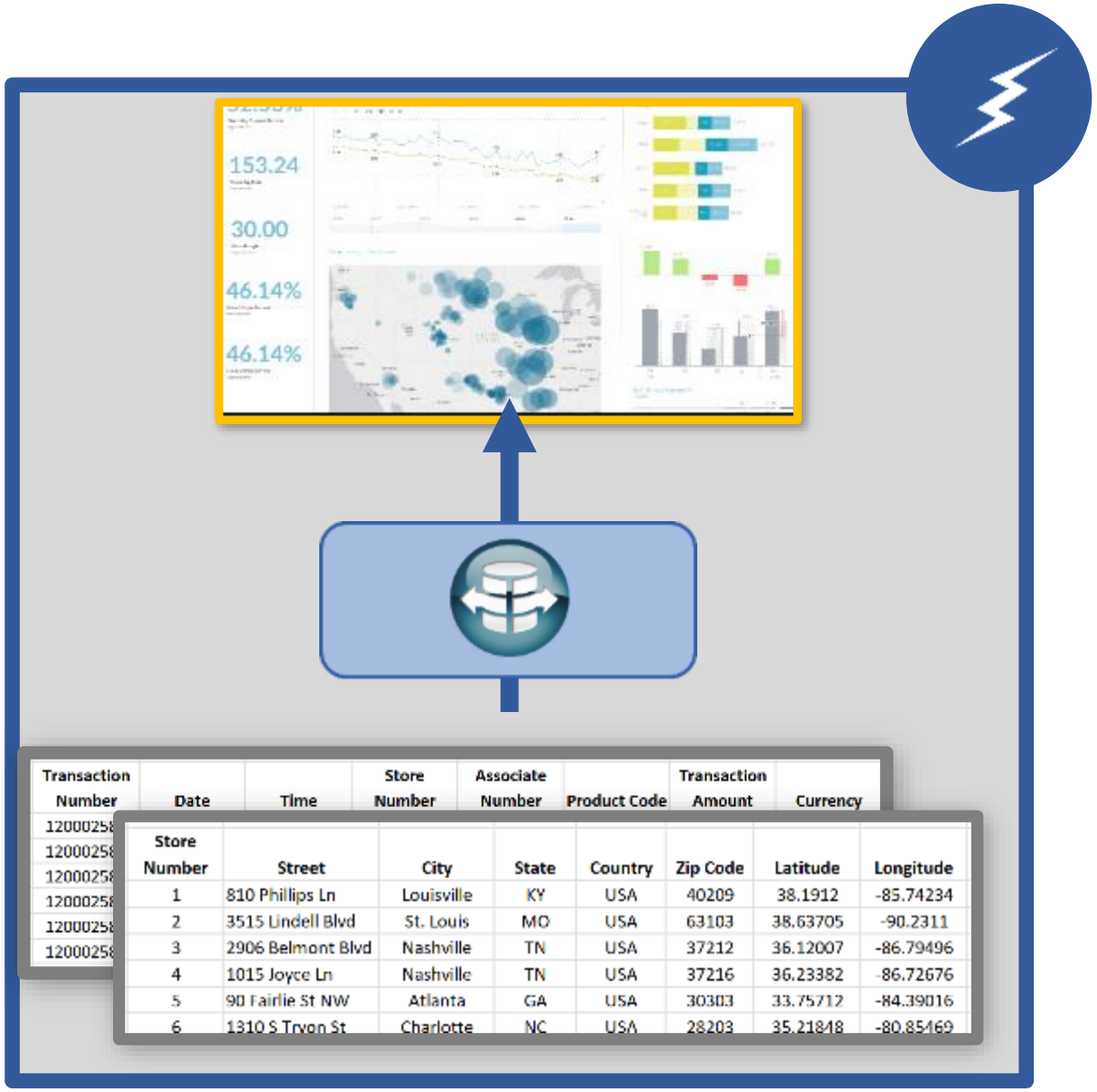
5	90 Fairlie St NW	Atlanta	GA	USA	30303	33.75712	-84.39016
6	1310 S Tryon St	Charlotte	NC	USA	28203	35.21848	-80.85469

Generic JDBC

- Live connectivity to other data sources that support JDBC with APOS Live Data Gateway

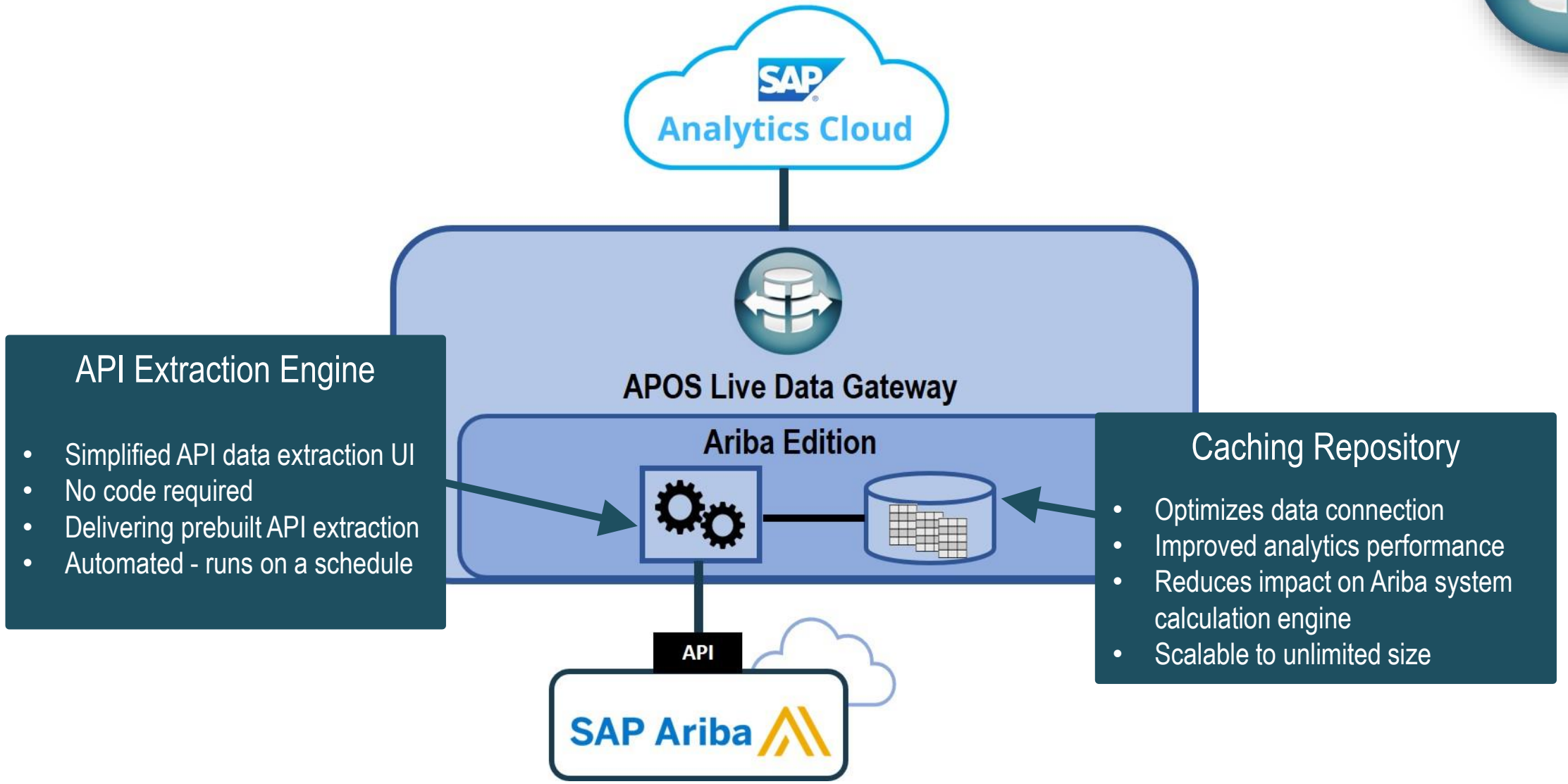
APOS Live Data Gateway – SAP Ariba



SAP Ariba

- Connectivity for SAP Ariba
  - Procurement
  - Direct Spend
  - Supplier Management
  - Strategic Sourcing
  - etc.
- Live Mode with Caching
  - API Extraction Engine
  - Caching Repository

APOS Live Data Gateway – Ariba Edition



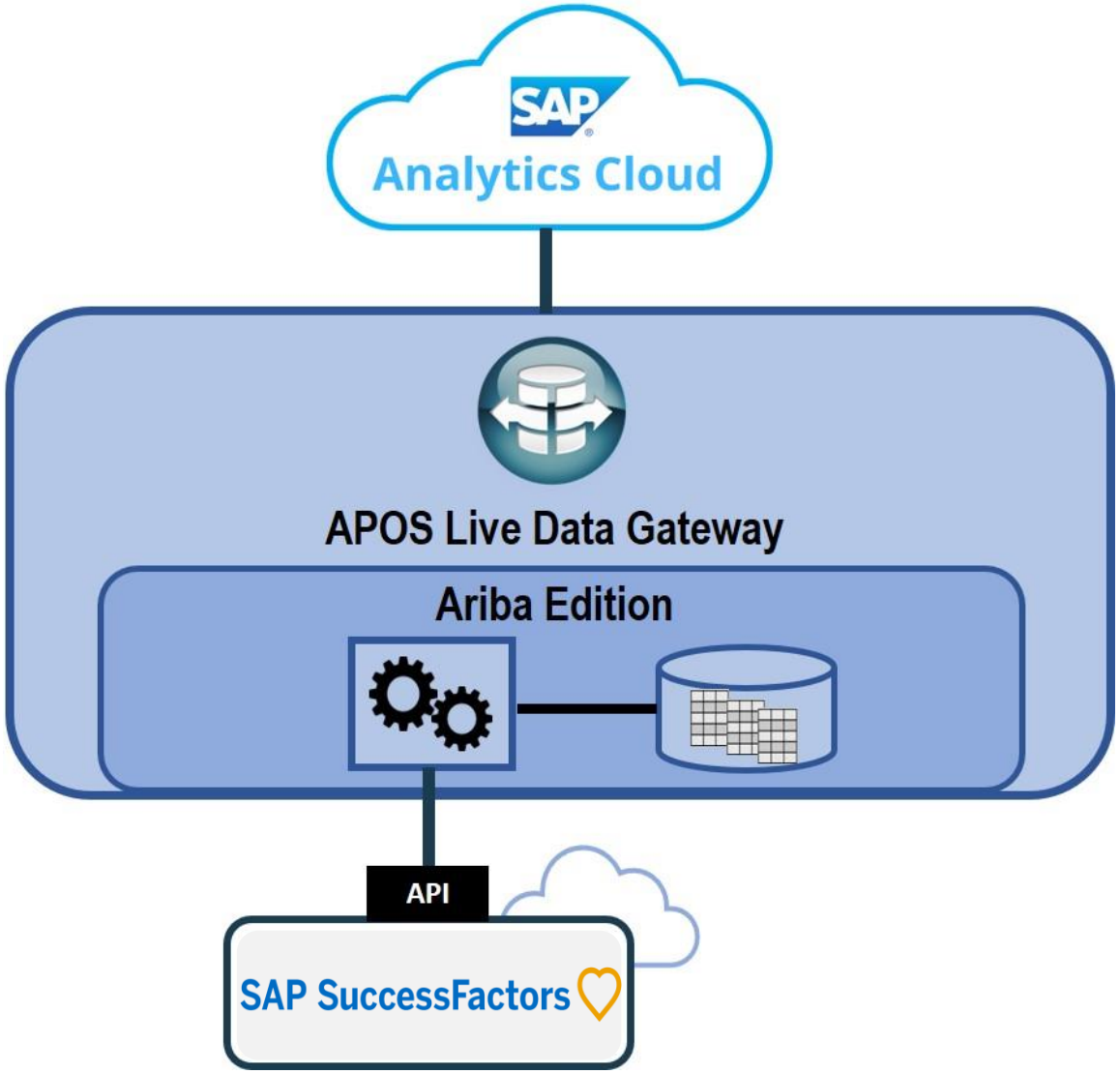
API Extraction Engine

- Simplified API data extraction UI
- No code required
- Delivering prebuilt API extraction
- Automated - runs on a schedule

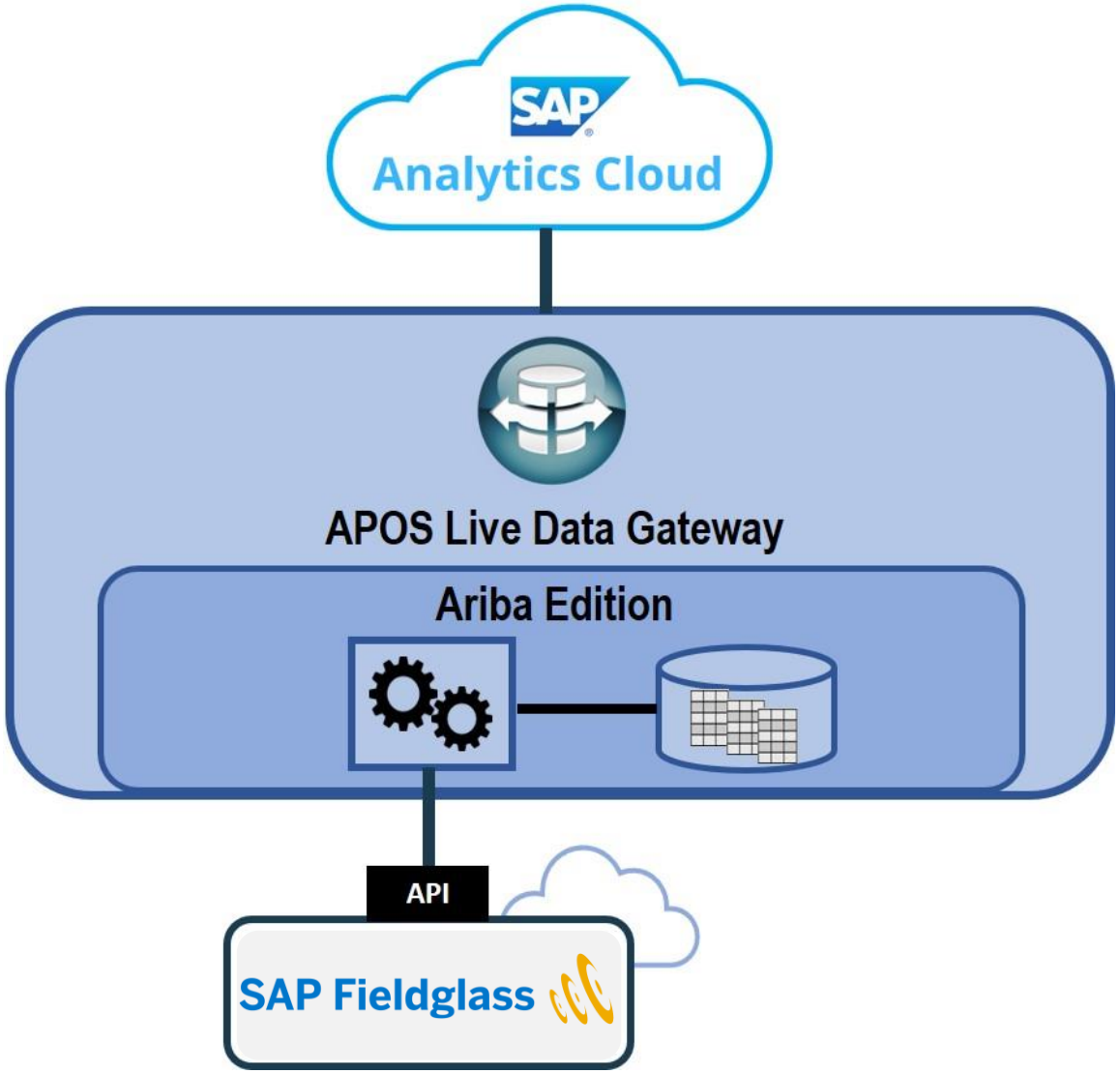
Caching Repository

- Optimizes data connection
- Improved analytics performance
- Reduces impact on Ariba system calculation engine
- Scalable to unlimited size

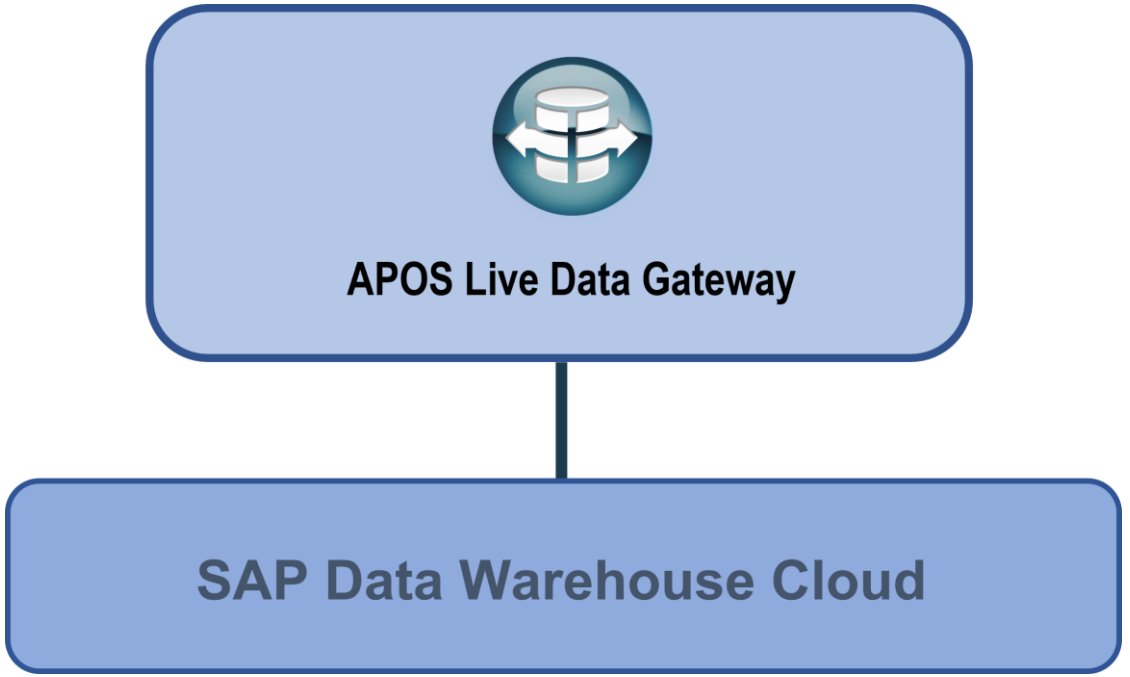
APOS Live Data Gateway



APOS Live Data Gateway



Live Connectivity to SAP Data Warehouse Cloud

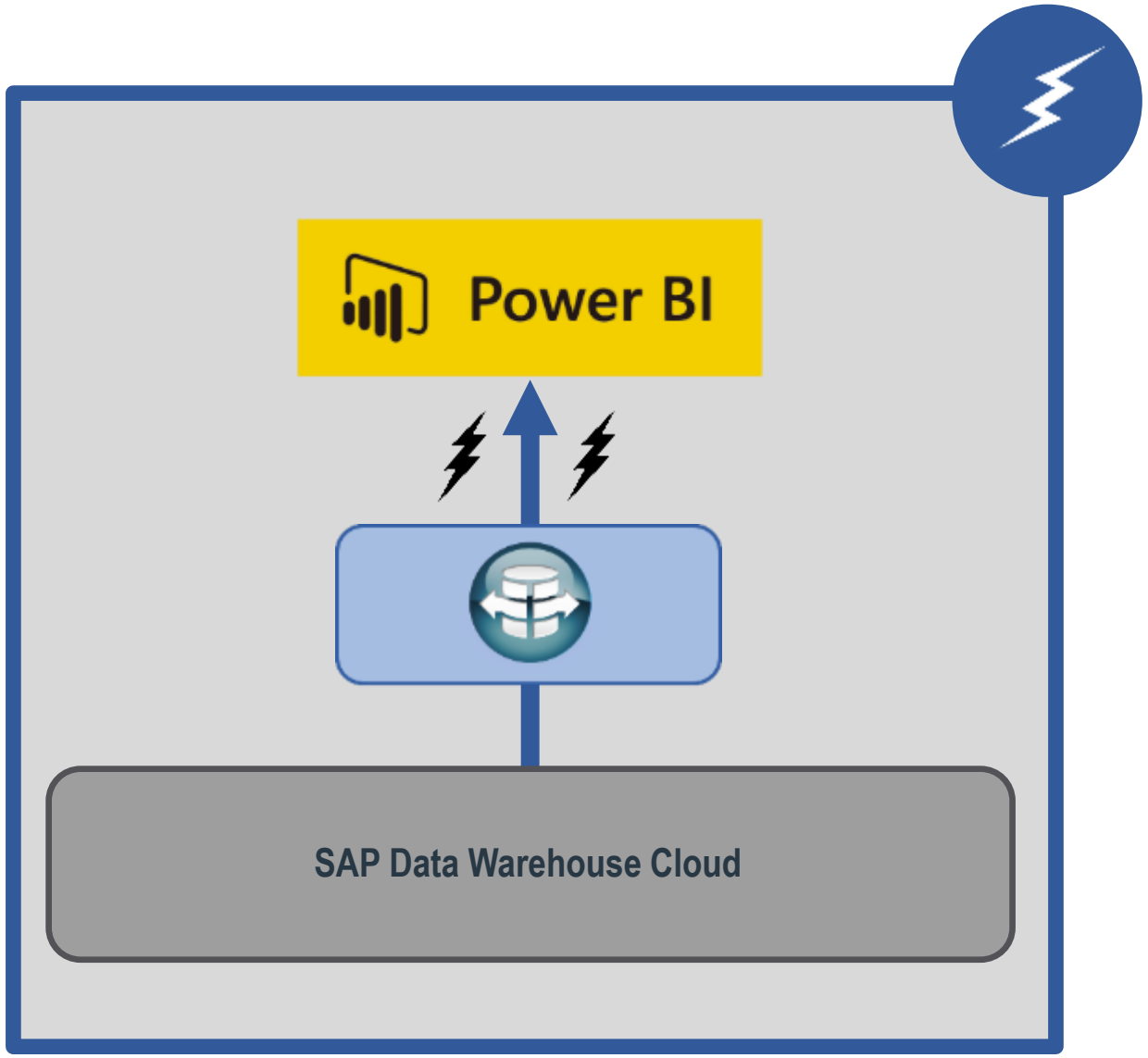


Live Data Gateway

Expanded Live Data Consumption Support

- Power BI to SAP Data Warehouse Cloud (Live)
- Additional Consumption protocols
  - SAP landscape
  - Other data platforms
- Unified Semantic Layer

APOS Live Data Gateway – Solution Update

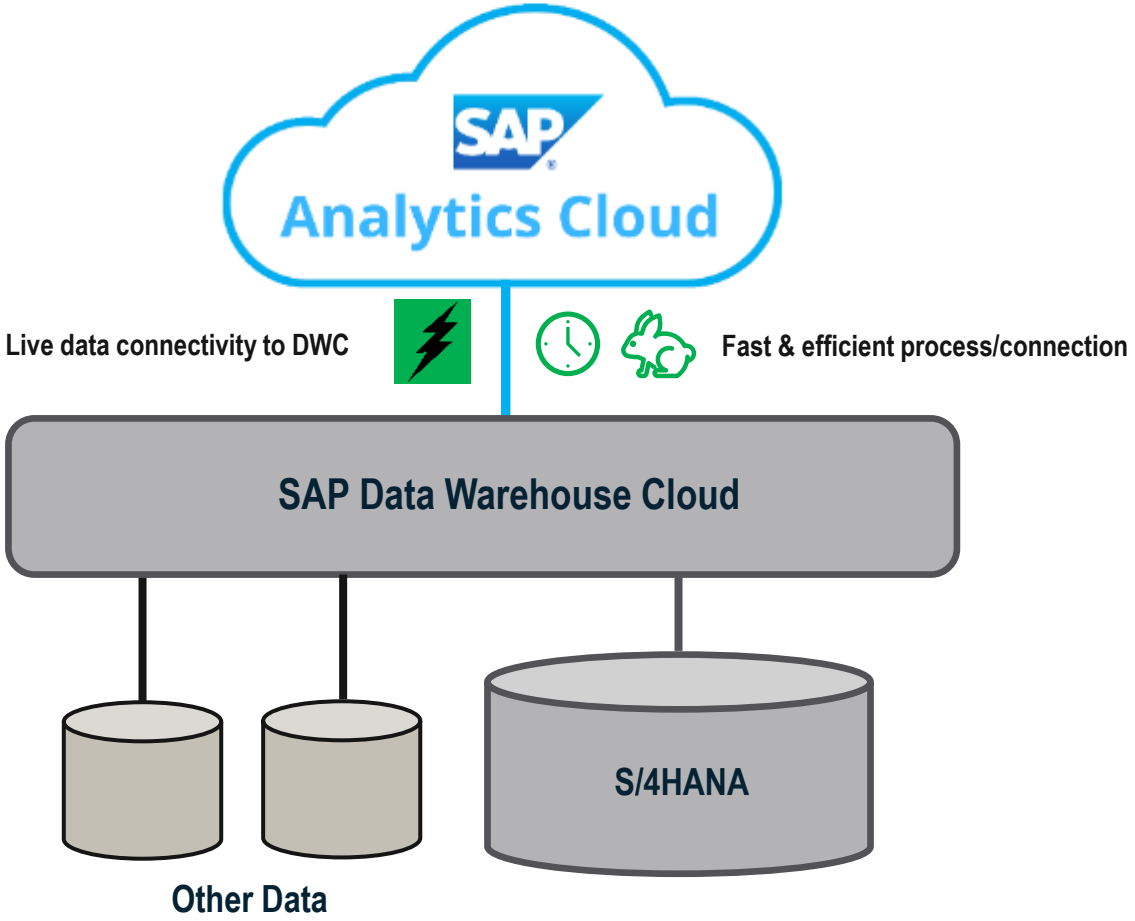


Power BI to SAP DWC Support

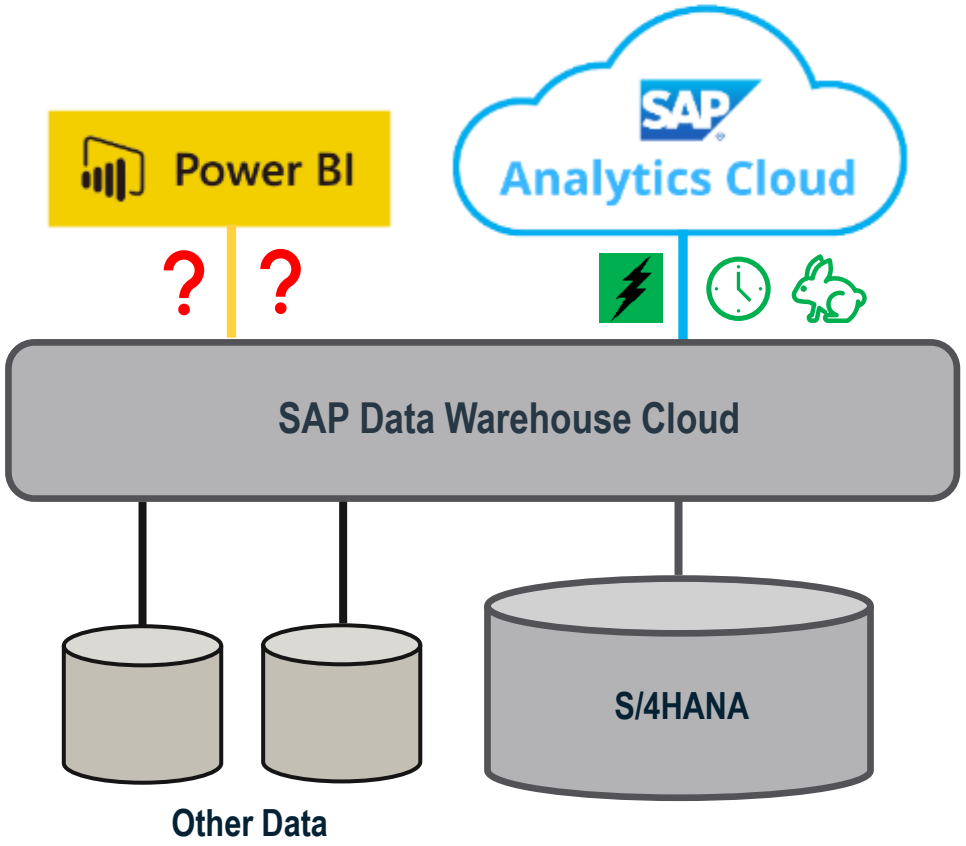
- Connect live from Power BI to SAP DWC (Data Warehouse Cloud)
- Expand how SAP DWC data can be leveraged

- Power BI DirectQuery connection support
- Quick access to SAP DWC data in Power BI
- No data load wait times
- No movement of data from SAP DWC
- Effective connectivity for large data sets

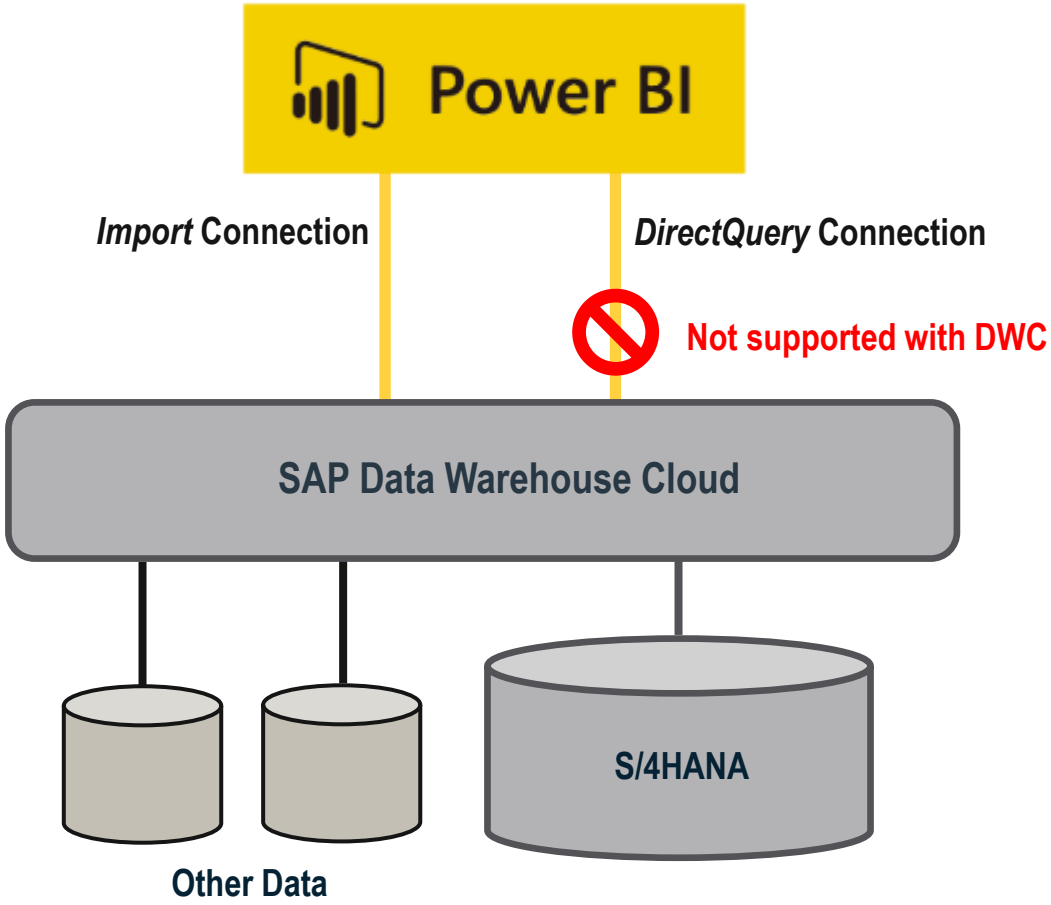
Built-in Live Connectivity from SAC to DWC



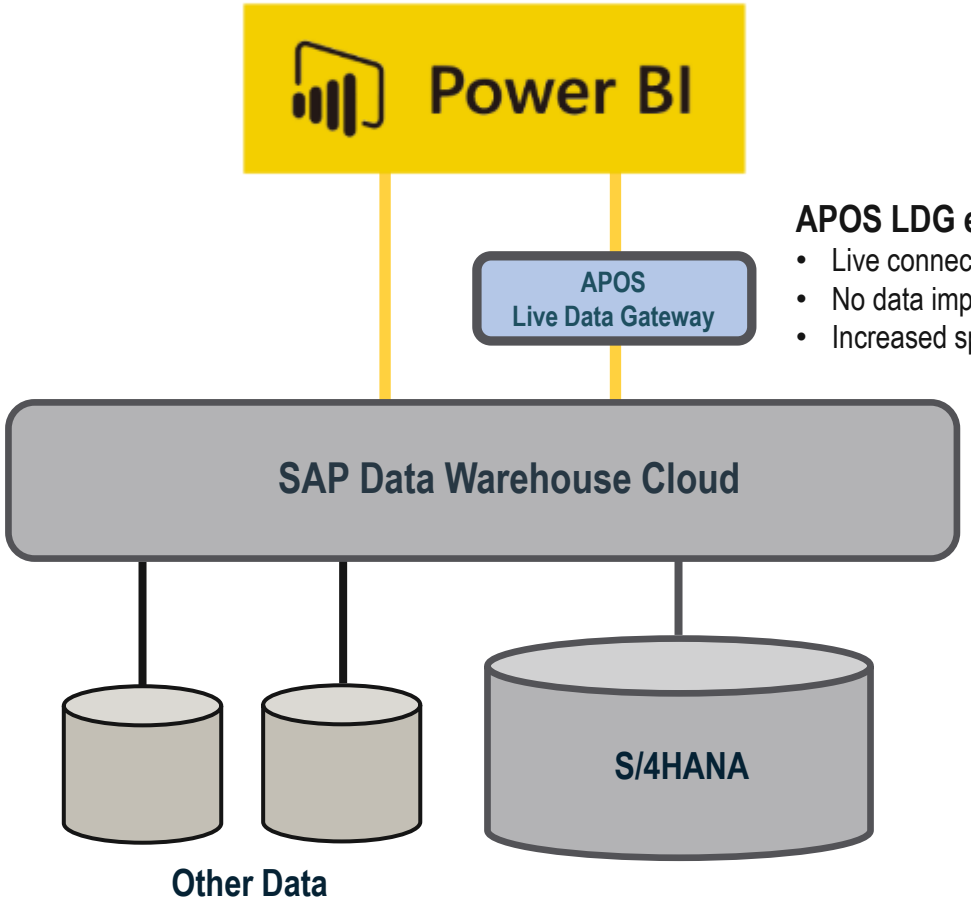
Power BI Connectivity to DWC



Power BI DirectQuery to DWC



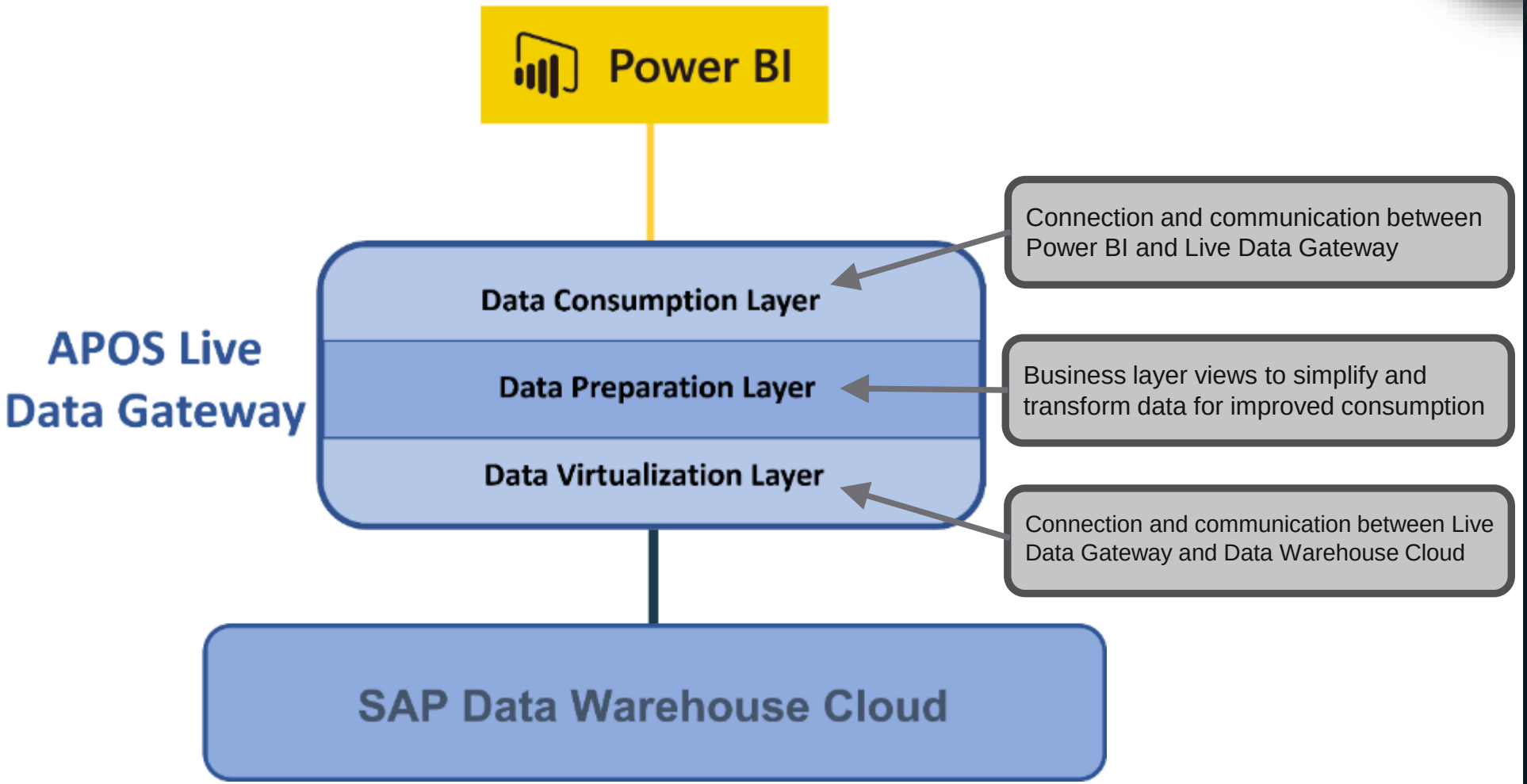
DirectQuery to DWC with Live Data Gateway



APOS LDG enables *DirectQuery* Connection

- Live connection to DWC with direct, targeted queries
- No data import into PBI = no data latency or analytics latency
- Increased speed & efficiency of data process

Direct Query Connectivity with Live Data Gateway



SAP Data Warehouse Cloud

demo-presalesnad.us10.hcs.cloud.sap/dwaas-ui/index.html#/databuilder&/db/BITEST/Employment_View

Login | Salesforce | Matches | Rugby W... | Hightail - Dashboard | SAP Analytics Cloud | SAP DWC DEMO | SAP DEMO REPO | SAP Data Warehous... | P4C HowTo | LDG HowTo | Mark Resource | SAP Partner Portal |... | 13. Troubleshooting...

SAP Data Builder | BI TEST | View - Employment View

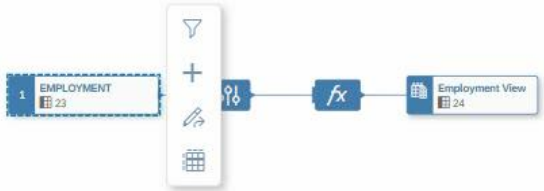
General | View | Edit

Details

Repository | Sources

Search

- Tables
- Views
- Intelligent Lookups



69%

Data Preview: EMPLOYMENT (1000) | Errors

AGYSUB	LOC	AGELVL	EDLVL	GSEGRD	LOSLVL	OCC
AF07	US	H	13	12	D	1801
AF07	US	I	13	12	D	1801
AF07	US	I	13	12	D	1801
AF07	US	G	13	12	D	1801
AF07	US	H	13	12	D	1801
AFGS	US	H	13	12	D	1801

Remote Table Properties

EMPLOYMENT

23

General

Business Name: EMPLOYMENT

Technical Name: EMPLOYMENT

Alias:

Connection: HANA_RI

Remote Table: "RI_CHRO"."EMPLOYMENT"

Data Access: Remote

Distinct Values: OFF

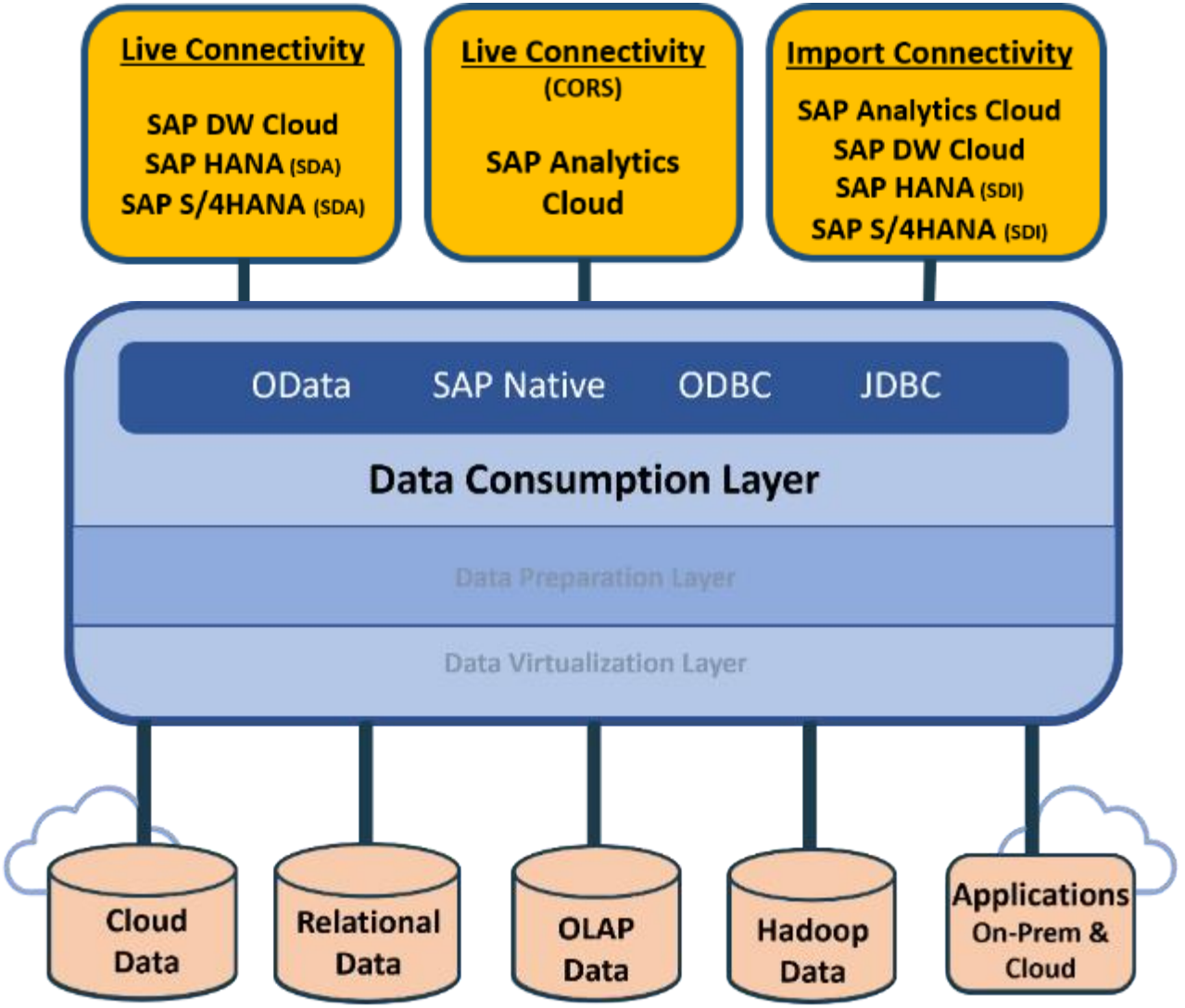
Status: Deployed

Columns

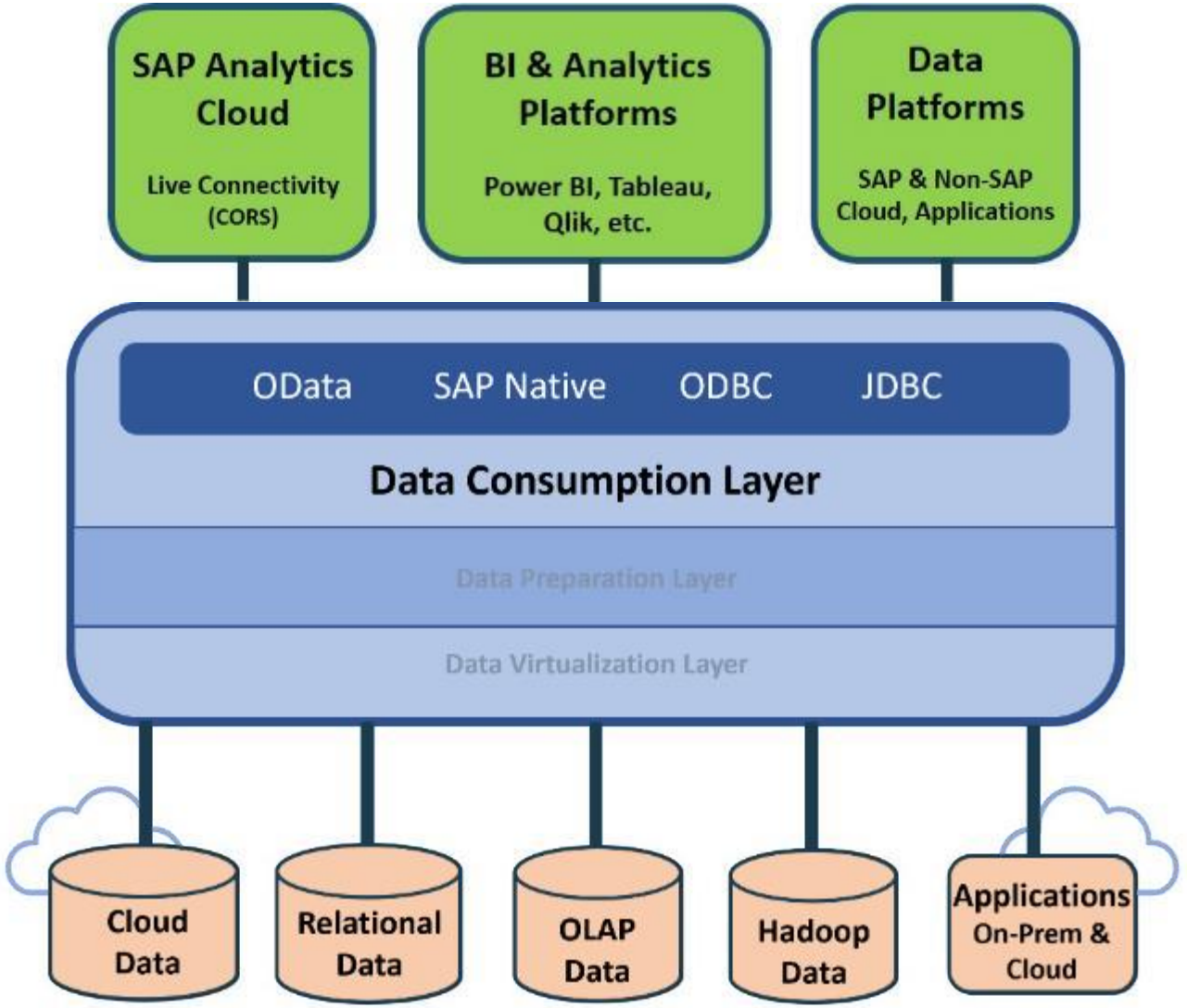
Search Columns

AGYSUB

APOS Live Data Gateway – SAP Landscape



APOS Live Data Gateway – Unified Semantic Layer



APOS Live Data Gateway – Session Summary

Live Data Gateway Overview

Live Data Connectivity from SAC to non-SAP Sources

- Direct, Fast, Efficient
- Data Virtualization Layer
- Data Preparation Layer
- Data Consumption Layer

Feature Overview

- Advanced Features
  - SSO Options Support
  - Shared Connectivity
  - Date & Custom Dimension Support
  - Variables Support
  - Geospatial Data Support
- Expanded Connection Support
- Expanded Consumption Support

APOS Solutions for SAP Analytics Cloud

APOS Live Data Gateway

- High-performance live data connectivity
- Virtualized, governed, self-service connectivity
- Connect to Relational databases
- Connect to OLAP data sources
- Connect to Cloud data environments
- Connect to SAP Application data

APOS Publisher for Cloud

- Automate secure information delivery
- Deliver timely information
- Create a flexible messaging environment
- Simplify administration
- Use multiple formats & destinations
- Burst stories with multiple filters
- Burst conditionally
- Collate stories
- Personalize PowerPoint bursting

APOS Insight for Cloud

Monitor – tracking & alerting for:

- SAC story performance
- System response measures

Validation automated comparisons across SAC versions of:

- SAC story data
- SAC story performance
- SAC story structure

Impact analysis – granular auditing of SAC story structure metadata

APOS Semantic Layer Migration

- Capture SAP BI Universe data connection and data modelling logic
- Project-based, wizard-driven interface
- Scan your SAP BI content for relevant data connections
- Harmonize SAP BI and HANA data modelling throughout Hybrid BI
- Translate SAP BusinessObjects modelling to SAP HANA Calculation Views
- Translate SAP BusinessObjects modelling to a unified semantic layer

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

Advancements for SAC Broadcasting: APOS Publisher for Cloud Solution Update - Webinar

Oct 27th, 2022 - 11am EDT

Join us for this live session looking at how the APOS Publisher for Cloud solution meets and exceeds enterprise-level bursting, broadcasting, publishing and distribution requirements, and how these requirements are driving adoption of APOS Publisher for Cloud. Here's your chance to see how this can work for you.

Learn how to leverage automated, data-driven broadcasting with:

- Data-driven dynamic rules
- Multiple format options
- Multiple destinations
- Consolidation of multiple reports
- Scheduling/conditional bursting
- Security/filtering/variables

The latest updates and new capabilities of APOS Publisher for Cloud, including:

- Shared vs private deployments
- MFA support
- Simplified configuration
- Widget level bursting
- Optimized presentation support
- High-volume export
- Grid/table Excel consolidation

Register at www.apos.com

Upcoming Events

Right-Sizing SAP BusinessObjects for Your Next Step - Webinar

Nov 17th, 2022 - 11am EST

Right-sizing your SAP BusinessObjects environment is important regardless of whether you are planning a platform upgrade, adopting SAP Analytics Cloud, moving to a hybrid BI deployment, or making some other change or shift in your SAP BI deployment. This webinar will highlight ways to achieve your right-sizing objectives for such changes, and ensure your system runs efficiently and cost-effectively.

Join us for this live session highlighting APOS products that can help you achieve your right-sizing objectives. Learn how to automate system cleanup, and much more.

You'll learn:

- **Rationalizing** – Assess necessary and unnecessary content, users, licenses and infrastructure
- **Reducing** – Find and remove unnecessary users and content from the system
- **Restructuring** – Make your infrastructure and licensing fit your needs

Register at www.apos.com

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QUESTIONS?
Please enter your questions in the Q&A panel.

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Thank You!

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(+1) 519 894 2767

SAP Partner