

Flashes of Insight: Managing Change in your SAP BI System



Today's Session

Key Topics

- Modules of APOS Insight
- SAP BI System Change
- Report Structure Change
- Operating Environment Change
- System Security Change
- Q&A – see webinar console



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



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**

APOS Insight – Deep System Knowledge




APOS Insight – Deep System Knowledge



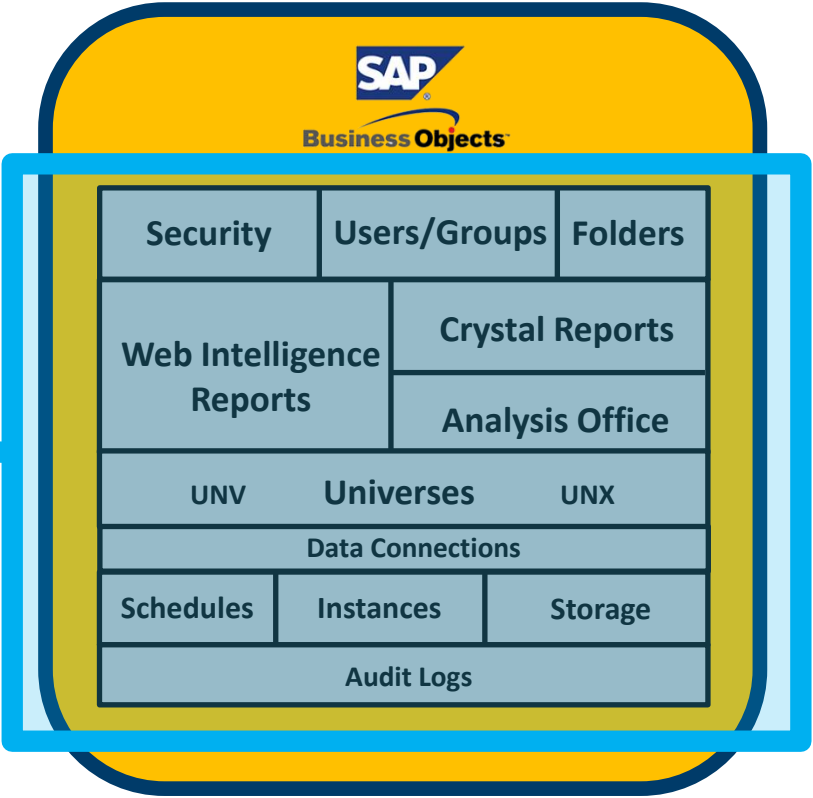
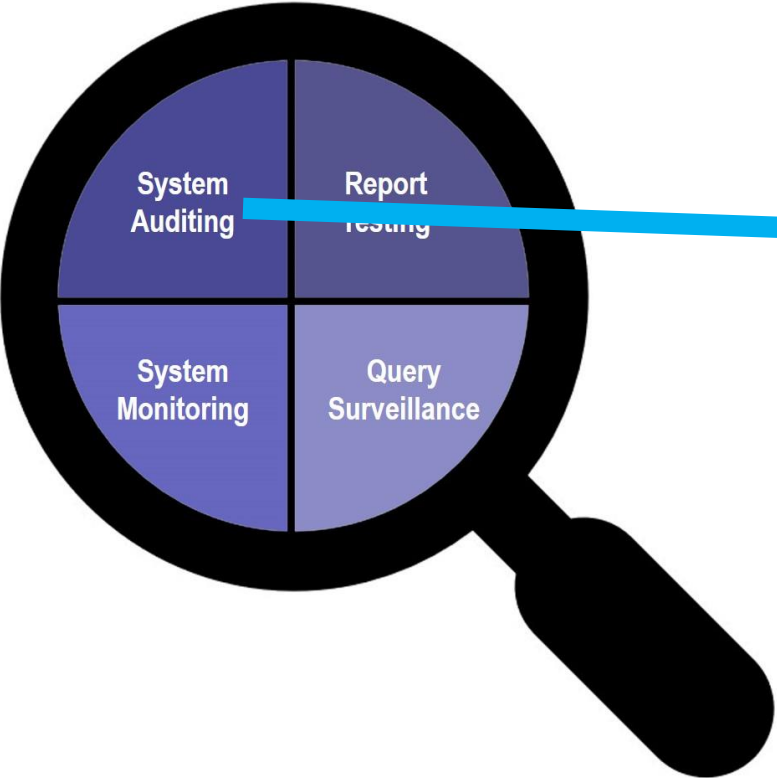
APOS Insight



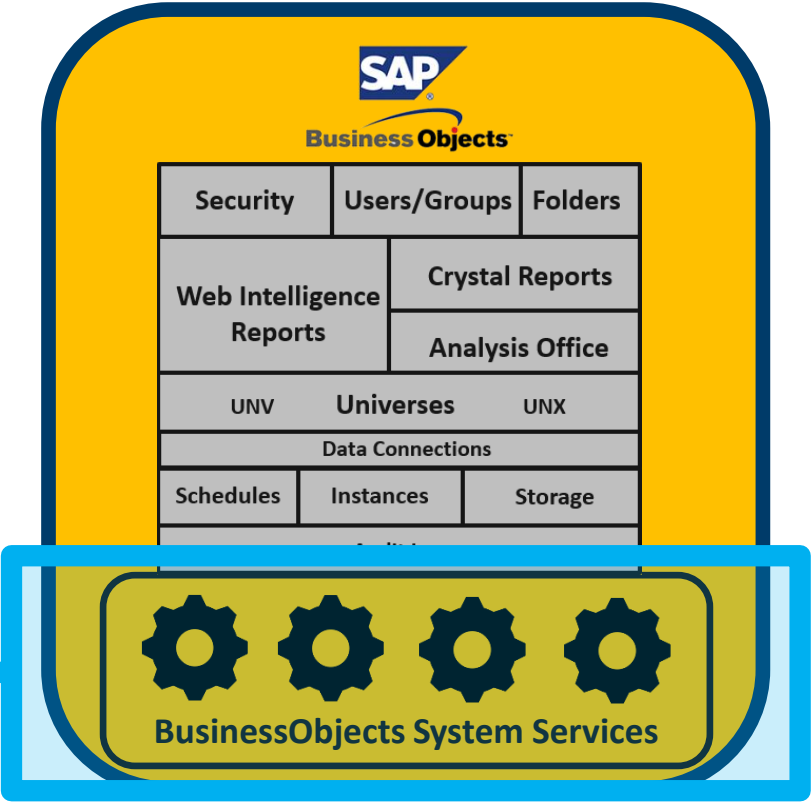
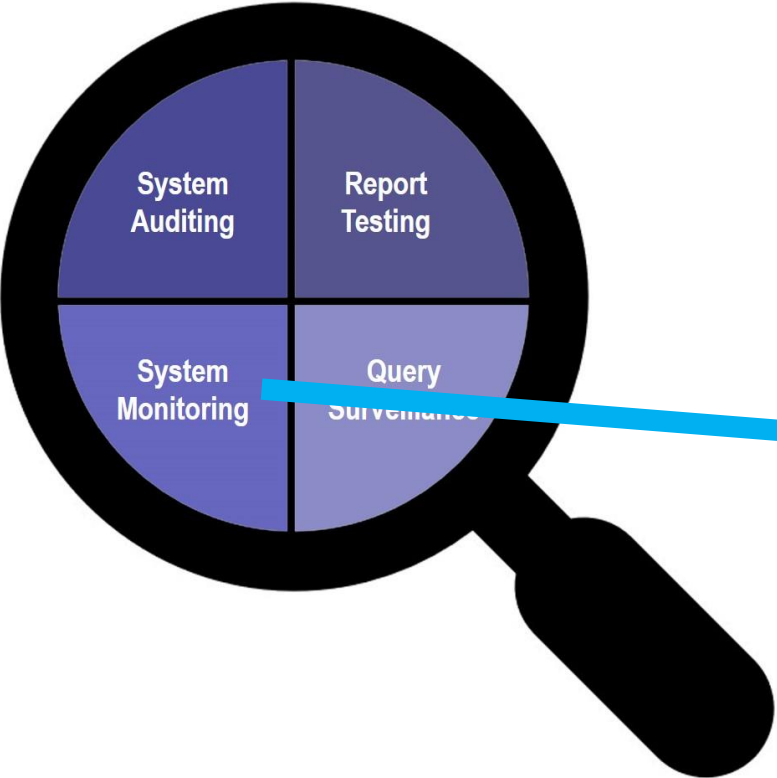
		
Security	Users/Groups	Folders
Web Intelligence Reports	Crystal Reports	
	Analysis Office	
UNV	Universes	UNIX
Data Connections		
Schedules	Instances	Storage
Audit Logs		



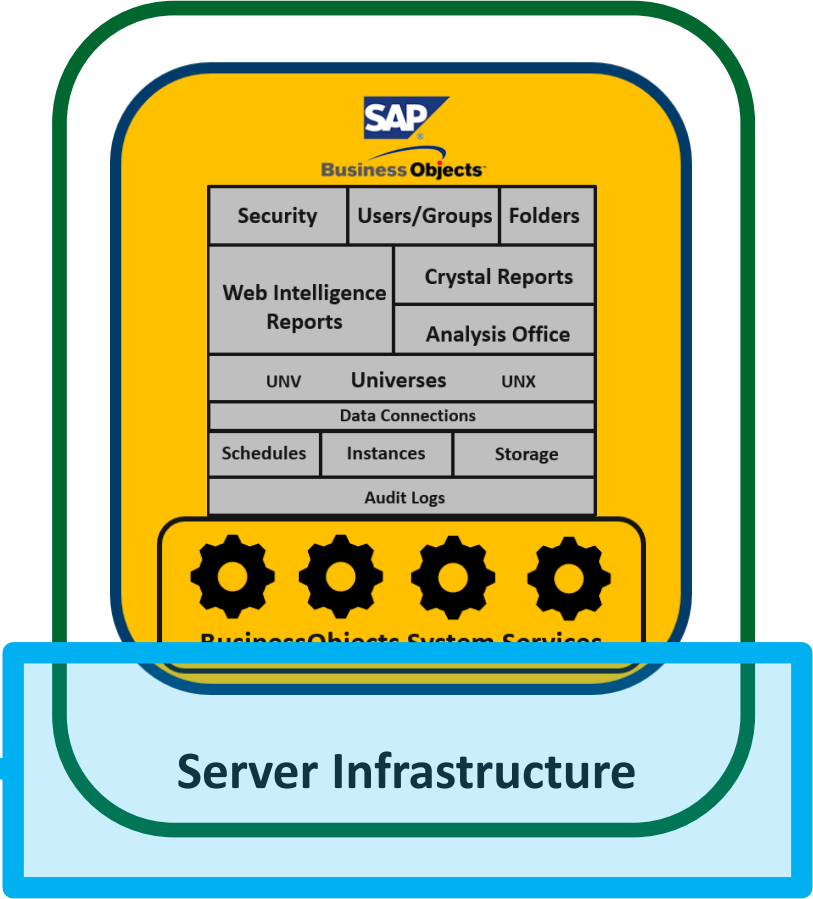
APOS Insight



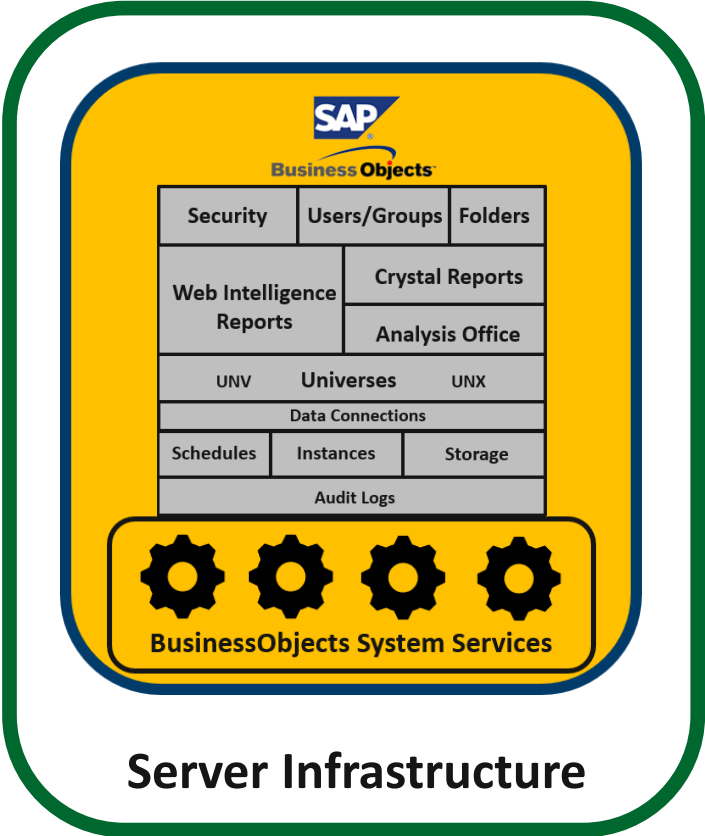
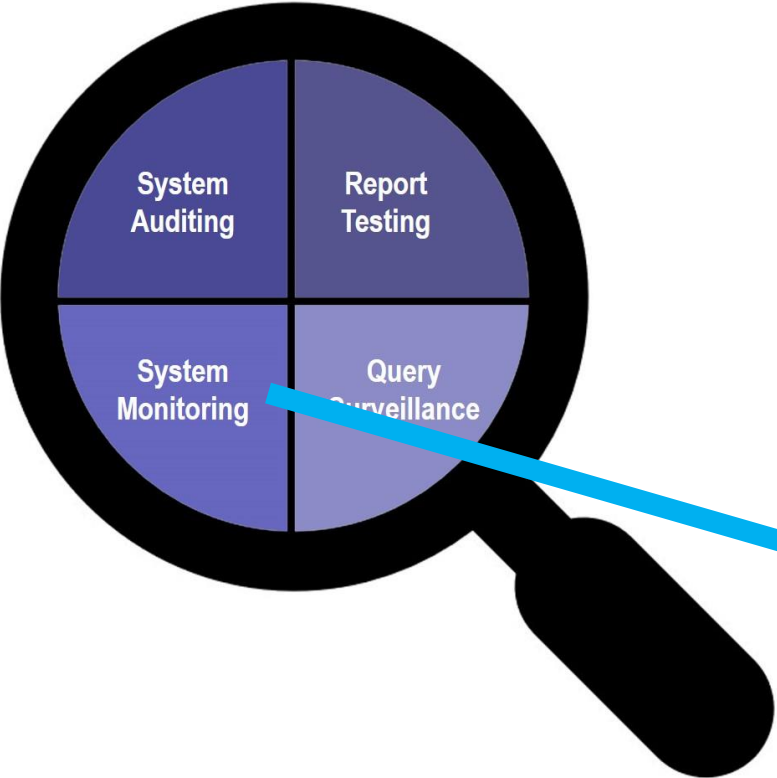
APOS Insight



APOS Insight



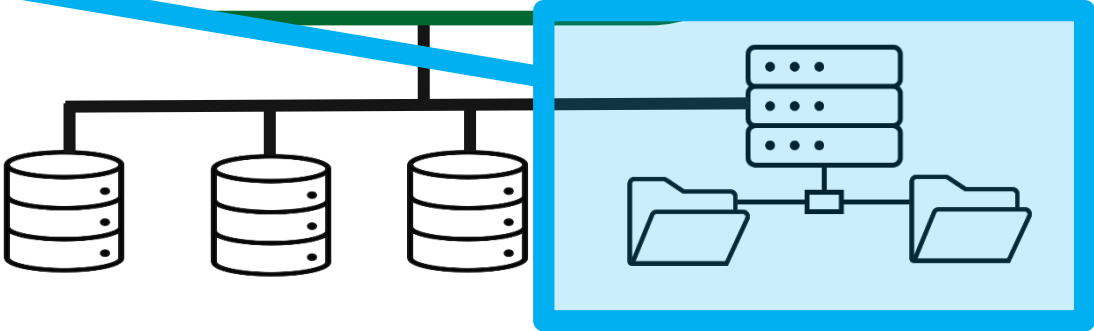
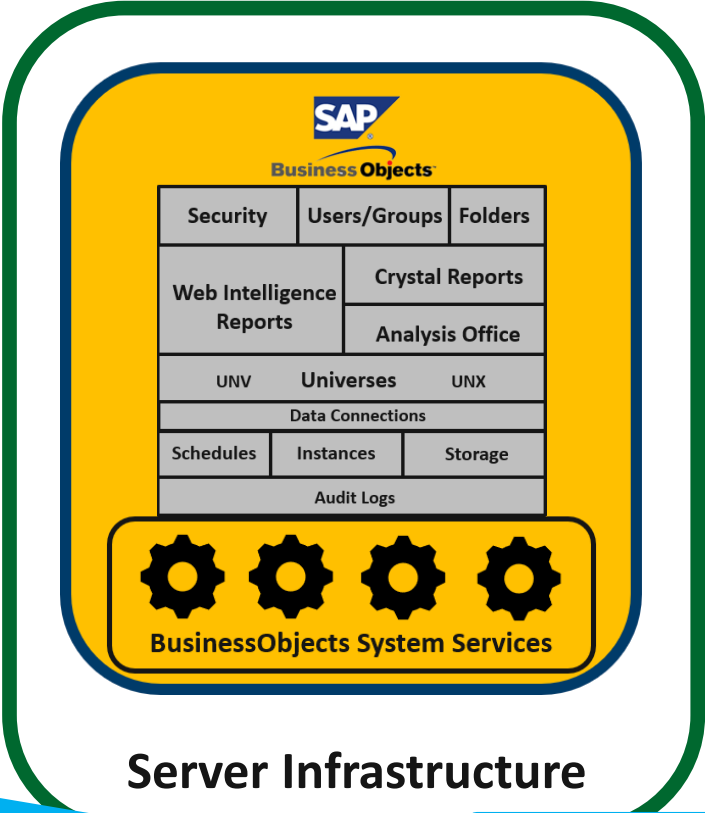
APOS Insight



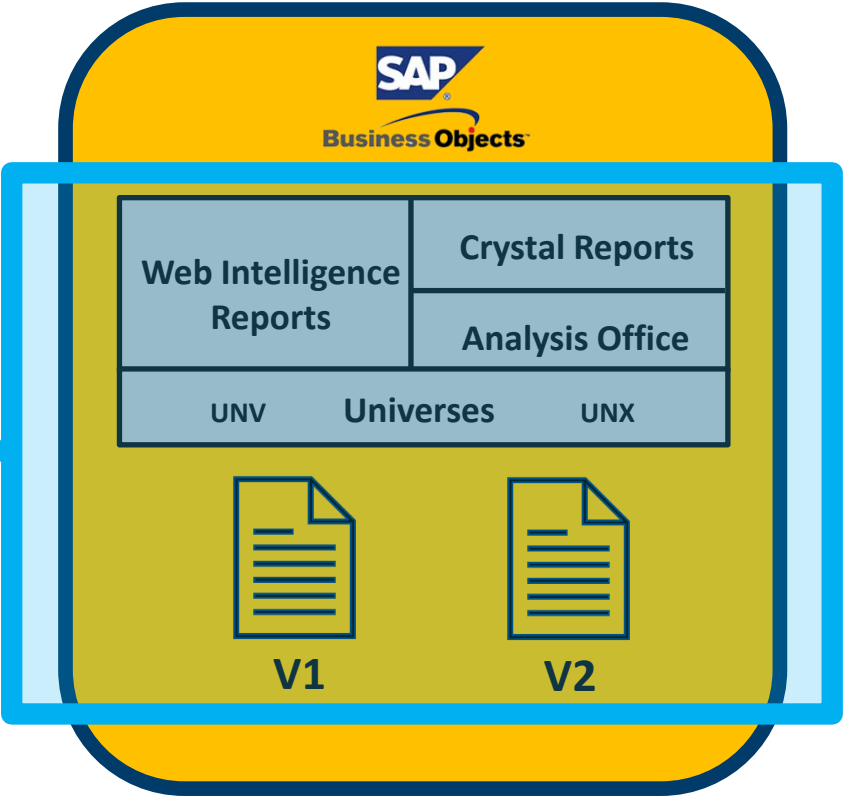
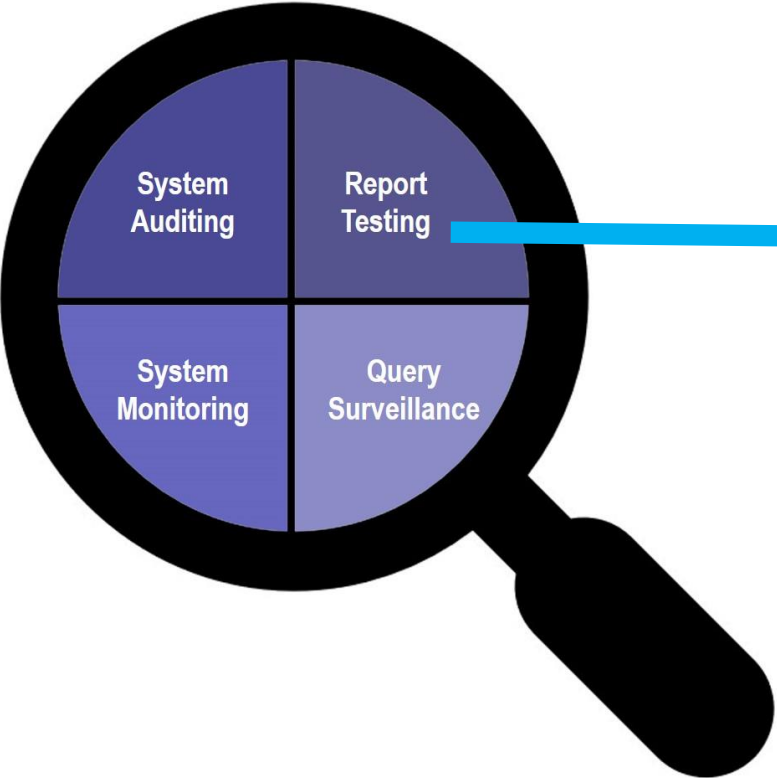
Server Infrastructure



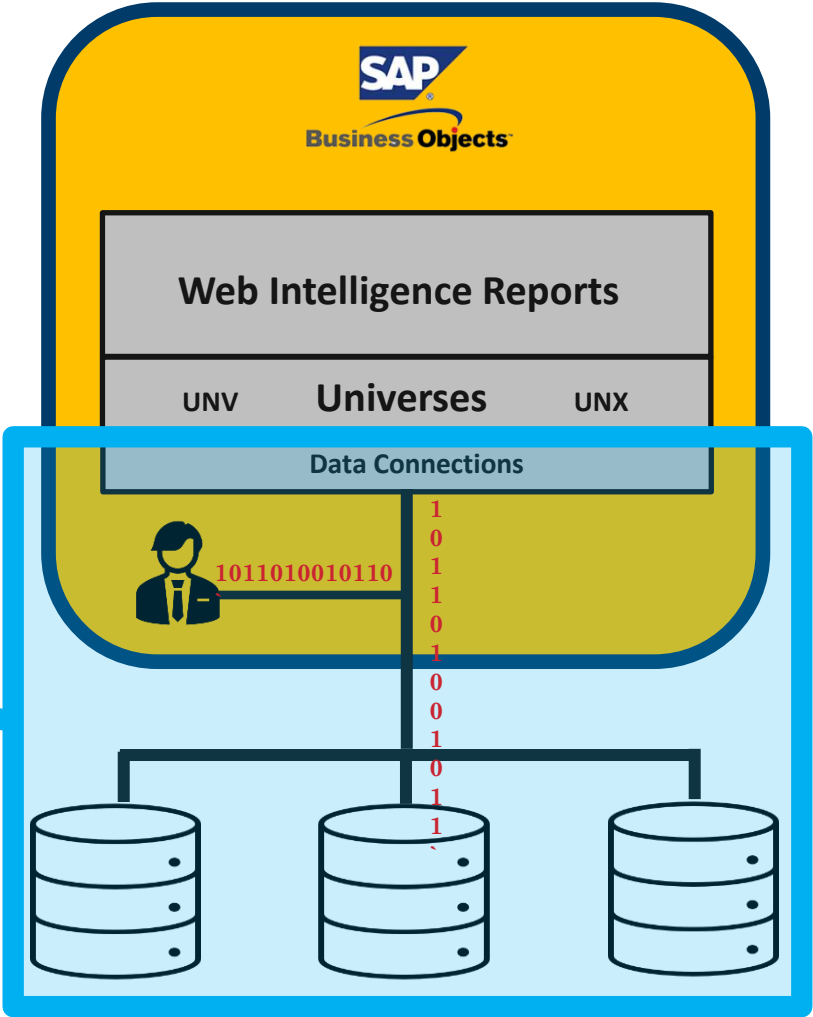
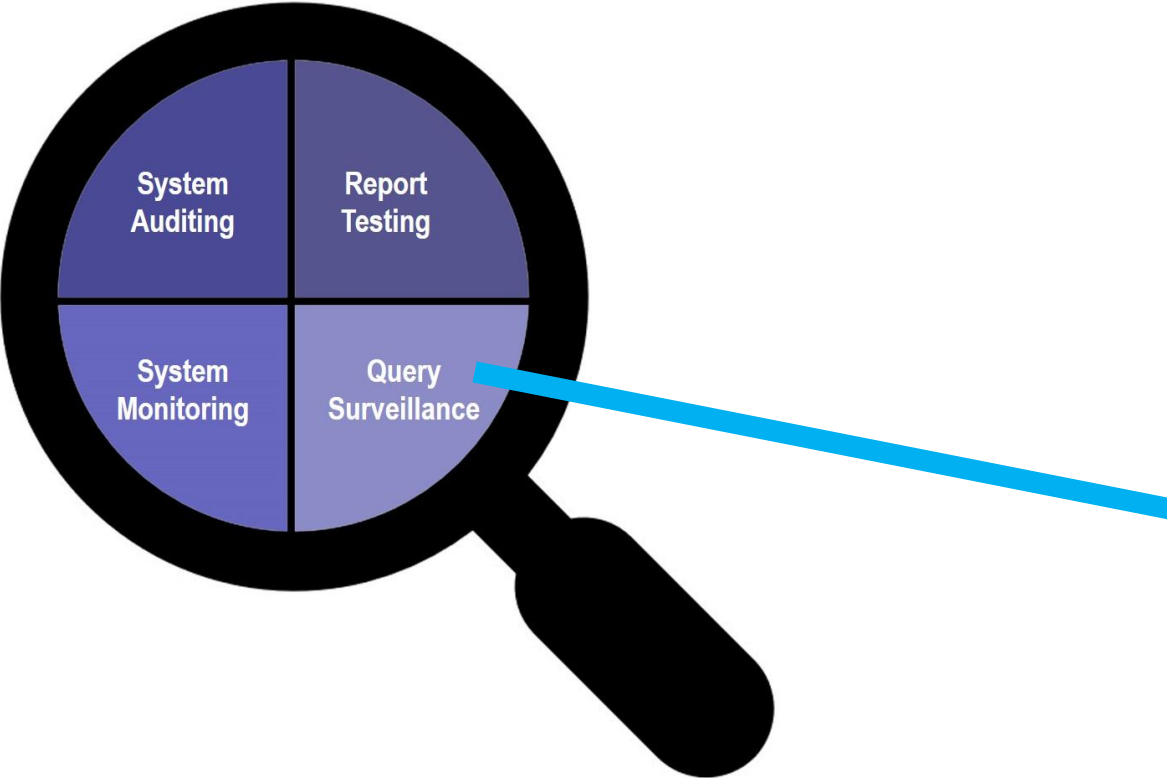
APOS Insight



APOS Insight



APOS Insight



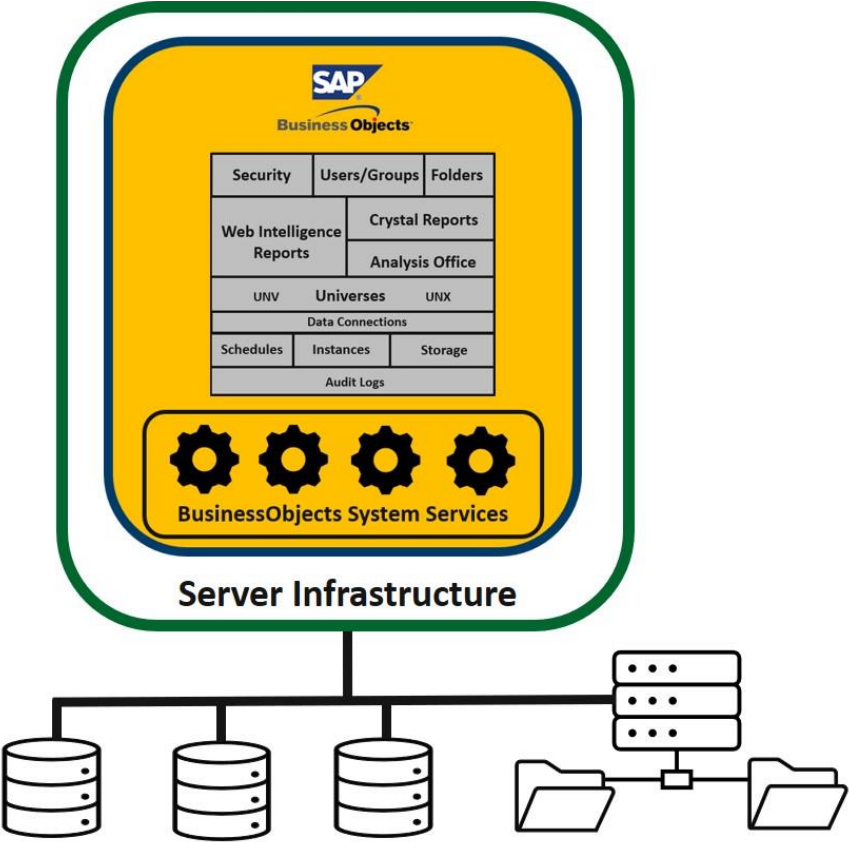
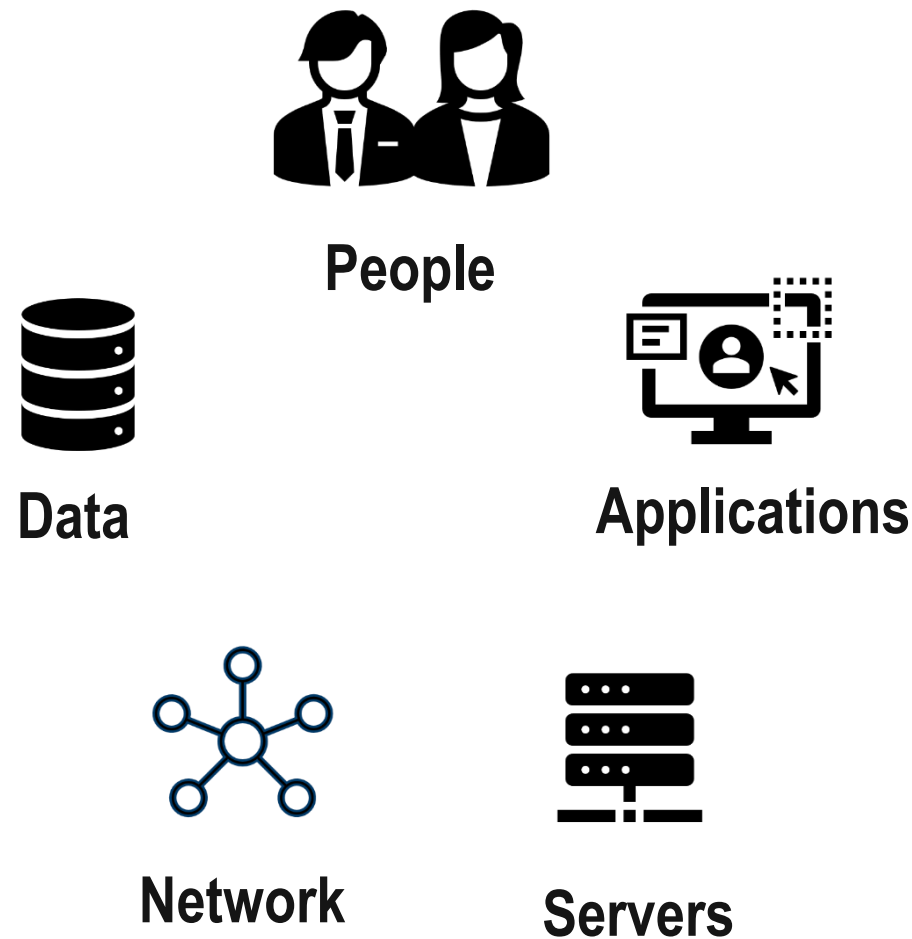
Flashes of Insight – Managing Change in SAP BI





Alan Golding
Solution Consulting Manager
APOS

Sources of Change in SAP BI



Managing Change in SAP BI

- Detect Change
- Inspect Change
- Respond
- Document & Advise Change



Managing Change in SAP BI



- **Detect Change** – recognize that a change has happened
- **Inspect Change** – gather information about the details of the change
- **Respond** – take action to address any challenges that result from the change
- **Document & Advise Change** – effectively inform others



Managing Change in SAP BI



Report Structure Changes

Operating Environment Changes

System Security Changes

Managing Change in SAP BI

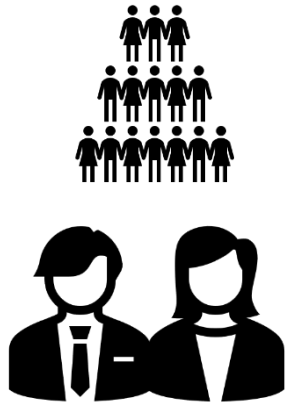


Report Structure Changes

- Report files in SAP BusinessObjects (.wid, .rpt)
- defines report structure details
- defines report function details
- Changes to report files prompts questions
 - impact on structure
 - impact on function



Managing Change – Report Structure Changes



Managing Change – Report Structure Changes



Intentional

Accidental



Accurate

Incorrect



Managing Change – Report Structure Changes



Applications



Accurate



Incorrect



Managing Change – Report Structure Changes

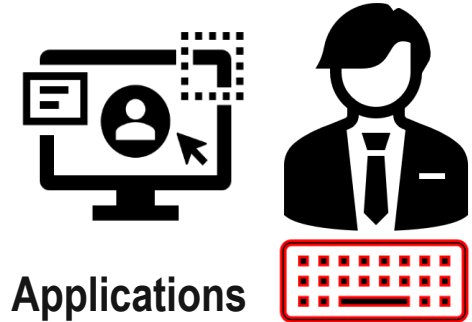


Applications



Incorrect Reports = Incorrect Decisions = Risk & \$

Managing Change – Report Structure Changes



Applications

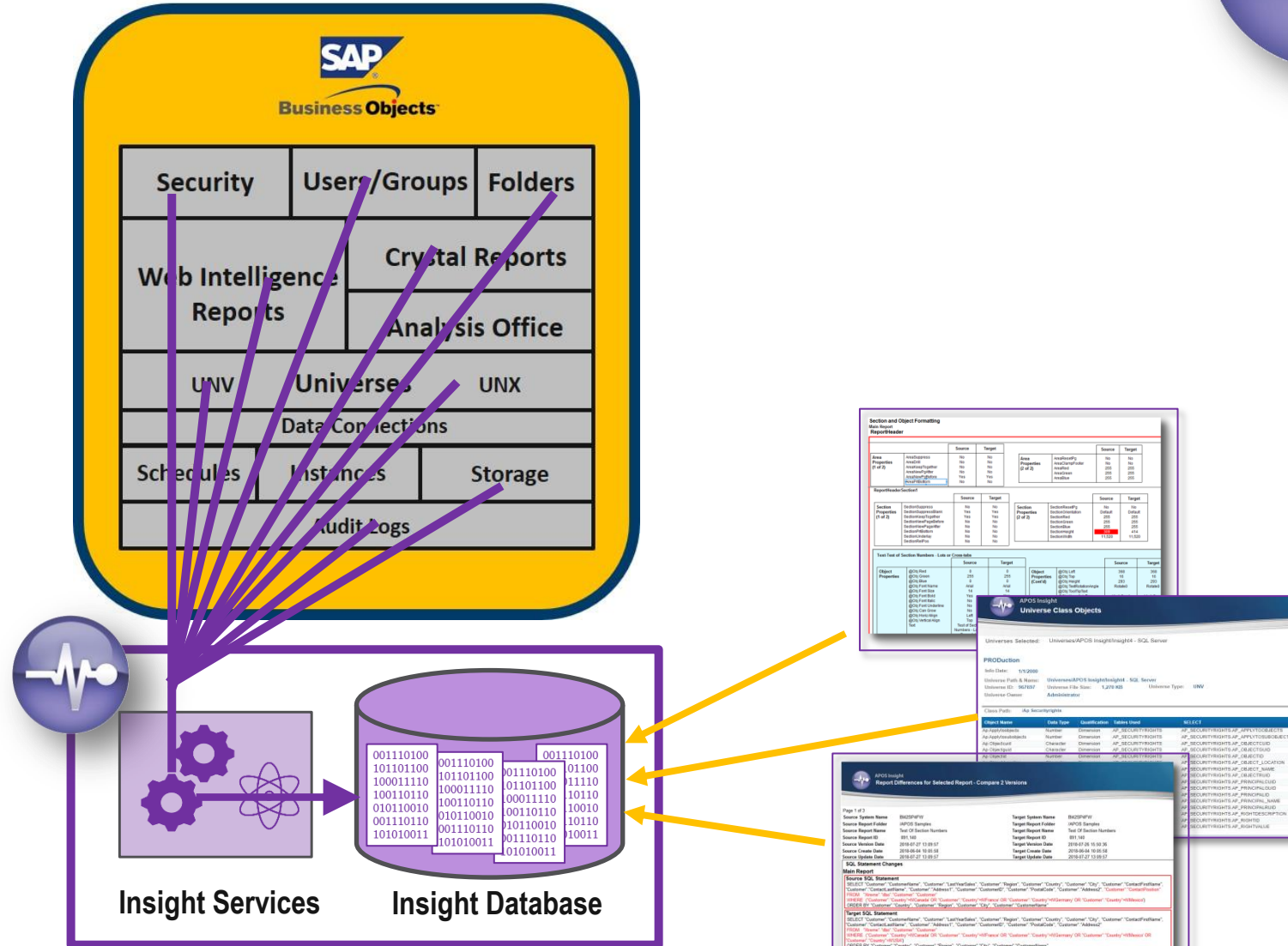


- Have any reports changed?
- What are the details of the report changes?
- Is the report producing the same results?
- Can you prove / document all of this?

APOS Insight – System Auditing



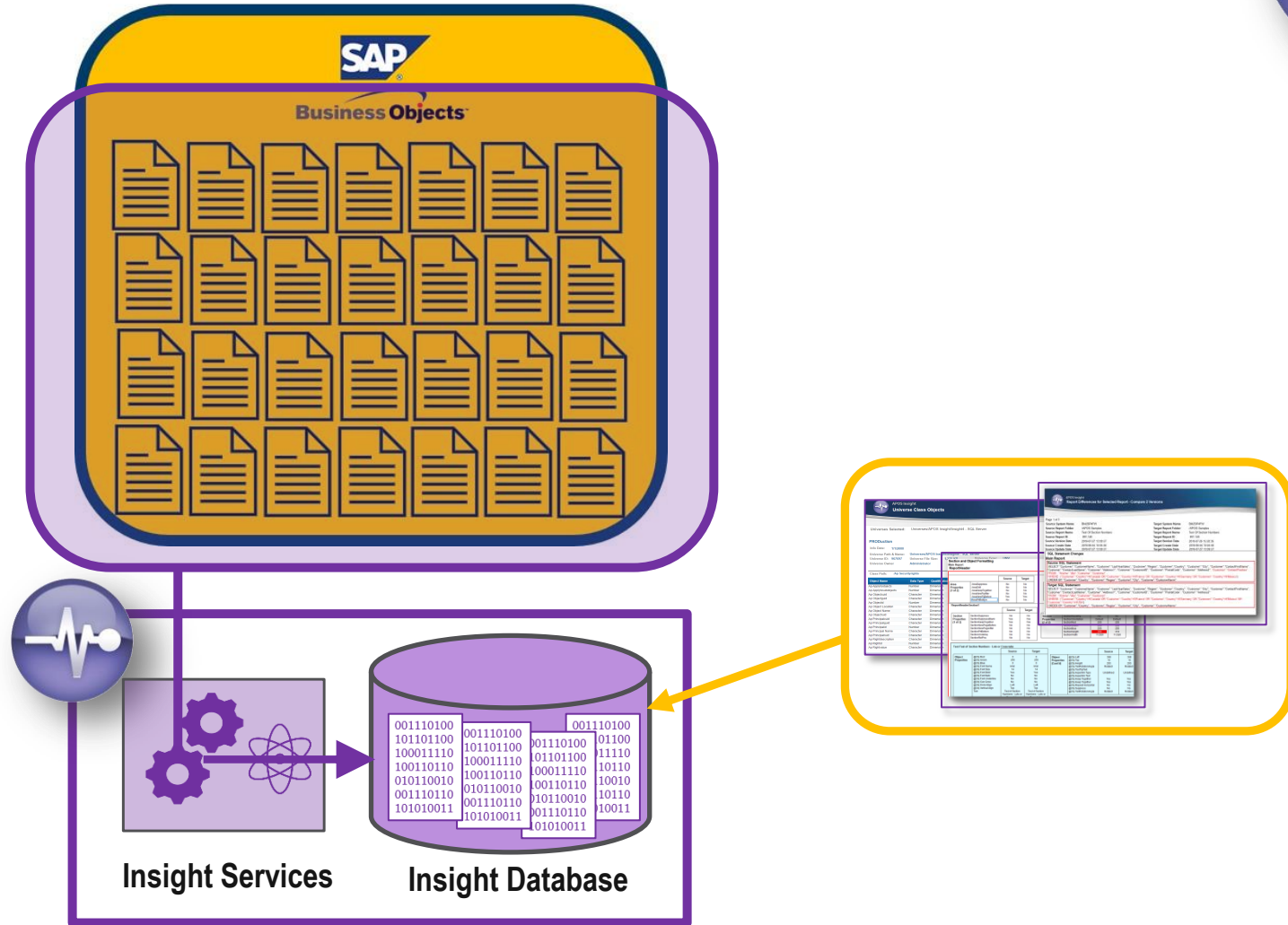
- Insight Services run deep scans of the SAP BusinessObjects environment
- Insight transforms system data and writes thorough and effective metadata to Insight Database
- Metadata within Insight Database available for granular analysis



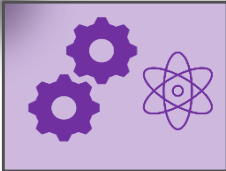
APOS Insight – Report Structure Analysis



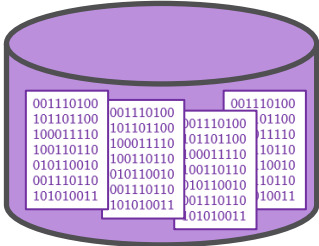
- Data Connections
- Data Tables / Fields
- Report Layout
- Charts
- Formulas
- Tables
- Calculated Fields
- SQL Statement
- Sub reports / Tabs
- Command File Details
- Extended SQL Information
- Sub-queries
- Universe/Semantic Layer
 - Tables/Fields
 - Class Objects
 - LOV Details
 - Joins / Join Strategies
 - Conditions
 - Contexts
 - Qualifiers
 - Designers/Owners
 - Control Options
 - Hierarchy Information



Managing Change – Report Structure Changes



Insight Services

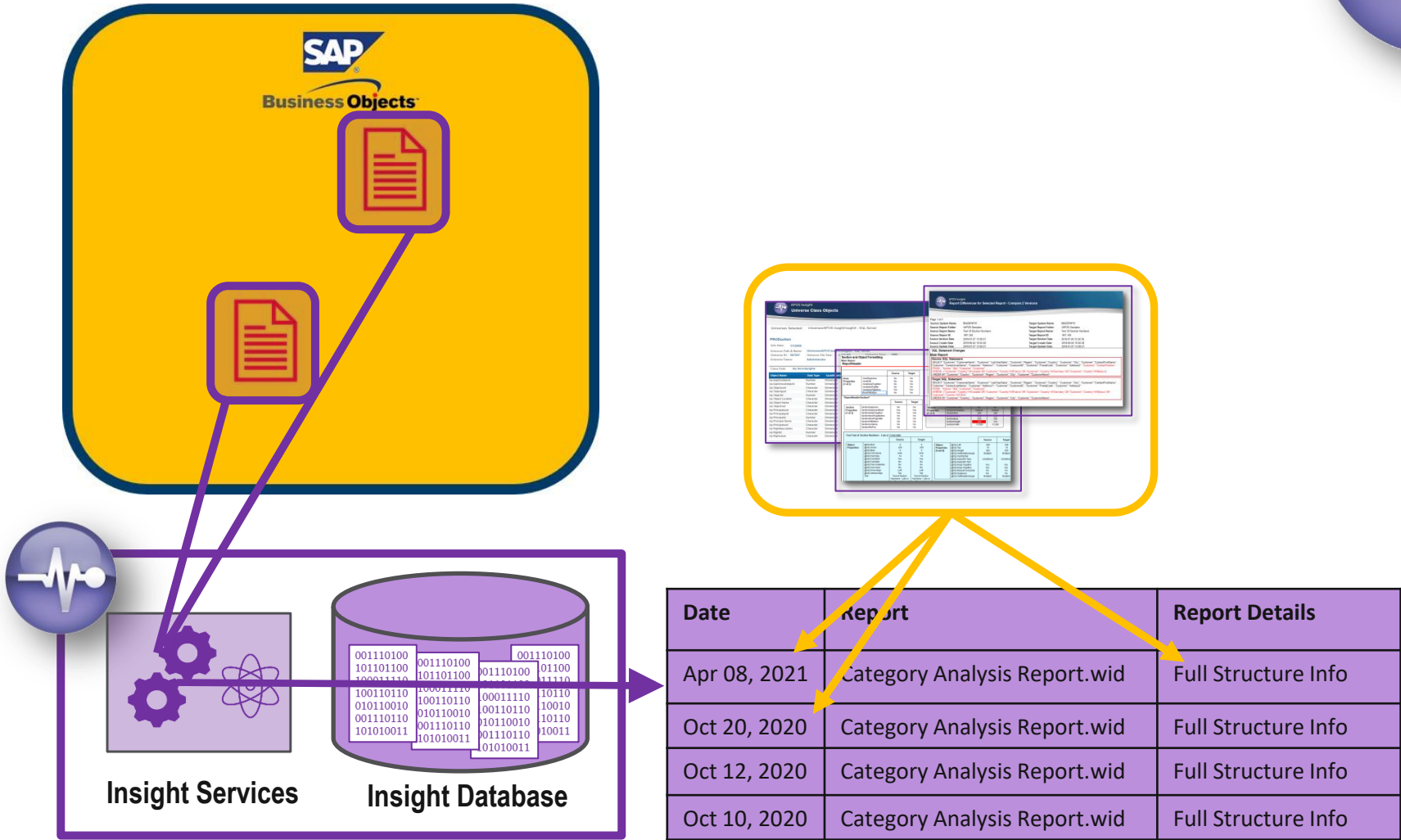


Insight Database

Managing Change – Report Structure Changes



Document historical
report structure
changes over time



Managing Change – Report Structure Changes



Has there been changes made to the Universe structure?

APOS Insight Web Intelligence Structure					
Universe Based Reports					
Universe Name: Universes/APOS Insight/Insight4 - Oracle					
Universe Type: UNV					
Folder: /APOS Insight Reports/Oracle					
Report Name: Audit - All Report Activity					
Object					
Name	Qualification	Data Type	Formula	Definition	Description
Activity Count	Measure	Numeric	N/A		N/A
Ap ObjectName	Dimension	String	N/A		N/A
Ap ObjectType	Dimension	String	N/A		N/A
Ap ParentName	Dimension	String	N/A		N/A
Ap StartTime	Dimension	DateTime	N/A		From the AP_StartTime field from AP_Common Events - corrected to local time - as timestamp field
Ap UserName	Dimension	String	N/A		N/A
FolderPath	Dimension	String	N/A		N/A
Object Type	Dimension	String	N/A		N/A
Si Owner	Dimension	String	N/A		N/A
Total Object Count: 9					

Managing Change – Report Structure Changes




Has there been changes to the Variables in your Universes?

APOS Insight Web Intelligence Structure				
Universe Based Reports				
Universe Name: Universes/APOS Insight/Insight4 - Oracle				
Universe Type: UNV				
Folder: /APOS Insight Reports/Oracle				
Report Name: Audit - Objects Scheduled by User				
Variable				
Name	Qualification	Data Type	Formula	Definition
FormatObjectName	Dimension	String	[FormatObjectName]	=If(UserResponse("Object Name:") = "") Then "All Objects" Else UserResponse("Object Name:")
FormatServiceType	Dimension	String	[FormatServiceType]	=If(UserResponse("Service Type:") = "") Then "All Services" Else UserResponse("Service Type:")
ObjectCount	Measure	String	[ObjectCount]	= "Total Objects Scheduled: " + Count([AP_EventID])
UserDateRange	Dimension	String	[UserDateRange]	=UserResponse("Audit Start Date") + " to " + UserResponse("Audit End Date")
Total Variable Count: 6				

Managing Change – Report Structure Changes



Have there been changes to the tables/fields the Universe is using?

**APOS Insight**
Universe Class Objects

Universes Selected: Universes/APOS Insight/Insight4 - SQL Server

PRODUCTION
Info Date: 1/1/2000
Universe Path & Name: Universes/APOS Insight/Insight4 - SQL Server
Universe ID: 967697 **Universe File Size:** 1,270 KB **Universe Type:** UNV
Universe Owner: Administrator

Class Path: /Ap Securityrights

Object Name	Data Type	Qualification	Tables Used	SELECT
Ap Applytoobjects	Number	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_APPLYTOOBJECTS
Ap Applytosubobjects	Number	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_APPLYTOSUBOBJECTS
Ap Objectcuid	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_OBJECTCUID
Ap Objectguid	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_OBJECTGUID
Ap Objectid	Number	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_OBJECTID
Ap Object Location	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_OBJECT_LOCATION
Ap Object Name	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_OBJECT_NAME
Ap Objectruid	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_OBJECTRUID
Ap Principalcuid	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_PRINCIPALCUID
Ap Principalguid	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_PRINCIPALGUID
Ap Principalid	Number	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_PRINCIPALID
Ap Principal Name	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_PRINCIPAL_NAME
Ap Principalruid	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_PRINCIPALRUID
Ap Rightdescription	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_RIGHTDESCRIPTION
Ap Rightid	Number	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_RIGHTID
Ap Rightvalue	Character	Dimension	AP_SECURITYRIGHTS	AP_SECURITYRIGHTS.AP_RIGHTVALUE

Managing Change – Report Structure Changes



Has the SQL Query
behind the report
changed?

APOS Insight Report Differences for Selected Report - Compare 2 Versions			
Page 1 of 3			
Source System Name	BI42SP4FW	Target System Name	BI42SP4FW
Source Report Folder	/APOS Samples	Target Report Folder	/APOS Samples
Source Report Name	Test Of Section Numbers	Target Report Name	Test Of Section Numbers
Source Report ID	891,140	Target Report ID	891,140
Source Version Date	2018-07-27 13:09:57	Target Version Date	2018-07-26 15:50:36
Source Create Date	2018-06-04 10:05:58	Target Create Date	2018-06-04 10:05:58
Source Update Date	2018-07-27 13:09:57	Target Update Date	2018-07-27 13:09:57
SQL Statement Changes			
Main Report			
Source SQL Statement			
SELECT "Customer"."CustomerName", "Customer"."LastYearSales", "Customer"."Region", "Customer"."Country", "Customer"."City", "Customer"."ContactFirstName", "Customer"."ContactLastName", "Customer"."Address1", "Customer"."CustomerID", "Customer"."PostalCode", "Customer"."Address2", "Customer"."ContactPosition"			
FROM "Xtreme"."dbo"."Customer" "Customer"			
WHERE ("Customer"."Country"='N'Canada' OR "Customer"."Country"='N'France' OR "Customer"."Country"='N'Germany' OR "Customer"."Country"='N'Mexico')			
ORDER BY "Customer"."Country", "Customer"."Region", "Customer"."City", "Customer"."CustomerName"			
Target SQL Statement			
SELECT "Customer"."CustomerName", "Customer"."LastYearSales", "Customer"."Region", "Customer"."Country", "Customer"."City", "Customer"."ContactFirstName", "Customer"."ContactLastName", "Customer"."Address1", "Customer"."CustomerID", "Customer"."PostalCode", "Customer"."Address2"			
FROM "Xtreme"."dbo"."Customer" "Customer"			
WHERE ("Customer"."Country"='N'Canada' OR "Customer"."Country"='N'France' OR "Customer"."Country"='N'Germany' OR "Customer"."Country"='N'Mexico' OR "Customer"."Country"='N'USA')			
ORDER BY "Customer"."Country", "Customer"."Region", "Customer"."City", "Customer"."CustomerName"			

Managing Change – Report Structure Changes



Has the Formatting
on the report
changed?

Section and Object Formatting

Main Report ReportHeader

		Source	Target			Source	Target
Area Properties (1 of 2)	AreaSuppress	No	No	Area Properties (2 of 2)	AreaResetPg	No	No
	AreaDrill	No	No		AreaClampFooter	No	No
	AreaKeepTogether	No	No		AreaRed	255	255
	AreaNewPgAfter	No	No		AreaGreen	255	255
	AreaNewPgBefore	Yes	Yes		AreaBlue	255	255
	AreaPrtBottom	No	No				

ReportHeaderSection1

		Source	Target			Source	Target
Section Properties (1 of 2)	SectionSuppress	No	No	Section Properties (2 of 2)	SectionResetPg	No	No
	SectionSuppressBlank	Yes	Yes		SectionOrientation	Default	Default
	SectionKeepTogether	Yes	Yes		SectionRed	255	255
	SectionNewPageBefore	No	No		SectionGreen	255	255
	SectionNewPageAfter	No	No		SectionBlue	255	255
	SectionPrtBottom	No	No		SectionHeight	309	414
	SectionUnderlay	No	No		SectionWidth	11,520	11,520
	SectionRelPos	No	No				

Text-Test of Section Numbers - Lots or Cross-tabs							
		Source	Target			Source	Target
Object Properties	@Obj Red	0	0	Object Properties (Cont'd)	@Obj Left	368	368
	@Obj Green	255	255		@Obj Top	16	16
	@Obj Blue	0	0		@Obj Height	293	293
	@Obj Font Name	Arial	Arial		@Obj TextRotationAngle	Rotate0	Rotate0
	@Obj Font Size	14	14		@Obj ToolTipText		
	@Obj Font Bold	Yes	Yes		@Obj Hyperlink Type	Undefined	Undefined
	@Obj Font Italic	No	No		@Obj Hyperlink Text		
	@Obj Font Underline	No	No		@Obj Keep Together	Yes	Yes
	@Obj Can Grow	No	No		@Obj Keep Together	Yes	Yes
	@Obj Horiz Align	Left	Left		@Obj Repeat Horizontal	No	No
	@Obj Vertical Align	Top	Top		@Obj Suppress	No	No
	Text	Test of Section Numbers - Lots or	Test of Section Numbers - Lots or		@Obj TextRotationAngle	Rotate0	Rotate0

Managing Change – Report Structure Changes



Has the report
template or
properties
changed?

Source Report Path: /APOS Samples		Target Report Path: /APOS Samples	
Source Report ID and Name: 1011774 - Country Region City		Target Report ID and Name: 1011774 - Country Region City	
Current Version as of 2018-10-16 14:51:46		Historical Version as of 2018-09-26 09:36:18	
Source System: BI42SP4FW		Target System: BI42SP4FW	
Source or Target	Source	Target	
Created By	Administrator	Administrator	
Last Author	Administrator	Administrator	
File Size	45,312	30,405	
Refresh on Open?	No	No	
# of Report Tabs	1	1	
Report Tab Name	Report 1	Report 1	
Report Tab ID	18	18	

emptQueries

Basic Report Data

Data Providers

Webi Objects

Managing Change – Report Structure Changes



Has the data
provider changed?

Data Provider ID: DP0		
ChangeType	Source	Target
Query Name	Query 1	Query 1
Row Count	3	6
Sample Size	0	0
Partial Results?	0	0
Duration	1	1
Data Source ID	600,653	600,653
	SELECT Customer.CustomerName, Customer.ContactFirstName, Customer.PostalCode, Customer.City, Customer.Region, Customer.Country FROM Customer WHERE (Customer."TestÃÃÃÃÃ" IN ("PC"))	SELECT Customer.CustomerName, Customer.PostalCode, Customer.City, Customer.Region, Customer.Country, Customer."TestÃÃÃÃÃ" FROM Customer WHERE

nptQueries

Basic Report Data

Data Providers

Webi Objects

Use Case Scenario



Large US Energy/Utilities provider

- During internal and external audits, auditors require clarification about whether a library of control reports had changed or not changed during the latest fiscal cycle. This requirement included the need for documentation to validate the report change details. This was being addressed with a manual and very time intensive process.
- APOS Insight provided a way to prove to their auditors that reports had, or had not, changed within the past fiscal cycle in a quick and automated way. This gives them trustworthy data which greatly simplifies that auditing process.



Managing Change – Report Structure Changes



- Have any reports changed?
- What are the details of the report changes?
- **Is the report producing the same results?**
- Can you prove / document all of this?

Managing Change in SAP BI



Operating Environment Changes

- SAP BusinessObjects deployment relies on many different supporting technologies and systems
- Changes to related technologies and systems can directly impact the results of the SAP BusinessObjects system



Sources of Change in SAP BI



Server / Infrastructure

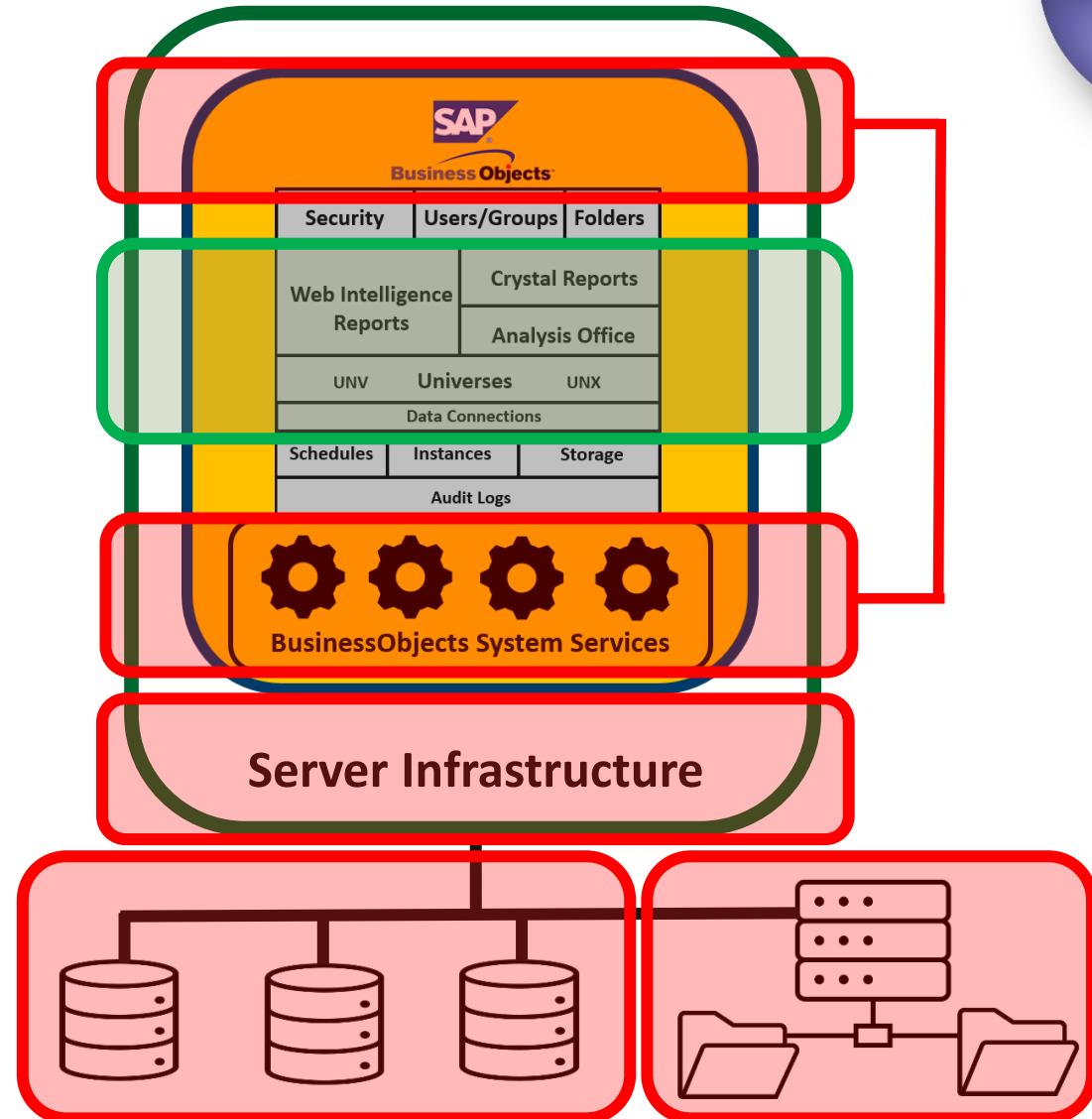
- Server Software Versions
- Server Hardware
- Network Infrastructure

Databases

- Data Structure
- Database Versions
- Vendor Applications

SAP Business Objects

- Upgrades/Migrations
- Service Pack Updates



Sources of Change in SAP BI



Server / Infrastructure

- Server Software Versions
- Server Hardware
- Network Infrastructure

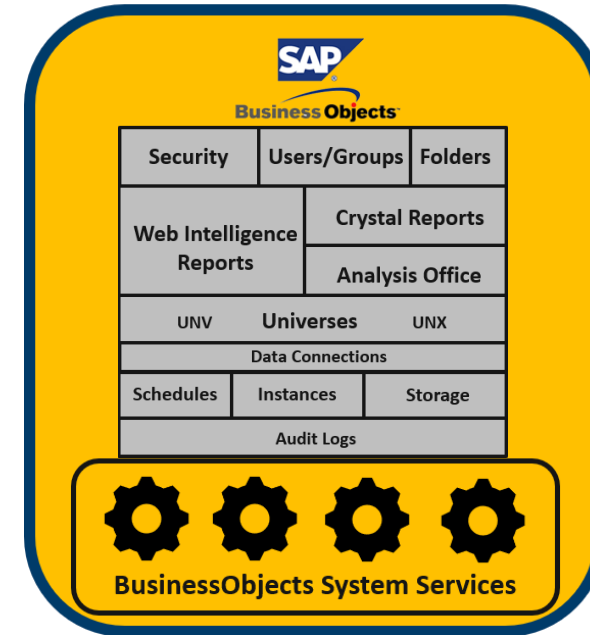
Databases

- Data Structure
- Database Versions
- Vendor Applications

SAP Business Objects

- Upgrades/Migrations
- Service Pack Updates

Incorrect Reports = Incorrect Decisions = Risk & \$



Pre Change

Report Data = **X**



Post Change

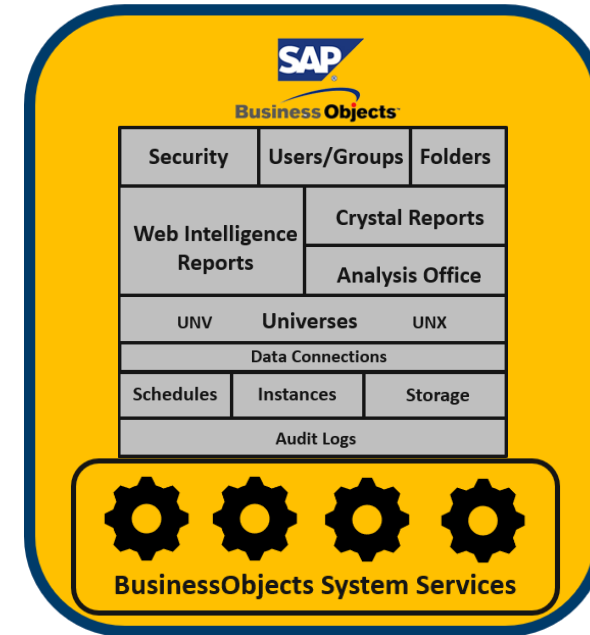
Report Data = **Y**

Detecting & Inspecting Change - Manual



Manual Testing Challenges:

- Limited percentage of reports can be tested
- Depth of testing is limited
- Human error
- Length of testing process - delay
- Availability of testing resources - delay
- Meeting governance standards
- Being audit-ready (Sarbanes-Oxley, HIPAA)
- Sensitive data exposure during testing

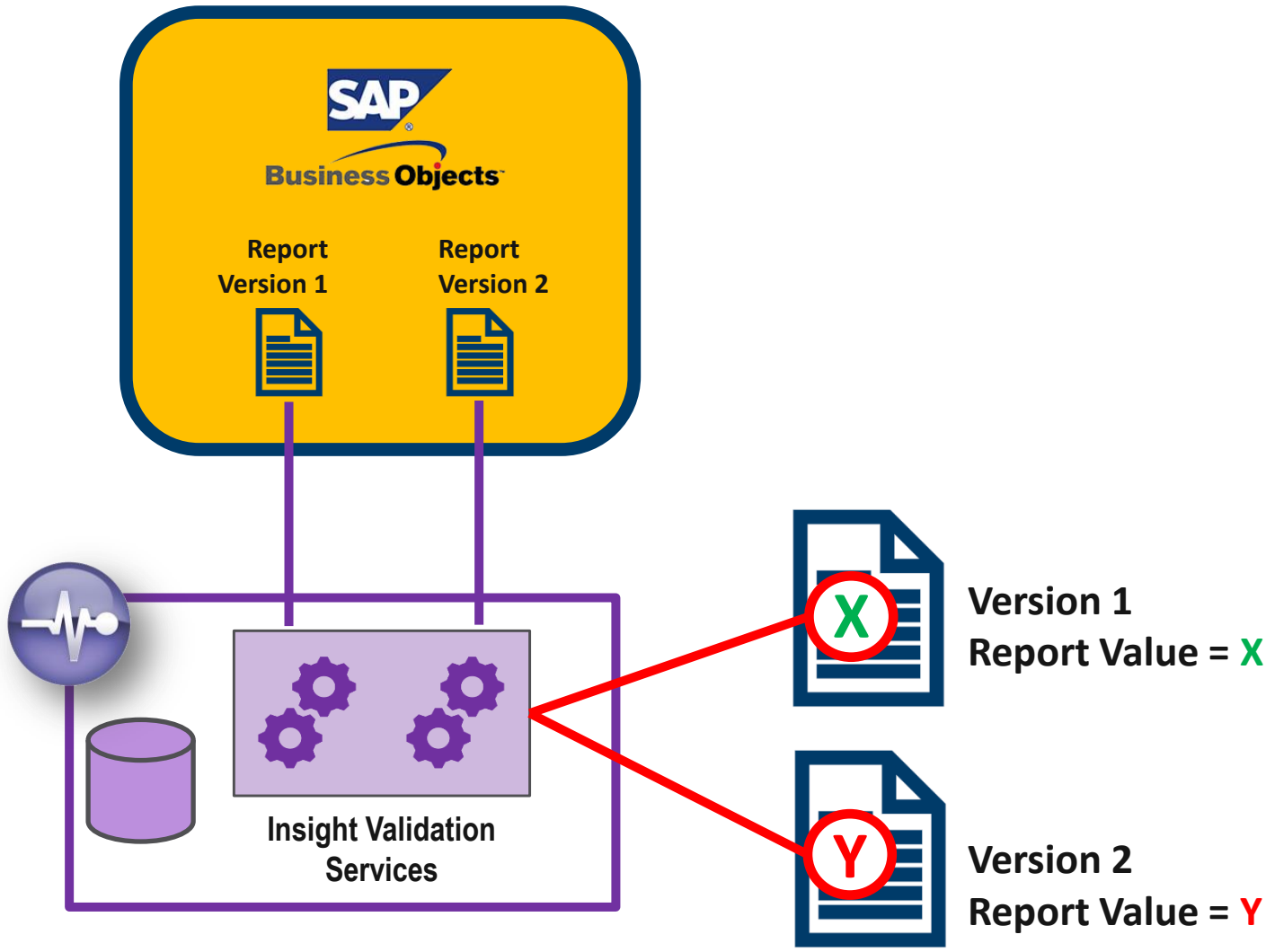


Pre Change
Report Data = **X**

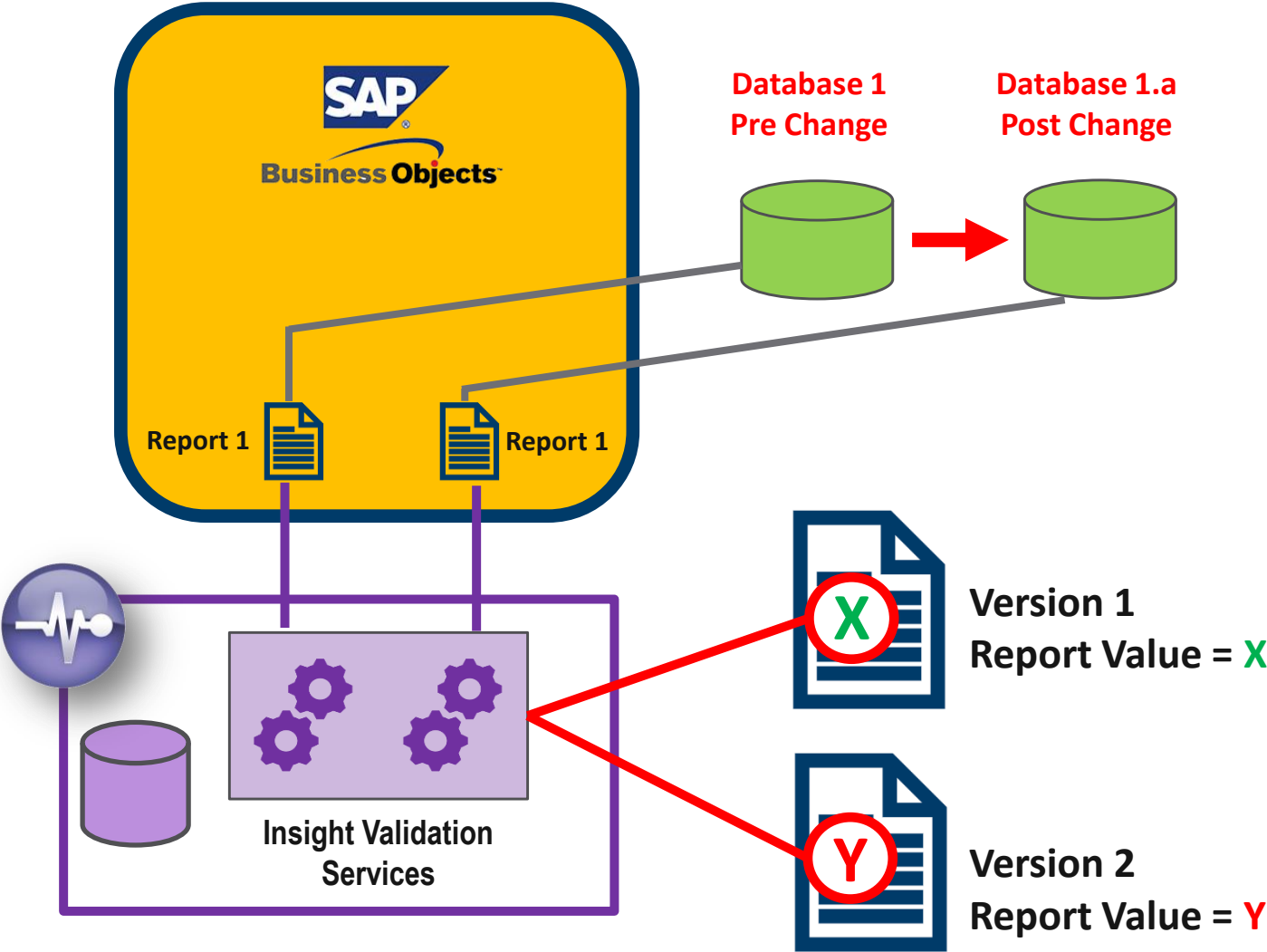


Post Change
Report Data = **Y**

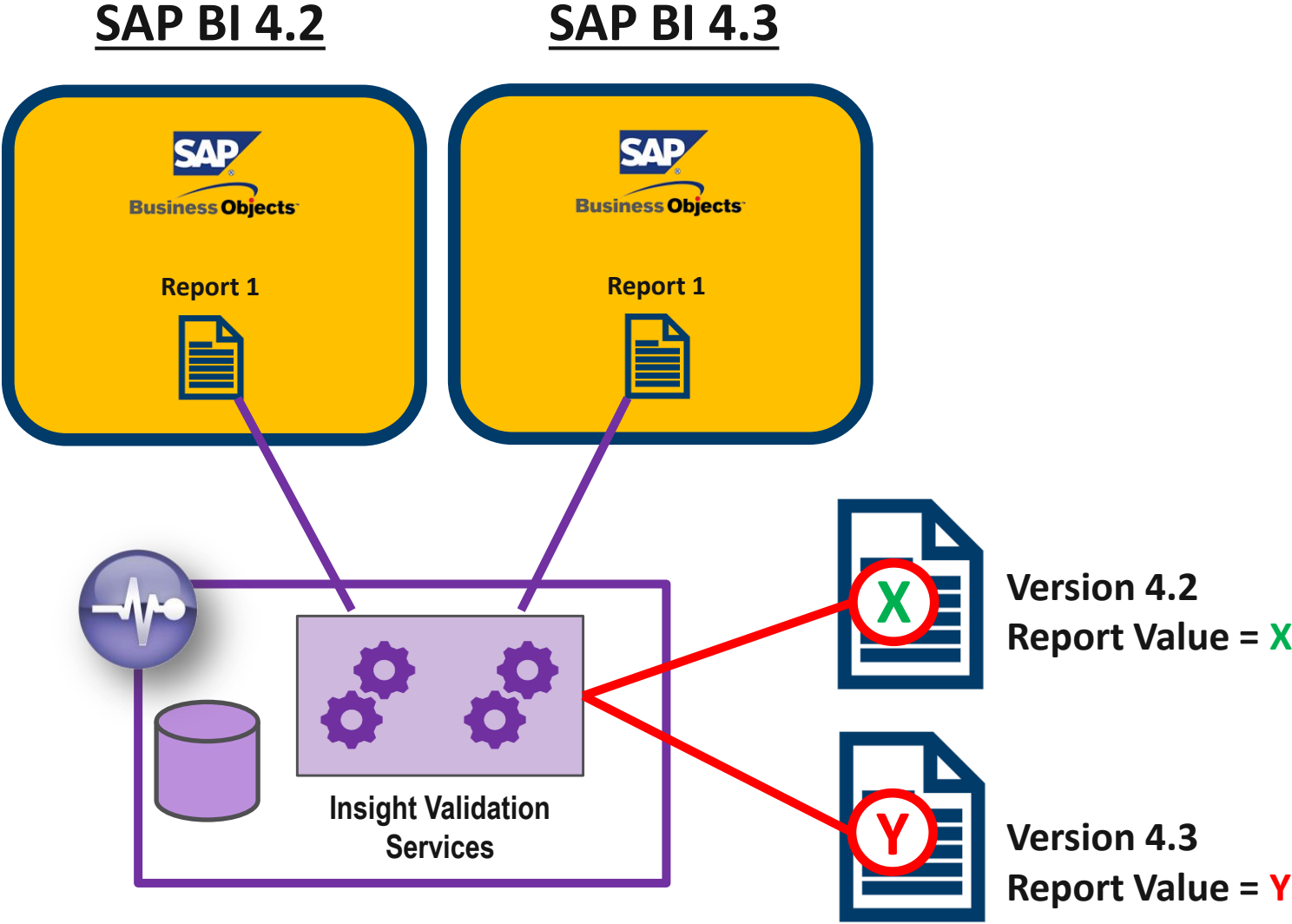
Detecting & Inspecting Change - Automated



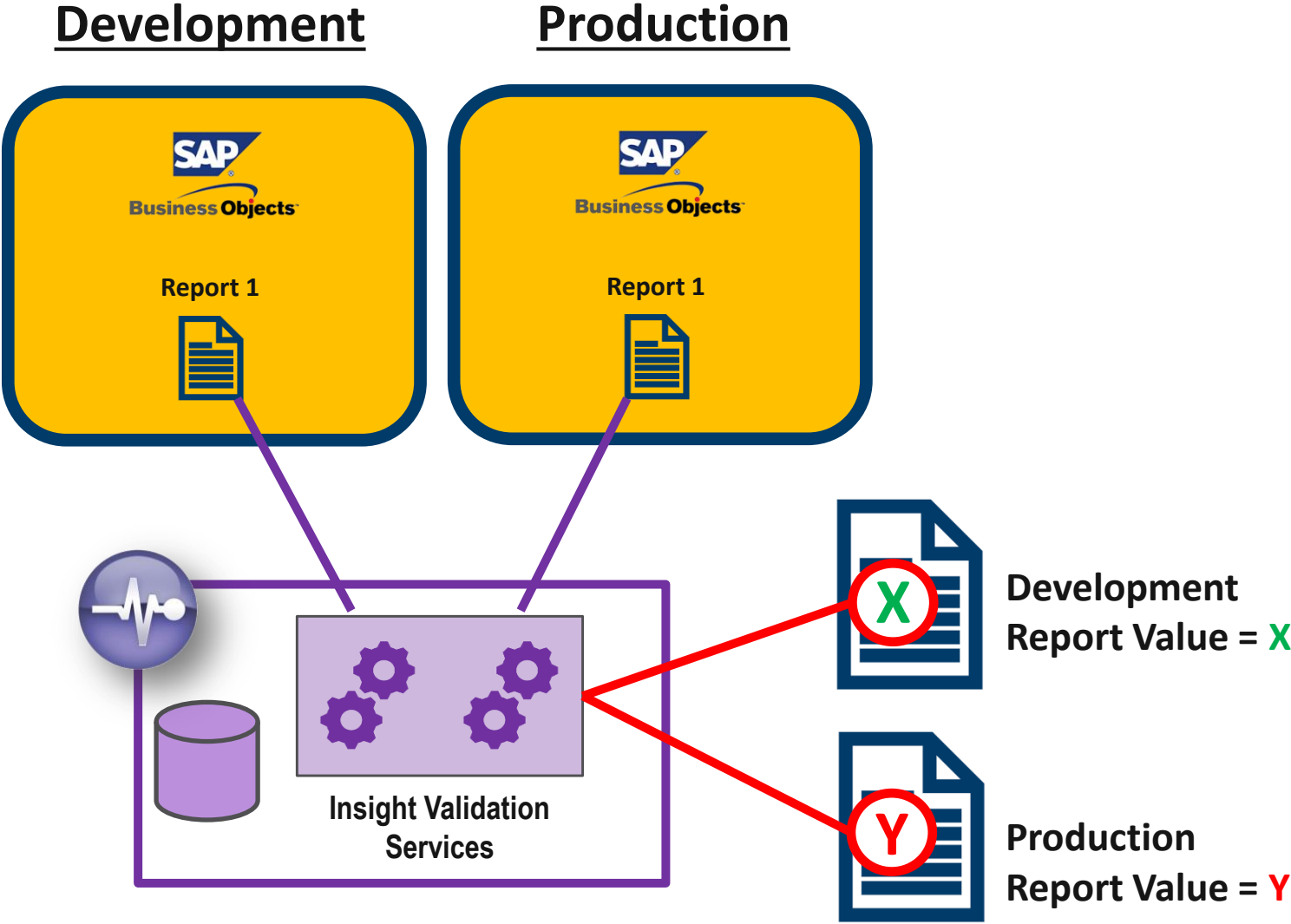
Detecting & Inspecting Change in SAP BI



Detecting & Inspecting Change in SAP BI




Detecting & Inspecting Change in SAP BI



Managing Change – Operating Environment Changes



Automated Report Testing

 **APOS Validation Manager**

File Edit Action View Help

Search

BI Connection Information

Source: aposworkshop1.Administrator Change Target: aposworkshop1.administrator

Filters

☒ Show Successful ☒ Show Successful With Warnings ☒ Show Failed ☐ Show Not Attempted

Project Objects

	Last Validated	Result	Object Type	Source Name	Source Path	Source CUID	Source Parameters	Schedules	Existing Instances	Regression Instances	Target Name	Target Path	Target CUID	Target Parameters
6		?	Crystal Report	World Sales Report	/Validation Manager/World Sale...	AcIfMAOP5vJM...		0	0	0	World Sales Report	/Validation Manager/World Sale...	AcIfMAOP5vJM...	
7		?	Crystal Report	Interactive Sort Group & Chart	/Validation Manager/Interactive...	ASzSxgORoopK...		0	0	0	Interactive Sort Group & Chart	/Validation Manager/Interactive...	ASzSxgORoopK...	
8		?	Crystal Report	Interactive Sort Detail	/Validation Manager/Interactive...	AcH87BZk7a1...		0	0	0	Interactive Sort Detail	/Validation Manager/Interactive...	AcH87BZk7a1...	
9		?	Crystal Report	Grouping and Sorting	/Validation Manager/Grouping a...	ARtuTeL3t0xBr...		0	0	0	Grouping and Sorting	/Validation Manager/Grouping a...	ARtuTeL3t0xBr...	
10		?	Crystal Report	Drilldown	/Validation Manager/Drilldown	ASB_wlyZj9Bo...		0	0	0	Drilldown	/Validation Manager/Drilldown	ASB_wlyZj9Bo...	
11		?	Crystal Report	Calculated Member Cross-ta...	/Validation Manager/Calculated...	AbyTnXC3tIVFo...		0	0	0	Calculated Member Cross-ta...	/Validation Manager/Calculated...	AbyTnXC3tIVFo...	

Managing Change – Operating Environment Changes



Live interactive view into
the Report Testing process

Validation Instances					
Validation Instances					
	Start Time	Status	Source	Target	Parameter Values
1	2021/03/25 10:51:25	✓✓?	/Validation Manager/Calculated Mem...	/Validation Manager/Calculated Mem...	
2	2021/03/25 10:51:25	▶⏸?	/Validation Manager/Drilldown/Drilldo...	/Validation Manager/Drilldown/Drilldo...	
3	2021/03/25 10:51:25	✓✓?	/Validation Manager/Grouping and S...	/Validation Manager/Grouping and S...	
4	2021/03/25 10:51:25	▶▶?	/Validation Manager/Interactive Sort ...	/Validation Manager/Interactive Sort ...	
5	2021/03/25 10:51:25	⏸✓?	/Validation Manager/Interactive Sort ...	/Validation Manager/Interactive Sort ...	
6	2021/03/25 10:51:25	⏸▶?	/Validation Manager/World Sales Re...	/Validation Manager/World Sales Re...	

Legend

Pending

Paused

Running

Successful

Failed

Not Found

Regression

Export

Refresh

Cancel

This view will automatically update itself until such a time as all instances have been fully processed, or the operation is cancelled.

Auto refresh in progress...







Validation Progress

0 of 6 validations completed (0 Successful; 0 Successful with Warning; 0 Failed); 0 Validations Skipped

Managing Change – Operating Environment Changes



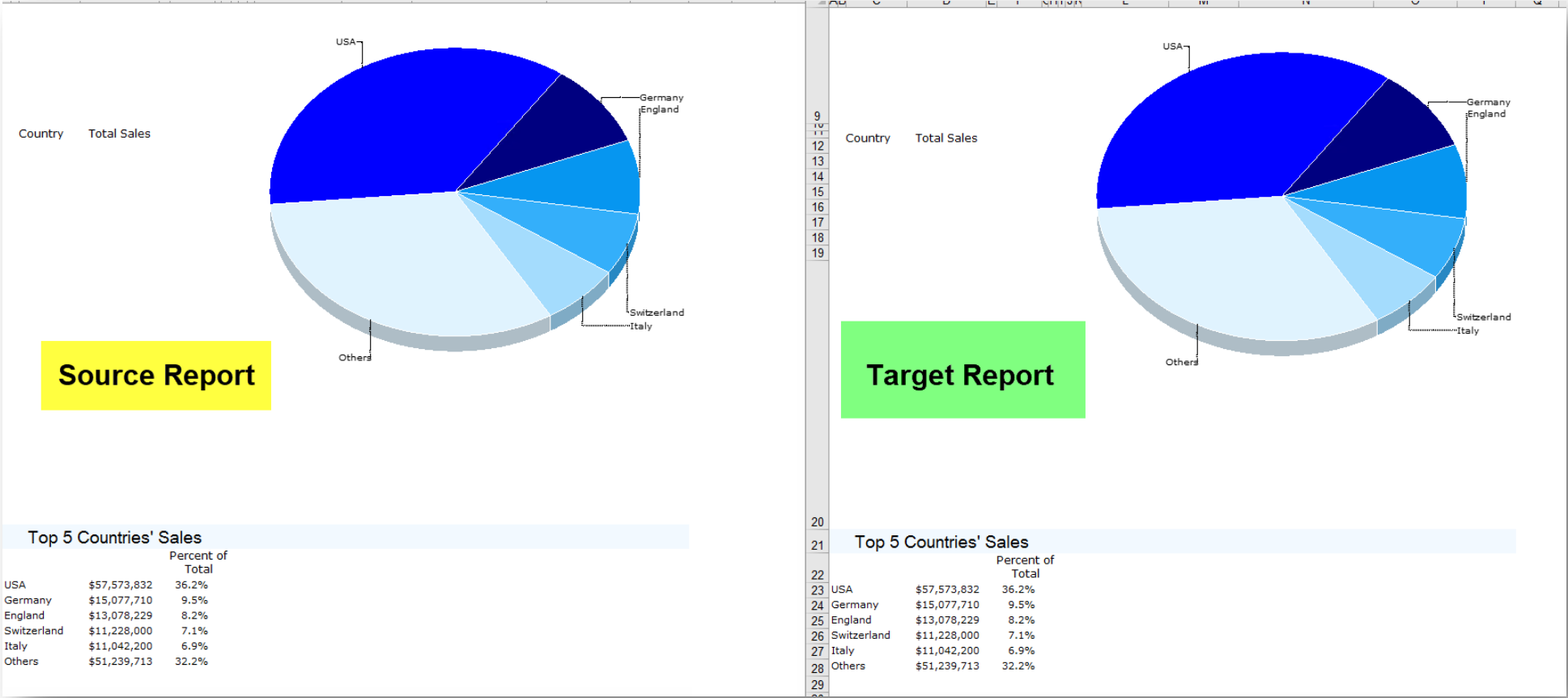
Easily review summary of
Report Testing results

 /Grouping and Sorting  /World Sales Report  /Interactive Sort Group & Chart  /Interactive Sort Detail  /Drilldown  /Calculated Member Cross-tab Chart	Scheduling Details		
	Source		
	ID:	1464665	CUID: ASE.21ARFixHh61CdOOxUYk
	Status:	Successful	
	Instance Created:	Thursday, March 25, 2021 at 10:51:25	
	Path:	/Validation Manager/Interactive Sort Detail/Interactive Sort Detail	
	Error Message:		
Target			
ID:	1464670	CUID: ASmpm845iINFsfiBw1Kynw4	Status: Successful
Instance Created:	Thursday, March 25, 2021 at 10:51:25		
Path:	/Validation Manager/Interactive Sort Detail/Interactive Sort Detail		
Error Message:			
Validation Details			
Last Validated:	Thursday, March 25, 2021 at 10:52:15	Status:	Warning
Validation Log:	Validation Succeeded with warnings:		
	Warning: Runtime tolerance exceeded (Target system is faster):		
	Tolerance: 5 seconds		
	Actual: 11 seconds		
	Validation Time: 3/25/2021 10:52:15 AM		
	Source location: /Validation Manager/Interactive Sort Detail/Interactive Sort Detail@aposworkshop1		
	Target location: /Validation Manager/Interactive Sort Detail/Interactive Sort Detail@aposworkshop1		
	Trace Log:		

Managing Change – Operating Environment Changes



Render the tested reports side by side for visual inspection



Managing Change – Operating Environment Changes



Re-use validation projects for continuous or repeated testing processes

APOS Validation Manager

File Edit Action View Help

Search Project - alan1.avp Project - 2021-3-25-10-46-39-723.avp

BI Connection Information

Source: aposworkshop1.Administrator [Change](#)

Filters

☒ Show Successful ☒ Show Successful With Warnings

☒ Show Not Attempted

Project Objects

	Last Validated	Result	Object Type	Source Name
1	2021/03/25 10:52:16	✓	Crystal Report	World Sales Report
2	2021/03/25 10:52:16	✓	Crystal Report	Interactive Sort Group & Chart
3	2021/03/25 10:52:15	⚠	Crystal Report	Interactive Sort Detail
4	2021/03/25 10:51:54	✓	Crystal Report	Grouping and Sorting
5	2021/03/25 10:52:15	✓	Crystal Report	Drilldown
6	2021/03/25 10:51:54	✓	Crystal Report	Calculated Member Cross-ta...

Managing Change – Operating Environment Changes



Get summary reports of how the Report Testing project went directly to management

Summary of validations	
Overall Summary	
Validation process ran for:	45 seconds
Total number of objects in project:	6
Number of objects not included in current validation process:	0
Number of objects included in current validation process:	6
Number of instances processed:	6
Number of validations skipped:	0
Number of validations attempted:	6
Scheduling Summary	
Successful schedules (Both source and target):	6
Failed schedules (Either source or target):	0
Validation Summary	
Successful validations:	5
Successful validations with warnings:	1
Failed validations:	0

Target Report Name	Target Report Location	Source Report Scheduling Status	Target Report Scheduling Status	Validation Status	Validation Status Details
Calculated Member Cross-tab Chart	/Validation Manager/Calculated Member Cross-tab Chart	Successful	Successful	Successful	
Drilldown	/Validation Manager/Drilldown/Drilldown	Successful	Successful	Successful	
Grouping and Sorting	/Validation Manager/Grouping and Sorting/Grouping and Sorting	Successful	Successful	Successful	
Interactive Sort Detail	/Validation Manager/Interactive Sort Detail/Interactive Sort Detail	Successful	Successful	Warning	Warning: Runtime tolerance exceeded (Target system is faster):
Interactive Sort Group	/Validation Manager/Interactive Sort Group & Chart/Interactive Sort Group	Successful	Successful	Successful	
World Sales Report	/Validation Manager/World Sales Report/World Sales Report	Successful	Successful	Successful	

Use Case Scenario



Multinational Insurance Company

- Report Testing was an extremely time consuming manual process, which was needed for every environment as part of their report development processes and upgrades. They had thousands of reports, so only a small subset of reports were being tested, meaning that the true level of testing was quite limited.
- APOS automation for Report Testing has enabled them to complete high volume report testing, which has dramatically expanded the amount of reports being tested, and minimized the amount of time and resources involved.



Managing Change in SAP BI



System Security Changes

- Understanding the source and impact of changes to security settings
 - Access (Users, Groups, Folders, Objects)
 - Rights (Group, Individual)
 - Roles
 - Custom Access Levels



Security Changes



Intentional



Accidental



Accurate



Incorrect



Security Changes



Good Motives



Bad Motives

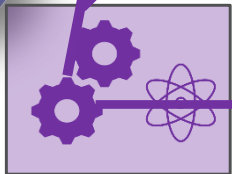
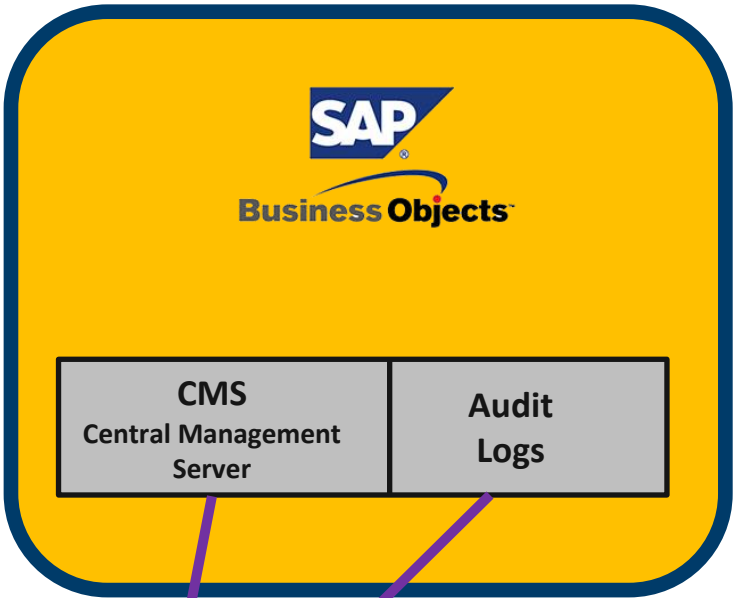


Security Changes

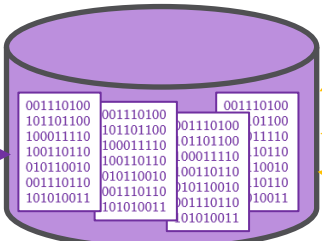


Establish clear picture of:

- Access
 - View
- Rights
 - Schedule
 - Refresh
 - Modify
 - Delete



Insight Services



Insight Database

Section and Object Formatting
Report Header

Area	Source	Target	Area	Source	Target
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData

Report Header Content

Section	Source	Target	Section	Source	Target
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData

Section and Object Formatting
Report Header

Area	Source	Target	Area	Source	Target
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Universe Class Objects

Report Header

Area	Source	Target	Area	Source	Target
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData

Report Header Content

Section	Source	Target	Section	Source	Target
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData

Section and Object Formatting
Report Header

Area	Source	Target	Area	Source	Target
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData
Properties	InsightData	InsightData	Area	InsightData	InsightData

Managing Change – Security Changes



How can I inspect Security changes within my BI Environment?

APOS Insight Security by Type					
Folder					
23					
Location: /Storage Center Settings/ArcObjects					
Scan Date Oct 2, 2015					
	Role	Delete Rights	Edit Rights	Modify Rights	Schedule Rights
Admin2	No Access	D	D	D	D
Administrator	Advanced	G	G	G	G
Administrators	Advanced	G	G	G	G
AlanGolding	View	D	D	G	D
APOSAutoDeleteObjects	No Access	D	D	D	D
APOS Distribution Server	Advanced	G	G	G	G
Cryptographic Officers	No Access	D	D	D	D
Data Federation Administrator	No Access	D	D	D	D
Everyone	View	D	D	G	D
Guest	View	D	D	G	D
Harold	View	D	D	G	D
Harriet	View	D	D	G	D
Harry	Full Control,View	G	G	G	G
Helen	View	D	D	G	D
Henry	View	D	D	G	D
HR	No Access	D	D	D	D
IDAC	No Access	D	D	D	D
idac_user	View	D	D	G	D
idac_user2	View	D	D	G	D
idac_user3	View	D	D	G	D
Management	Full Control	G	G	G	G
Manufacturing	No Access	D	D	D	D
Mark	View	D	D	G	D

Managing Change – Security Changes



Be easily able to know who has done
what when and where

Audit User Activity Report			
System Name	Ap Adstimestamp	Ap Eventtype	Ap Username
PRODUCTION	3/25/21	Create	Administrator
PRODUCTION	3/25/21	Modify	Administrator
PRODUCTION	3/25/21	Modify	Administrator
PRODUCTION	3/25/21	Modify	Administrator
PRODUCTION	3/25/21	Create	Administrator
PRODUCTION	3/25/21	Modify	Administrator
PRODUCTION	3/25/21	Create	Administrator
PRODUCTION	3/25/21	Create	Administrator
PRODUCTION	3/25/21	Create	Administrator
PRODUCTION	3/25/21	Create	Administrator
PRODUCTION	3/25/21	Modify	Administrator
PRODUCTION	3/25/21	Modify	Administrator
PRODUCTION	3/25/21	Modify	Administrator
PRODUCTION	3/25/21	Modify	Administrator
PRODUCTION	3/25/21	Edit	Administrator
PRODUCTION	3/25/21	Refresh	Administrator
PRODUCTION	3/25/21	Edit	Administrator
PRODUCTION	3/25/21	Run	Administrator
PRODUCTION	3/25/21	View	Administrator
PRODUCTION	3/25/21	View	Administrator
PRODUCTION	3/25/21	View	Administrator
PRODUCTION	3/25/21	Run	Administrator
PRODUCTION	3/25/21	Run	Administrator
PRODUCTION	3/25/21	Refresh	Administrator
PRODUCTION	3/25/21	View	Administrator

Managing Change – Security Changes



Be able to get notified when critical reports/folders get deleted

Folders

Manage Actions Organize

	Title ^	Type
Objects List		
All Folders		
APOS Bursting Root Folder	APOS Bursting Root Folder	Folder
APOS Insight Reports	APOS Insight Reports	Folder
Auditing	Auditing	Folder
Data Federation	Data Federation	Folder
LCM	LCM	Folder
Management Reporting	Management Reporting	Folder
Monitoring Report Sample	Monitoring Report Sample	Folder
Platform Search Scheduling	Platform Search Scheduling	Folder
Probes	Probes	Folder
Report Conversion Tool	Report Conversion Tool	Folder
Report Samples	Report Samples	Folder
SC	SC	Folder
Storage Center Settings	Storage Center Settings	Folder
System Configuration Wizard	System Configuration Wizard	Folder
Validation Manager	Validation Manager	Folder
Visual Difference	Visual Difference	Folder
Web Intelligence Samples	Web Intelligence Samples	Folder
Webi Migrator	Webi Migrator	Folder
WebService	WebService	Folder

Managing Change – Security Changes



Monitor events on the CMS or Audit database and get live notifications to your inbox

APOS Insight Admin - DB Monitor Alert Setup

Alert Settings

Alert Name: Monitor when Full Control is given to business critical folder

Database Profile: SAP CMS Database

Select SQL: Select * from AP_Security where AP_Role = 'Full Control' and AP_OBJECT_LOCATION like 'ManagementReports%'

Test

Alert Type Settings | **Notification Settings**

Notifications

☐ Use Windows EventLog

☒ Use SMTP Notification

SMTP Profile: < Default Profile >

☒ Include the following number of records in the email message 5

☒ Use SNMP Notification

SNMP Profile: < Default Profile >

☒ Include the following number of records in the snmp message 5

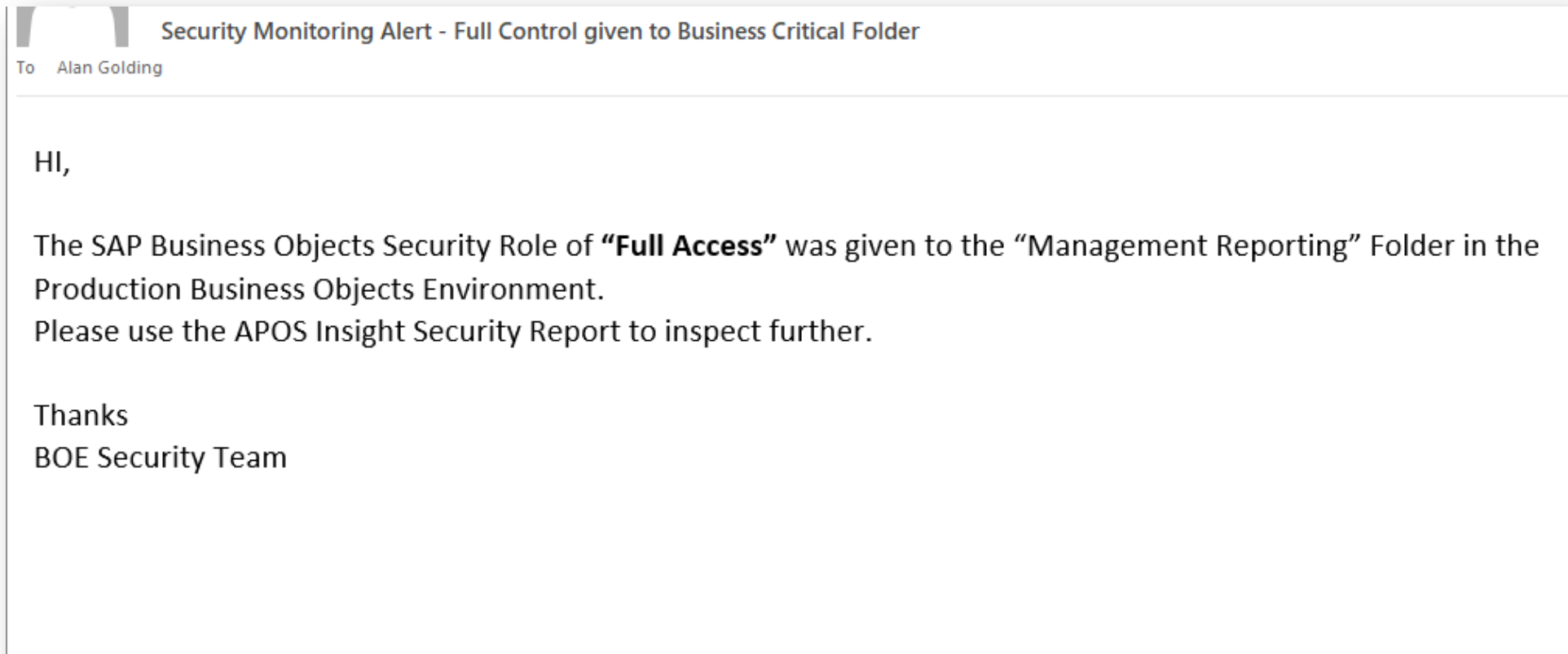
Action

☐ Exec Script Profile: < Default Profile >

Managing Change – Security Changes



Get these notifications sent to management and be alerted when security policies to business critical folders/reports are being changed



Use Case Scenario



Large multi-state US Law firm

- Suspicion of internal data breaches led them to more detailed research which found that someone had access to reports that they should not have. That person also had the ability to export the reports contents locally to their computer and use that data in prohibited ways.
- The firm needed to establish a way to easily audit, detect and inspect who has access to what content, find any security policy discrepancies and fix them accordingly. The also needed to understand if someone had deleted, modified, scheduled content they shouldn't have, and be clear about who, what, when, and where it happened.



Managing Change – APOS Insight Screenshots



Insight Services run deep scans of the SAP BusinessObjects environment

Please Add/Edit and Remove the Insight services you wish to use					
Service Name	Service Type	Status	User Account	SAP BI Login Profile	SAP Databases
DB Monitor Insight	APOS Insight Database Monitor	Stopped	LocalSystem	BOElogin	CMS
Insight	APOS Insight Audit	Stopped	LocalSystem	BOElogin	CMS
Objects Scan	APOS Insight Objects	Stopped	LocalSystem	BOElogin	CMS
Process Logger	APOS Insight Process Logger	Stopped	LocalSystem	BOElogin	CMS
SecScan	APOS Insight Security	Running	LocalSystem	BOElogin	CMS
Security Monitoring	APOS Insight Database Monitor	Stopped	LocalSystem	BOElogin	CMS
UNVscan	APOS Insight UNV Universes	Stopped	LocalSystem	BOElogin	CMS
Webi Scan	APOS Insight Webi	Stopped	LocalSystem	BOElogin	CMS

Managing Change – APOS Insight Screenshots



Each service is fully configurable to target what you want

Service Type: APOS Insight UNV Universes

Service Name: UNVscan

Description: APOS Insight UNV Universes - Performs logging of UNV Universe information

Service Profiles | Service Settings | Service Log On

Select the specific settings you wish to use with this Universe service

Logging Options | Selected UNVs | Class Object Exclusions

Select the type of objects and details you wish to log

☒ Universes and Connections ☐ Universes ☐ Universe Connections

UNV Scan Modes | UNV Scan Details

<input checked="" type="checkbox"/> Include Control Options	<input checked="" type="checkbox"/> Include Join Strategies	<input checked="" type="checkbox"/> Include DB Columns
<input checked="" type="checkbox"/> Include Class Info	<input checked="" type="checkbox"/> Include SQL Options	<input checked="" type="checkbox"/> Include Contexts
<input checked="" type="checkbox"/> Include Conditions	<input checked="" type="checkbox"/> Include Hierarchy Info	<input checked="" type="checkbox"/> Include Qualifiers
<input checked="" type="checkbox"/> Include Class Objects	<input checked="" type="checkbox"/> Include Tables	<input checked="" type="checkbox"/> Include Designers
<input checked="" type="checkbox"/> Include Join Info	<input checked="" type="checkbox"/> Include DB Tables	<input checked="" type="checkbox"/> Include Owners
<input checked="" type="checkbox"/> Include LOV Info	<input checked="" type="checkbox"/> Log Unique Columns Only	

Managing Change – APOS Insight Screenshots



Insight transforms
system data and
writes thorough and
effective metadata to
Insight Database

SQLQuery5.sql - APOSWORKSHOP1\APOSWORKSHOP1.Insight (sa (75)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

Object Explorer

Connect

Tables

- System Tables
- FileTables
- dbo.AP_Alerts
- dbo.AP_AnalysisEvents
- dbo.AP_AOExtInfo
- dbo.AP_AOExtInfoChart
- dbo.AP_AOExtInfoDP
- dbo.AP_AOExtInfoEI
- dbo.AP_AOExtInfoGrid
- dbo.AP_AOExtInfoParms
- dbo.AP_AOExtInfoRange
- dbo.AP_BexQuery
- dbo.AP_BexQueryFields
- dbo.AP_BexQueryParms
- dbo.AP_BVObjects
- dbo.AP_BVRelationships
- dbo.AP_Calendars
- dbo.AP_Categories
- dbo.AP_CategoryRel
- dbo.AP_CommonEvents
- dbo.AP_ConnectionCount
- dbo.AP_Connections
- dbo.AP_DBFieldRef
- dbo.AP_DBFieldRefDetails
- dbo.AP_DSObjects
- dbo.AP_Event_Types
- dbo.AP_EventAlerts
- dbo.AP_Events
- dbo.AP_FinishedInstances
- dbo.AP_InstanceProps
- dbo.AP_LCMEvents
- dbo.AP_Log
- dbo.AP_LoginTimeInSeconds
- dbo.AP_MIVObjects
- dbo.AP_Notifications
- dbo.AP_ObjectDetails
- dbo.AP_Objects
- dbo.AP_Objects_Status
- dbo.AP_PasswordExpiry
- dbo.AP_PlatformEvents
- dbo.AP_ProcessInfo
- dbo.AP_PubRecipDynRel
- dbo.AP_PubRecipRel
- dbo.AP_PubSourceDocRel

SQLQuery5.sql - APO...1.Insight (sa (75))

Results

	AP_Info_Date	System_Name	SI_ID	SI_NAME	SI_OWNER
72	20000101000000	PRODUCTION	5740	Interactive Sort Detail	Administrator
73	20000101000000	PRODUCTION	5630	ZZ_USCitiesInhabitants	Administrator
74	20000101000000	PRODUCTION	5747	Interactive Sort Group & Chart	Administrator
75	20000101000000	PRODUCTION	5754	Optional Parameter - DCP	Administrator
76	20000101000000	PRODUCTION	5631	ZZ_Input Controls	Administrator
77	20000101000000	PRODUCTION	5632	ZZ_Fold Unfold	Administrator
78	20000101000000	PRODUCTION	5633	ZZ_Sales Analysis Dashboard	Administrator
79	20000101000000	PRODUCTION	5634	ZZ_SAPLogo	Administrator
80	20000101000000	PRODUCTION	5636	Resources	Administrator
81	20000101000000	PRODUCTION	5638	ZZ_USStatesArea	Administrator
82	20000101000000	PRODUCTION	5640	ZZ_Charting	Administrator
83	20000101000000	PRODUCTION	5641	ZZ_Rio Games 2016	Administrator
84	20000101000000	PRODUCTION	5643	ZZ_Activity Follow-up Dashboard	Administrator
85	20000101000000	PRODUCTION	5655	MonitoringTrend Data-Sample	Administrator
86	20000101000000	PRODUCTION	5666	Waterfall Chart	Administrator
87	20000101000000	PRODUCTION	5654	Monitoring Report Sample	Administrator
88	20000101000000	PRODUCTION	5663	Report Conversion Tool Audit Statistics Report	Administrator
89	20000101000000	PRODUCTION	5667	Feature Samples	Administrator
90	20000101000000	PRODUCTION	5669	Report Samples	Administrator
91	20000101000000	PRODUCTION	5670	Barcode and QR Code	Administrator
92	20000101000000	PRODUCTION	5673	Demonstration	Administrator
93	20000101000000	PRODUCTION	5674	Comparative Income Statement	Administrator
94	20000101000000	PRODUCTION	5691	World Sales Report	Administrator
95	20000101000000	PRODUCTION	5684	Order Processing Efficiency Dashboard	Administrator
96	20000101000000	PRODUCTION	5698	Calculated Member Cross-tab Chart	Administrator
97	20000101000000	PRODUCTION	5705	Drilldown	Administrator
98	20000101000000	PRODUCTION	5712	Grouping and Sorting	Administrator
99	20000101000000	PRODUCTION	5719	Interactive Parameters Chart	Administrator
100	20000101000000	PRODUCTION	5726	Interactive Parameters Dynamic Group	Administrator
101	20000101000000	PRODUCTION	5733	Interactive Parameters	Administrator
102	20000101000000	PRODUCTION	5761	Xcelsius 4.5 Charts and Dials	Administrator
103	20000101000000	PRODUCTION	5768	Xcelsius 4.5 Sample Flash Objects	Administrator
104	20000101000000	PRODUCTION	5769	XML Exporting	Administrator
105	20000101000000	PRODUCTION	5775	Financial	Administrator
106	20000101000000	PRODUCTION	5776	Consolidated Income Statement	Administrator
107	20000101000000	PRODUCTION	5785	Income Statement	Administrator
108	20000101000000	PRODUCTION	5792	Monthly Variance Cross Tab	Administrator
109	20000101000000	PRODUCTION	5799	Rolling Quarter Income Statement	Administrator
110	20000101000000	PRODUCTION	5806	Sorted Variance Analysis Report	Administrator
111	20000101000000	PRODUCTION	5813	Trial Balance	Administrator

Managing Change – APOS Insight Screenshots



Metadata within Insight Database available for granular analysis

Central Management Console

Folders

Manage Actions Organize

Objects List	Title ^	Type
All Folders	Audit - All Report Activity	Web Intelligence
APOS Bursting Root Folder	Audit - Objects Scheduled by User	Web Intelligence
APOS Insight Reports	Audit - Objects Scheduled by User	Crystal Reports 2016
Oracle	Audit - Reports Refreshed by User	Crystal Reports 2016
SQL Server	Audit - Reports Refreshed by User	Web Intelligence
Auditing	Audit - Unused Objects in Date Range	Crystal Reports 2016
Data Federation	Audit - Unused Objects in Date Range	Web Intelligence
LCM	Audit - User Logon Activity	Web Intelligence
Monitoring Report Sample	Audit - User Logon Activity	Crystal Reports 2016
Platform Search Scheduling	Audit - User Logon Activity Details	Crystal Reports 2016
Probes	Audit - User Logon Activity Details	Web Intelligence
Report Conversion Tool	Crystal - DataSource Info	Crystal Reports 2016
Report Samples	Crystal - Search for Fields Used In Reports	Crystal Reports 2016
SC	Crystal - Search for Fields Used in Reports	Web Intelligence
Storage Center Settings	Crystal - Search for Tables Used in Reports	Web Intelligence
System Configuration Wizard	Crystal - Search for Tables Used in Reports	Crystal Reports 2016
Validation Manager	Crystal - Structure	Web Intelligence
Visual Difference	Crystal - Structure	Crystal Reports 2016
Web Intelligence Samples	Crystal - Summary	Web Intelligence
Webi Migrator	Crystal - Summary	Crystal Reports 2016
Webservice	Crystal - Summary	Crystal Reports 2016
	Crystal Changes	Crystal Reports 2016
	Instances - Detail	Web Intelligence
	Instances - Detail	Crystal Reports 2016
	Instances - Historical	Web Intelligence
	Instances - Historical	Crystal Reports 2016
	Instances Status	Web Intelligence
	Object Listing - Content Types and Folders	Web Intelligence
	Objects - Group Listing with Users	Web Intelligence
	Objects - Group Listing with Users	Crystal Reports 2016

Responding to Change in SAP BI



APOS Administrator

Object Management

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

Instance Management

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

Schedule Management

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

Web Intelligence Migration

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

Responding to Change in SAP BI



Manage and make changes to your Security Policies in bulk

Object Manager 4.0 for BusinessObjects Enterprise v. 14.0.0.117

File Edit Action View Help

BI Search Insight Based Search

Object Types: Folder ...

Search By: Name

Date Criteria: Create Date All

Processing Extensions: N/A

Categories: <ALL>

☐ Include Sub Categories

☐ Use BusinessObjects Connection String Filter

Object Type	Name	Location	Version	Owner	Children
Folder	APOS Bursting Root Folder	/APOS Bursting Root Folder		Administrator	5
Folder	WebService	/WebService		Administrator	1
Folder	APOS BM Bursting Root Object	/APOS Bursting Root Folder/...		Administrator	5
Folder	APOS BM DS Root Object	/APOS Bursting Root Folder/...		Administrator	1
Folder	APOS BM Lookup Root Object	/APOS Bursting Root Folder/...		Administrator	0
Folder	APOS BM VTS Root Object	/APOS Bursting Root Folder/...		Administrator	0
Folder	APOS Insight Reports	/APOS Insight Reports		Administrator	2
Folder	Oracle	/APOS Insight Reports/Oracle		Administrator	67
Folder	SQL Server	/APOS Insight Reports/SQL ...		Administrator	78
Folder	Data Federation	/Data Federation		System Account	1
Folder	Categories	/AposWorkshop1:6400/Cate...		System Account	0
Folder	GDPRObjects	/AposWorkshop1:6400/GDP...		System Account	1

Responding to Change in SAP BI



Manage and make changes to your Security Policies in bulk

Security Maintenance					
File	Edit	Action			
		G - Administrators	G - APOS Distribution	G - Fvervone	G - I Iniverse Designer
/AposWorkshop1:6400/Application Folder/Root ...		Full Control			Full Control
/AposWorkshop1:6400/Application Folder/Root ...		Full Control			Full Control
/AposWorkshop1:6400/Application Folder/Root ...		Full Control			Full Control
/AposWorkshop1:6400/Application Folder/Root ...		Full Control		.Advanced	Full Control
/AposWorkshop1:6400/Application Folder/Root ...		Full Control			Full Control

Responding to Change in SAP BI



Manage and make changes to your Security Policies in bulk

Security Maintenance					
File Edit Action					
	G - Administrators	G - APOS Distribution	G - Everyone	G - Translators	G - Universe Designer
/AposWorkshop1:6400/Application Folder/Root ...	Full Control	No Access		No Access	Full Control
/AposWorkshop1:6400/Application Folder/Root ...	Full Control				Full Control
/AposWorkshop1:6400/Application Folder/Root ...	Full Control	No Access			Full Control
/AposWorkshop1:6400/Application Folder/Root ...	Full Control		,Advanced	No Access	Full Control
/AposWorkshop1:6400/Application Folder/Root ...	Full Control		No Access		Full Control

Responding to Change in SAP BI



Manage and make
changes to your
Reports

Object Manager 4.0 for BusinessObjects Enterprise v. 14.0.0.117

File Edit Action View Help

BI Search Insight Based Search

Object Types: CR Classic ... *

Search By: Name

Date Criteria: Create Date All

Processing Extensions: N/A

Categories: <ALL>

☐ Include Sub Categories

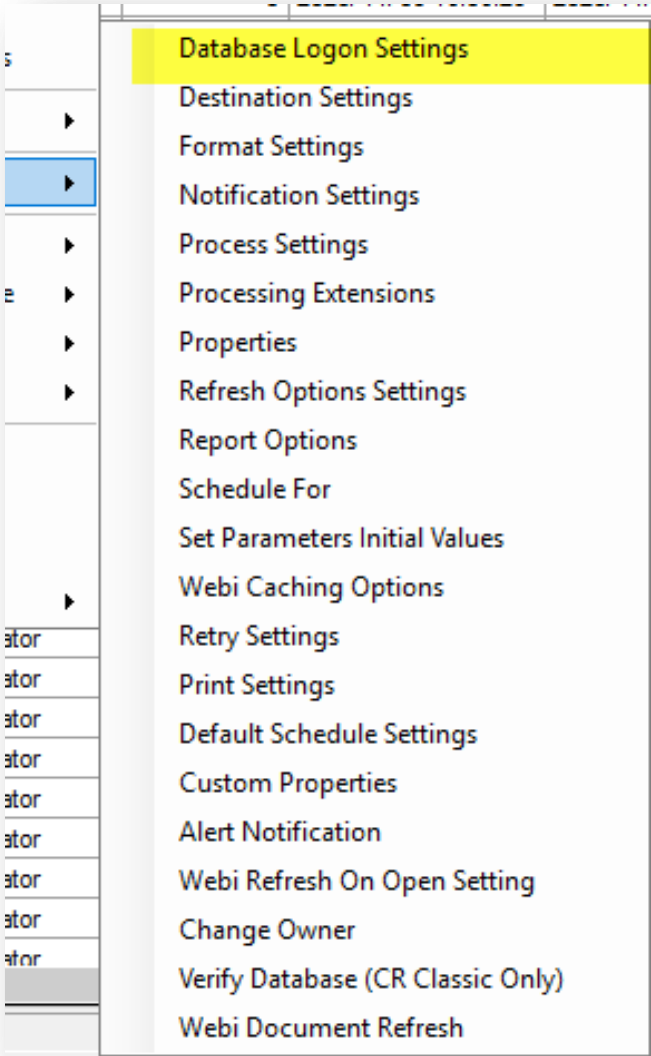
☐ Use BusinessObjects Connection String Filter

Object Type	Name	Location	Version	Owner	Children	Created	Modified
Webi	AlanWebiService	/WebiService/AlanWebiServi...		Administrator	0	2020/09/18 11:17:52	2020/09/18 11:26:30
Report	APOSInboxTemp	/APOS Bursting Root Folder/...	CR Classic	Administrator	0	2020/05/14 14:54:40	2020/05/14 14:54:41
Report	APOSTemp	/APOS Bursting Root Folder/...	CR Classic	Administrator	0	2020/05/14 14:54:37	2020/05/14 14:54:38
Webi	Audit - All Report Activity	/APOS Insight Reports/Oracl...		Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52
Webi	Audit - All Report Activity	/APOS Insight Reports/SQL ...		Administrator	0	2020/11/05 16:06:22	2020/11/05 16:06:51
Webi	Audit - Objects Scheduled by ...	/APOS Insight Reports/SQL ...		Administrator	0	2020/11/05 16:06:22	2020/11/05 16:06:51
Report	Audit - Objects Scheduled by ...	/APOS Insight Reports/Oracl...	CR Classic	Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52
Webi	Audit - Objects Scheduled by ...	/APOS Insight Reports/Oracl...		Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52
Report	Audit - Objects Scheduled by ...	/APOS Insight Reports/SQL ...	CR Classic	Administrator	0	2020/11/05 16:06:22	2020/11/05 16:06:51
Webi	Audit - Reports Refreshed by ...	/APOS Insight Reports/SQL ...		Administrator	0	2020/11/05 16:06:23	2020/11/05 16:06:51
Report	Audit - Reports Refreshed by ...	/APOS Insight Reports/SQL ...	CR Classic	Administrator	0	2020/11/05 16:06:22	2020/11/05 16:06:51
Webi	Audit - Reports Refreshed by ...	/APOS Insight Reports/Oracl...		Administrator	0	2020/11/05 16:06:23	2020/11/05 16:06:52
Report	Audit - Reports Refreshed by ...	/APOS Insight Reports/Oracl...	CR Classic	Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52
Webi	Audit - Unused Objects in Dat...	/APOS Insight Reports/SQL ...		Administrator	0	2020/11/05 16:06:22	2020/11/05 16:06:51
Report	Audit - Unused Objects in Dat...	/APOS Insight Reports/SQL ...	CR Classic	Administrator	0	2020/11/05 16:06:22	2020/11/05 16:06:51
Webi	Audit - Unused Objects in Dat...	/APOS Insight Reports/Oracl...		Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52
Report	Audit - Unused Objects in Dat...	/APOS Insight Reports/Oracl...	CR Classic	Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52
Webi	Audit - User Logon Activity	/APOS Insight Reports/Oracl...		Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52
Report	Audit - User Logon Activity	/APOS Insight Reports/SQL ...	CR Classic	Administrator	0	2020/11/05 16:06:23	2020/11/05 16:06:51
Webi	Audit - User Logon Activity	/APOS Insight Reports/SQL ...		Administrator	0	2020/11/05 16:06:23	2020/11/05 16:06:51
Report	Audit - User Logon Activity	/APOS Insight Reports/Oracl...	CR Classic	Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52
Webi	Audit - User Logon Activity De...	/APOS Insight Reports/SQL ...		Administrator	0	2020/11/05 16:06:22	2020/11/05 16:06:51
Report	Audit - User Logon Activity De...	/APOS Insight Reports/Oracl...	CR Classic	Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52
Webi	Audit - User Logon Activity De...	/APOS Insight Reports/SQL ...		Administrator	0	2020/11/05 16:06:24	2020/11/05 16:06:52

Responding to Change in SAP BI



Manage and make changes to
your Reports



Responding to Change in SAP BI



Manage and make
changes to your
Reports

BusinessObjects Enterprise Database Logon (RPT)

Report Location	Server Name	Database Name	User
/APOS Insight Reports/SQL Server/Audit - Re...	Insight4-SQL	Insight41	sa
/APOS Insight Reports/SQL Server/Audit - Obj...	Insight4-SQL	Insight41	sa
/APOS Insight Reports/Oracle/Audit - Objects ...	Insight4-Oracle		APOS

☒ Update Logon Information ☒ Update User Name and Password
☐ Use Original Data Source ☒ Use Custom Data Source

Database Driver: ODBC
Server: crystalServer11
Database: reportingDB
User Name: userreporting1
Password:

Viewer Logon Options Table Prefixes

☒ Prompt the User for Database Logon
☐ Use SSO Context for Database Logon
☐ Use Same Database Logon as When Report is Run

Recurring Instances
☐ Delete Original Schedules ☐ Maintain Instance Filter ☐ Maintain Original Submitter Reschedule Recurring

Copy Select All Update Done

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



APOS Solutions for SAP Analytics Cloud



APOS Live Data Gateway

- Live Connectivity from SAC to wide range of data sources



APOS Semantic Layer Migration

- 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



Upcoming Events



Extend Analytics Content - Conditional & Secure SAC Publishing - *Webinar*

April 29, 2021 –11 am EDT

In previous webinars, we've looked extending SAP Analytics content access through data-driven bursting, and distribution of tailored content. Now let's look at how you can further extend analytics content access with:

- Conditional Bursting – automatically alert users when business conditions change
- Securing and Protecting Content – distribute sensitive information securely
- Archival of Instances for Governance – meet internal audit and regulatory requirements for information distribution



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QUESTIONS?

Please enter your questions in the Q&A panel.



Thank You!

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