WEBINAR

Automating Your Upgrade to UNX Universes

APOS

Today's Session

Key Topics

- The UNX Adoption Challenge
- Upgrade Process Steps
- Automation of Process Steps
- Process Controls
- Volume & Scalability
- Field Mapping

- Q&A – see webinar console

APOS

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

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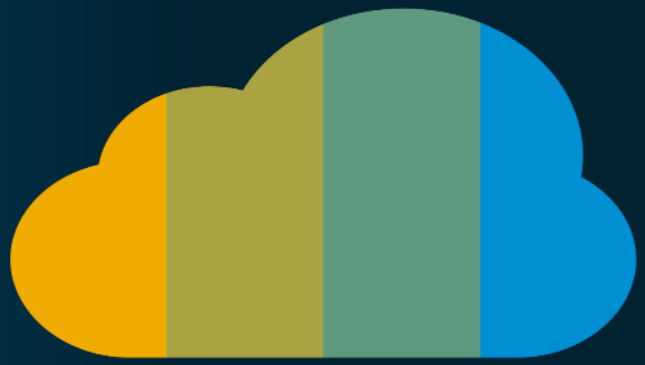
SAP BusinessObjects

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

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The Road Ahead for SAP BusinessObjects

Regrouping for your SAP BusinessObjects Future

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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

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Preparing for BI 2025:

The UNX Adoption Challenge

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Upgrade Challenge: UNV Deprecation

Across BusinessObjects deployments, the UNV universe is the most common and prevalent universe format in use.

- Vast amounts of Web Intelligence reports rely on UNV universes
- BI 2025 will not support UNV, so all relevant content must be migrated to UNX format

Solution Requirement: Upgrade Content

Relevant content for upgrade to UNX format includes:

- all UNV universes must be upgraded to UNX format
- all Web Intelligence reports that connect to those universes must have their connection changed from the old UNV universe to the new UNX universe

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Solution Barrier: Heavy Manual Process

Manual update of all universes and individual reports is very time consuming, so many organizations have avoided starting the project of UNX adoption.

UNX Adoption Steps

Required process steps include:

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

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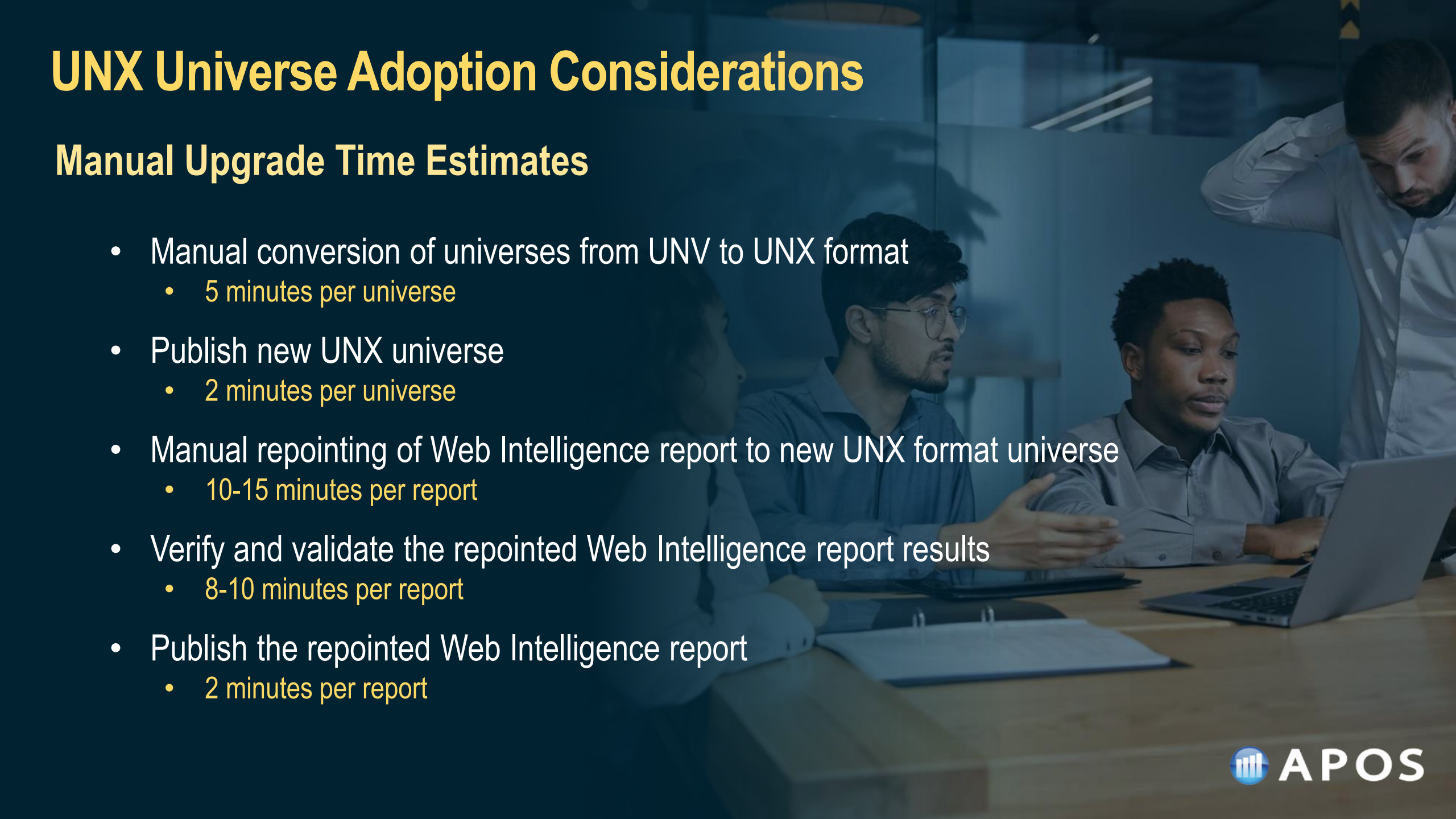
UNX Universe Adoption Considerations

Manual Upgrade Time Estimates

- Manual conversion of universes from UNV to UNX format
  - 5 minutes per universe
- Publish new UNX universe
  - 2 minutes per universe
- Manual repointing of Web Intelligence report to new UNX 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



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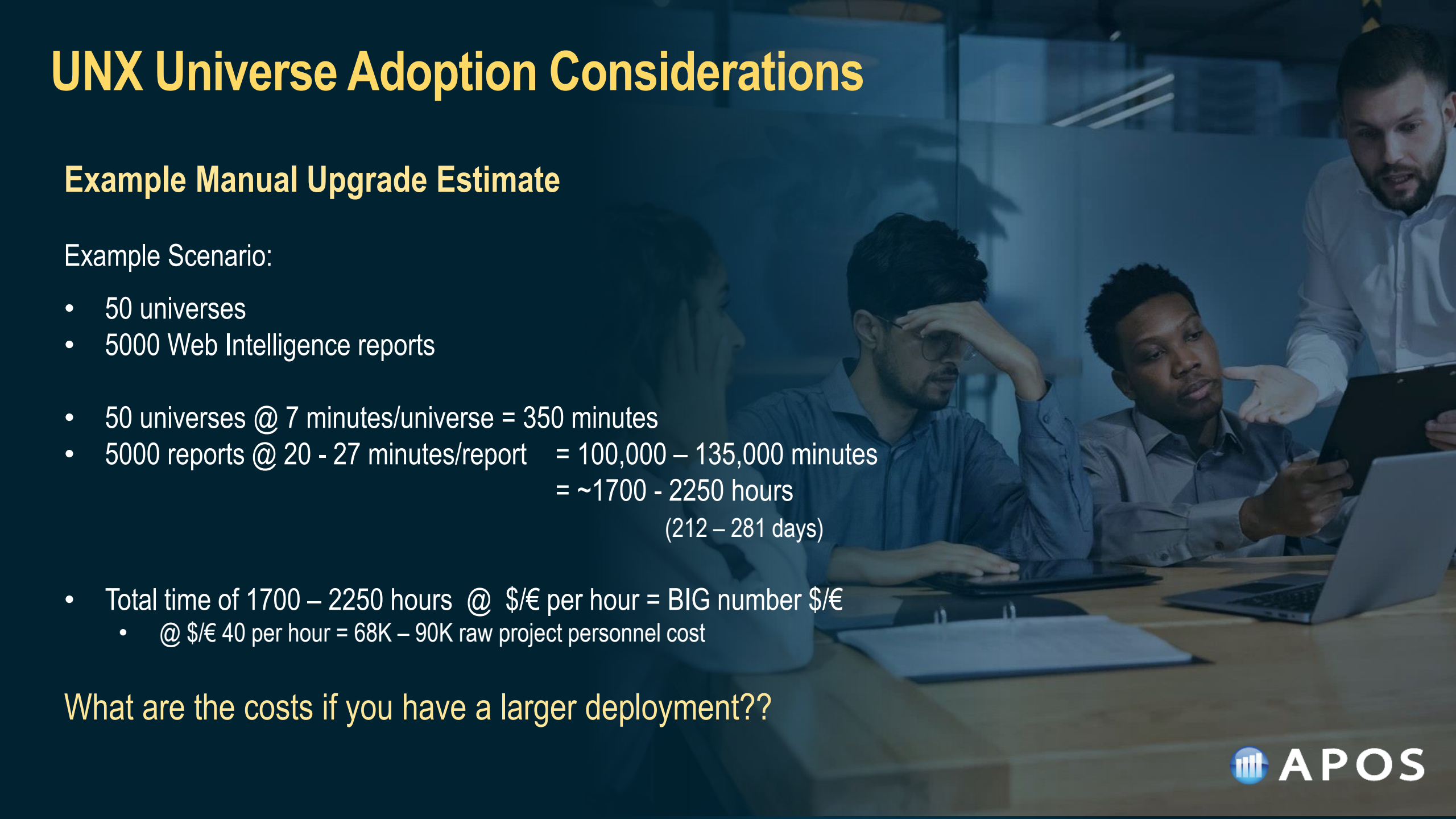
UNX Universe Adoption Considerations



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

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

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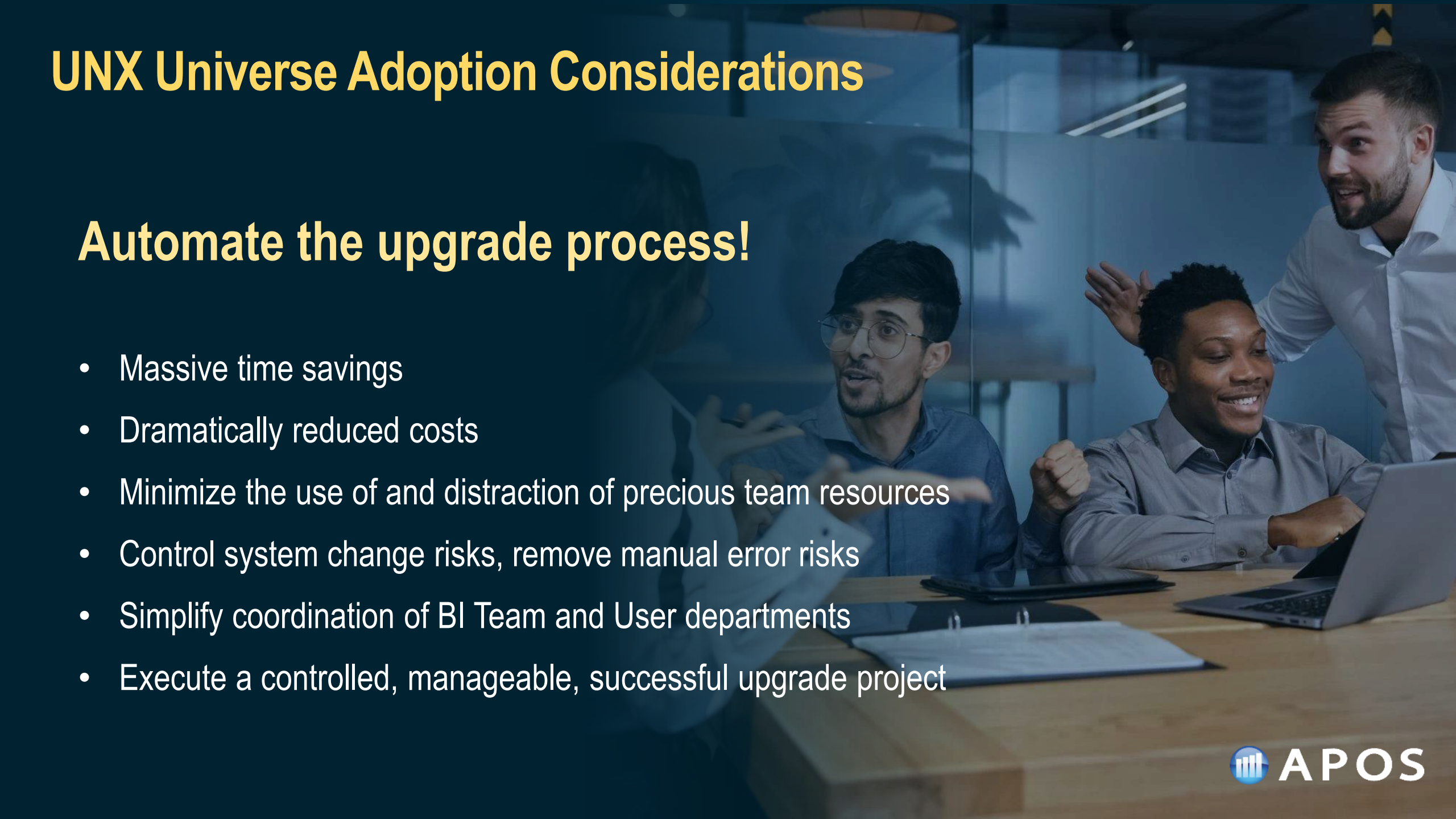
UNX Universe Adoption Considerations



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

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APOS Web Intelligence Migrator

EXTEND
SAP ANALYTICS

APOS

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

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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

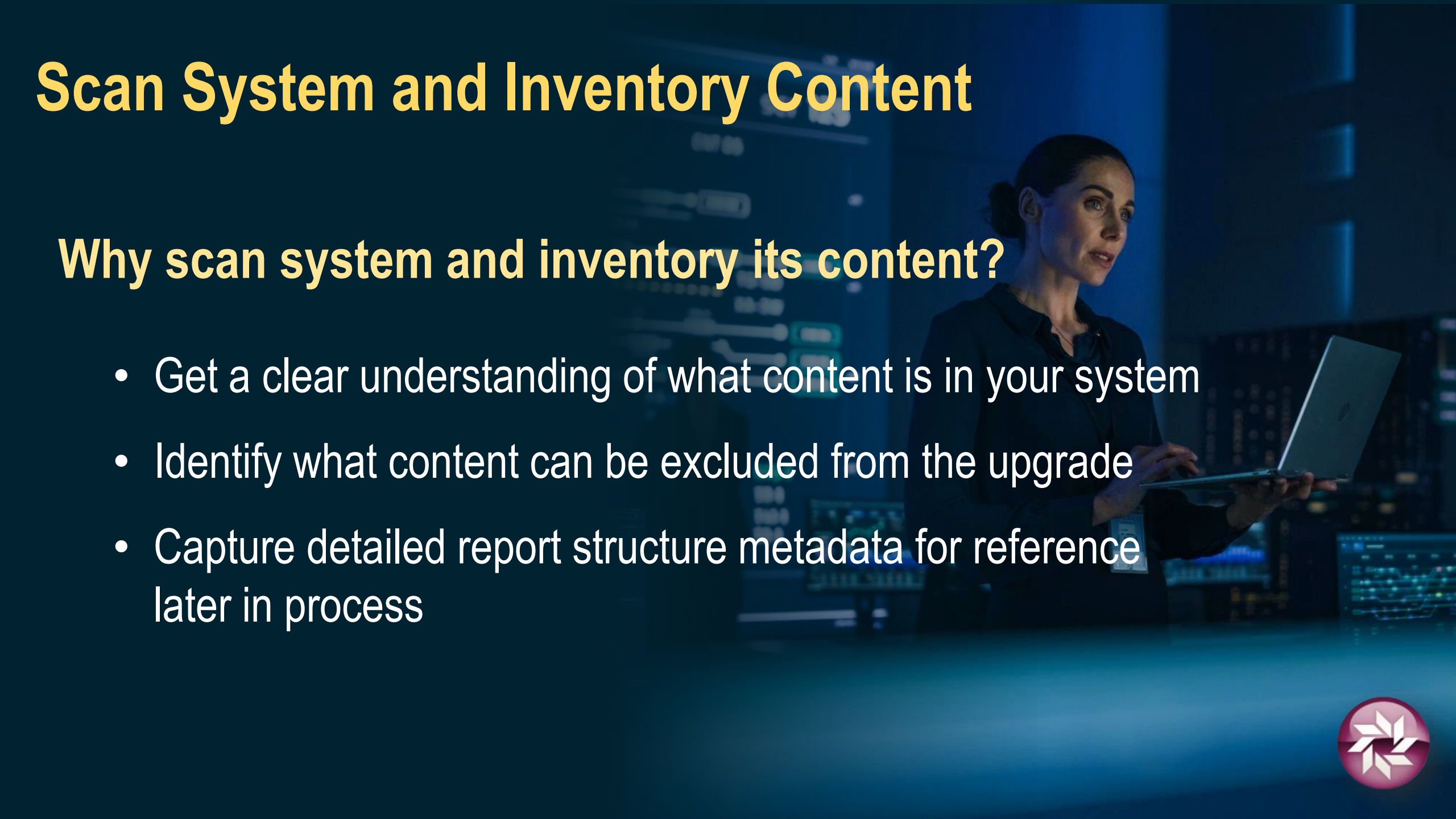
UNX Reports

Key Upgrade Process Steps

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

APOS Web Intelligence Migrator

Scan System and Inventory Content

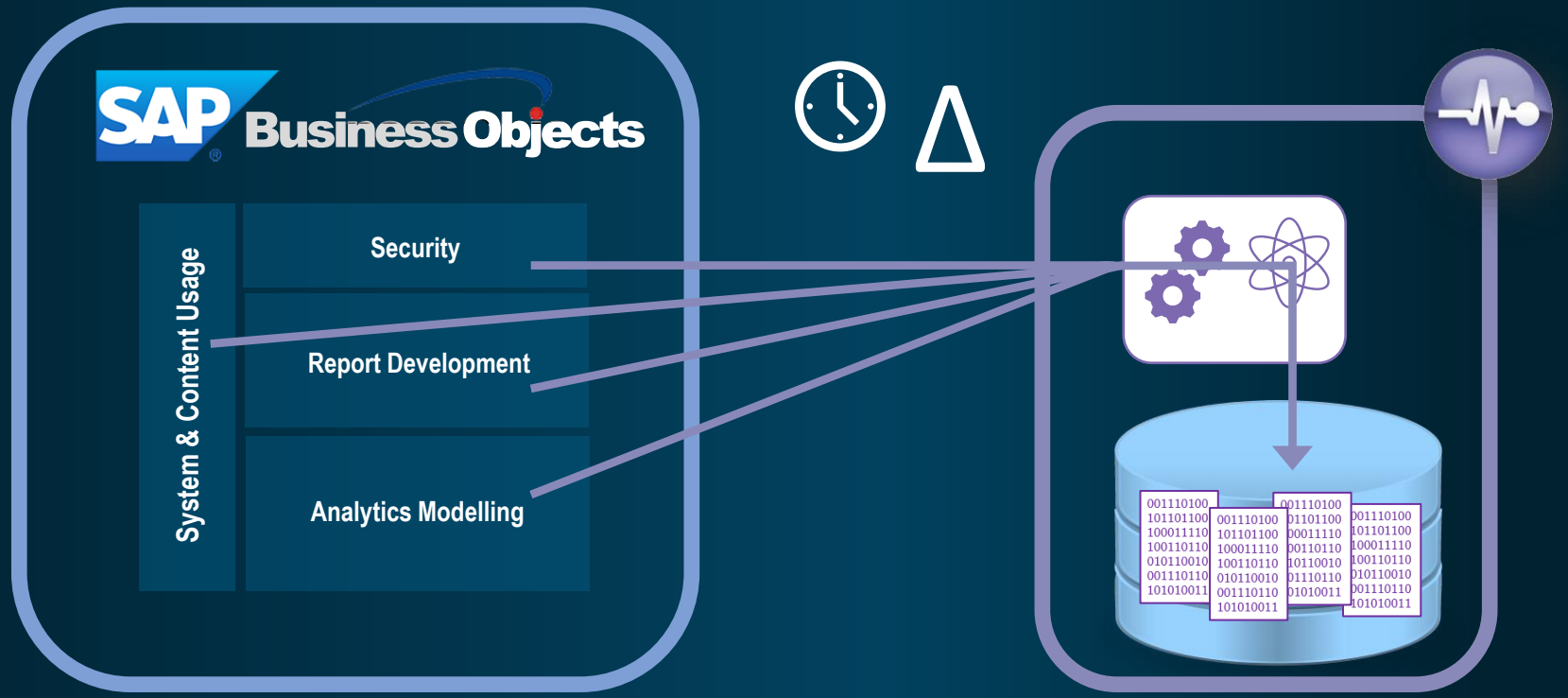


Why scan system and inventory its content?

- 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

System Metadata

System Metadata



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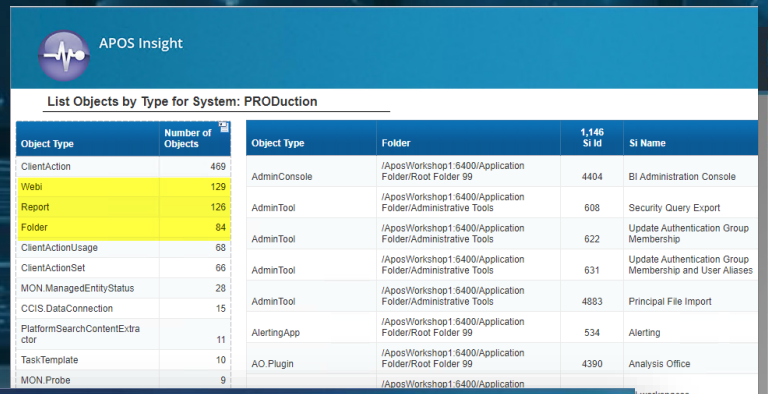
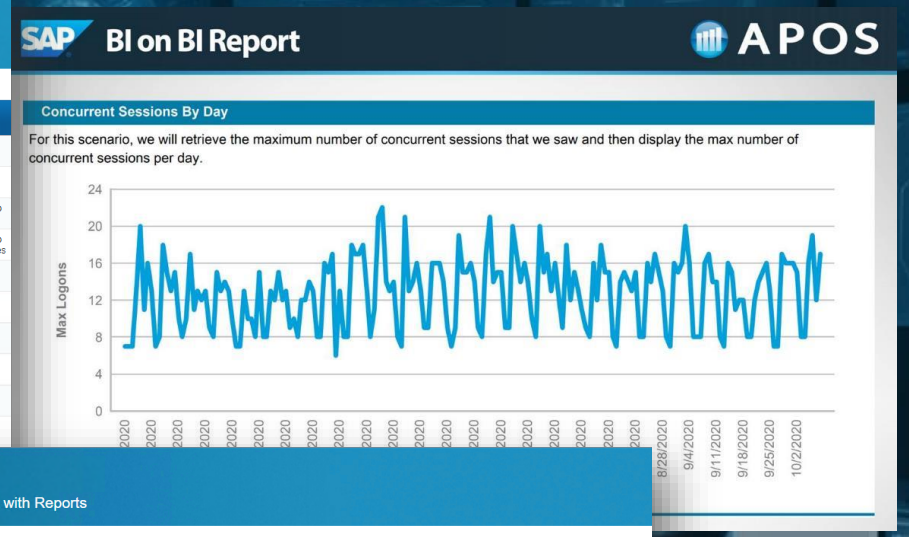
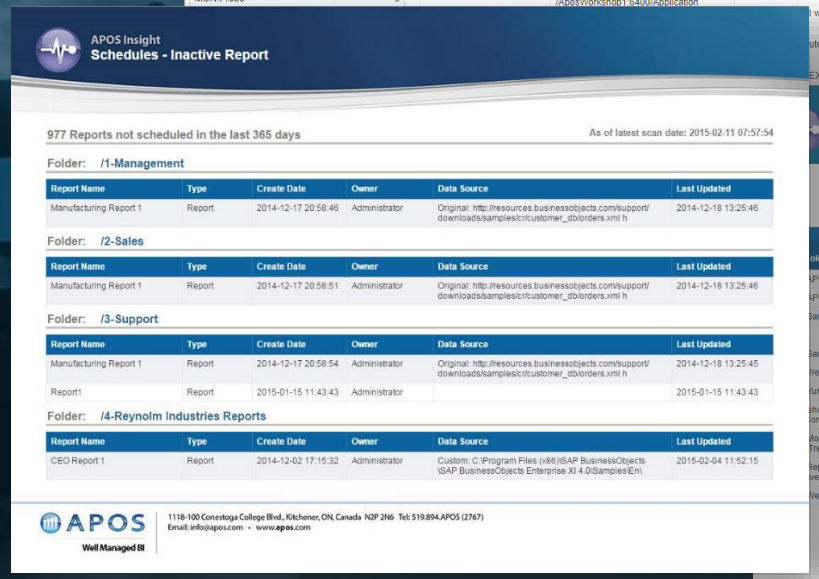
System Analysis



Object Type	Number of Objects
ClientAction	469
Webi	129
Report	126
Folder	84
ClientActionUsage	68
ClientActionSet	66
MON.ManagedEntityStatus	28
CCIS.DataConnection	15
PlatformSearchContentExtractor	11
TaskTemplate	10
MON.Probe	9

Object Type	Folder	1,146 Si Id	Si Name
AdminConsole	/AposWorkshop1:6400/Application Folder/Root Folder 99	4404	BI Administration Console
AdminTool	/AposWorkshop1:6400/Application Folder/Administrative Tools	608	Security Query Export
AdminTool	/AposWorkshop1:6400/Application Folder/Administrative Tools	622	Update Authentication Group Membership
AdminTool	/AposWorkshop1:6400/Application Folder/Administrative Tools	631	Update Authentication Group Membership and User Aliases
AdminTool	/AposWorkshop1:6400/Application Folder/Administrative Tools	4883	Principal File Import
AlertingApp	/AposWorkshop1:6400/Application Folder/Root Folder 99	534	Alerting
AO.Plugin	/AposWorkshop1:6400/Application Folder/Root Folder 99	4390	Analysis Office
	/AposWorkshop1:6400/Application		l workspaces
			utomation Framework
			EX.BExWeb



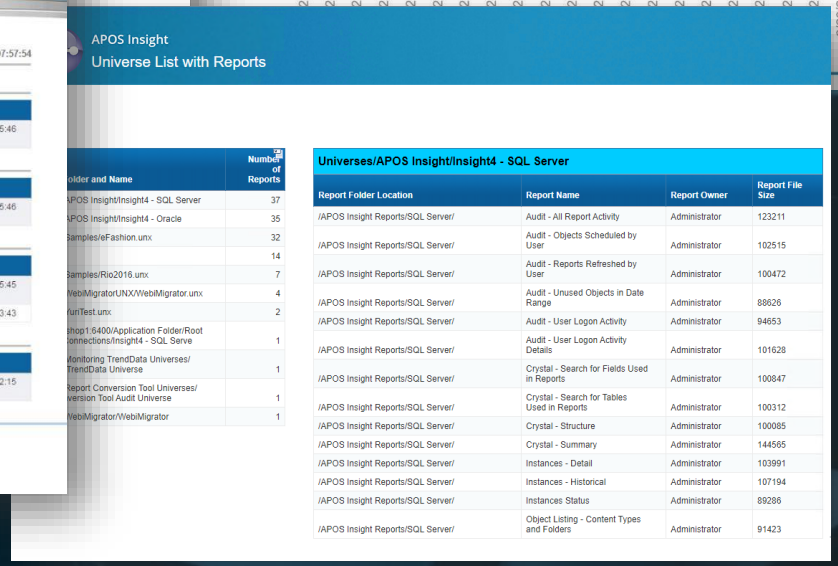


Report Name	Type	Create Date	Owner	Data Source	Last Updated
Manufacturing Report 1	Report	2014-12-17 20:58:46	Administrator	Original: http://resources.businessobjects.com/support/downloads/samples/cr/customer_db/orders.xml h	2014-12-18 13:25:46

Report Name	Type	Create Date	Owner	Data Source	Last Updated
Manufacturing Report 1	Report	2014-12-17 20:58:51	Administrator	Original: http://resources.businessobjects.com/support/downloads/samples/cr/customer_db/orders.xml h	2014-12-18 13:25:46

Report Name	Type	Create Date	Owner	Data Source	Last Updated
Manufacturing Report 1	Report	2014-12-17 20:58:54	Administrator	Original: http://resources.businessobjects.com/support/downloads/samples/cr/customer_db/orders.xml h	2014-12-18 13:25:45
Report1	Report	2015-01-15 11:43:43	Administrator		2015-01-15 11:43:43

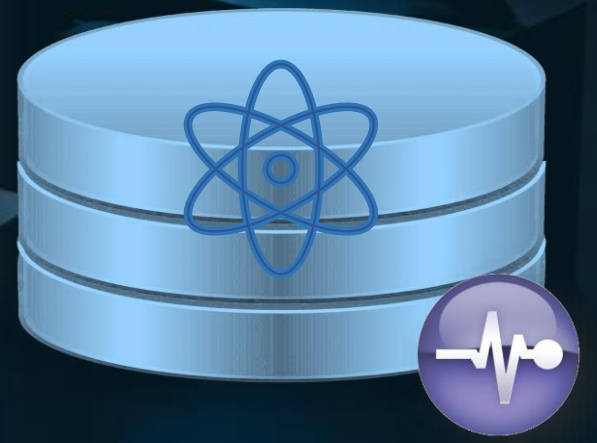
Report Name	Type	Create Date	Owner	Data Source	Last Updated
CEO Report 1	Report	2014-12-02 17:15:32	Administrator	Custom: C:\Program Files (x86)\SAP BusinessObjects \SAP BusinessObjects Enterprise XI 4.0\Samples\En\	2015-02-04 11:52:15



older and Name	Number of Reports
APOS Insight/Insight4 - SQL Server	37
APOS Insight/Insight4 - Oracle	35
Samples/eFashion.unx	32
	14
Samples/Rio2016.unx	7
WebiMigratorUNX/WebiMigrator.unx	4
unTest.unx	2
shop1:6400/Application Folder/Root connections/Insight4 - SQL Serve	1
Monitoring TrendData Universes/ TrendData Universe	1
Report Conversion Tool Universes/ version Tool Audit Universe	1
WebiMigrator/WebiMigrator	1

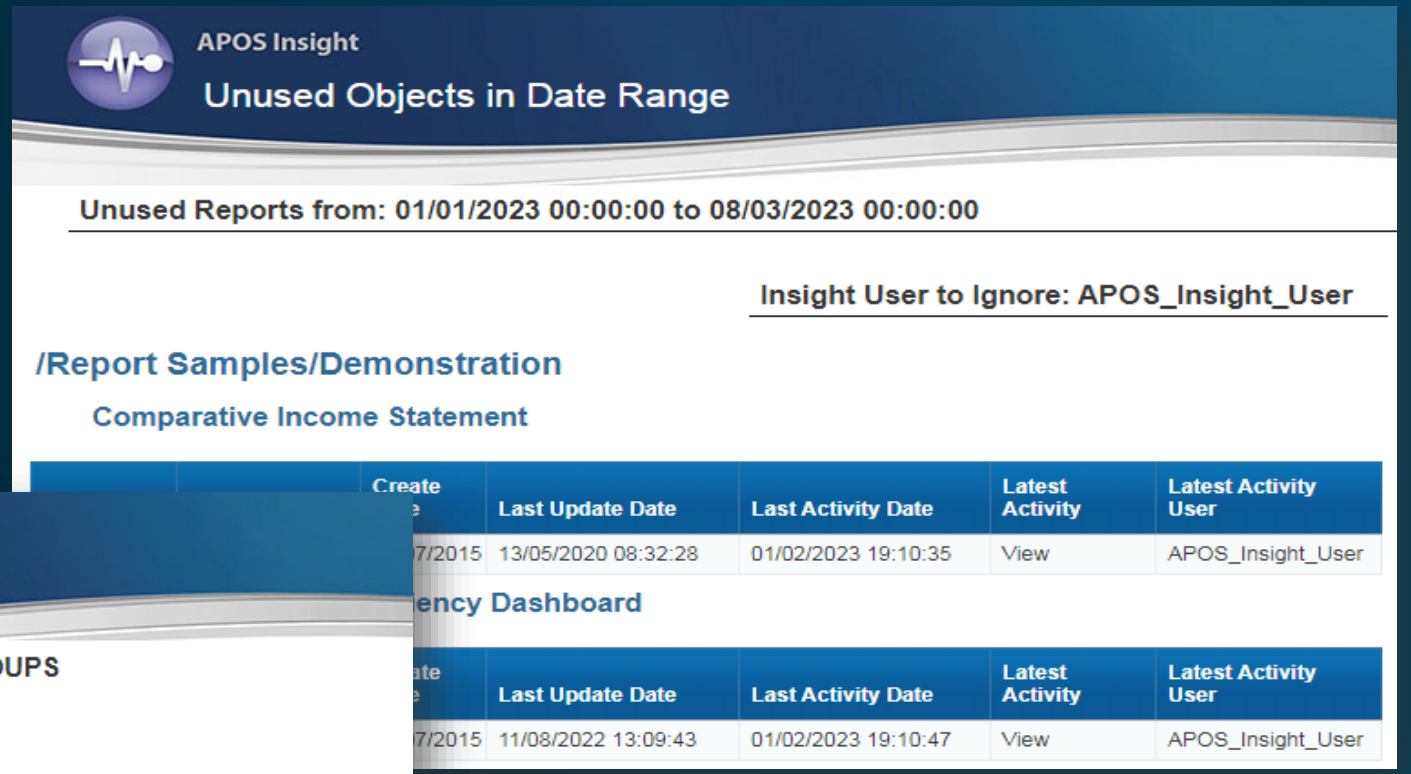
Universes/APOS Insight/Insight4 - SQL Server

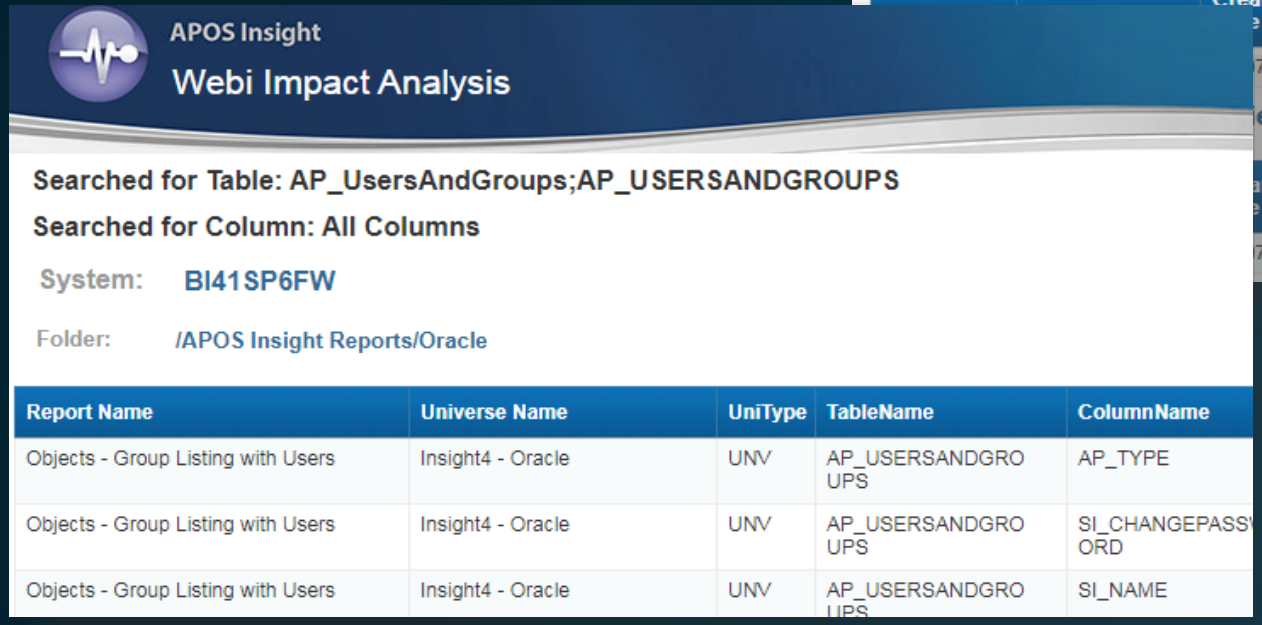
Report Folder Location	Report Name	Report Owner	Report File Size
/APOS Insight Reports/SQL Server/	Audit - All Report Activity	Administrator	123211
/APOS Insight Reports/SQL Server/	Audit - Objects Scheduled by User	Administrator	102515
/APOS Insight Reports/SQL Server/	Audit - Reports Refreshed by User	Administrator	100472
/APOS Insight Reports/SQL Server/	Audit - Unused Objects in Date Range	Administrator	88626
/APOS Insight Reports/SQL Server/	Audit - User Logon Activity	Administrator	94653
/APOS Insight Reports/SQL Server/	Audit - User Logon Activity Details	Administrator	101628
/APOS Insight Reports/SQL Server/	Crystal - Search for Fields Used in Reports	Administrator	100847
/APOS Insight Reports/SQL Server/	Crystal - Search for Tables Used in Reports	Administrator	100312
/APOS Insight Reports/SQL Server/	Crystal - Structure	Administrator	100085
/APOS Insight Reports/SQL Server/	Crystal - Summary	Administrator	144565
/APOS Insight Reports/SQL Server/	Instances - Detail	Administrator	103991
/APOS Insight Reports/SQL Server/	Instances - Historical	Administrator	107194
/APOS Insight Reports/SQL Server/	Instances Status	Administrator	89286
/APOS Insight Reports/SQL Server/	Object Listing - Content Types and Folders	Administrator	91423



Analyze System + Content Metadata

- Find unused reports
- Understand report content





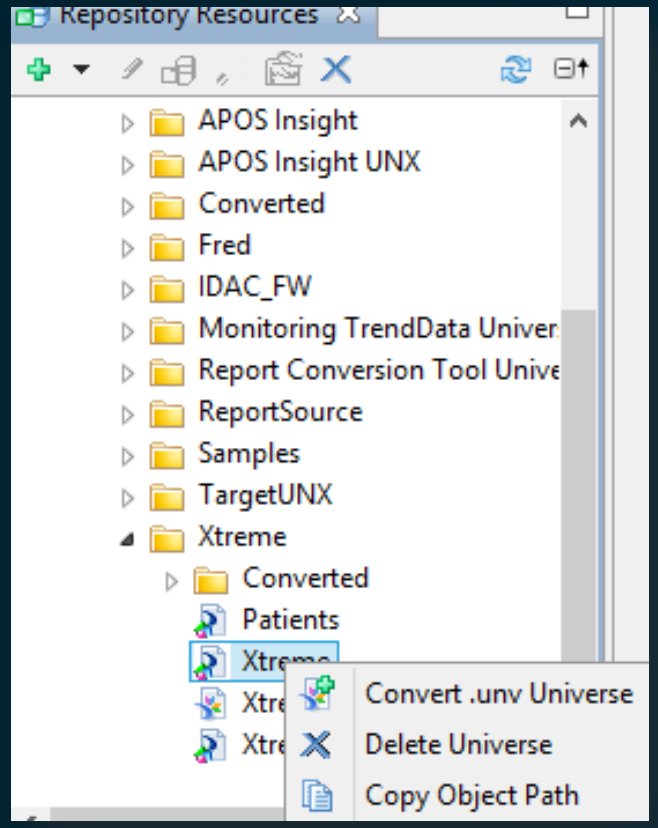
Bulk Conversion of Universes

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

Conversion of Universes

- Convert 1 by 1 in the IDT



Conversion of Universes

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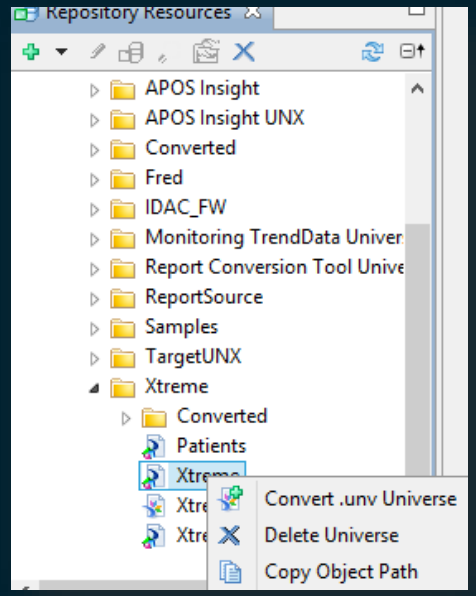
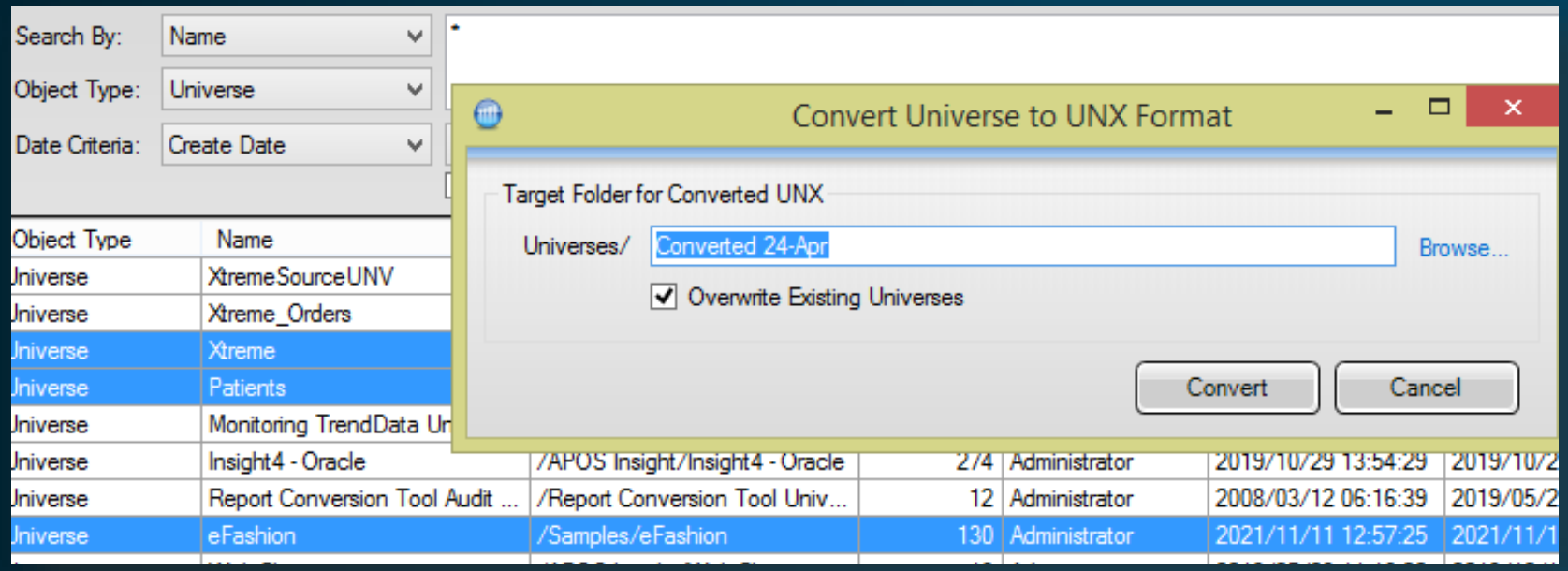


- Convert in bulk: WebI Migrator



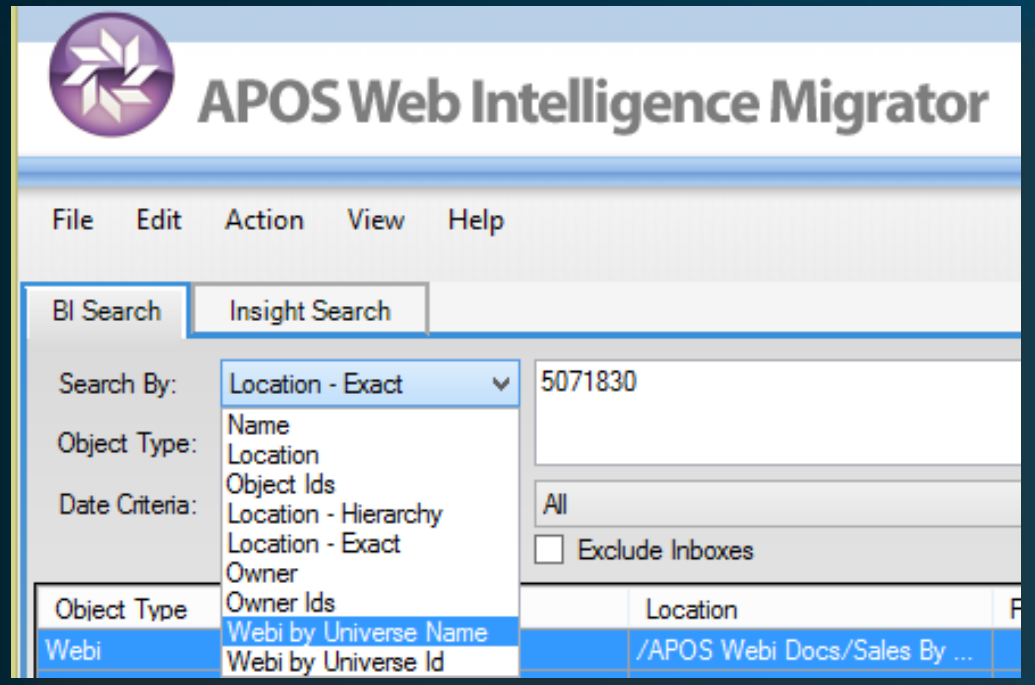
Bulk Repointing of Reports

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

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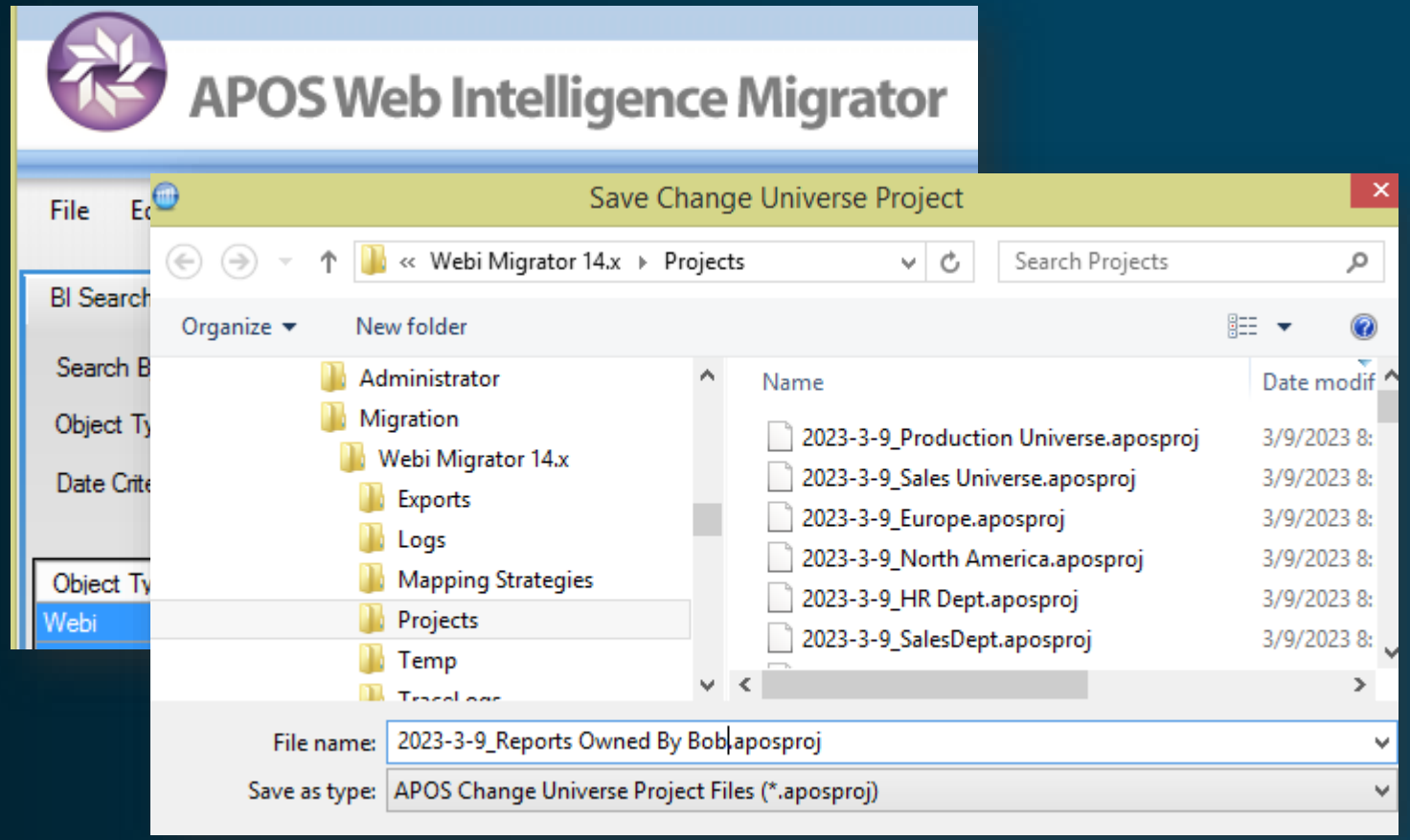
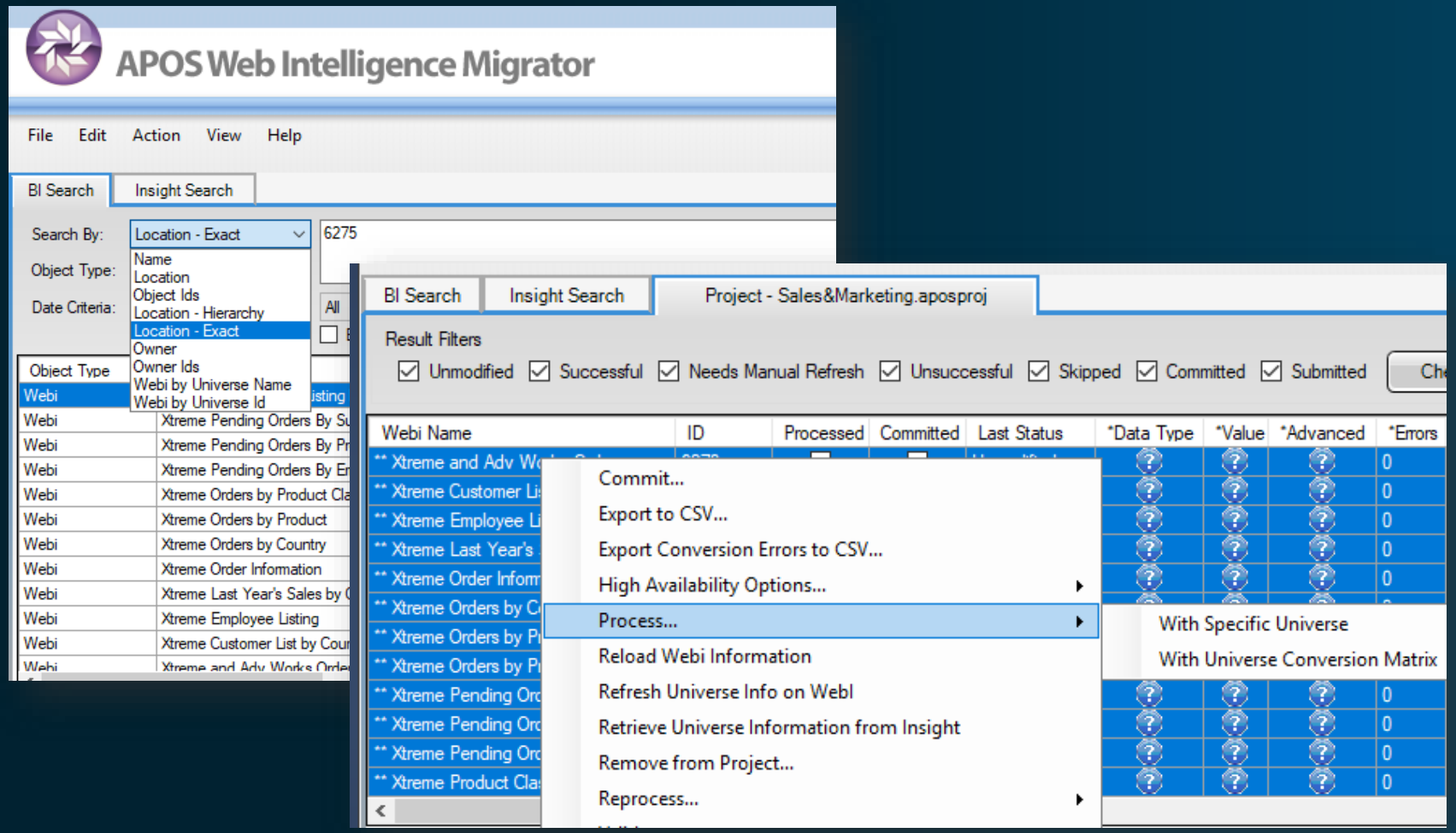


Bulk Web Intelligence Repointing – Process

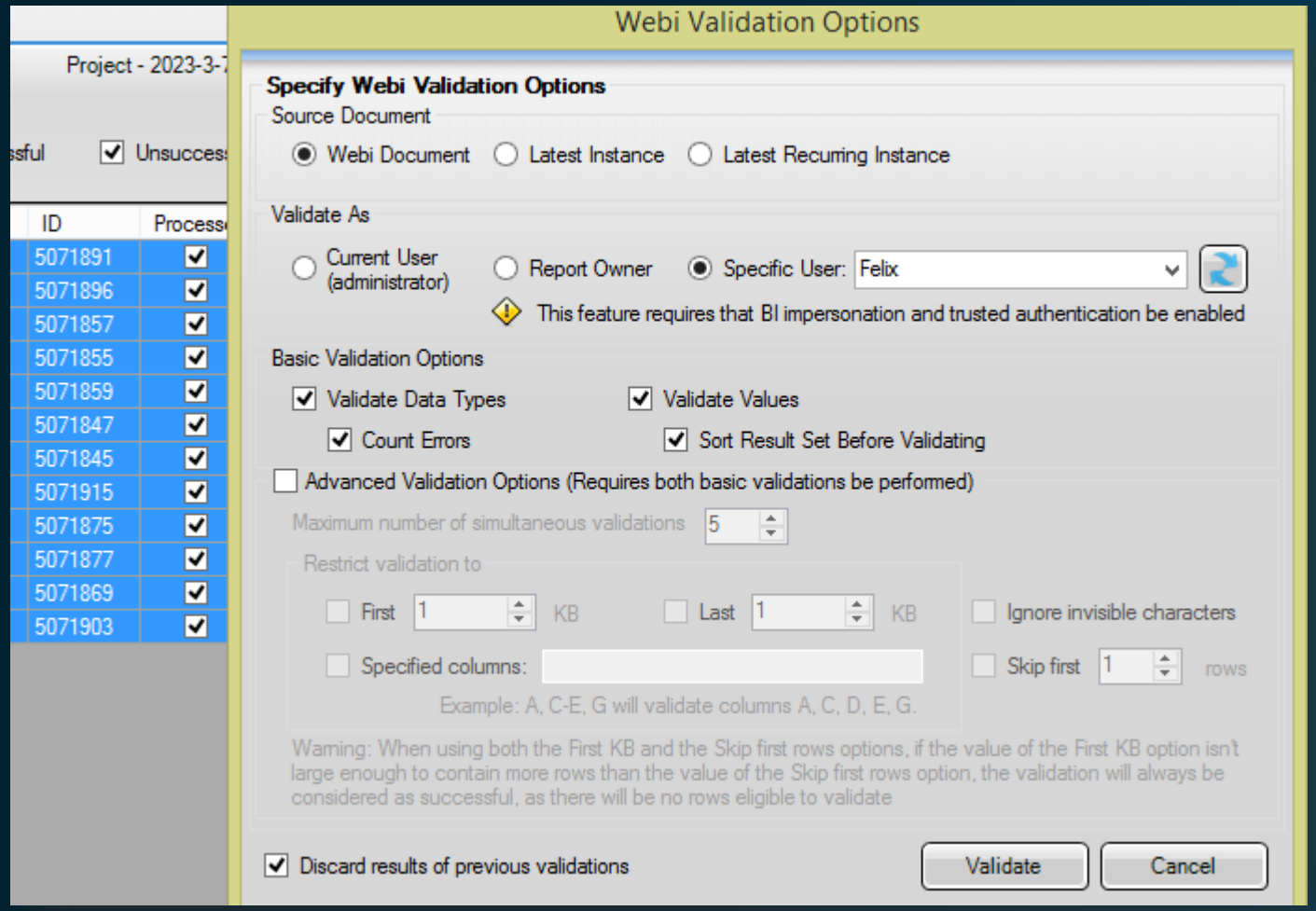


Bulk Validation of Upgrade Success

Key Considerations

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

Bulk Validation of Upgrade Success



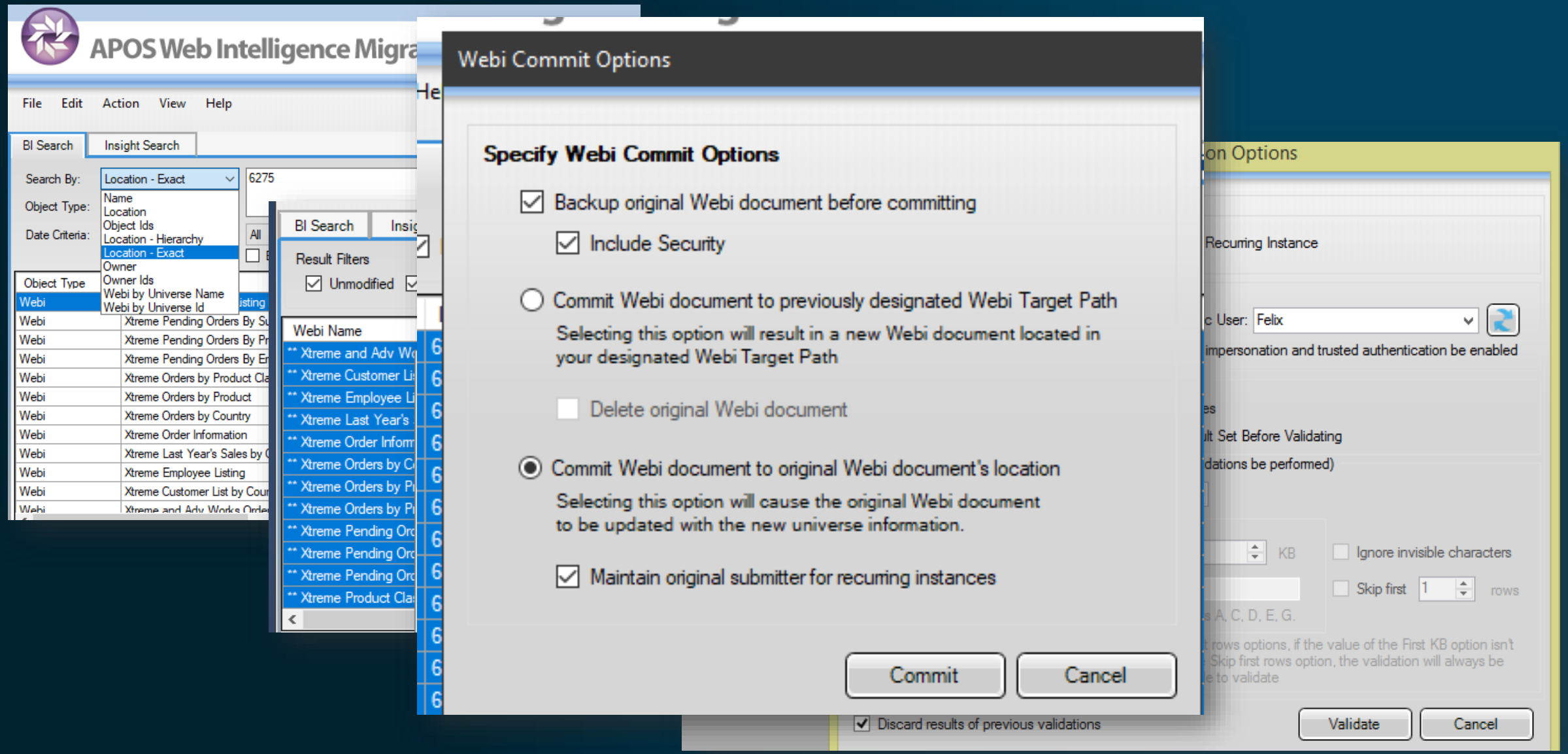
- Ensure correct user is set
- Select how validation occurs
- Exclude certain rows/ columns

Commit Phase

Key Considerations

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

Commit Phase



Web Intelligence Migrator Overview

Solution Demonstration

To view this demonstration, watch the webinar on demand

Process Control Features

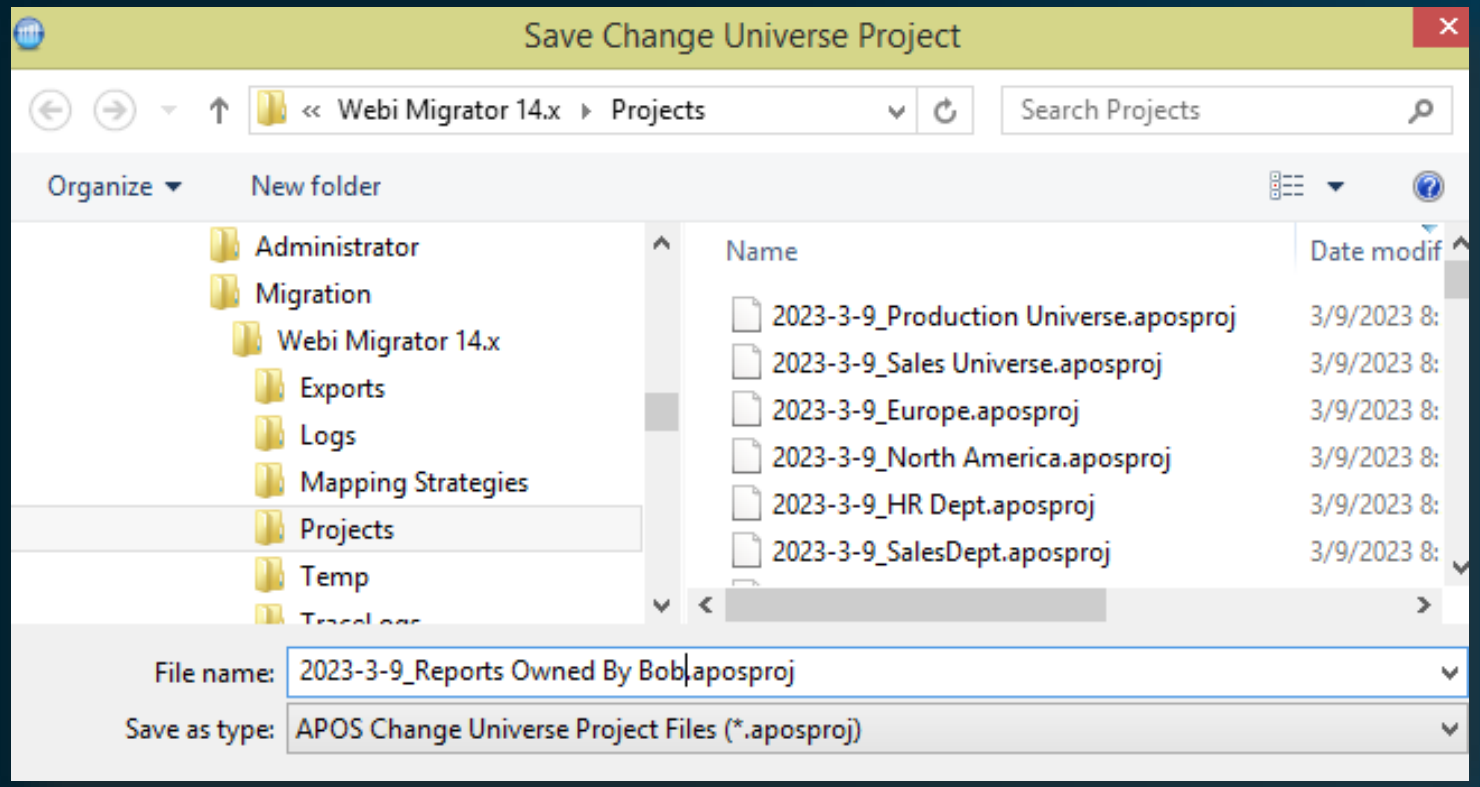
- Projects Structure
- High Availability

Projects Structure

Key Considerations

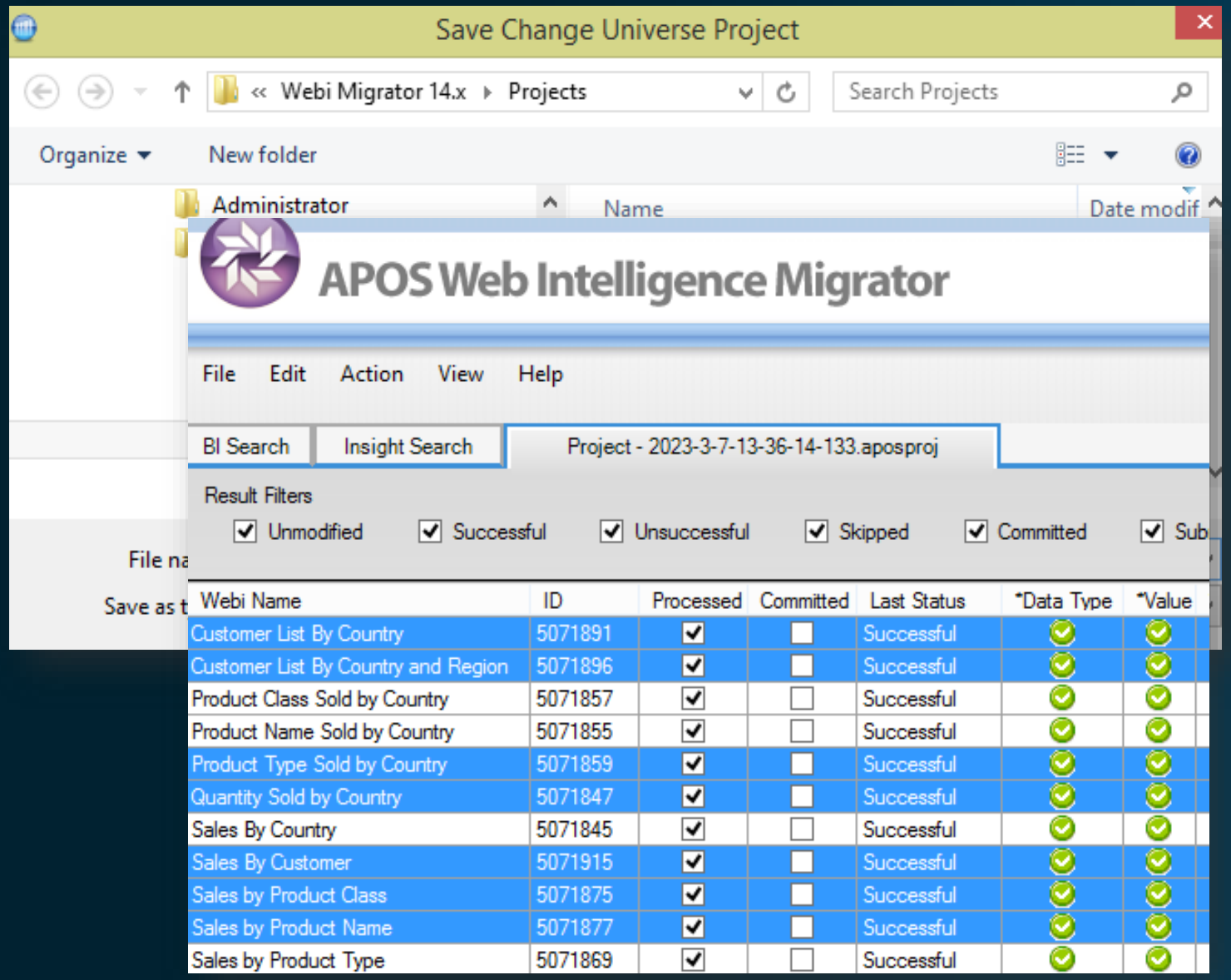
- Organized approach to repointing
- Work in manageable chunks

Projects Structure



- Name the projects meaningfully

Projects Structure



- 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
UNX Reports

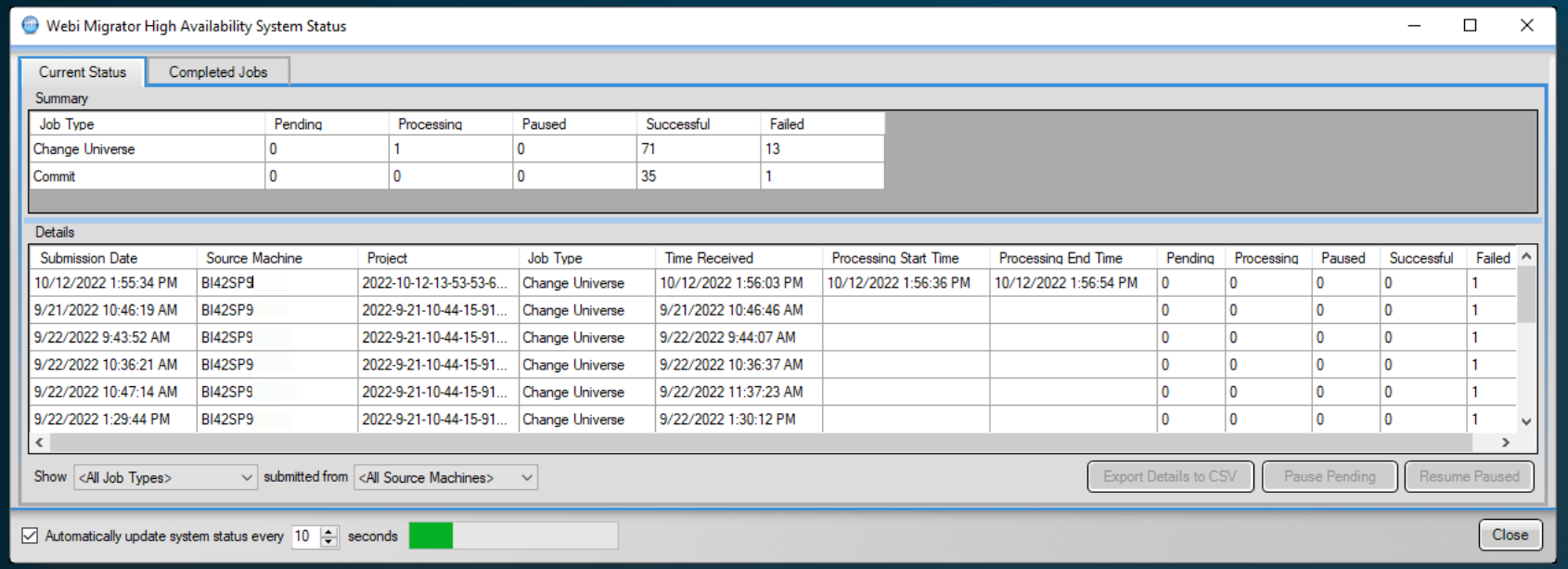
High Availability

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

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



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.

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Requirements

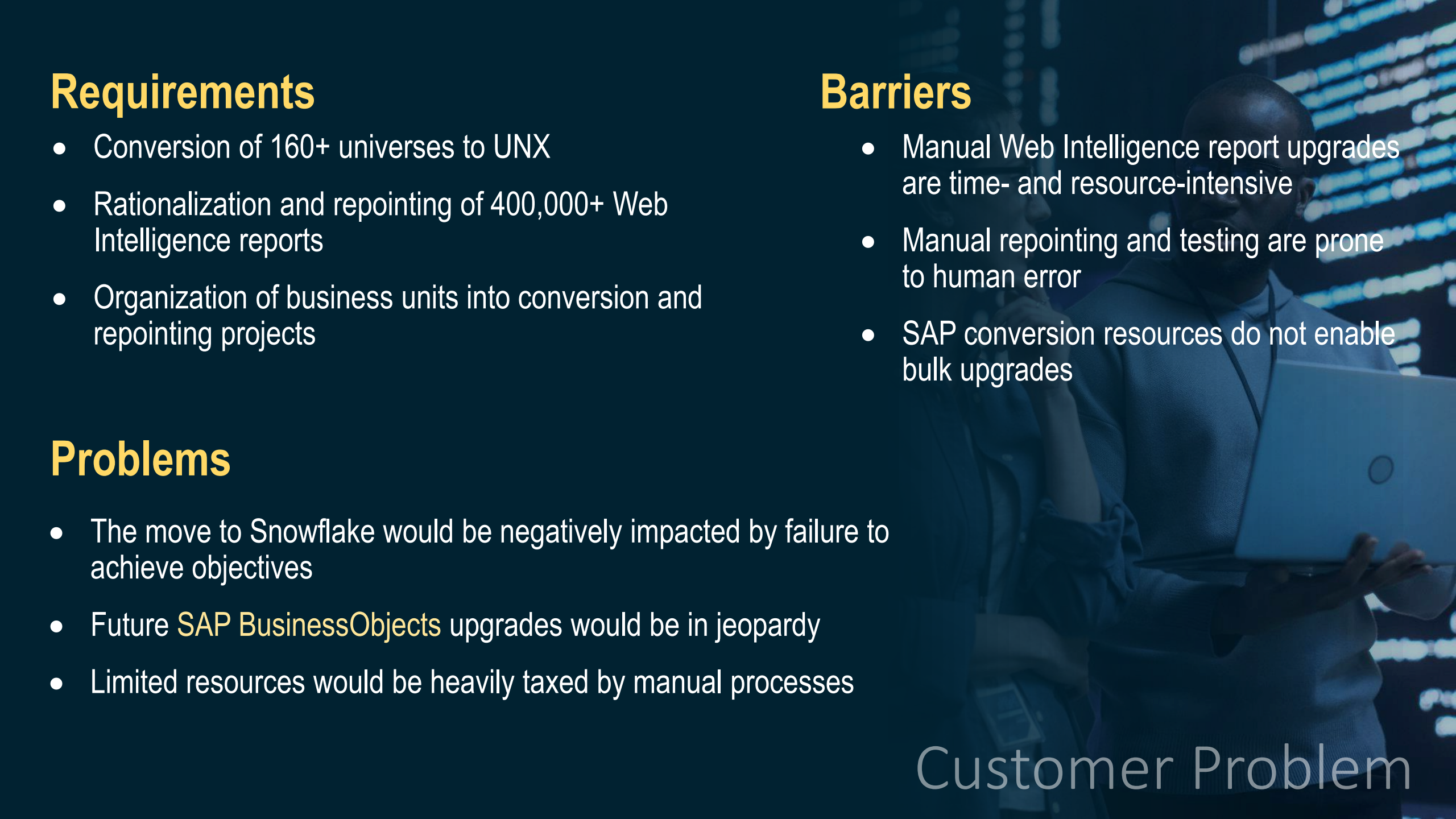
- Conversion of 160+ universes to UNX
- Rationalization and repointing of 400,000+ Web Intelligence reports
- Organization of business units into conversion and repointing projects

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

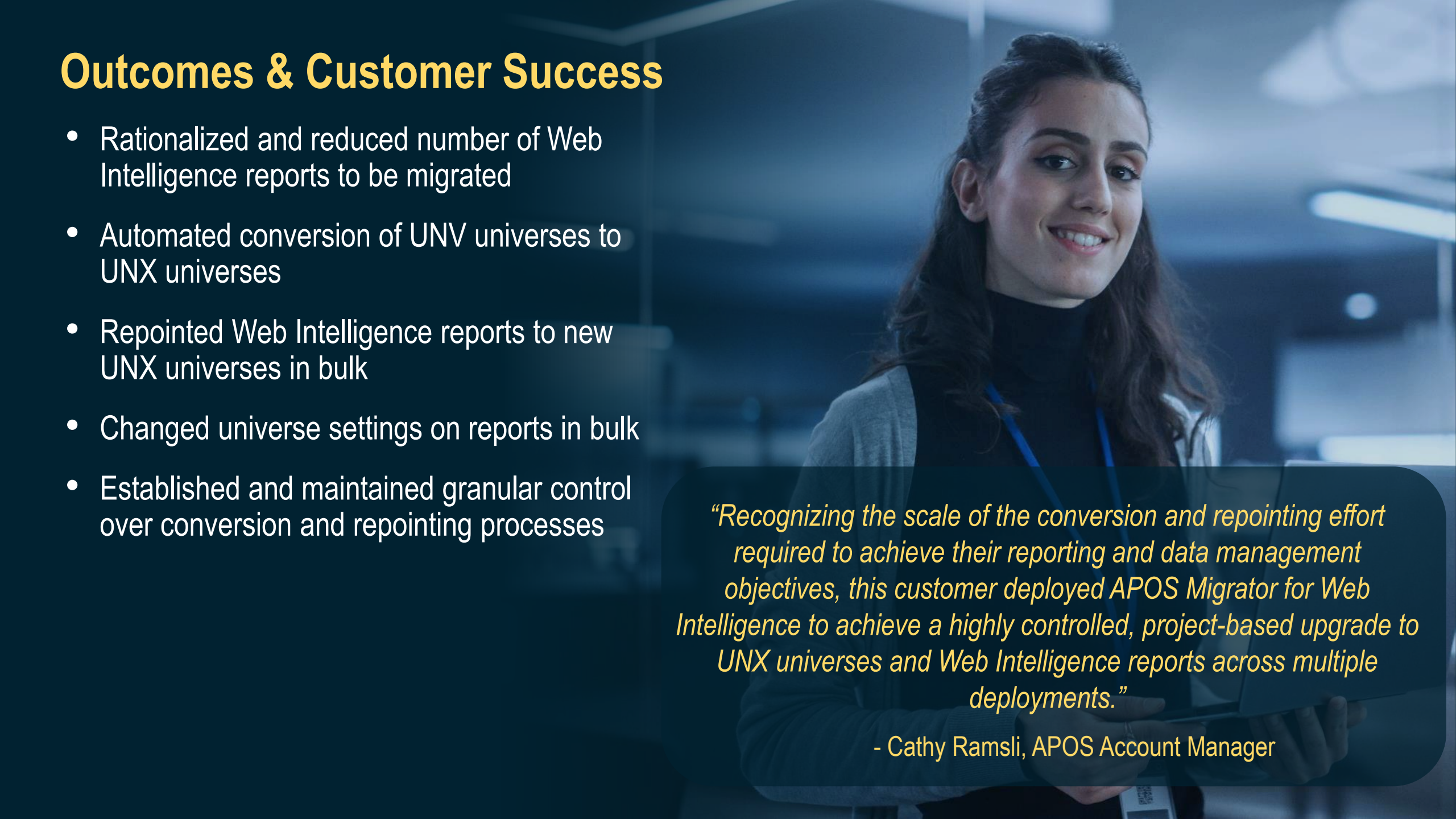
- The move to Snowflake would be negatively impacted by failure to achieve objectives
- Future SAP BusinessObjects upgrades would be in jeopardy
- Limited resources would be heavily taxed by manual processes



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

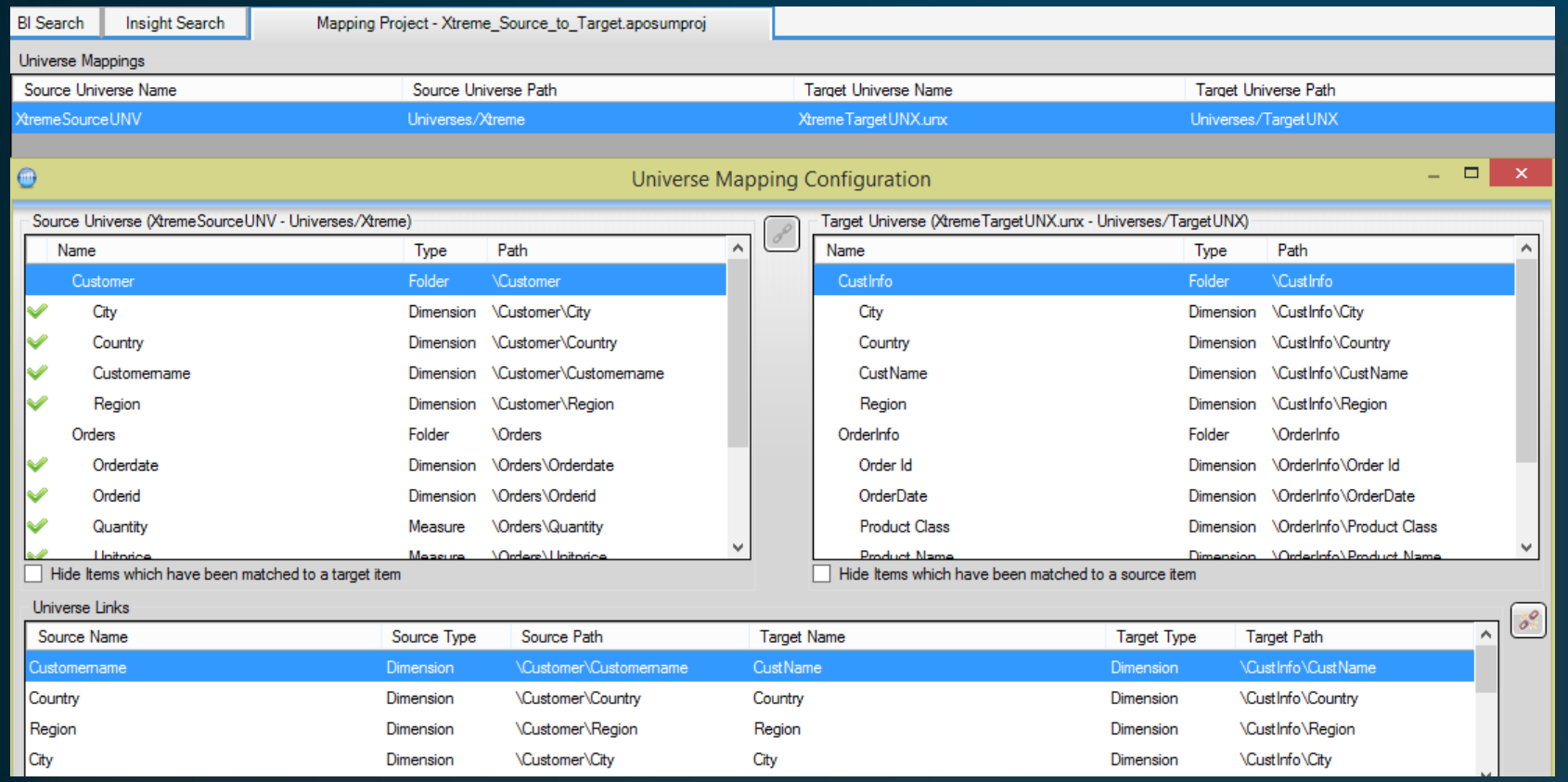
Custom Field Mapping

Key Considerations

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

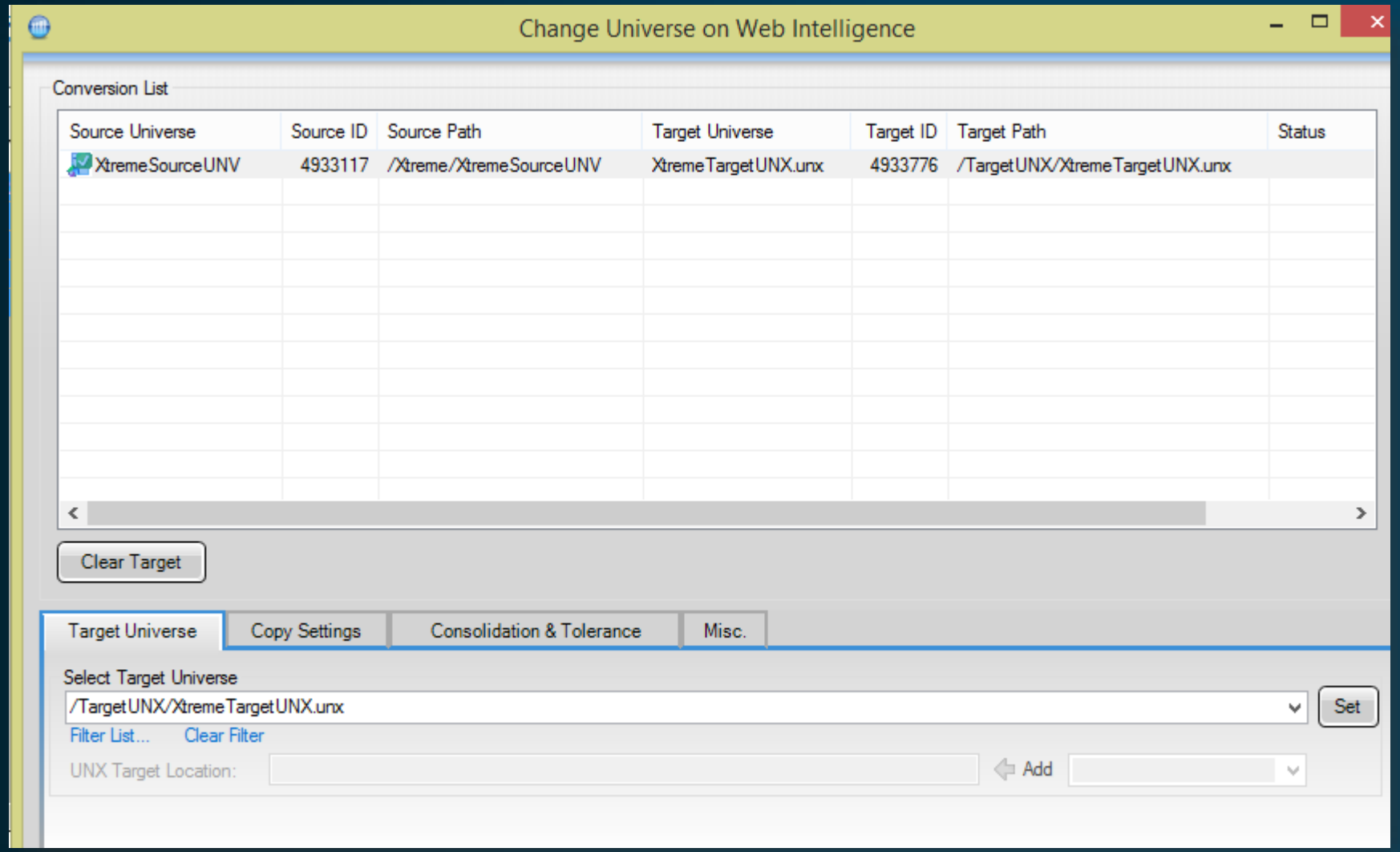
Custom Field Mapping

- Map source UNV objects and classes to target UNX



Custom Field Mapping

- Select the target UNX when executing the project



APOS Web Intelligence Migrator

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

- Repoint 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

More Information – Next Steps

UNX Adoption Project Cost Estimator

- Details and link to instant estimate

UNV to UNX Upgrade Freemium Offer

- Information Sheet: download link

Solution Discovery Call

- Deployment Discussion
- Dedicated Solution Demonstration

Upcoming Event

BI 2025 Debrief + Automating Migration Steps

Join us for this session to review the BI 2025 release, and to discuss automation to help you speed and strengthen your move to BI 2025!

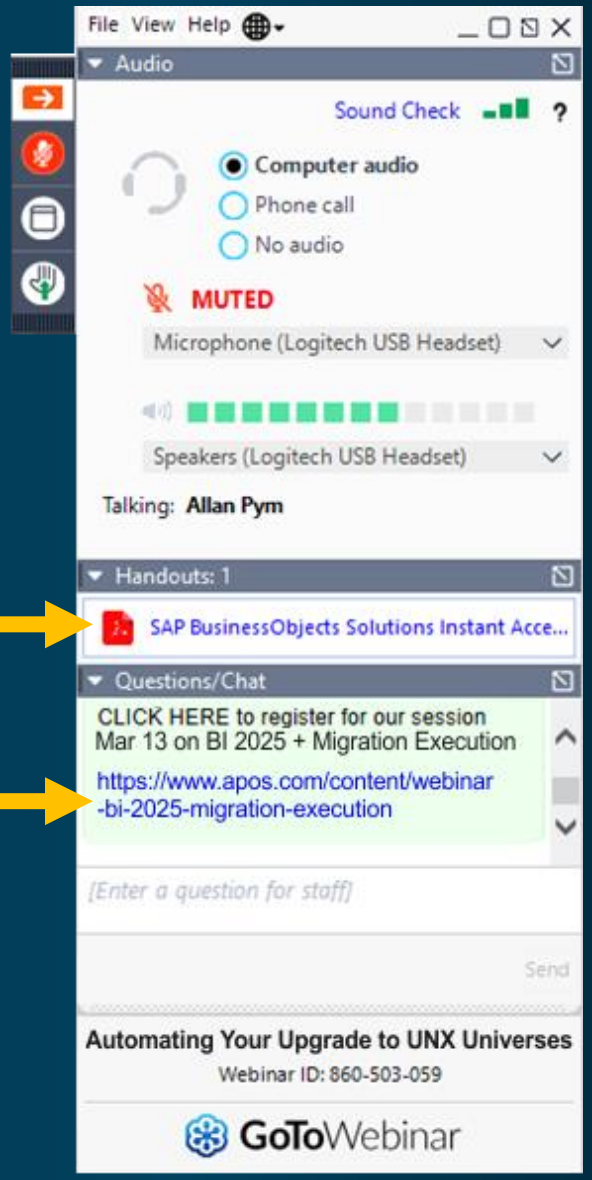
March 13 - 11am EDT / 8am PDT / 3pm GMT / 4pm CET

Register now in PDF in handout panel or using link in Chat panel

APOS

Register for March 13

- ✓ Open the PDF in the Handout panel and click on the webinar link
- ✓ Open the Question panel and click the link in the message



Register at www.apos.com

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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

APOS Solutions for SAP Analytics Cloud

APOS Publisher for Cloud

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

APOS Data Gateway

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

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Please enter your questions in the Q&A panel.

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