

Simplify Your SAP BusinessObjects Upgrade Pre-Migration Planning



# **Today's Session**

**Key Topics** 

- Introductions
- BI Upgrade Stages
- Upgrade Preparation
  - System Audit
  - System Backup
  - System Optimization
  - Test Plan
- **Q&A** see webinar console



## Today's Presenters



#### **JAY MURDOCH**

Business Development Manager
APOS



#### **FRED WALTHER**

Senior Solution Consultant
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





# **MAPOS**



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



# UpgradeBl Smart.Strong.Safe.

# **APOS Upgrade BI S**<sup>3</sup>



### Upgrade Smart

Build deep system knowledge

## Upgrade Strong

- Automate bulk administrative operation
- Implement a strong system content management strategy

## Upgrade Safe

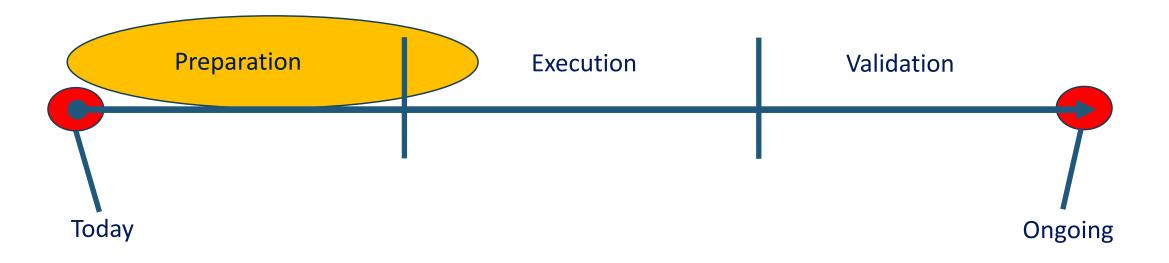
- Mitigate risk
- Optimize security
- Validate content



# **APOS Upgrade BI S**<sup>3</sup>



**SAP BusinessObjects Upgrade - Three Stage Timeline** 







Fred Walther
Senior Solution Consultant
APOS



- System Audit Leave existing problems behind; don't propagate them in the new system
- System Backup Protect your assets; governance, operations & legal obligations
- System Optimization Take the opportunity to build a lean, effective & efficient system
- Test Plan Review and compare benchmarked information with Migrated System





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## **System Audit**

- Form deep knowledge of the current system; diagnose issues:
  - Understand where reports are located
  - Analyze system for duplication
  - Understand properties of existing recurring schedules
  - Identify problem content
  - Create a system snapshot



## **System Audit – Report Inventory**





#### Universe

Object ID	Name	Location	Owner	Last Modified	File Size
600,653	FredXtreme	/BI42SP4FW:6400/Application Folder/Root Folder 95/ Universes/Xtreme/	Administrator	2018-01-18 10:26:18	47 KB
623,183	TestWithAliases	/BI42SP4FW:6400/Application Folder/Root Folder 95/ Universes/Xtreme/	Administrator	2018-03-08 09:52:13	49 KB

#### Webi

Object ID	Name	Location	Owner	Last
5,390	Chart Demo	/Web Intelligence Samples/Mobile Samples/	Administrator	2017
5,391	Input Controls & Filter Demo	/Web Intelligence Samples/Mobile Samples/	Administrator	2018
5,392	Geo Analysis Demo	/Web Intelligence Samples/Mobile Samples/	Administrator	2017
5,393	Sections Demo	/Web Intelligence Samples/Mobile Samples/	Administrator	2017
5,394	Mobile - Table Demo	/Web Intelligence Samples/Mobile Samples/	Administrator	2017
5,395	Drill Demo	/Web Intelligence Samples/Mobile Samples/	Administrator	2018

Location: /Bob

Report Name	Parameters	Last Run Time	Owner
Charting Samples : 522961			Bob
Location Count			1

All Objects

Location: /Doug

Report Name	Parameters	Last Run Time	Owner
Charting Samples : 522962			Doug
Location Count			1

Location: /Fred1

Report Name	Parameters	Last Run Time	Owner
Charting Samples : 522960			Fred1
Formatting Sample : 522648			Fred1
Location Count			2

**User Objects** 



## **System Audit - duplication**



Variables with Similar Text

Searched for: ENDTIME in Variables for System: BI42SP4FW

Folder: /APOS Insight Reports/Oracle

Searched for Table: All Tables

Searched for Column: AP\_Name; AP\_OBJECT\_NAME; AP\_ObjectName

Folder: /APOS Insight Reports/Oracle

Report Name	Universe Name	Table Name
Audit - Objects Scheduled by U	Insight4 - Oracle	"Audit_Report_Events"
Audit - Reports Refreshed by U	Insight4 - Oracle	"Audit Object Events"
Crystal - Search for Fields Use	Insight4 - Oracle	"Crystal Elements"

	Report Name	Report ID	Variable Name	Qualification	Data Type	Variable Definition
	Instances - Historical	119915	Max End Time	Measure	DateTime	=Max([SI ENDTIME DT])
	Instances - Historical	119915	Run Time	Dimension	Numeric	=DaysBetween(ToDate([SI_ENDTIME DT];"yyyy-mm-dd hh:mi:ss");ToDate ([Variables],[SI_STARTTIME DT];"yyyy- mm-dd hh:mi:ss"))
31						=If(Length(Trim([SI_ENDTIME])) <> 14; ToDate("1900-01-01 00:00:00"; "yyyy- mm-dd hh:mi:ss"); Substr([SI_ENDTIME]; 1;4) + "-" + Substr([SI_ENDTIME]; 5;2) + tr([SI_ENDTIME]; 7:2) + "" +

\_ENDTIME];9;2) + ":" + Substr IME];11;2) + ":" + Substr IME];13;2))

ibstr([SI\_ENDTIME];5;2) +"/"

Universe Content - Looking for Duplicates

Filter by Table: All Tables Filter by Column: Quantity Filter by Universe: All Universes

System Name: BI42SP4FW

Column Na

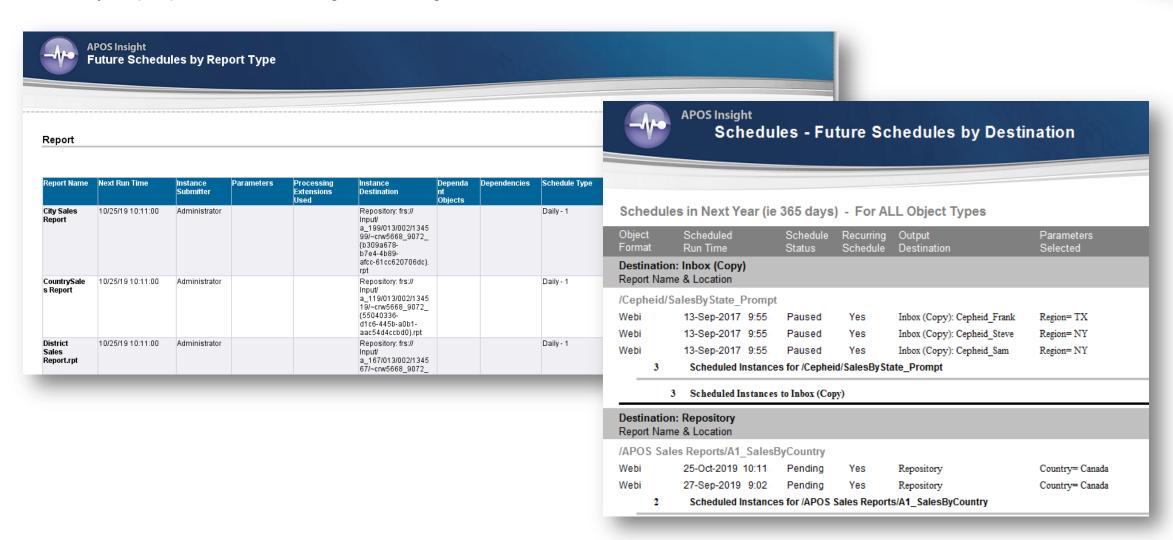
Universe Name: Universes/Maintenance Area/FredXtremeVersion2 Universe ID: 841272 Universe Size: UNV Universe Owner: Administrator Universe Type:

Table Name	Column Name	Data Type	
FredsView	Quantity	Numeric	
Inventory	Quantity	Numeric	
InventoryTransaction	Quantity	Numeric	
OrdersDetail	Quantity	Numeric	
PurchaseDetail	Quantity	Numeric	
SalesReturnDetail	Quantity	Numeric	

## **System Audit - schedules**



Analyze properties of existing Recurring Schedules



## System Audit – problem content



#### Problem Content

- Are any reports not connected to a universe
- Are there any universes that have no reports connected to them
- Are there any schedules that consistently fail
- Are successful instances actually being viewed





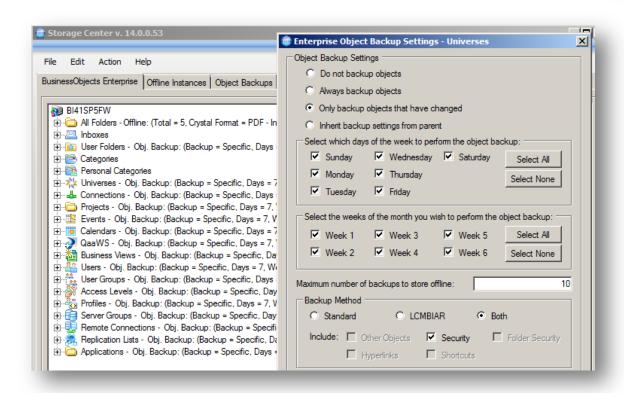
## **System Audit – Problem Content**

Start Date Selected: 2016-10-01 2:19 BI System Selected: BI41SP5FW	:27PM			2019-10-19 2		1		Report Date: 2	2019-10-02 at 12:30:
DI System Selected. Di413F5FVV		insignt Oser	to ignore	e: APOS_Insig	gni				Page 2
Report	Report	Date		Date Last		Date of Las	t	Last	Last
Name	Owner	Created		Updated		Activity		Activity	User
Used									
/***Central Reporting/CRT Reports/A	APOS Reports/								
Webi .	•								
APOS Scan Refresh Monitor	Administrator	02/01/2019 1	13:26	02/01/2019	13:26	02/01/2019	18:26	Modify	Administrator
APOS Daily Instance Monitor	Administrator	02/01/2019 1	3:26	02/01/2019	13:26	02/04/2019	16:33	View	Administrator
APOS Universe - Reports Using	Administrator	02/01/2019 1	3:26	02/01/2019	13:26	02/04/2019	19:58	View	Administrator
Universes									
APOS Audit Report	Administrator	02/01/2019 1	13:26	02/04/2019	09:31	05/01/2019	15:00	View	Administrator
TEST APOS Security	Administrator	02/01/2019 1	13:26	02/01/2019	13:26	02/04/2019	17:20	Refresh	Administrator
APOS Objects - Object Listing	Administrator	02/01/2019 1	13:26	02/01/2019	13:26	02/04/2019	20:04	Refresh	Administrator
/ APOS BCBSNC Test/									
Webi									
Report A 02	Administrator	06/17/2015 1	3:57	01/07/2019	15:12	01/07/2019	20:22	View	APOSInsight
Report A 03	Administrator	06/17/2015 1	3:57	01/07/2019	15:12	01/07/2019	20:22	View	APOSInsight
Report A 01	Administrator	06/17/2015 1	3:57	01/07/2019	15:12	01/07/2019	20-22	View	APOSInsight



## **System Backup - Snapshot**

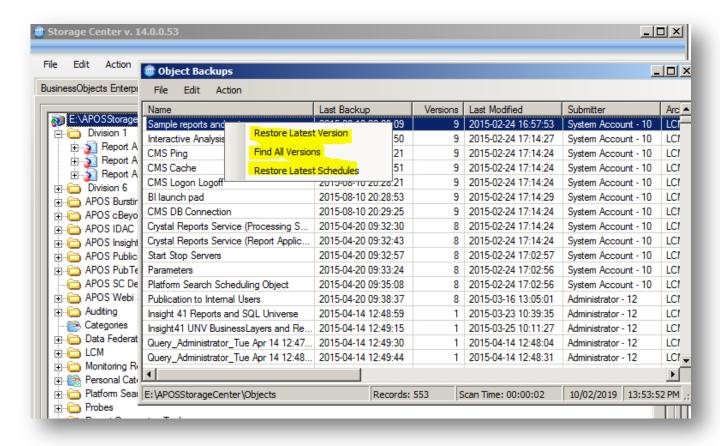
- Every organization needs to have a Content Backup strategy
- This strategy should include:
  - Backup of ALL system Objects
  - Ability to selectively restore any object or report instance without disturbing the system
  - Ability to backup only those objects that have changed
  - Ability to automatically purge objects that have not been used in a selected timeframe





## System Backup – Object Selective Restoration

· When an object needs to be restored for any reason, you are able to choose the specific version that is needed





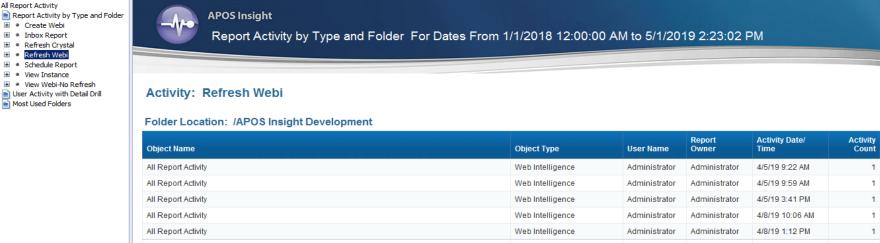
## System Backup - Analyze usage of universes, reports & instances

- When we look at backing up, we also need to look at usage
- We need to know what reports connect to which universes and databases
- After we have an understanding of usage, we can adjust our backup strategy to ignore or delete objects that are not used

User Activity with Detail Drill Most Used Folders

What Reports are Based on Selected Universes?
5 Universe(s) Include: APOS Xtreme-Prod;APOS Xtreme-Test;eFashion;Insight4 - SQL Server

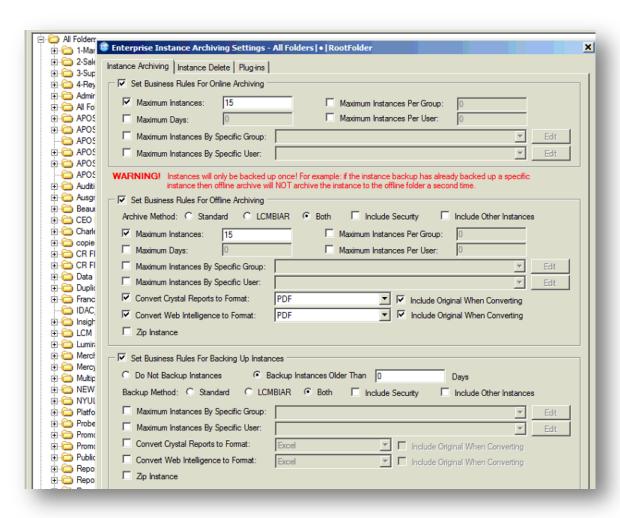
Uni SI_NAME (Universe Name)	Uni SI_ID	Uni AP_Location (Universe Location Substring)
APOS Xtreme-Prod	12247	Xtreme/APOS Xtreme-Prod
APOS Xtreme-Test	12250	Xtreme/APOS Xtreme-Test
eFashion	5159	eFashion
eFashion	5162	webi universes/eFashion
Insight4 - SQL Server	11623	APOS Insight/Insight4 - SQL Server





## System Backup – Instance backup and archive

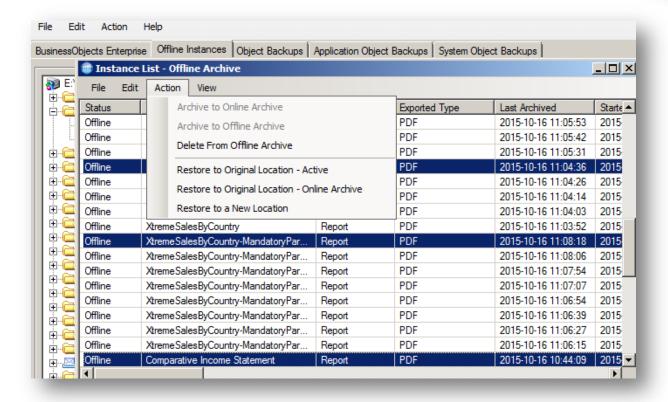
- An Instance retention policy needs to be in place to match Regulatory Requirements and internal governance
- Instances should be able to be exported to neutral formats
- Instances need to be able to be restored at any time to any object in the system





## **System Backup – Instance Restoration**

- Instances that have been archived can be restored to any location on a system, or to any other system
- You may wish to archive ALL instances before migrating, and then selectively restore them to the new system – even if it's a different version





- Optimization
  - Baseline runtimes for critical reports
  - Baseline system resource consumption by service
  - Schedule usage analysis
  - Report usage analysis
  - License usage analysis
  - Schedule destination analysis







## **System Optimization – BI Service Resource Usage Baselines**

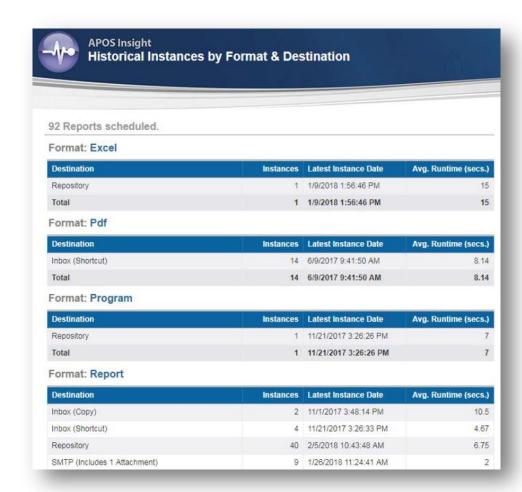
- Understand the OS resources being used
  - Helps to determine sizing for the BI system
  - Highlights any anomalies in resource usage

		Av erag e
CMS - PID# 4112	AP WorkingSet64 (bytes)	330,766,277
00	AP_NonpagedSystemMemorySize64 (bytes)	745,826
	AP_PeakVirtualMemorySize64 (bytes)	676,643,401
	AP_PagedMemorySize64 (bytes)	403,342,014
	AP_PrivilegedProcessorTime (ms)	68,44
	AP ThreadsCount	14
	AP_ProcessorUsagePercent	1.
crcache - PID# 5096	AP_WorkingSet64 (bytes)	205,865,66
	AP_NonpagedSystemMemorySize64 (bytes)	63,01
	AP_PeakVirtualMemorySize64 (bytes)	3,066,994,68
	AP_PagedMemorySize64 (bytes)	341,927,52
	AP_PrivilegedProcessorTime (ms)	8,10
	AP_ThreadsCount	11
	AP_ProcessorUsagePercent	0.
crp roc - PID# 4300	AP_WorkingSet64 (bytes)	28,433,73
	AP_NonpagedSystemMemorySize64 (bytes)	36,96
	AP_PeakVirtualMemorySize64 (bytes)	139,958,56
	AP_PagedMemorySize64 (bytes)	17,155,04
	AP_PrivilegedProcessorTime (ms)	2,95
	AP_ThreadsCount	3
	AP_ProcessorUsagePercent	0.



## **System Optimization – Report Runtime Baselines**

- Understand the average run-time for report instances
  - Helps to determine resource requirements
  - Aids in determining report run-time windows





## **System Optimization – Schedule Usage Analysis**

Discover if report instances are actually being viewed by users



**Activity: View Instance** 

Folder Location: /APOS Crystal Burst Test

Object Name	Object Type	User Name	Report Owner	Activity Date/ Time	Activity Count
Sales by Country	Adobe Acrobat	Fred	Administrator	3/28/19 4:28 PM	1
Sales by Country	Crystal Reports	Frank	Administrator	3/29/19 9:43 AM	1
Sales by Country	Crystal Reports	Zachary	Administrator	3/29/19 2:12 PM	1
				Sum:	3

Folder Location: /APOS Insight Reports/Oracle

Object Name	Object Type	User Name	Report Owner	Activity Date/ Time	Activity Count
Other - Event Listing	Crystal Reports	Fred	Administrator	3/23/18 1:10 PM	1



#### Verification

- Data output, control reports
- Report content verification

### Risk assessment

- Security on folders
- Group memberships





## **System Optimization – Security Analysis**





#### **Feature Samples**

Location: /Report Samples/Feature Samples

Scan Date: Jan 1, 2000

	Role	Delete Rights	Edit Rights	Modify Rights	Schedule Rights
Administrator	Full Control	G	G	G	G
Administrators	Full Control	G	G	G	G
APOS Distribution Server	Full Control	G	G	G	G
Bob	Full Control	G	G	G	G
Doug	Schedule	D	G	G	G
Fred1	Full Control	G	G	G	G

#### Financial

Location: /Report Samples/Financial

Scan Date: Jan 1, 2000

	Role	Delete Rights	Edit Rights	Modify Rights	Schedule Rights
Administrator	Full Control	G	G	G	G
Administrators	Full Control	G	G	G	G

APOS Insight	
Group Listing with Users	
HR	
Concurrent	
User Name	User Full Nam
Harold	Harol
Harriet	Harris
Harry	Han
Helen	Hele
Henry	Henr
Count	
Management	Total for Group:
Concurrent	
User Name	User Full Nam
Harry	Ham
Mike	Mik
Peter	Pete
Roger	Roge
Sarah	Sara
Count	



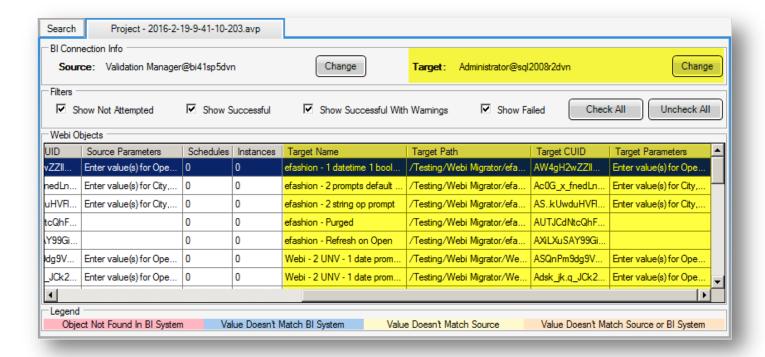
## **Test Plan**

- The final step in preparing for the migration is to develop a test plan
- By using all of the information gathered in the previous steps you can validate that the migrated system meets or exceeds all of the critical operational values
  - Are report run-times within tolerances?
  - Are BI or other critical services consuming the appropriate amount of system resources?
  - Has the appropriate Content Backup strategy been implemented?
  - Can backed up objects and archived report instances be restored on an as-needed basis?
  - Has group membership been verified and compared against security settings on the BI folder structure?
  - Are data connections validated?
  - Has report output been validated between original and migrated system?





Automate Report Content between the original system and the migrated system



# **APOS Solutions for SAP BusinessObjects**



#### Insight

- System Inventory
- Security Analysis
- System Usage Analysis
- Report Impact Analysis
- · Advanced System Monitoring
- Operating Environment Monitoring



#### **Storage Center**

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



#### **Publisher**

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



#### **Web Intelligence Migrator**

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



#### **Administrator**

- Rapid Security Management
- High-Volume System Management
- Object Settings and Preferences Management
- Object Promotion
- Schedule Management
- Instance Management



#### **IDAC**

- BI Query Governance
- Real-time BI Query Monitoring
- Query Performance Alerting
- Query Intervention; Remote Cancelling
- Query Processing and Pattern Analysis
- Sensitive Data Audit



#### **Validation Manager**

- Automated Report Testing
- Regression Testing
- BI Migration and Upgrade Testing
- Validation of Report Data Schedules, Instances
- Report Performance Testing



#### **Live Data Gateway**

- Live Data connectivity for Analytics Cloud & Analysis Office
- Expanded data source options
- Simplified data discovery experience
- Flexible data selection
- · Data does not leave firewall



# **APOS Upgrade BI S<sup>3</sup> Bundle**



- Bundle of key upgrade and migration focused technologies from APOS
  - Effective automation for all stages of upgrade Preparation, Execution, Validation
- Licensed solely for use during the migration process stages
  - Streamline, speed, and stabilize your upgrade
  - Upgrade-focused pricing; excellent value
- Upgrade Smart
  - Build deep system knowledge; understand content priorities
- Upgrade Strong
  - Automate bulk transition and upgrade administrative operations
  - strong system content management
- Upgrade Safe
  - Mitigate risk; validate content; optimize security















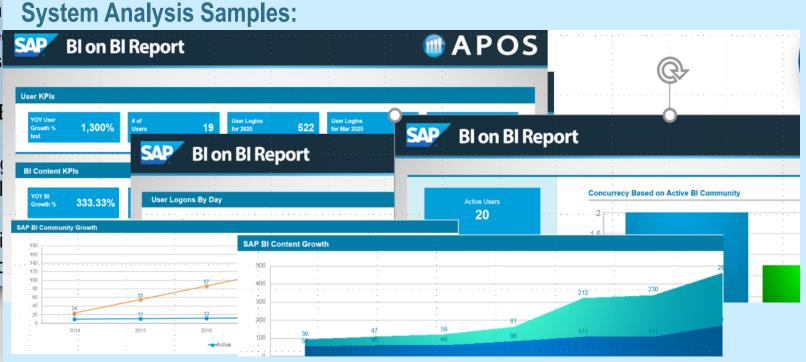
## **APOS BI on BI Service**

In collaboration with the SAP Analytics Center of Excellence, APOS has developed the BI on BI application to deliver a system scan and analysis service designed to provide SAP BusinessObjects customers with a snapshot of their BI deployment, answering questions such as:

- What is the activity level on
- How have activity levels be SAP
- Who are my most active us
- What reports in my system
- What is the makeup of the I

This is a no-fee service which (BI deployment to assist with BI

For system right-sizing scenaric capabilities that the customer capabilities that capabilities that the customer capabilitie



# **APOS Solutions for SAP Analytics Cloud**





#### APOS Live Data Gateway - Unlock Live Data for SAP Analytics Cloud

- Live data connectivity from SAC to a wide range data sources
- Leverage data from many industry standard relational, OLAP, Cloud & Hadoop sources
- No need to replicate data or duplicate data security; Data doesn't leave the firewall



#### APOS UMMA - Translate SAP BI modelling to HANA modelling

- Automated, project-based workflow to translate SAP BusinessObjects modelling to HANA
- Leverage investment in SAP BI modelling and content assets; Leverage HANA investment
- Speed adoption of SAP Analytics Cloud and Hybrid BI; Run SAP BI and SAC in parallel



#### **APOS Publisher for Cloud** – Burst and Distribute SAP Analytics Cloud content

- Dynamic, data-driven bursting of SAP Analytics Cloud content to end users
- Flexible, customized, secure distribution of personalized report content
- Powerful range of destinations and formats; Security and encryption



#### **APOS Insight for Cloud** - SAP Analytics Cloud Monitoring & Auditing

- Monitor availability and performance of SAP Analytics Cloud system and stories
- Set performance thresholds criteria to trigger monitoring alerts
- Analyze and compare metrics across user locations and tenants

# **Upcoming Events**



**Extend Analytics Data Connectivity - Unified Data Access - Webinar** 

February 25, 2021 -11 am EST

SAP Analytics Cloud has native connectivity for SAP HANA, SAP Data Warehouse Cloud and other SAP data sources, but most organizations will require data connectivity to other data sources for complete analytics.

This webinar will discuss ways you can use **APOS Live Data Gateway** and **APOS UMMA** to extend and unify data access, including:

- Importing to SAC for planning using APOS OData
- Consuming connections using APOS OData
- Convert SAP BI Universes to APOS Views



## **STAY CONNECTED**



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APOS Systems Inc.



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@APOS\_Systems

# Interested in learning more about SAP Analytics Cloud and Sharing your experience?

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





# Thank You!

**Get in Touch** 

#### **WEBSITE**

www.apos.com

#### **EMAIL ADDRESS**

info@apos.com

#### PHONE NUMBER

(+1) 519 894 2767

