

WEBINAR

# **MOVE IT OR LOSE IT !**

## **Automating Your Upgrade to UNIX Universes**

# Today's Session

## *Key Topics*

- SAP BusinessObjects Update – SAP
- UNX Adoption Challenges
- APOS Automation
- Process Controls
- Field Mapping
- Expanded WebI Visualization Options – Need4Viz
- Q&A – see webinar console



# Guest Speakers:



**PATRICK SIMS**

Senior Director, SAP BTP  
Global Center of Excellence - Analytics

**SAP**



**JÉRÔME MAILLARD**

Co-founder  
**Need4Viz**



## Today's Presenters:



**ALLAN PYM**

Chief Operating Officer  
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 Analytics Cloud, SAP BusinessObjects, and SAP data analytics
- Strategic SDK development and consulting
- Hundreds of customers globally





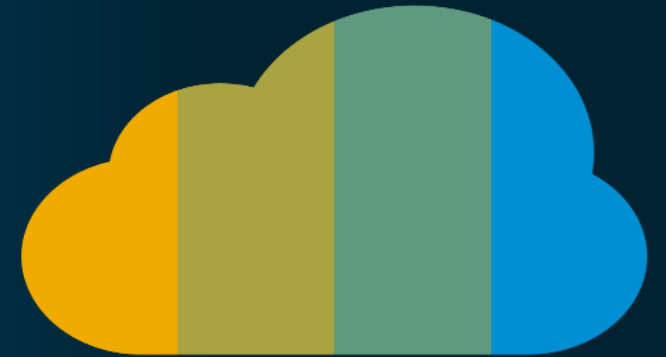
# APOS



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



Download the **handouts** in the panel



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

# Updated Statement of Direction – SAP BI & Analytics



PUBLIC

## **SAP ANALYTICS** Business Intelligence Statement of Direction

October 2023

# Guest Speaker:



**PATRICK SIMS**

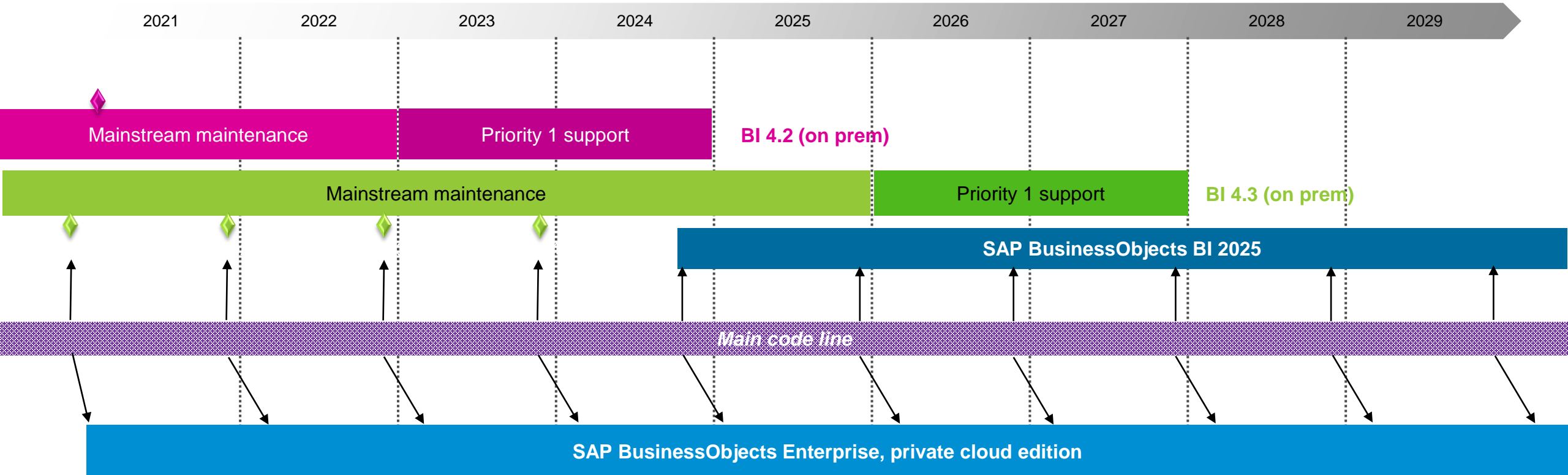
Senior Director, SAP BTP  
Global Center of Excellence - Analytics





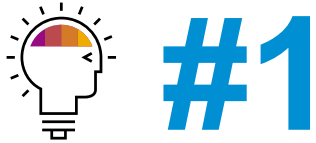
# SAP BusinessObjects

## Timelines



SAP Analytics Statement Of direction > [HERE](#)

# SAP BusinessObjects BI 4.3 SP04



## Extend the scope of specific key features:

- Crystal Reports enhancements
- Improve stability of the core BI Workspace
- Web Intelligence Data Mode enhancements:
  - Export your transformed data
  - New combine operators
  - Reuse cubes and objects from Data Flow in different joins
  - In Formula editor, prefix objects' name with the combined cube ID
- Cascading refresh for Web Intelligence document as a source & Web Intelligence OData Service



## Deliver most wanted customers enhancements:

- Hide column when Empty or Dynamically in Web Intelligence document
- IntraDocument link: filter the target report by using complex input controls
- Support SAP Datasphere OLAP data
- BI Platform :
  - Information Classification capabilities
  - Authentication and Password Policy
  - Handle multiple Events while Scheduling
  - Improve update experience
  - SQL Parameterization

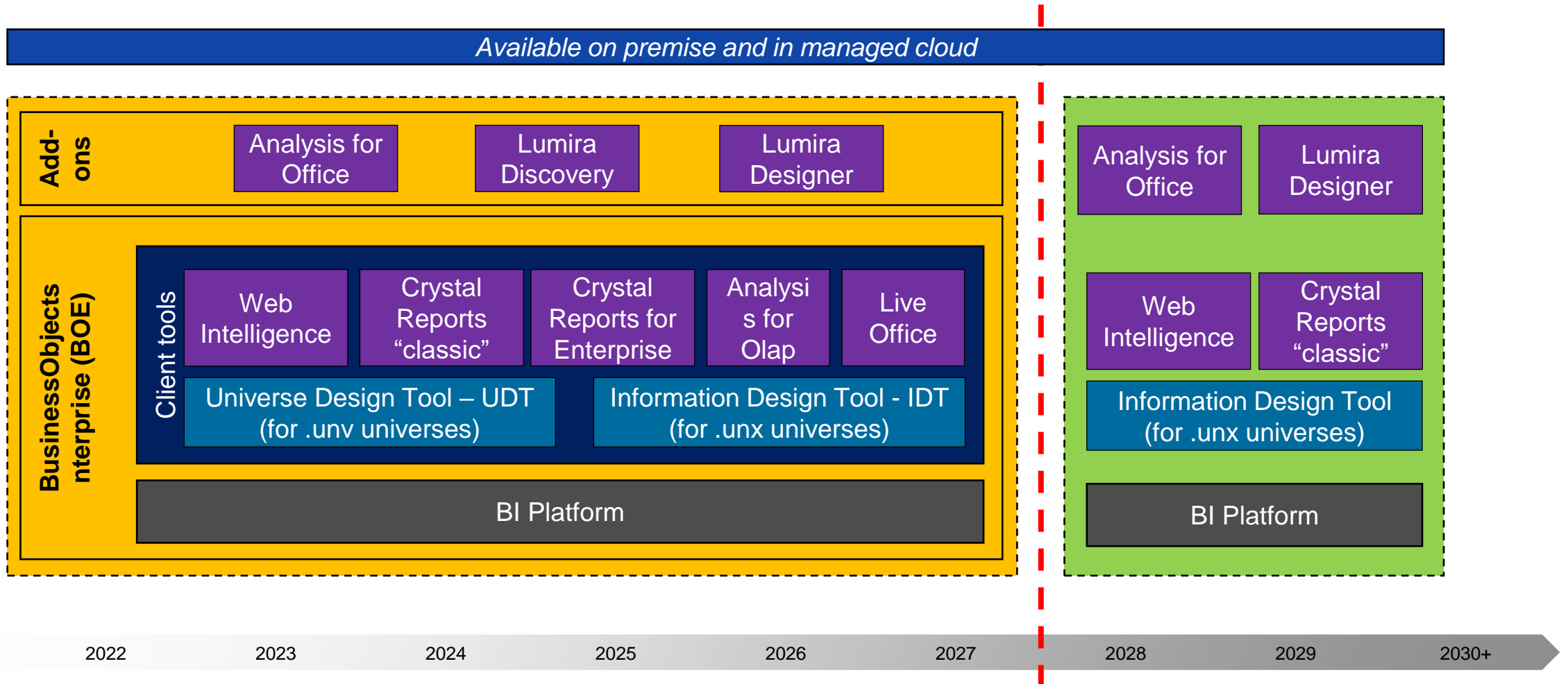


## Continue to improve user experience:

- Charts improvements
- Web Intelligence : “Send to Email/FTP/SFTP/File Server”
- New functions in the formula language
- Continuous user interface enhancements
- Grouping prompts in Web Intelligence
- Define and consume Formatting specified on objects, in Web Intelligence designer
- Improve Universes' conversion performance (“.unv” to “.unx”)
- BILaunchpad: page display improvements
- New SDKs (custom Properties)

# SAP BusinessObjects

Rationalization Strategy: right-size portfolio to focus on most-used tools after BOBJ 4.3 EOM



# SAP BusinessObjects

## Portfolio

Component	Go to solution
Lumira Discovery	Web Intelligence or SAP Analytics Cloud
Crystal Reports for Enterprise	Web Intelligence or Crystal Reports “classic” (CR2013, CR2016, CR2020, CR202x)
Analysis for OLAP	SAP Analytics Cloud
Live Office	Web Intelligence Document OData Access (4.3 SP2)
Universe Design Tool (and .unv)	Information Design Tool (and .unx)
Multi-source universes and associated connectivity	Data blending in Web Intelligence or at the DB level

### Supported platforms

- We plan to stop the support of AIX and Solaris platform after BI 4.3
- Preferred OS are Windows and Linux

BusinessObjects 4.3  
Service Pack 04  
Q4 2023 ↶

SAP BI 2025  
Q4 2024

SAP  
BUSINESS  
OBJECTS

**Time to get back on the Road<sub>(map)</sub> again!**

# Regrouping for your SAP BusinessObjects Future



# Regrouping for your SAP BusinessObjects Future

## Recommendations:

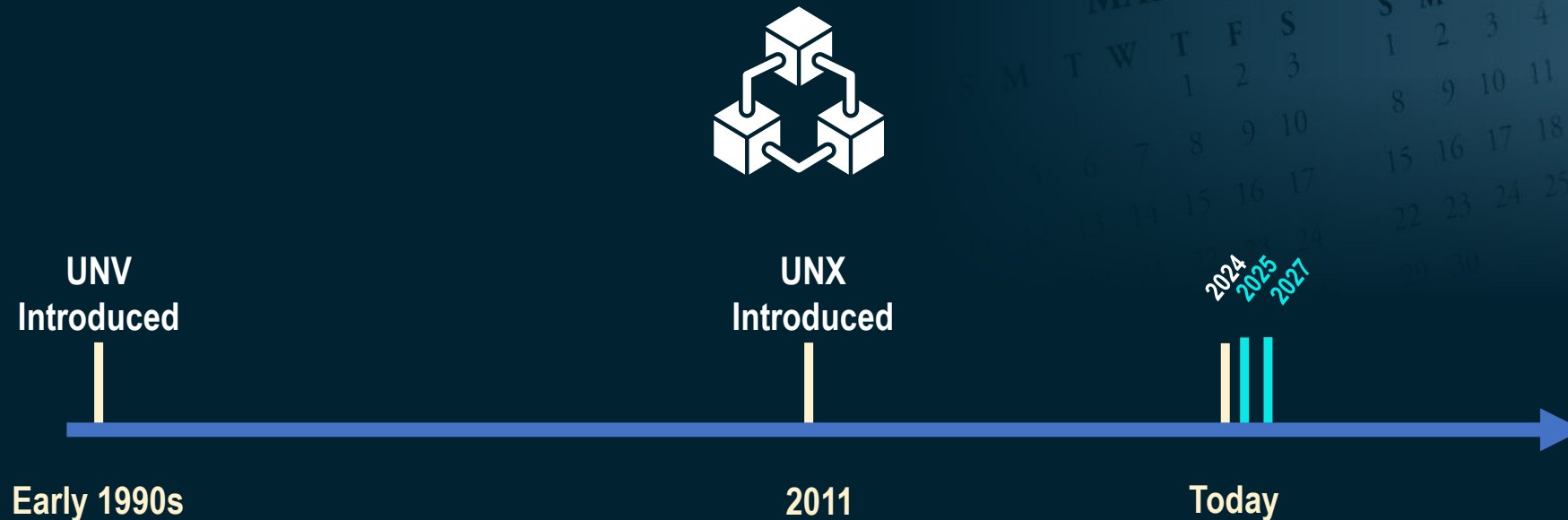
- Take stock of what you have
- Assess & action unsupported content
- Right-size your system content
- Upgrade platform to Version 4.3
- Upgrade universes to UNX format
- Automate for efficient management



# SAP BusinessObjects Universe

## Universe Format Timelines

- UNV universe introduced in early versions of BusinessObjects in the 1990s
- UNX universe introduced as UNV replacement in 2011 with SAP BI 4.0





# UNX Universe Adoption Considerations

## UNX Adoption Challenges – Manual Upgrade

### Not enough budget

- Upgrading all universes and reports can be a large, time-consuming project
- Many organizations have thousands, tens of thousands, or hundreds of thousands of reports

### Not enough time

- BI Team and BI User department resources are all too busy right now
- Lack of resources and competing projects

### Too hard to coordinate BI User departments

- BI User departments are all on different schedules, timelines, priorities
- Many organizations have extensive list of BI User departments to coordinate

### Introduces system risk

- Upgrading all these objects introduces system change risks and manual error risks

“Let’s just wait until next year...”

# UNIX Universe Adoption Considerations

## UNIX Upgrade Steps

- Manual conversion of universes from UNV to UNIX format
- Publish new UNIX universe
- Manual repointing of Web Intelligence report to new UNIX format universe
- Verify and validate the repointed Web Intelligence report results
- Publish the repointed Web Intelligence report

# UNIX Universe Adoption Considerations

## Manual Upgrade Time Estimates

- Manual conversion of universes from UNV to UNIX format
  - 5 minutes per universe
- Publish new UNIX universe
  - 2 minutes per universe
- Manual repointing of Web Intelligence report to new UNIX format universe
  - 10-15 minutes per report
- Verify and validate the repointed Web Intelligence report results
  - 8-10 minutes per report
- Publish the repointed Web Intelligence report
  - 2 minutes per report

# UNX Universe Adoption Considerations

## Example Manual Upgrade Estimate

### Example Scenario:

- 50 universes
- 5000 Web Intelligence reports
  
- 50 universes @ 7 minutes/universe = 350 minutes
- 5000 reports @ 20 - 27 minutes/report = 100,000 – 135,000 minutes  
= ~1700 - 2250 hours  
(212 – 281 days)
  
- Total time of 1700 – 2250 hours @ \$/€ per hour = BIG number \$/€
  - @ \$/€ 40 per hour = 68K – 90K raw project personnel cost

“We don’t have the budget for that project...”

What are the costs if you have a larger deployment??

# UNX Universe Adoption Considerations

“We can do this!”


What is the answer for upgrading to UNX??

## Automate the upgrade process!!

- Massive time savings
- Dramatically reduced costs
- Minimize the use of and distraction of precious team resources
- Control system change risks, remove manual error risks
- Simplify coordination of BI Team and User departments
- Execute a controlled, manageable, successful upgrade project


# APOS Web Intelligence Migrator


# APOS Web Intelligence Migrator

 **Community**

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Product Information



**Laura VEGA** 

February 10, 2023 | 3 minute read

## Automating UNX Adoption – Overview

1 comment 2 likes 1,197 views

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### Introduction

In my recent post, [UNV is dead, long live UNX](#), I made the point that the Universe Design Tool (UDT) and the UNV universe will not be supported after 2027. That may sound like a long time, but it is not, especially if you want to make an orderly and efficient transition to UNX.

In my post, I mentioned that an SAP partner solution could help make that transition easier and more orderly. A few days later, I had a conversation with the people from our long-time partner [APOS](#), who offer

[Blog Link:  
Automating  
UNX Adoption](#)

# Customer Profile

**Large multi-national financial institution** focused on life & health insurance, and investment services

- Global operating units, NA primary focus
- Thousands of geographically distributed locations and advisors serving millions of customers

## Landscape & Core Challenge

- SAP BusinessObjects BI 4.3, long-term commitment
- 100+ UNV universes
- 4,000+ Web Intelligence reports

Upgrade UNV universes to UNX, repoint and test Web Intelligence reports in a structured and orderly fashion



## Requirements

- Upgrade universes, repoint reports and test results
- Administer upgrades across business units
- Centralize management within a dedicated team

## Problems

- Limited resources make timely upgrade difficult with manual processes
- Costs of resources for manual upgrade would be significant
- Coordination of multiple business unit upgrades is difficult to manage

## Barriers

- Manual Web Intelligence report upgrades are time- and resource-intensive
- Manual repointing and testing are prone to human error
- SAP conversion resources do not enable bulk upgrades

Customer Problem

# Outcomes & Customer Success

With APOS Web Intelligence Migrator successfully deployed, the centralized BI team:

- Managed project time and resources efficiently
- Coordinated upgrades across multiple BI user departments effectively
- Vastly reduced cost and execution time
- Reduced technical debt and streamlined SAP BusinessObjects administration

*“We were able to turn a very large and challenging upgrade project into one that we executed within a very controlled time with few resources. We completed the project well ahead of schedule, and the cost savings were dramatic.*

*My BI operations team and our departmental user teams experienced no disruption, and now we are well positioned for our BusinessObjects future. Thanks APOS!”*

Technical Director, Data & Business Intelligence Technology



**Fred Walther**  
Senior Solution Consultant  
APOS

# APOS Web Intelligence Migrator

(WebI Migrator) - A migration solution focused on automating time and labor-intensive activities of upgrading to the UNX universe within SAP BusinessObjects.

UNV Reports



UNX Reports

# Key Upgrade Process Steps

- **Scan System and Inventory Content**
  - **Bulk Conversion of Universes**
    - **Bulk Repointing of Reports**
      - **Bulk Validation of Upgrade Success**
        - **Commit Changes**



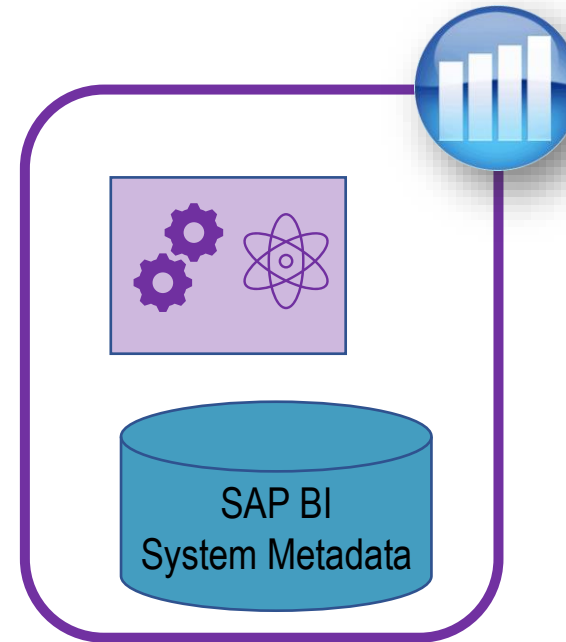
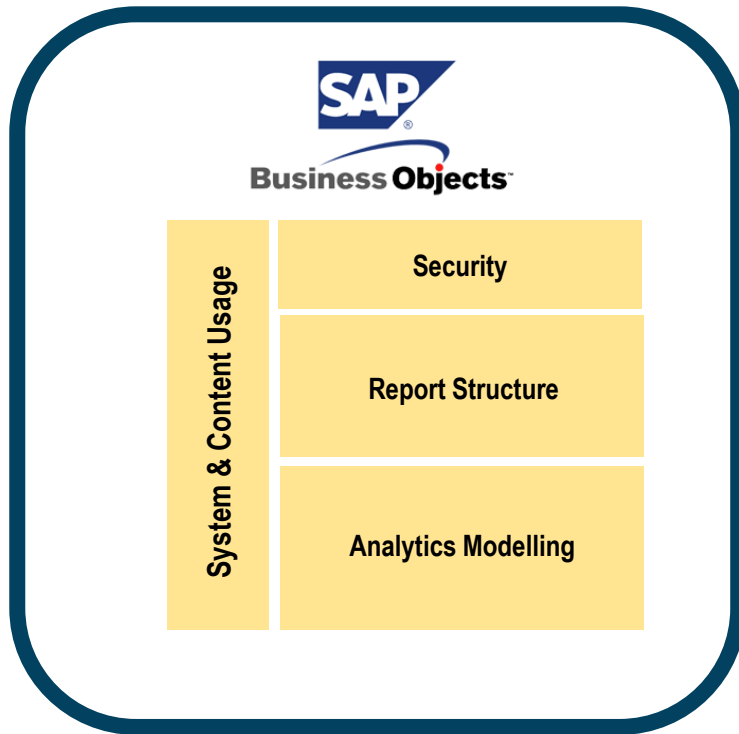
# Scan System and Inventory Content

## Why scan system and inventory its content?

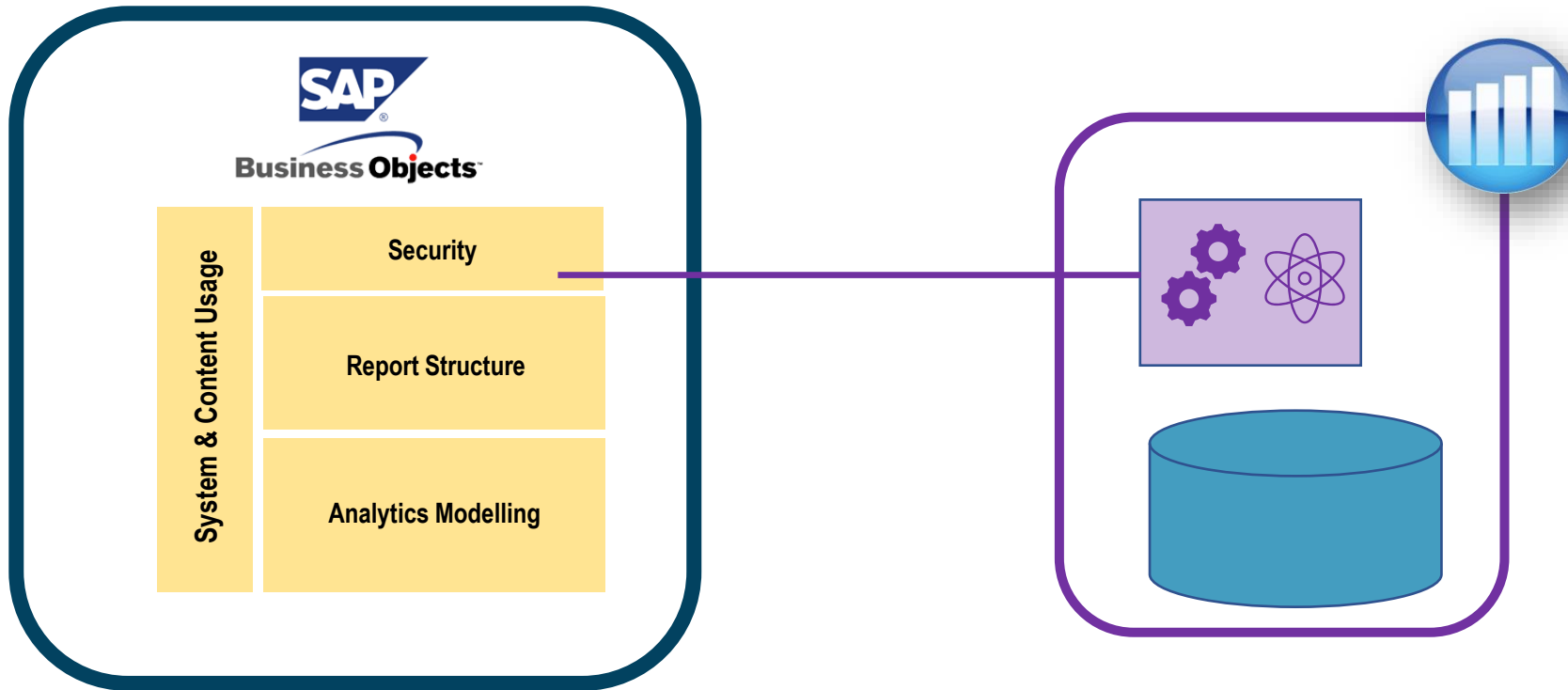
- Get a clear understanding of what content is in your system
- Identify what content can be excluded from the upgrade
- Capture detailed report structure metadata for reference later in process



# Capture System + Content Metadata

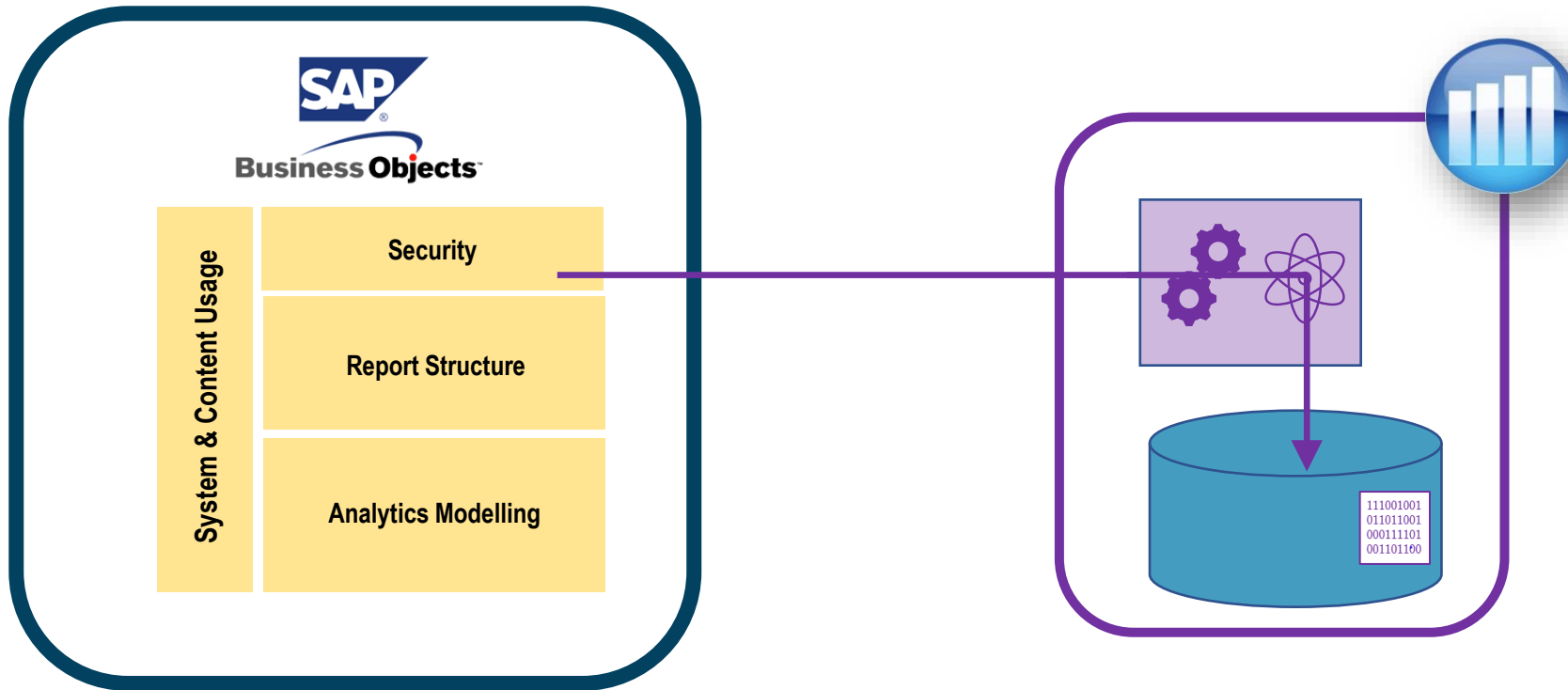


# Capture System + Content Metadata

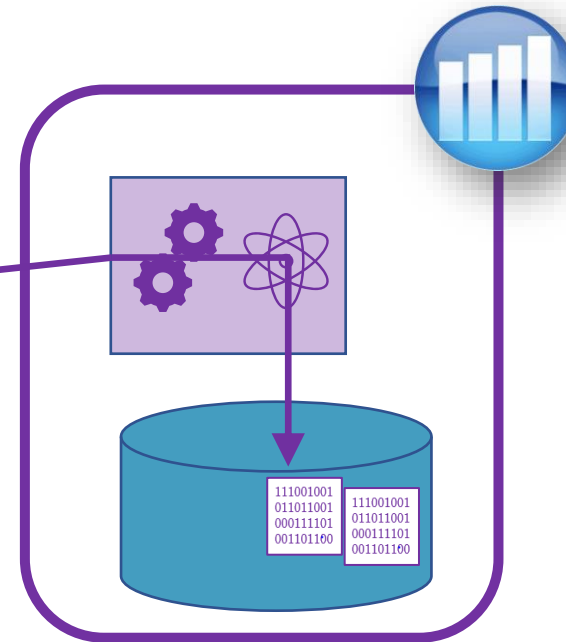
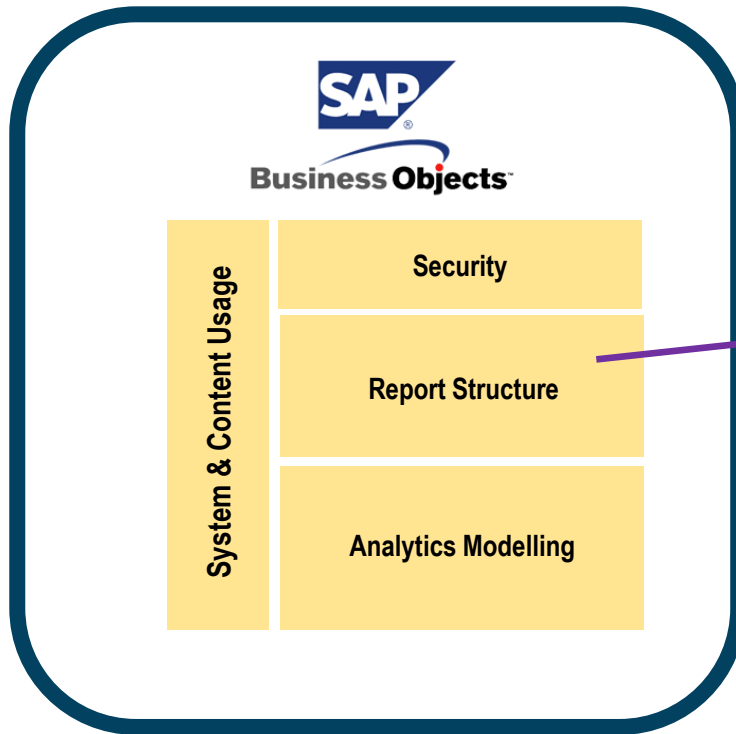




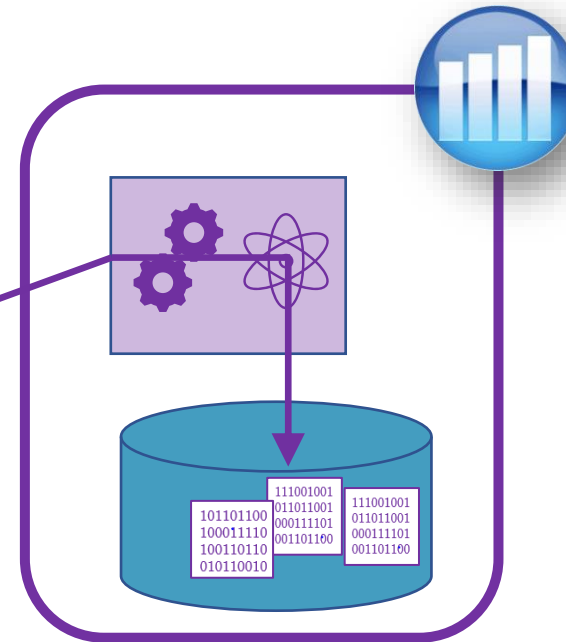
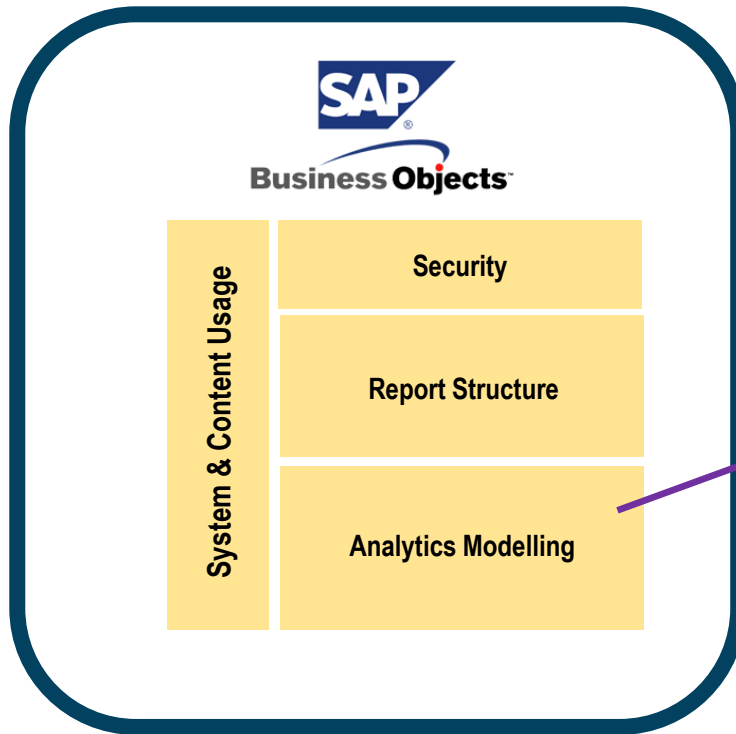
# Capture System + Content Metadata



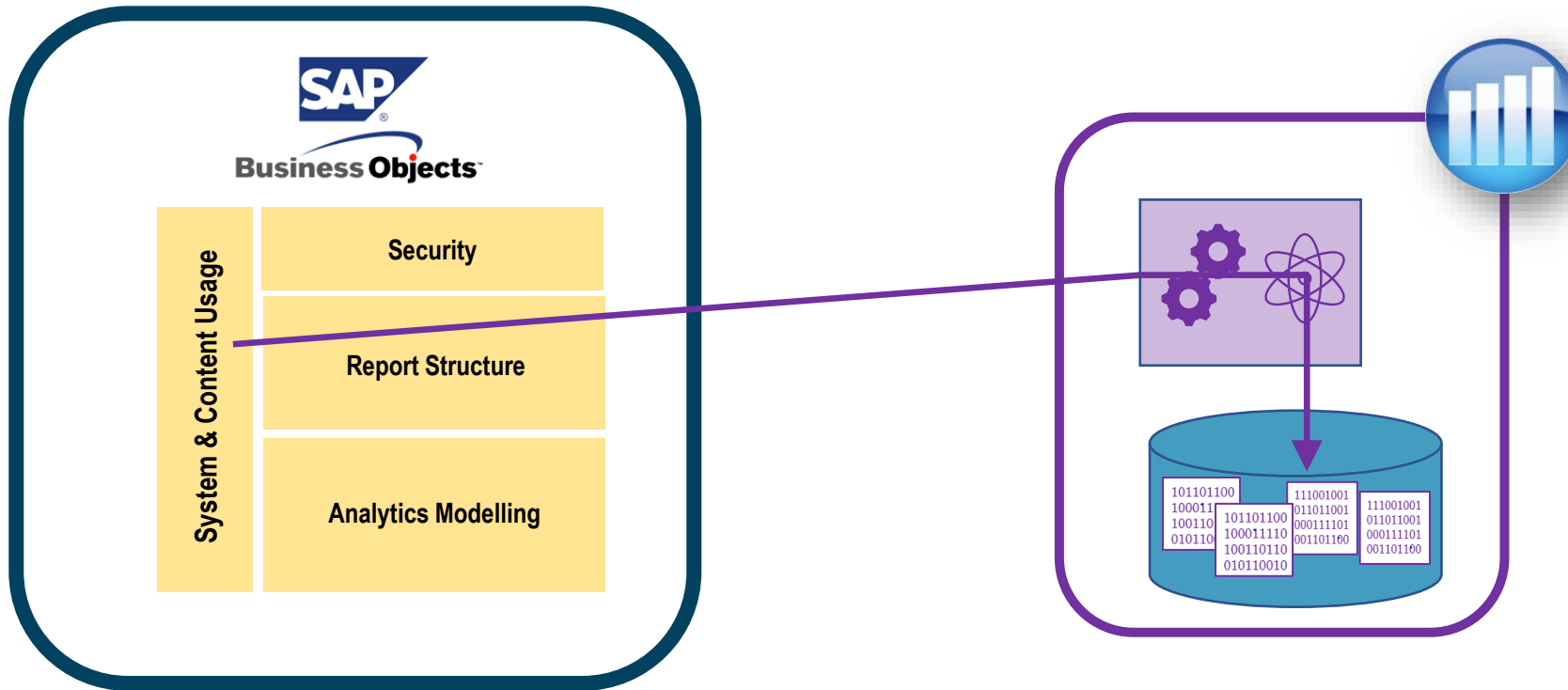
# Capture System + Content Metadata



# Capture System + Content Metadata



# Capture System + Content Metadata



# Analyze System + Content Metadata

**APOS Insight**  
List Objects by Type for System: PRODUCTION

Object Type	Number of Objects	Object Type	Value	Size	Owner
Site Group	485				
Site	126	Admin Console	Application Management Tools > Site Tools > Site	404	BI Administration Console
Report	174	Admin Tool	Application Management Tools > Admin Tool	508	Global Admin Console
Table	54				
Dashboard Page	12	Admin Tool	Application Management Tools > Admin Tool	622	System Administration Console
Dashboard Page	18	Admin Tool	Application Management Tools > Admin Tool	921	System Administration Console
SQL Alerts/SQL Alerts	25	Admin Tool	Application Management Tools > Admin Tool	4850	Production Support
SQL Alerts/Alerts	15	Admin Tool	Application Management Tools > Admin Tool	354	Admin
SQL Alerts/Alerts	13	Admin Tool	Application Management Tools > Admin Tool	478	Admin
SQL Alerts	3	Admin Tool	Application Management Tools > Admin Tool	146	Admin
SQL Alerts	8	Admin Tool	Application Management Tools > Admin Tool	144	Admin
SQL Alerts	7	Admin Tool	Application Management Tools > Admin Tool	136	Admin
SQL Alerts	4	Admin Tool	Application Management Tools > Admin Tool	150	Admin
SQL Alerts	3	Admin Tool	Application Management Tools > Admin Tool	150	Admin
SQL Alerts	1	Admin Tool	Application Management Tools > Admin Tool	150	Admin

**BI Report**

By Day

Retrieve the maximum number of concurrent sessions that we saw and then display the max number of...

**APOS**

877 Reports not scheduled in the last 265 days

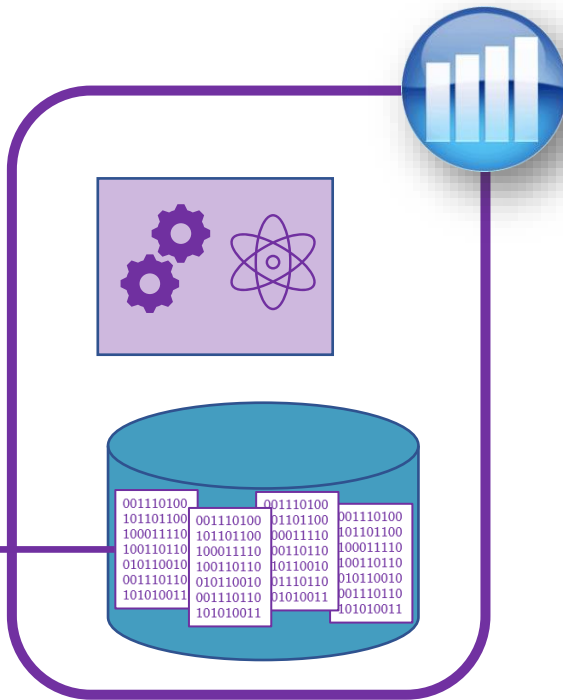
Report Name	Type	Create Date	Owner	Data Source	Last Updated
Management Report	Report	2014-12-12 23:46	Admin	Oracle: HR_Performance_Reports	2014-12-12 23:46

**APOS Insight**  
Schedules - Inactive Report

Report Name	Type	Create Date	Owner	Data Source	Last Updated
Management Report	Report	2014-12-12 23:46	Admin	Oracle: HR_Performance_Reports	2014-12-12 23:46

**APOS**  
Universal APOS Insights SQL Server

Report Name	Report Type	Report Size	Report Date	Report Size
Universal APOS Insights SQL Server	SQL	10258	2014-12-12 23:46	10258



# Analyze System + Content Metadata

- Find unused reports
- Understand report content

**APOS Insight**  
Unused Objects in Date Range

Unused Reports from: 01/01/2023 00:00:00 to 08/03/2023 00:00:00

Insight User to Ignore: APOS\_Insight\_User

/Report Samples/Demonstration  
Comparative Income Statement

Si ID	Owner	Create Date	Last Update Date	Last Activity Date	Latest Activity	Latest Activity User
11919	Administrator	30/07/2015	13/05/2020 08:32:28	01/02/2023 19:10:35	View	APOS_Insight_User

**APOS Insight**  
Webi Impact Analysis

Searched for Table: AP\_UsersAndGroups;AP\_USERSANDGROUPS  
Searched for Column: All Columns

System: BI41SP6FW  
Folder: /APOS Insight Reports/Oracle

Report Name	Universe Name	UniType	TableName	ColumnName
Objects - Group Listing with Users	Insight4 - Oracle	UNV	AP_USERSANDGRO UPS	AP_TYPE
Objects - Group Listing with Users	Insight4 - Oracle	UNV	AP_USERSANDGRO UPS	SI_CHANGEPASS ORD
Objects - Group Listing with Users	Insight4 - Oracle	UNV	AP_USERSANDGRO UPS	SI_NAME



# Bulk Conversion of Universes

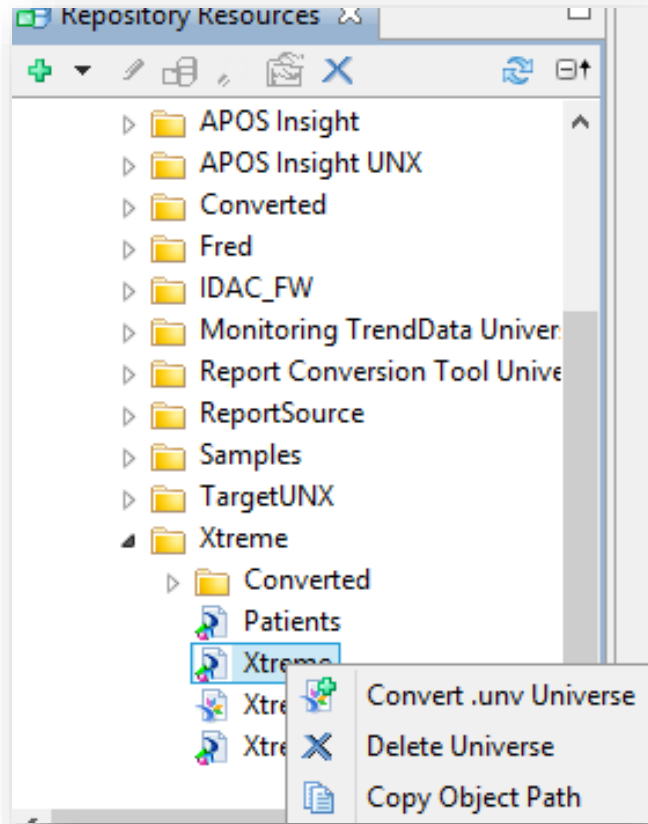
## Key Considerations

- Understand which universes need to be converted
- Understand which universes can be ignored due to non-usage
- Convert UNV to UNX quickly and easily



# Bulk Conversion of Universes

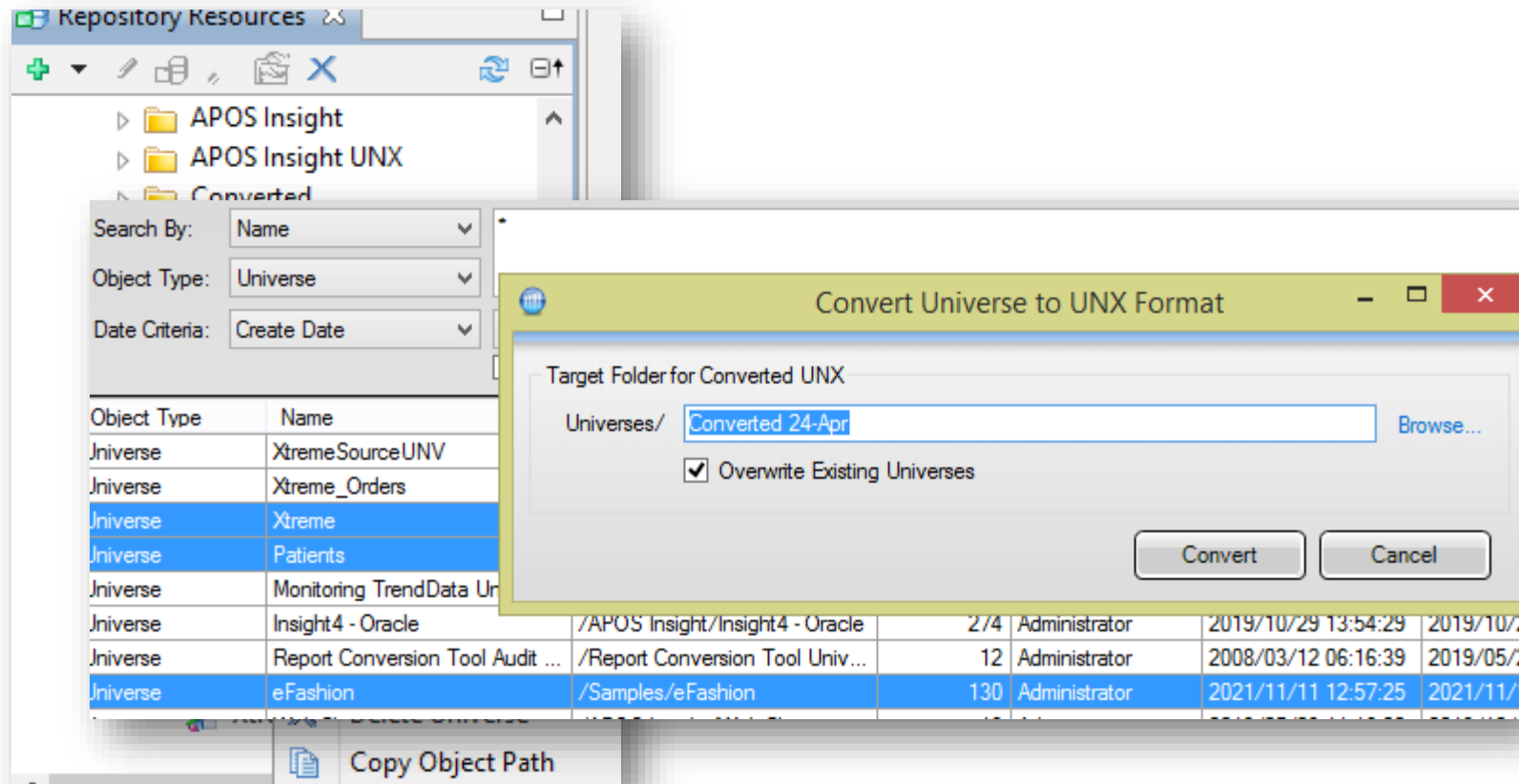
- Convert 1 by 1 in the IDT





# Bulk Conversion of Universes

- Convert 1 by 1 in the IDT
- **Convert in bulk in Webi Migrator**



# Bulk Repointing of Reports

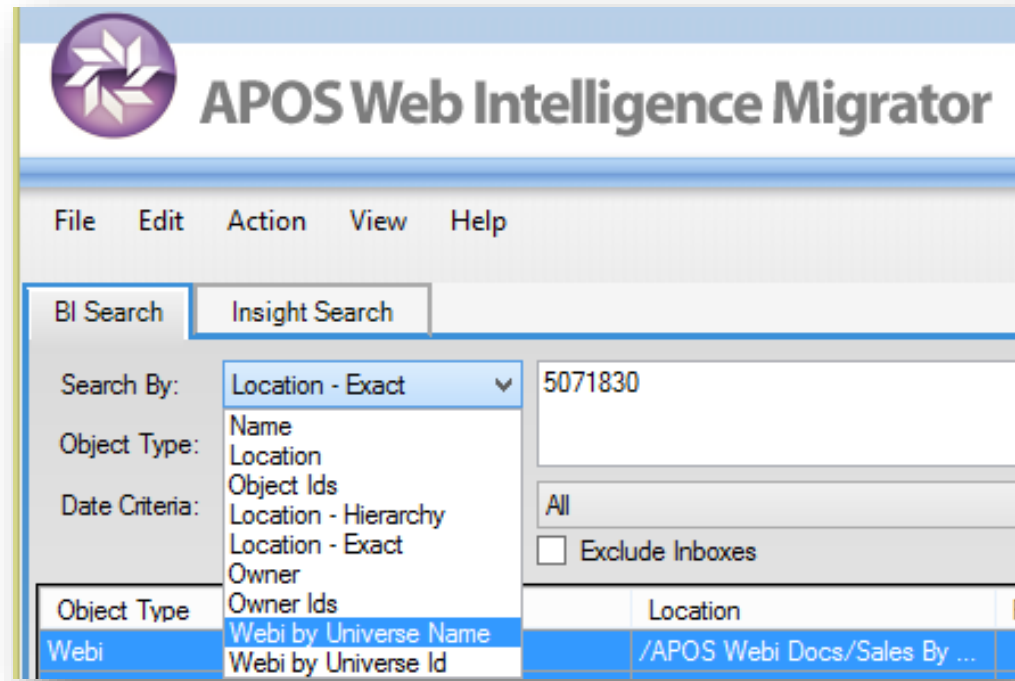
## Key Considerations

- Work with manageable chunks of reports
- Retain any Custom SQL that reports are using
- Spread the processing load across multiple machines



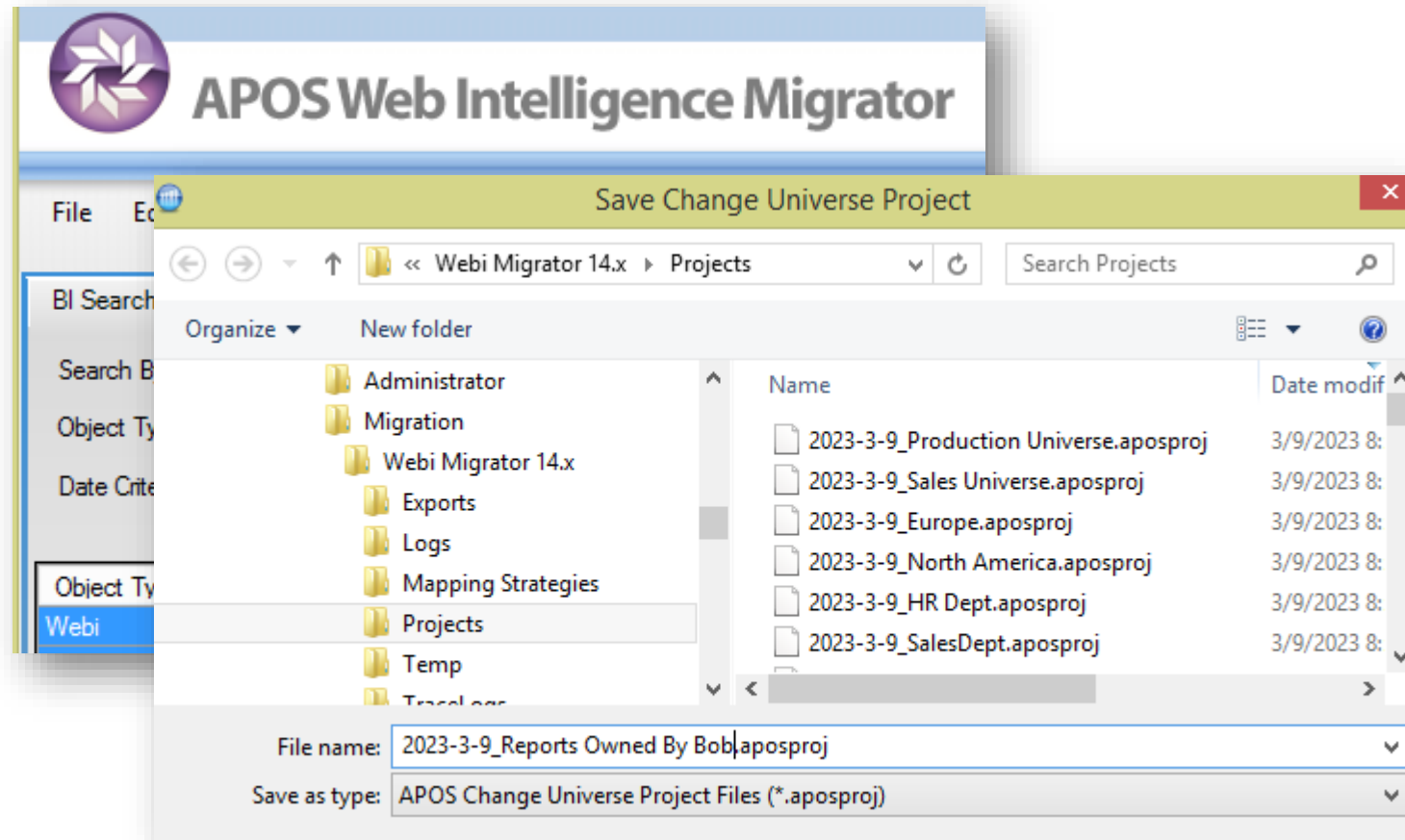
# Bulk Repointing of Reports

- Select reports by your choice of criteria
- Use a project-based approach to streamline and control the repointing
- Ensure that only those reports that are being used in the organization are repointed



# Bulk Repointing of Reports

- Select reports by your choice of criteria
- Use a project-based approach to streamline and control the repointing
- Ensure that only those reports that are being used in the organization are repointed



# Bulk Validation of Upgrade Success

## Key Considerations

- Reports need to be trusted
- Validation needs to happen quickly
- Validation should be automated



# Bulk Validation of Upgrade Success

Project - 2023-3-7

ssful  Unsuccess

ID	Process
5071891	<input checked="" type="checkbox"/>
5071896	<input checked="" type="checkbox"/>
5071857	<input checked="" type="checkbox"/>
5071855	<input checked="" type="checkbox"/>
5071859	<input checked="" type="checkbox"/>
5071847	<input checked="" type="checkbox"/>
5071845	<input checked="" type="checkbox"/>
5071915	<input checked="" type="checkbox"/>
5071875	<input checked="" type="checkbox"/>
5071877	<input checked="" type="checkbox"/>
5071869	<input checked="" type="checkbox"/>
5071903	<input checked="" type="checkbox"/>

### Webi Validation Options


**Specify Webi Validation Options**

Source Document

Webi Document  Latest Instance  Latest Recuring Instance

Validate As

Current User (administrator)  Report Owner  Specific User: Felix

 This feature requires that BI impersonation and trusted authentication be enabled

Basic Validation Options

Validate Data Types  Validate Values

Count Errors  Sort Result Set Before Validating

Advanced Validation Options (Requires both basic validations be performed)

Maximum number of simultaneous validations: 5

Restrict validation to

First 1 KB  Last 1 KB  Ignore invisible characters

Specified columns:   Skip first 1 rows

Example: A, C-E, G will validate columns A, C, D, E, G.

Warning: When using both the First KB and the Skip first rows options, if the value of the First KB option isn't large enough to contain more rows than the value of the Skip first rows option, the validation will always be considered as successful, as there will be no rows eligible to validate

Discard results of previous validations

- Ensure correct user is set
- Select how validation occurs
- Exclude certain rows/ columns



# Commit Phase

## Key Considerations

- Which Webi will be used going forward – original or copy?
- Ensure that recurring schedules are maintained



# Web Intelligence Migrator Overview

## Solution Demonstration

Note: to see the demonstration,  
[view the webinar on demand](#)





# Customer Profile

**US Ivy League University** with multiple undergraduate and graduate schools

- 5,000+ faculty
- 20,000+ students

## Landscape & Core Challenge

- SAP BusinessObjects 4.2 SP08
- 80 UNV universes
- 50,000 Web Intelligence reports

Plans to upgrade their **SAP BusinessObjects** CMS data platform to Oracle 19c were delayed by the discovery that UNV universes are not supported in later Oracle versions.

# Requirements

- Conversion of 80 UNV universes to UNX
- Repointing of 50,000 Web Intelligence reports to the UNX universes
- Validation of repointed Web Intelligence reports

## Barriers

- Manual Web Intelligence report upgrades are time- and resource-intensive
- Manual repointing and testing are prone to human error
- SAP conversion resources do not enable bulk upgrades

## Problems

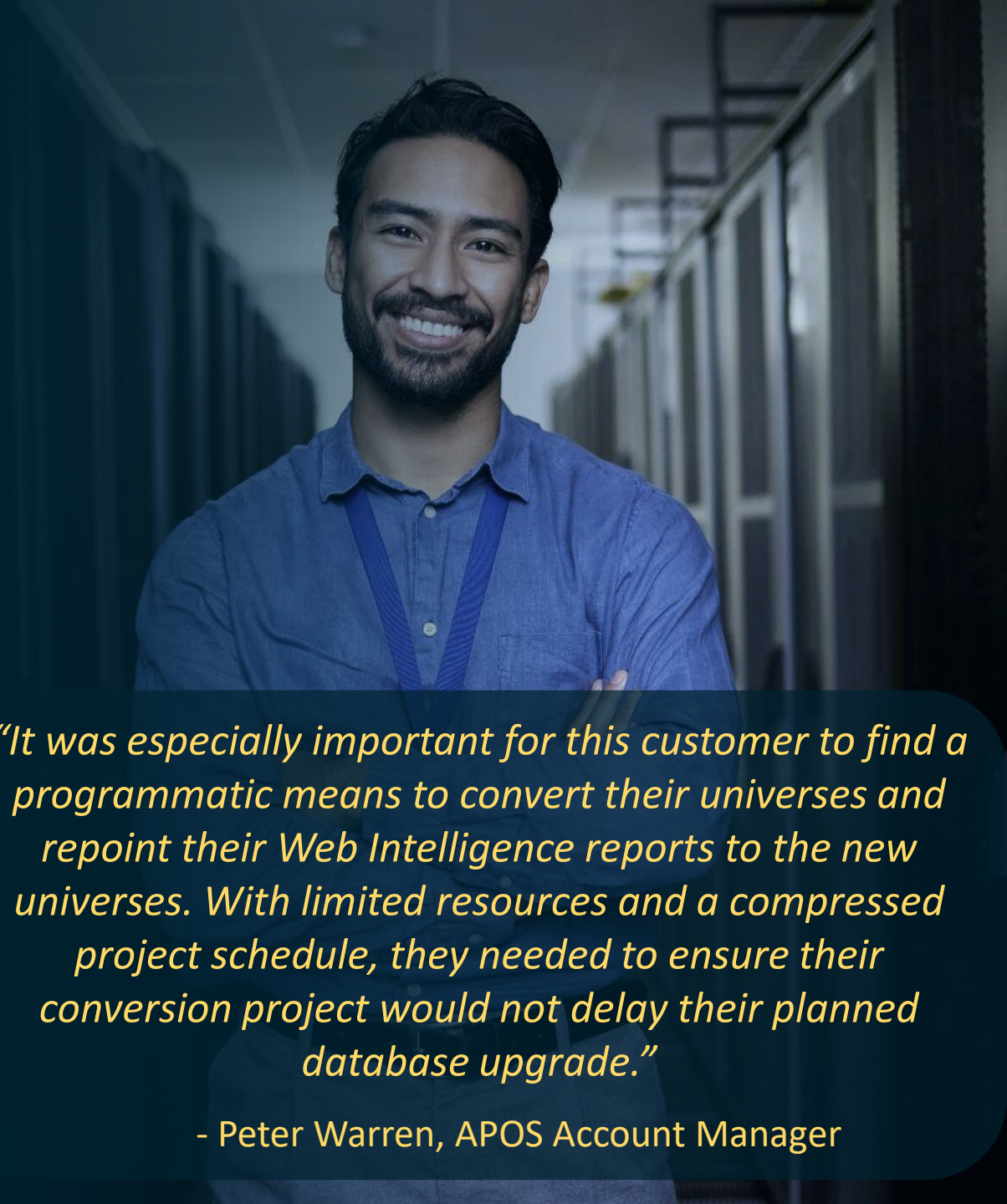
- Limited resources make timely upgrade difficult with manual processes
- Timing of database upgrade could be negatively impacted

Customer Problem

# Outcomes & Customer Success

With APOS Web Intelligence Migrator successfully deployed, this customer:

- Completed their UNX upgrade within a compressed timeline in support of their data platform upgrade
- Achieved controlled, high-speed, high-volume processing of universes and Web Intelligence reports
- Changed universe settings on reports in bulk
- Established and maintained granular control over conversion and repointing processes

A smiling man with a beard, wearing a blue button-down shirt and a blue lanyard, stands in a server room. He has his arms crossed and is looking directly at the camera. The background shows rows of server racks in a dimly lit hallway.

*“It was especially important for this customer to find a programmatic means to convert their universes and repoint their Web Intelligence reports to the new universes. With limited resources and a compressed project schedule, they needed to ensure their conversion project would not delay their planned database upgrade.”*

- Peter Warren, APOS Account Manager

# Process Control Features

- **Projects Structure**
- **High Availability**



**APOS Web Intelligence Migrator**

# Projects Structure

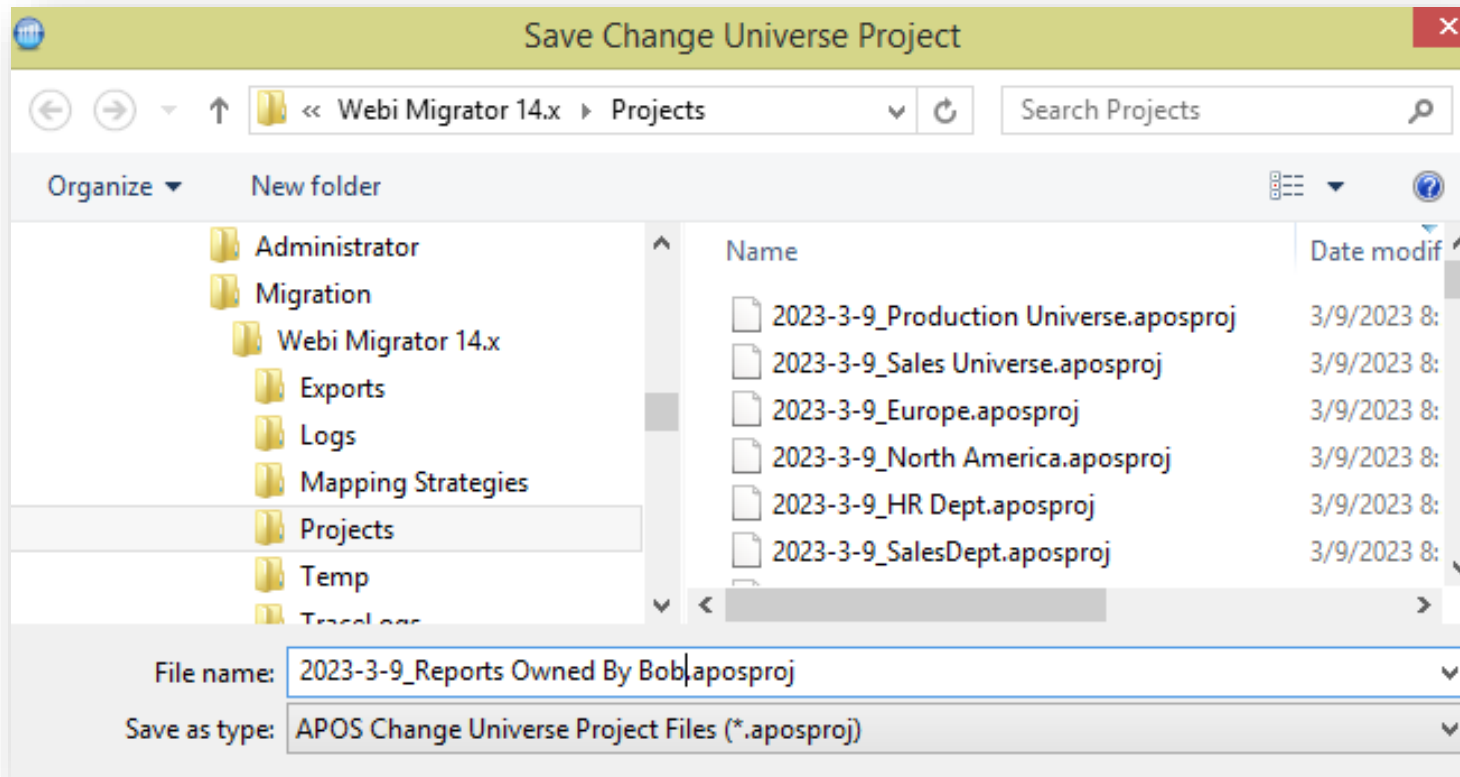
## Key Considerations

- Organized approach to repointing
- Work in manageable chunks



# Projects Structure

- Name the projects meaningfully



# Projects Structure

Save Change Universe Project

Webi Migrator 14.x > Projects

Administrator

APOS Web Intelligence Migrator

File Edit Action View Help

BI Search Insight Search Project - 2023-3-7-13-36-14-133.aposproj

Result Filters

Unmodified  Successful  Unsuccessful  Skipped  Committed  Sub

Webi Name	ID	Processed	Committed	Last Status	*Data Type	*Value
Customer List By Country	5071891	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Customer List By Country and Region	5071896	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Product Class Sold by Country	5071857	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Product Name Sold by Country	5071855	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Product Type Sold by Country	5071859	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Quantity Sold by Country	5071847	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sales By Country	5071845	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sales By Customer	5071915	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sales by Product Class	5071875	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sales by Product Name	5071877	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sales by Product Type	5071869	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Successful	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

- Name the projects meaningfully
- Work on them when you have the time
- Process all reports together or select specific reports



**High Availability**  
**High Scalability**

**UNV Reports**

**UNIX Reports**



# High Availability

## Key Considerations

- Need to work with many thousands of reports
- Need to spread the load across multiple machines
- Automate for high volume processing, less user intervention



# High Availability – High Scalability

## UNV Reports



## UNX Reports



# High Availability

- Batches are executed on multiple machines
- Console allows monitoring of batch status
- Pause/Resume pending batches

Webi Migrator High Availability System Status

Current Status | Completed Jobs

Summary

Job Type	Pending	Processing	Paused	Successful	Failed
Change Universe	0	1	0	71	13
Commit	0	0	0	35	1

Details

Submission Date	Source Machine	Project	Job Type	Time Received	Processing Start Time	Processing End Time	Pending	Processing	Paused	Successful	Failed
10/12/2022 1:55:34 PM	BI42SP9	2022-10-12-13-53-53-6...	Change Universe	10/12/2022 1:56:03 PM	10/12/2022 1:56:36 PM	10/12/2022 1:56:54 PM	0	0	0	0	1
9/21/2022 10:46:19 AM	BI42SP9	2022-9-21-10-44-15-91...	Change Universe	9/21/2022 10:46:46 AM			0	0	0	0	1
9/22/2022 9:43:52 AM	BI42SP9	2022-9-21-10-44-15-91...	Change Universe	9/22/2022 9:44:07 AM			0	0	0	0	1
9/22/2022 10:36:21 AM	BI42SP9	2022-9-21-10-44-15-91...	Change Universe	9/22/2022 10:36:37 AM			0	0	0	0	1
9/22/2022 10:47:14 AM	BI42SP9	2022-9-21-10-44-15-91...	Change Universe	9/22/2022 11:37:23 AM			0	0	0	0	1
9/22/2022 1:29:44 PM	BI42SP9	2022-9-21-10-44-15-91...	Change Universe	9/22/2022 1:30:12 PM			0	0	0	0	1

Show <All Job Types> submitted from <All Source Machines>

Export Details to CSV | Pause Pending | Resume Paused

Automatically update system status every 10 seconds

Close



# Customer Profile

**Major Telco** - a multinational telecommunications company and wireless carrier, one of the largest in the world, with revenues above \$100 billion.

## Landscape & Core Challenge

- SAP BusinessObjects BI 4.2
- Multiple SAP BusinessObjects deployments
- Over 160 universes and 400,000 reports
- APOS Insight customer

Upgrading **SAP BusinessObjects** to BI 4.3, and eventually to BI 2025, in which UNV universes are no longer supported.

Moving from Teradata to Snowflake, which does not support UNV universes.

## Requirements

- Conversion of 160+ universes to UNX
- Rationalization and repointing of 400,000+ Web Intelligence reports
- Organization of business units into conversion and repointing projects

## Problems

- The move to Snowflake would be negatively impacted by failure to achieve objectives
- Future **SAP BusinessObjects** upgrades would be in jeopardy
- Limited resources would be heavily taxed by manual processes

## Barriers

- Manual Web Intelligence report upgrades are time- and resource-intensive
- Manual repointing and testing are prone to human error
- SAP conversion resources do not enable bulk upgrades

Customer Problem

## Outcomes & Customer Success

- Rationalized and reduced number of Web Intelligence reports to be migrated
- Automated conversion of UNV universes to UNX universes
- Repointed Web Intelligence reports to new UNX universes in bulk
- Changed universe settings on reports in bulk
- Established and maintained granular control over conversion and repointing processes

*“Recognizing the scale of the conversion and repointing effort required to achieve their reporting and data management objectives, this customer deployed APOS Migrator for Web Intelligence to achieve a highly controlled, project-based upgrade to UNX universes and Web Intelligence reports across multiple deployments.”*

- Cathy Ramsli, APOS Account Manager

# Expanded Solution Feature

- Custom Field Mapping



**APOS Web Intelligence Migrator**

# Custom Field Mapping

## Key Considerations

- Universes may need to be made more user friendly
- Objects may need to be renamed or moved to different folders





# Custom Field Mapping

- Map source UNV objects and classes to target UNX

The screenshot displays the 'Universe Mapping Configuration' interface. At the top, a table lists the source and target universes:

Source Universe Name	Source Universe Path	Target Universe Name	Target Universe Path
XtremeSourceUNV	Universes/Xtreme	Xtreme TargetUNX.unx	Universes/TargetUNX

The main area is divided into two panes: 'Source Universe (XtremeSourceUNV - Universes/Xtreme)' and 'Target Universe (Xtreme TargetUNX.unx - Universes/TargetUNX)'. Each pane contains a list of objects with their names, types, and paths.

**Source Universe (XtremeSourceUNV - Universes/Xtreme)**

Name	Type	Path
Customer	Folder	\Customer
City	Dimension	\Customer\City
Country	Dimension	\Customer\Country
Customername	Dimension	\Customer\Customername
Region	Dimension	\Customer\Region
Orders	Folder	\Orders
Orderdate	Dimension	\Orders\Orderdate
Orderid	Dimension	\Orders\Orderid
Quantity	Measure	\Orders\Quantity
Unitprice	Measure	\Orders\Unitprice

**Target Universe (Xtreme TargetUNX.unx - Universes/TargetUNX)**

Name	Type	Path
CustInfo	Folder	\CustInfo
City	Dimension	\CustInfo\City
Country	Dimension	\CustInfo\Country
CustName	Dimension	\CustInfo\CustName
Region	Dimension	\CustInfo\Region
OrderInfo	Folder	\OrderInfo
Order Id	Dimension	\OrderInfo\Order Id
OrderDate	Dimension	\OrderInfo\OrderDate
Product Class	Dimension	\OrderInfo\Product Class
Product Name	Dimension	\OrderInfo\Product Name

Below these panes is the 'Universe Links' table, which shows the mapping between source and target objects:

Source Name	Source Type	Source Path	Target Name	Target Type	Target Path
Customername	Dimension	\Customer\Customername	CustName	Dimension	\CustInfo\CustName
Country	Dimension	\Customer\Country	Country	Dimension	\CustInfo\Country
Region	Dimension	\Customer\Region	Region	Dimension	\CustInfo\Region
City	Dimension	\Customer\City	City	Dimension	\CustInfo\City



# Custom Field Mapping

- Apply custom mapping to the repointing project

The screenshot shows the IBM Cognos Analytics interface. At the top, there are tabs for 'BI Search', 'Insight Search', and 'Project - 2023-3-9\_UNV Mapping.aposproj'. Below the tabs are 'Result Filters' with checkboxes for 'Unmodified', 'Successful', 'Unsuccessful', 'Skipped', 'Committed', and 'Submitted'. A table lists Webi objects with columns: 'Webi Name', 'ID', 'Processed', 'Committed', 'Last Status', '\*Data Type', '\*Value', '\*Advanced', '\*Errors', and 'Last Updated'. The table contains five rows: 'Prices\_By\_Country\_and\_Region', 'Products sold in Country', 'Sales By Country', 'Sales By Product Class', and 'Sales By Product Type'. A 'Custom Universe Mapping' dialog box is open in the foreground. It has a title bar and a 'Close' button. The dialog contains a 'Mapping Strategy' section with a text input field and a folder icon. Below this is a warning icon and text: 'If no mapping strategy is provided here, the mapping strategy provided in the settings will be applied. If neither is provided, the BI default mapping strategy will be applied.' The 'Universe Mapping Projects' section has a list box containing the path 'strator\Documents\APOS\Migration\Webi Migrator 14.x\Projects\Xtreme\_Source\_to\_Target.aposumproj' and three buttons: '+', '-', and 'x'. At the bottom of the dialog is another warning icon and text: 'Universe mapping projects will overwrite mapping strategies and apply the matches specified within the project. Mapping strategies are still used when no matches are specified.'

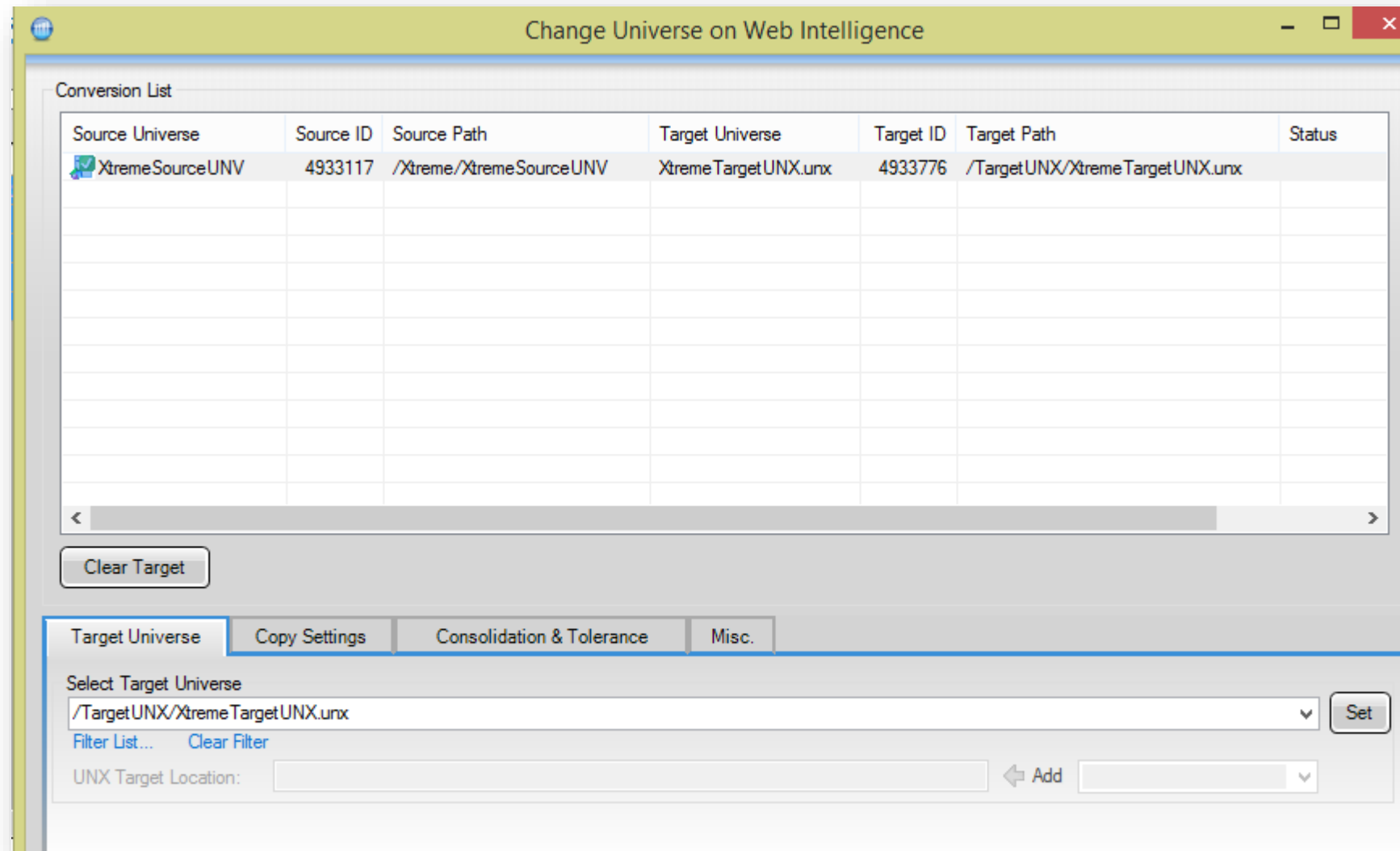
Webi Name	ID	Processed	Committed	Last Status	*Data Type	*Value	*Advanced	*Errors	Last Updated
Prices_By_Country_and_Region	5019569	<input type="checkbox"/>	<input type="checkbox"/>	Unmodified	?	?	?	0	1/25/2023 2:09:38 PM
Products sold in Country	50								
Sales By Country	50								
Sales By Product Class	50								
Sales By Product Type	50								

\* denotes a validation column



# Custom Field Mapping

- Select the target UNX when executing the project



Change Universe on Web Intelligence

Conversion List

Source Universe	Source ID	Source Path	Target Universe	Target ID	Target Path	Status
<input checked="" type="checkbox"/> XtremeSourceUNV	4933117	/Xtreme/XtremeSourceUNV	XtremeTargetUNX.unx	4933776	/TargetUNX/XtremeTargetUNX.unx	

< | >

Clear Target

Target Universe | Copy Settings | Consolidation & Tolerance | Misc.

Select Target Universe

/TargetUNX/XtremeTargetUNX.unx

[Filter List...](#) [Clear Filter](#)

UNIX Target Location:





## STREAMLINE YOUR MOVE TO UNX UNIVERSE

### INVENTORY SYSTEM CONTENT



- Scan your system for Web Intelligence reports using the criteria you specify
- Accurately plan and prioritize upgrade steps with a deep understanding of your BI system:
  - ◆ *Report Objects* ◆ *Universe Objects* ◆ *System Objects*
  - ◆ *Report/Universe Usage* ◆ *Report/Universe Structure*
  - ◆ *Schedules & Instances* ◆ *System Structure & Security*

### HIGH VOLUME REPOINTING OF REPORTS



- Reprint Web Intelligence reports in bulk from old UNV to new UNX
- Update existing reports or create a new copy in a custom location & naming convention
- Project-based approach to select and manage Web Intelligence reports conversion process
- Define a mapping strategy, or create custom mapping
- Scale conversion infrastructure to handle high volume scenarios with multiple conversion processors



### BULK CONVERSION OF UNIVERSES

- High volume conversion of universes from UNV to UNX format
- Use system inventory to set project priorities for the most important universes



### VALIDATE UPGRADE SUCCESS

- Automated bulk testing and validation
- Ensure a successful and accurate upgrade process
- Take the risk out of migration



### STRONG PROCESS CONTROLS

- Synchronize and scale your migration processes
- Enterprise-grade process controls
- Handle massive volumes of reports with distributed project management

# STREAMLINE YOUR MOVE TO UNX UNIVERSE

## Freemium Upgrade Offer

---

### Automate UNX Adoption with APOS Web Intelligence Migrator

APOS Web Intelligence Migrator helps you reduce risk, reduce cost, and increase speed of UNX upgrades through rapid, high-volume conversion, bulk repointing, automated testing and strong process controls.

---

#### APOS Freemium offer includes:

- ✓ Free Production deployment use of APOS Web Intelligence Migrator
- ✓ Scan and inventory your SAP BI systems
- ✓ Bulk convert all UNV universes to UNX
- ✓ Bulk repoint a target set of 200 WebI reports
- ✓ Validate migration success
- ✓ 100 days of free use
- ✓ Inventory multiple systems
- ✓ Guidance and support



Access now at  
[apos.com/freemium](https://apos.com/freemium)



# Need4Viz



Jérôme Maillard  
Co-founder  
Need4Viz

**We are**  
**experts**  
**data analysis**  
**visualization**  
**dissemination**  
**BusinessObjects**

**SAP®**

**Partner**



# N4V

a solution

*Fast&4YOU*

# NO CODE

# Plug N'PLAY

**50+**  
**widgets**

# **Dataviz**

**Cartography**

**Data Analysis**

**Export HTML**

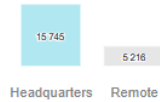
## HUMAN RESOURCES DASHBOARD | Overview

Location :



### HIRED EMPLOYEES

2020 1 253



INACTIVE  
**1 253**



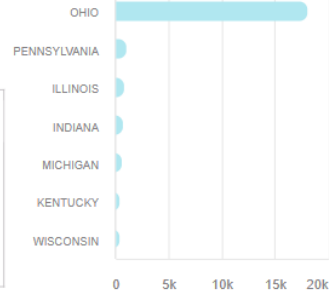
AVG. AGE  
**40**



AVG. YEARS TENURE  
**13**



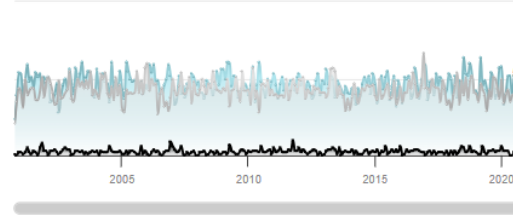
TOTAL DEPT  
**13**



### TREND HIRING BY MONTH

All

From Oct. 1, 2000 To Dec. 1, 2020



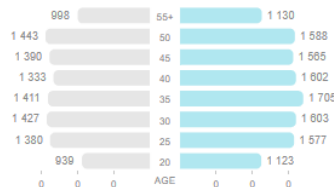
Select Location :

All locations  Headquarters  Remote

Select Location :

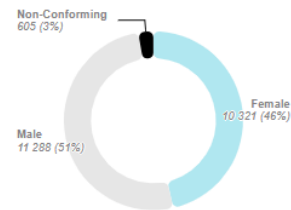
All Years

### NUMBER OF EMPLOYEES BY AGE



Female : 10 321 Male : 11 893

### GENDER PERCENTAGE



### DIVERSITY BY RACE & GENDER

Race	Female	Male	N-C
White	3 200	2 965	163
Two or More Races	1 890	1 653	105
Black or African American	1 838	1 672	109
Asian	1 785	1 690	87
Hispanic or Latino	1 275	1 159	67
American Indian or Alaska Native	658	634	35
Native Hawaiian or Other Pacific Islander	642	548	39

Dashboard

### HUMAN RESOURCES DASHBOARD | Overview

Location :

  
INACTIVE  
**3,131**

  
AVG. AGE  
**40**

  
AVG. YEARS TENURE  
**13**

  
  
TOTAL DEPT  
**13**

- 
- 
- 
- 

Please wait



# Only possible with N4V FOR WEBI



# R.O.I.

## quickwin

# Save time

# Saves costs

**licences, infrastructures, training**

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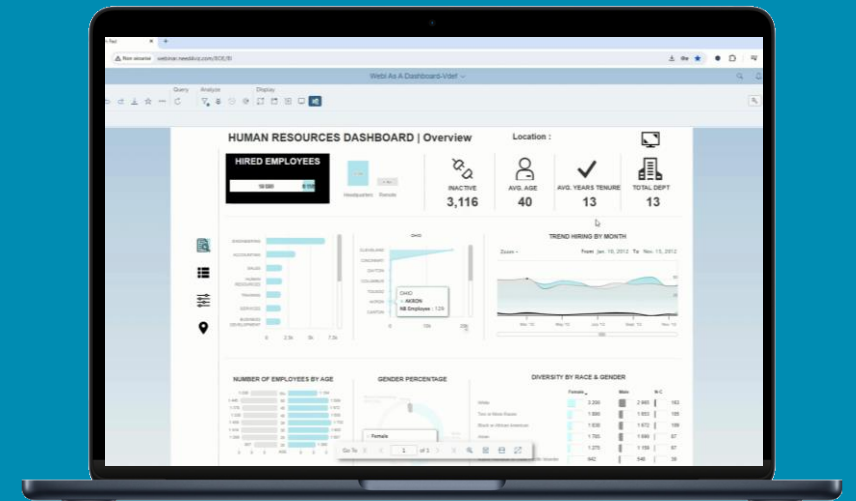
Customer Support 4 minutes ago

Write a reply..

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# APOS Solutions for SAP BusinessObjects



## APOS Insight

### BI System Auditing

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

### BI Report Testing

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

### BI System Monitoring

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

### BI Query Surveillance

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



## APOS Administrator

### Object Management

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

### Schedule Management

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

### Instance Management

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

## APOS Storage Center



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

## APOS Publisher



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

## APOS Web Intelligence Migrator



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

# APOS Solutions for SAP Analytics Cloud



## APOS Publisher for Cloud

- Automated broadcasting and distribution of personalized SAC reports to target user groups



## APOS Live Data Gateway

- High performance, live data connectivity from SAC to wide range of data sources

# Upcoming Event

## *Ignite Your Analytics*

### **Expand Connectivity from SAP Analytics Cloud to non-SAP Data Sources**



How APOS Live Data Gateway helps you leverage non-SAP data assets from your:

- Cloud data environments, such as Snowflake, Databricks, Google, AWS, and Azure
- Relational sources such as SQL, Oracle, Teradata and DB2, and many more sources

Latest updates and new capabilities of APOS Live Data Gateway, including:

- Seamless security integration - SSO, OAuth
- Self-service modelling, and management of modelling assets
- Data transformations: geospatial, dimensions, hierarchies, prompts
- New: Expanded and simplified options for Import of data into SAC (Salesforce, Sharepoint, and more)
- New: Export SAC Planning data to other strategic environments

**Thursday, Feb. 8 - 11am Eastern Time**

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



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# QUESTIONS?

Please enter your questions in the Q&A panel.



# Thank you!

## Get in touch

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