

Flashes of Insight: SAP BusinessObjects Usage Analysis



Today's Session

Key Topics

TOPIC

- Report Usage
- User Activity
- Hardware/Server Utilization
- Q&A – see webinar console



Today's Presenters



JAY MURDOCH

Business Development Manager
APOS



Fred Walther

Senior Solution Consultant
APOS

Who is APOS?

- Formed in 1992
- Enabling BI platform management, administration, migration, governance and compliance
- Simplifying, automating, extending SAP BusinessObjects and SAP Analytics Cloud
- Strategic SDK development and consulting
- Hundreds of customers globally



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



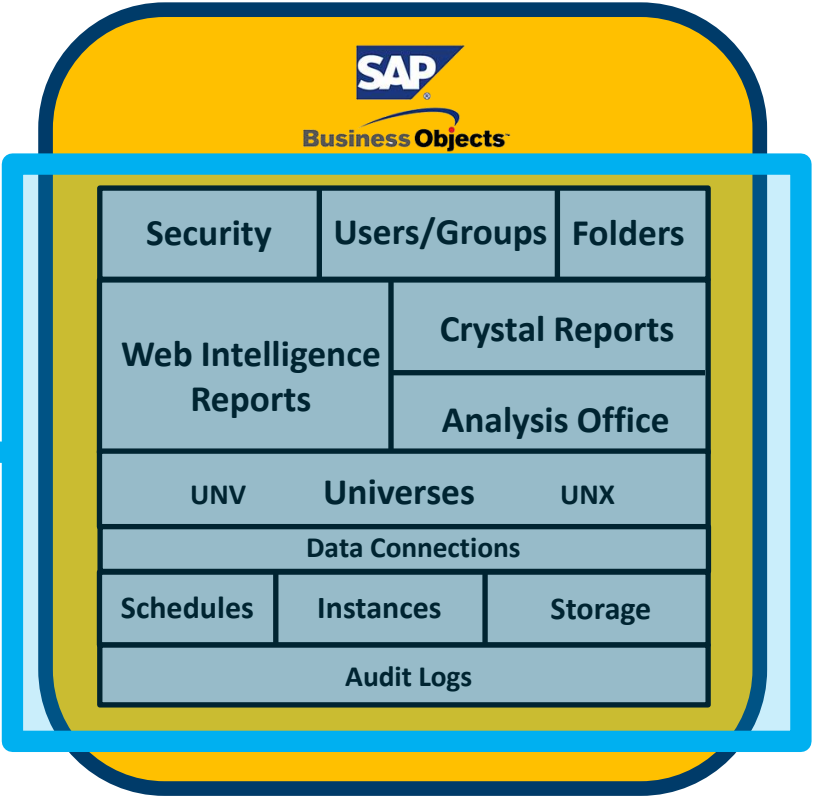
APOS Insight



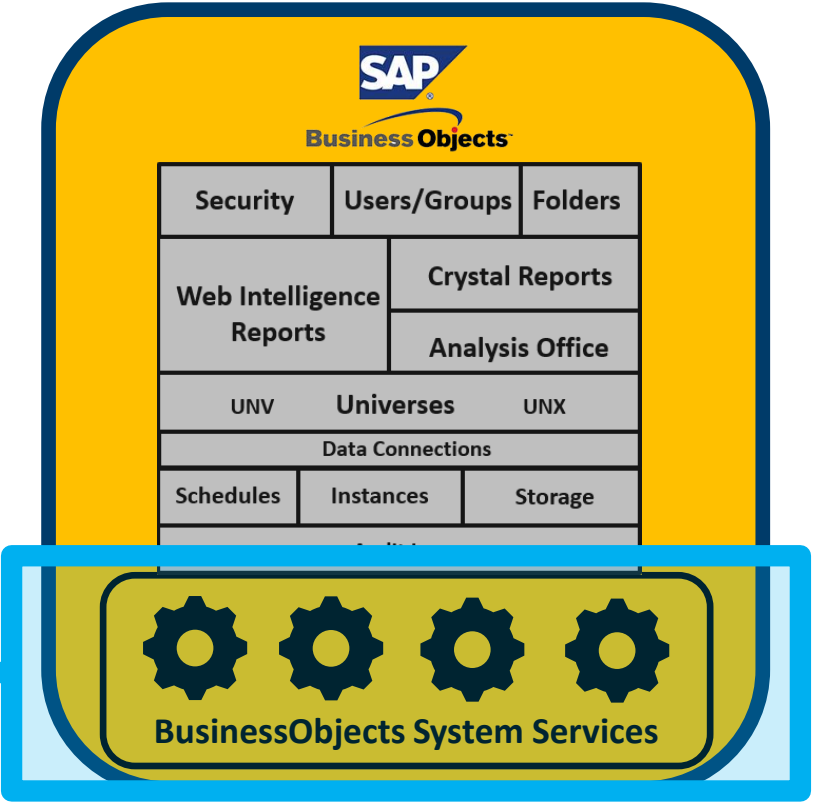
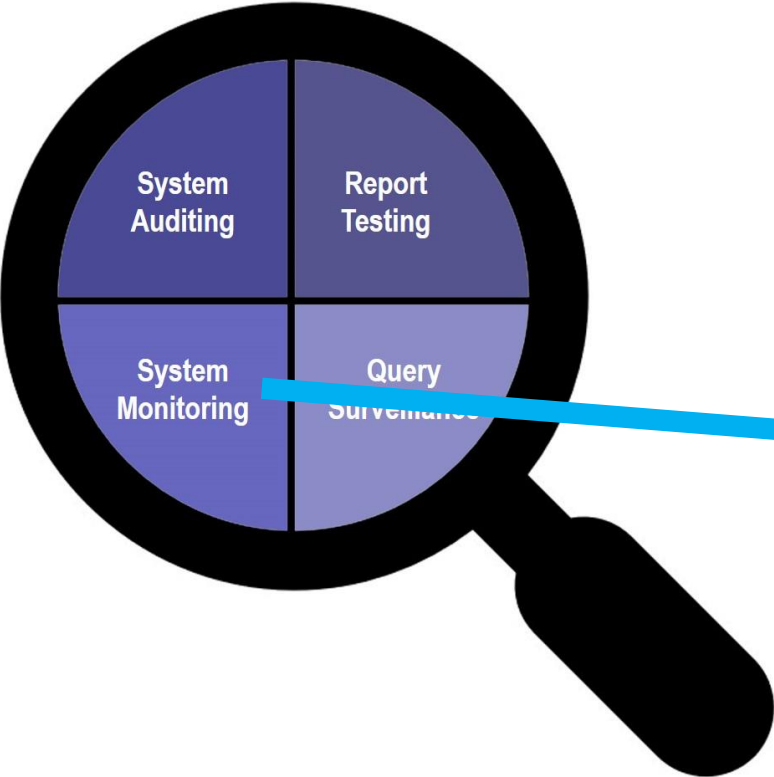
		
Security	Users/Groups	Folders
Web Intelligence Reports	Crystal Reports	
	Analysis Office	
UNV	Universes	UNIX
Data Connections		
Schedules	Instances	Storage
Audit Logs		



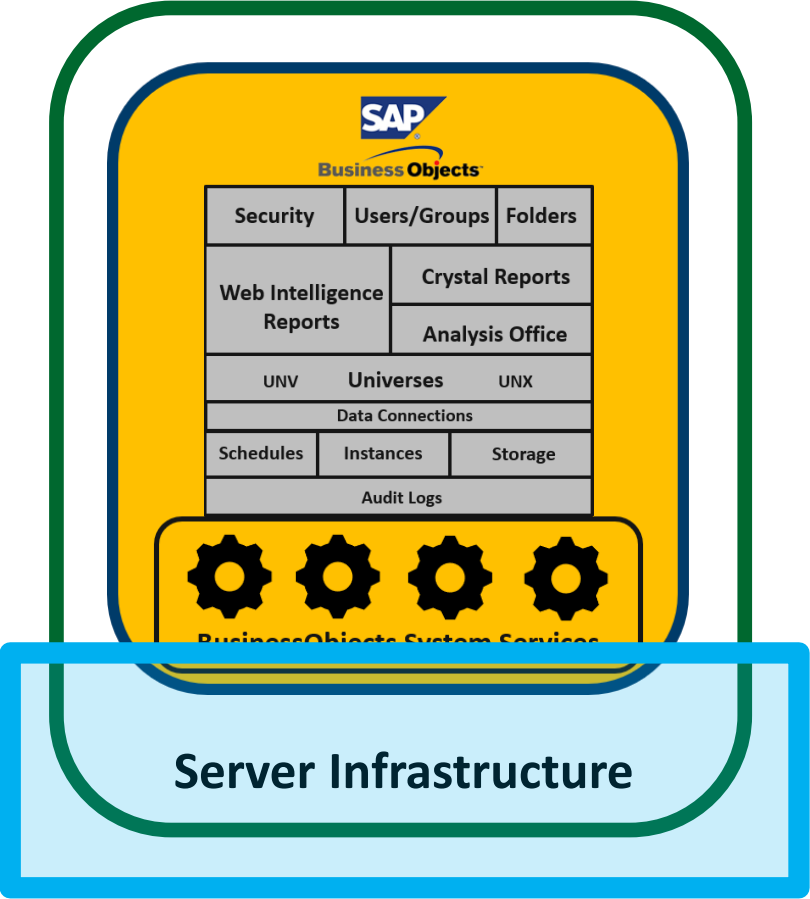
APOS Insight



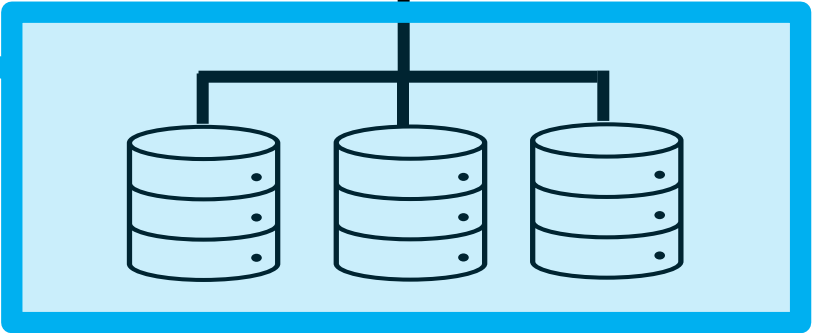
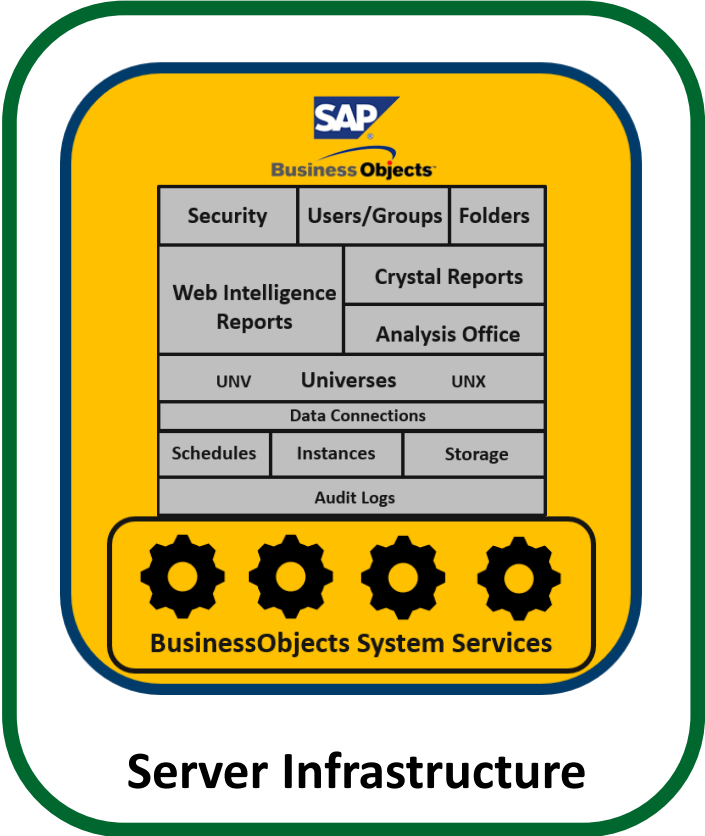
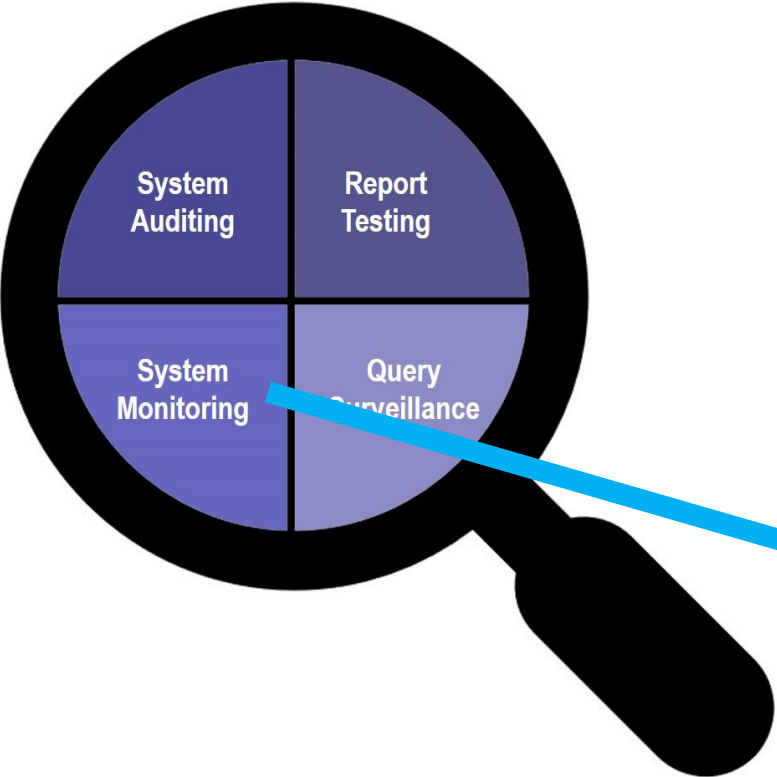
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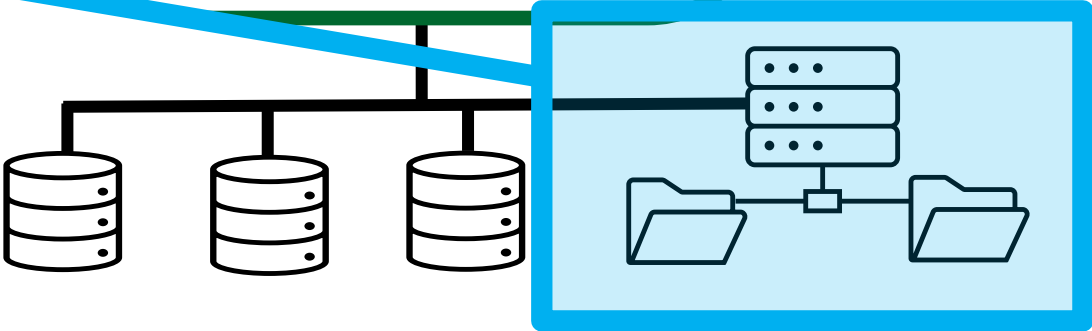
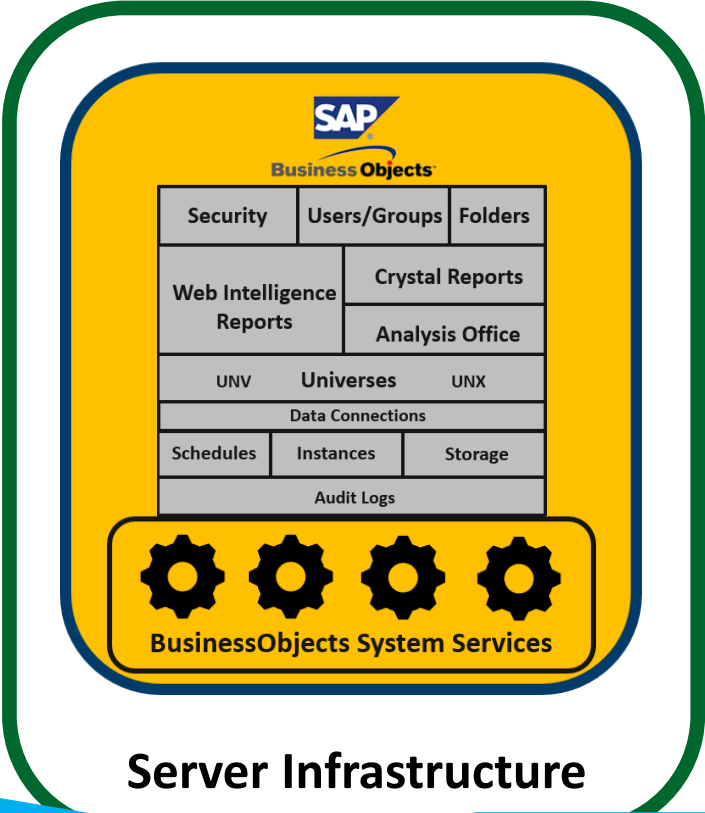
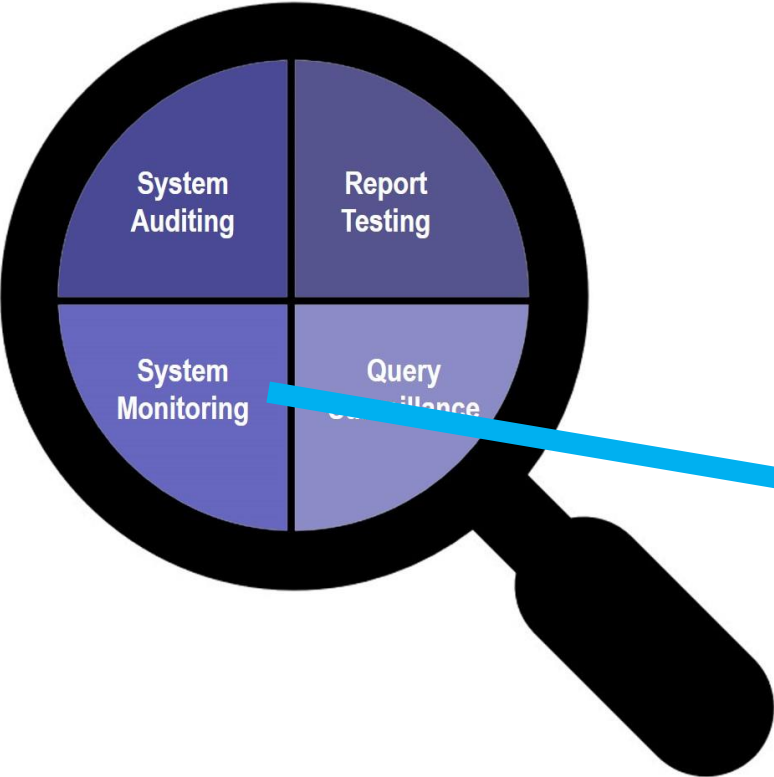
APOS Insight



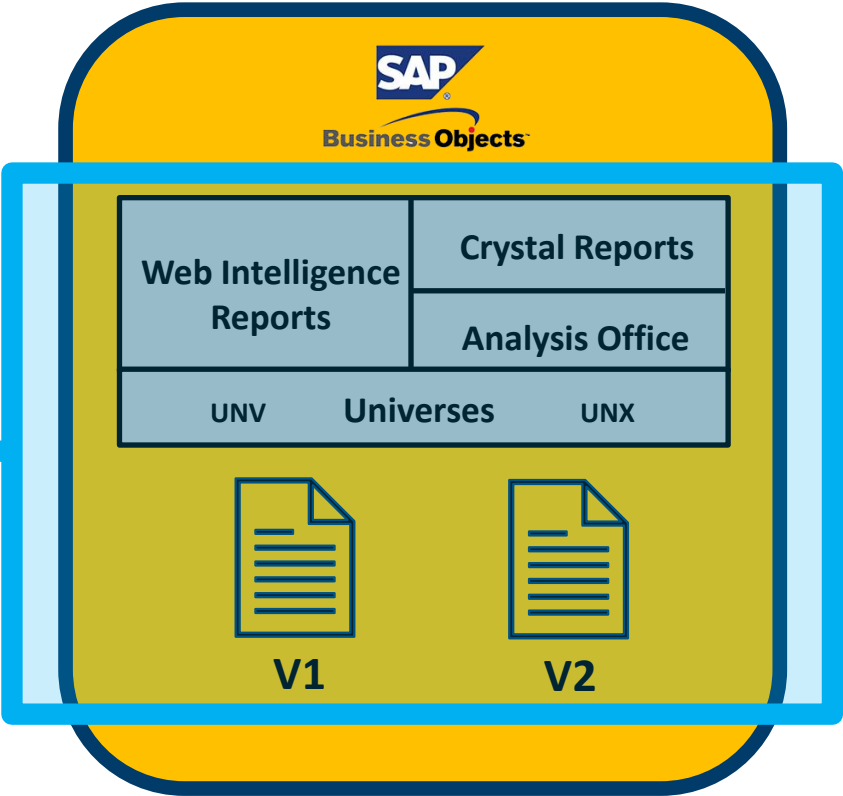
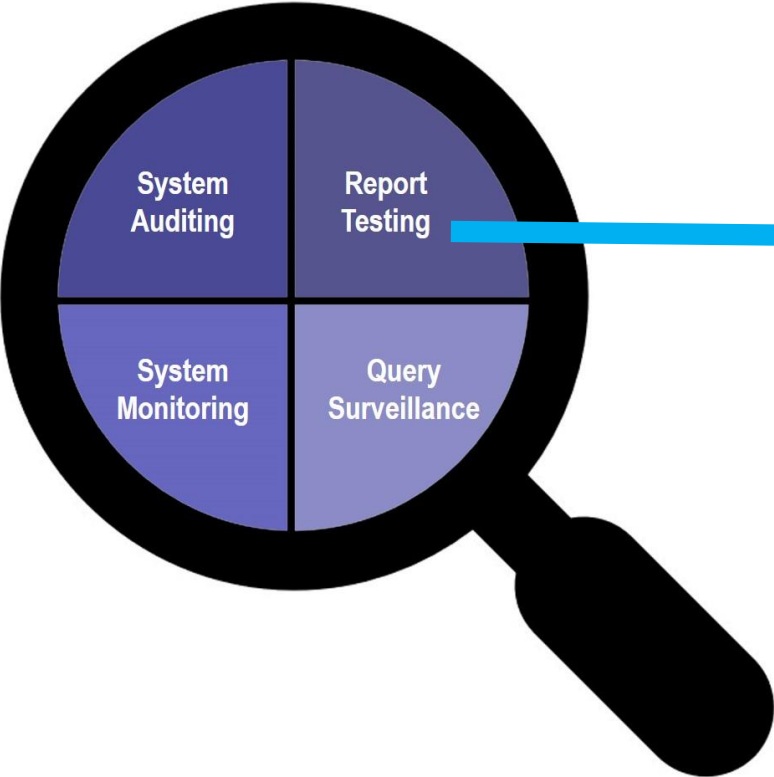
APOS Insight



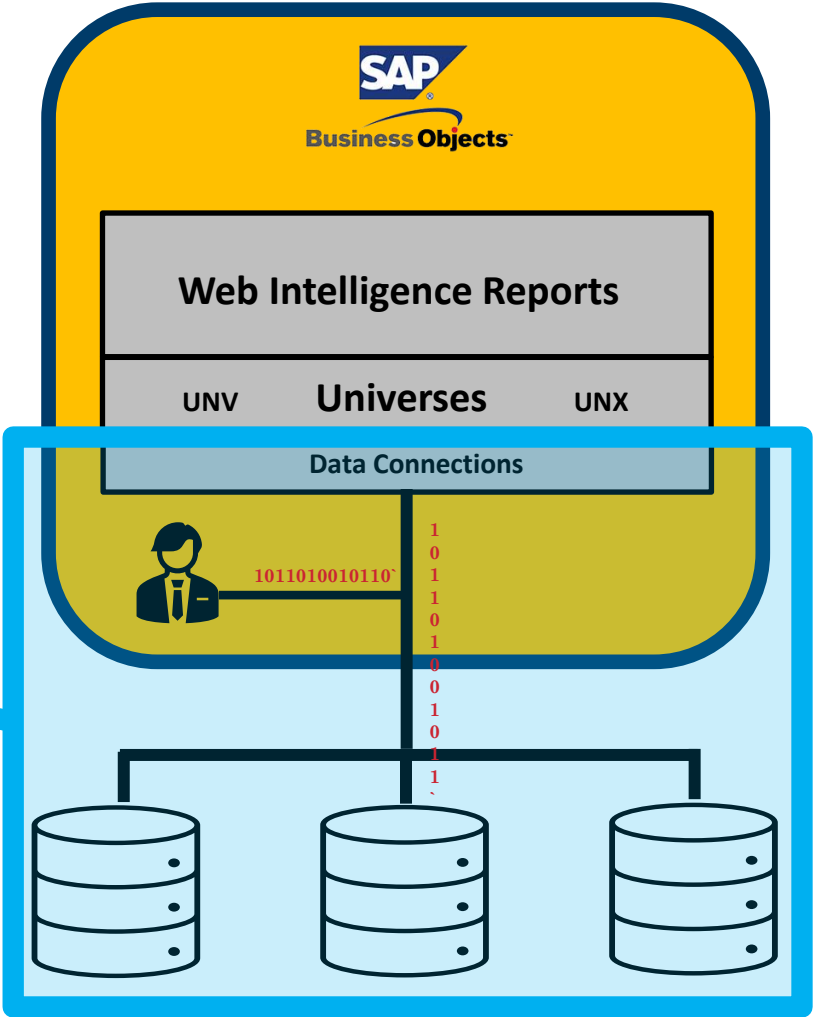
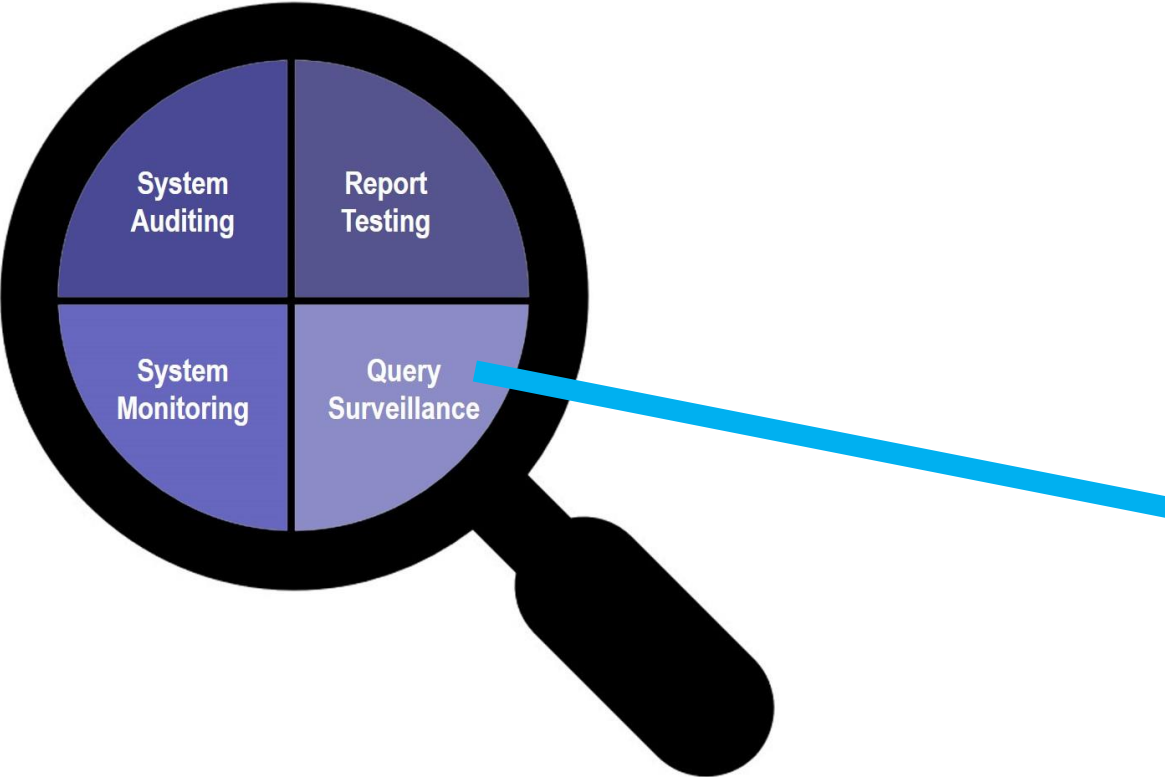
APOS Insight



APOS Insight



APOS Insight



Flashes of Insight – Usage Analysis



Flashes of Insight - Series



Session 1 – Managing Change
Session 2 – Performance Analysis
Session 3 – Usage Analysis (Today)

Session 4 – Automated Report Testing
Session 5 – Query Management & Governance
Session 6 – Report Impact Analysis





Fred Walther
Senior Solution Consultant
APOS

Flashes of Insight



Report Usage

User Activity

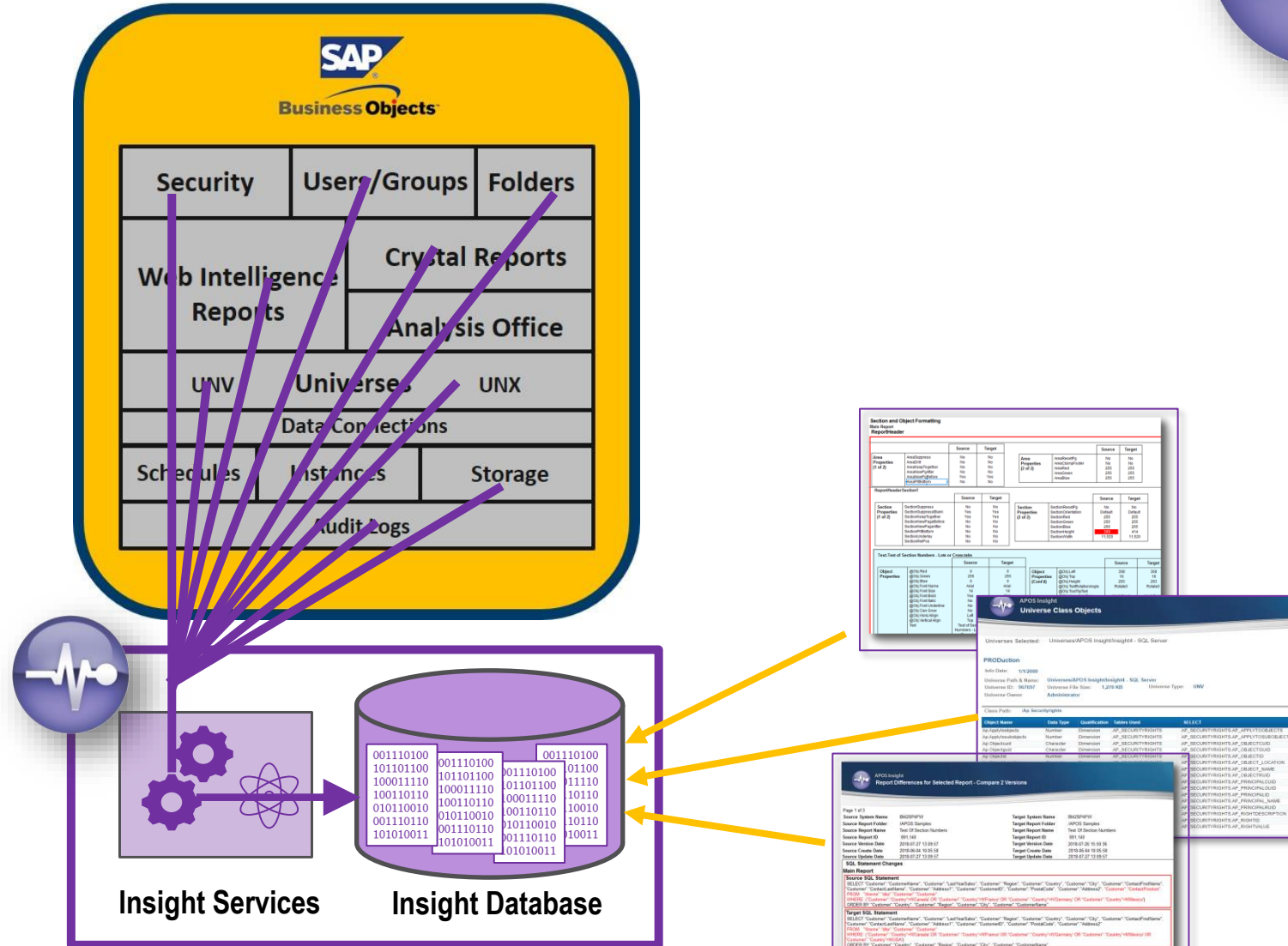
Hardware/Server Utilization



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



Flashes of Insight



Report Usage

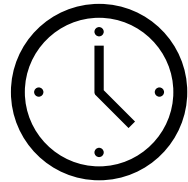
- Most used reports
- Most used universes
- Least used/unused reports



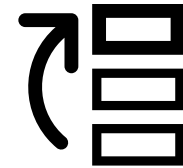
Report Usage



Why Important?



Control Technical Debt



Manage Priorities

Report Usage

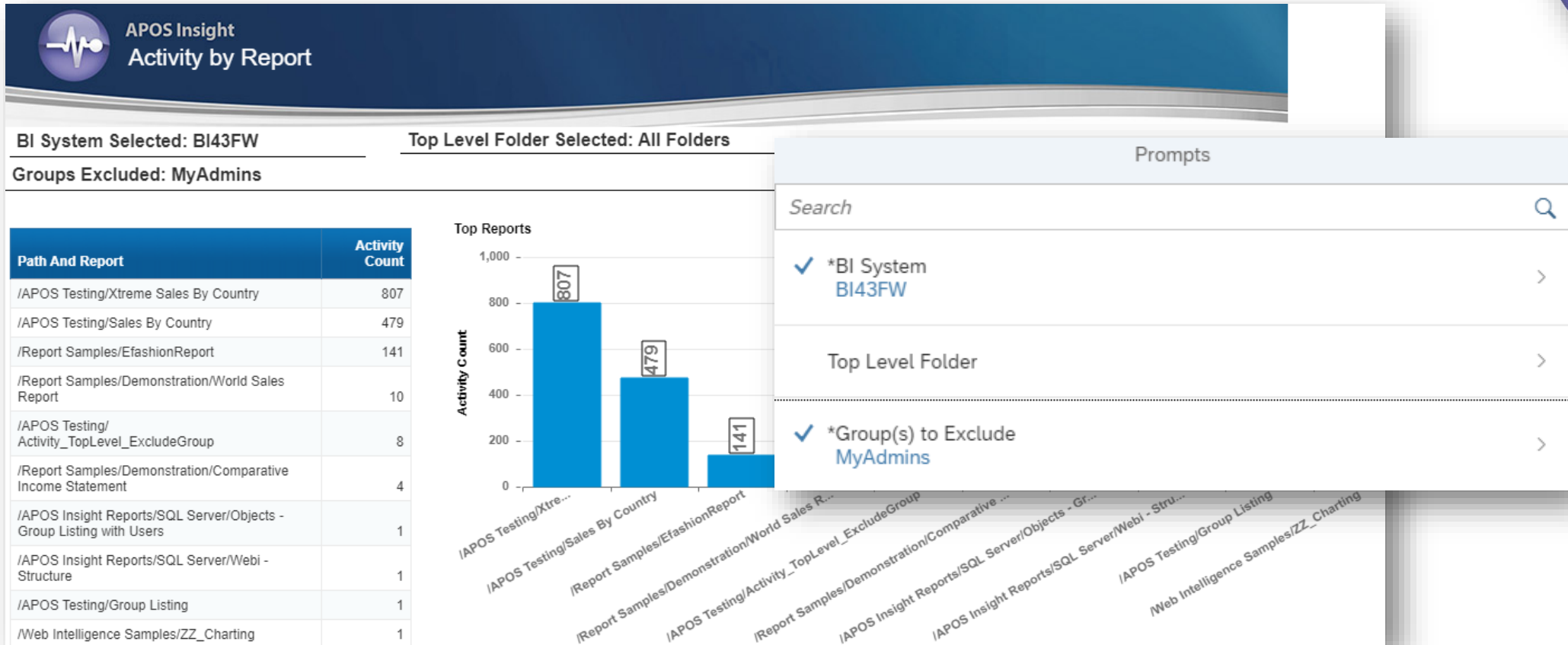


Report usage tells a story about how your system perceived by users :

- Which reports are the most popular?
- Which reports were asked for, but were then unused?
 - Why were they unused?
- Which universes serve the most reports?
 - Which databases do those universes connect to?




Report Usage



The “Activity by Report” Web Intelligence document shows usage by report, ordered by the Activity Count

Report Usage





APOS Insight

Activity by Report

BI System Selected: BI43FW

Top Level Folder Selected: All Folders


Groups Excluded: MyAdmins

Path And Report	Activity Count	BI Folder Path	Activity Datetime	User Name	Object Name	Activity Type	Activity Count
/Report Samples/Demonstration/World Sales Report	10	/Report Samples/Demonstration	11/19/20 10:50 AM	Administrator	World Sales Report	Schedule Crystal Report	1
Sum:	10	/Report Samples/Demonstration	11/20/20 10:51 AM	Administrator	World Sales Report	Schedule Crystal Report	1
		/Report Samples/Demonstration	11/21/20 10:50 AM	Administrator	World Sales Report	Schedule Crystal Report	1
		/Report Samples/Demonstration	11/22/20 10:50 AM	Administrator	World Sales Report	Schedule Crystal Report	1
		/Report Samples/					

Drilling into the “*Activity by Report*” Web Intelligence document shows usage details.

Report Usage



Unused Objects ActiveReports GroupList to Exclude					
 APOS Insight Unused Objects					
Unused Report in Time Range: 2020-11-16 to 2021-05-27 for BI System: BI43FW					
Group(s) Excluded from report: Exclude1;Exclude2;MyAdmins					
/APOS Insight Reports/SQL Server					
System Name	Report Name	Report Type	Report CUID	Report ID	Si Owner
BI43FW	Audit - Unused Objects Summary Report	Webi	AdaGrir0vQVAqHeZTDxNJJg	93,492	Administrator
BI43FW	Audit - User Logon Activity	Crystal	AbRAzaizeuBGurGXQWIVKpA	93,606	Administrator
BI43FW	Audit - User Logon Activity	Webi	AeS7ArHivy5MI47Wbm6OQ9k	93,585	Administrator
BI43FW	Audit - User Logon Activity Details	Crystal	AXP.u2oFg5VCorIRqjJg3ow	93,538	Administrator
BI43FW	Audit - User Logon Activity Details	Webi	AbTHZcW.wAxDJG8ADz9665g	93,532	Administrator

The “*Unused Objects*” report shows objects not used within a specified time range.

Universe Usage



APOS Insight Universe List with Reports	
Universe Folder and Name	Number of Reports
Universes/APOS Insight/NIH_Xtreme_Cust_Orders_UNV	226
Universes/APOS Insight/Insight4 - SQL Server	55
Universes/APOS Insight/Insight4 - Oracle	38
Universes/Xtreme/XtremeUNV	36
Universes/webi universes/eFashion	31
Universes/Xtreme/Fred_Xtreme_Universe	30
Universes/Monitoring TrendData Universes/eFashion	26
Universes/Xtreme/Xtreme_Customers	9
Universes/eFashion.unx	7

Universes/Xtreme/Xtreme_Customers			
Report Folder Location	Report Name	Report Owner	Report File Size
/APOS Multi Source Webi/	MultiSource	Administrator	58415
/APOS RPB Reports/AO and Webi to XLS/	A1_SalesByCountry	Administrator	26745
/APOS RPB Reports/Sales Reports Pkg/	A1_SalesByCountry	Administrator	26745
/APOS Sales Reports/	A1_SalesByCountry	Administrator	26745
/APOS Sales Reports/	Sales_With_Projection	Fred	27680
/C1_Source_Reports/	C1_Sales_Report_01	Administrator	26516
/C1_Source_Reports/	C1_Sales_Report_02	Administrator	26526
/C1_Source_Reports/	C1_Sales_Report_03	Administrator	26519
/C1_Source_Reports/	C1_Sales_Report_04	Administrator	26518

The “*Universe List*” report shows Universes and the reports that use them.

Customer Success - Report Usage



Large US Energy Provider

- Overall process to 'right size' their deployment
- Proper decisions required clear information about what reports are not being used
- Insight has enabled them to remove many unused and duplicated reports in order to streamline their system

Major NA Insurance Company

- Undergoing a migration, and only wanted to migrate content that is actually being used
- Analysis uncovered replication of reports
- With the information from Insight, they were able to remove a significant percentage of reports prior to migration processes



Flashes of Insight



User Activity

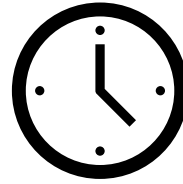
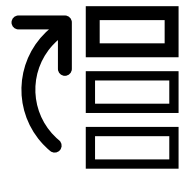
- Most Active Users
- Most Active Time Periods
- Inactive Users



User Activity



Why Important?



Effectively Manage Priorities



Manage Licensing



Governance & Security

User Activity

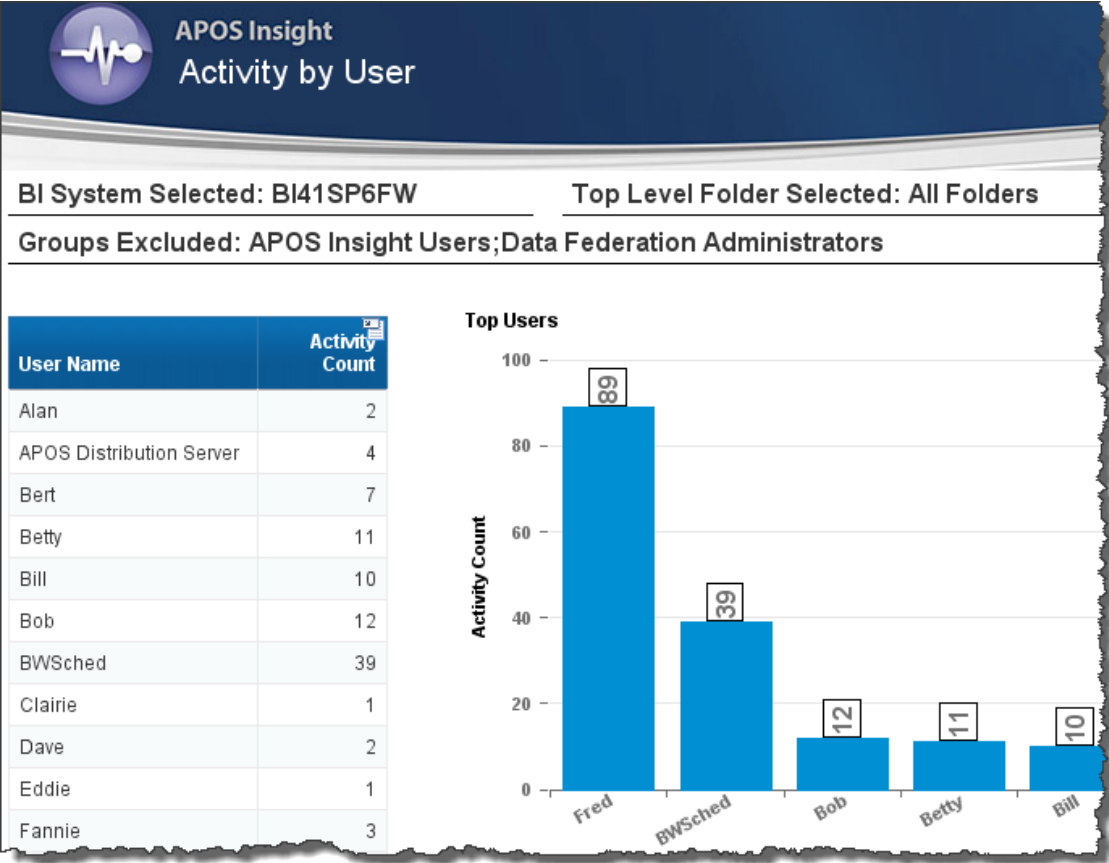


User Activity on the BI system is an indication of its health and of its perceived usefulness. APOS Insight helps to track user activity in a number of ways.

- Most active users in terms of reports run
- Logon activity by hour of the day
- Inactive users in the system

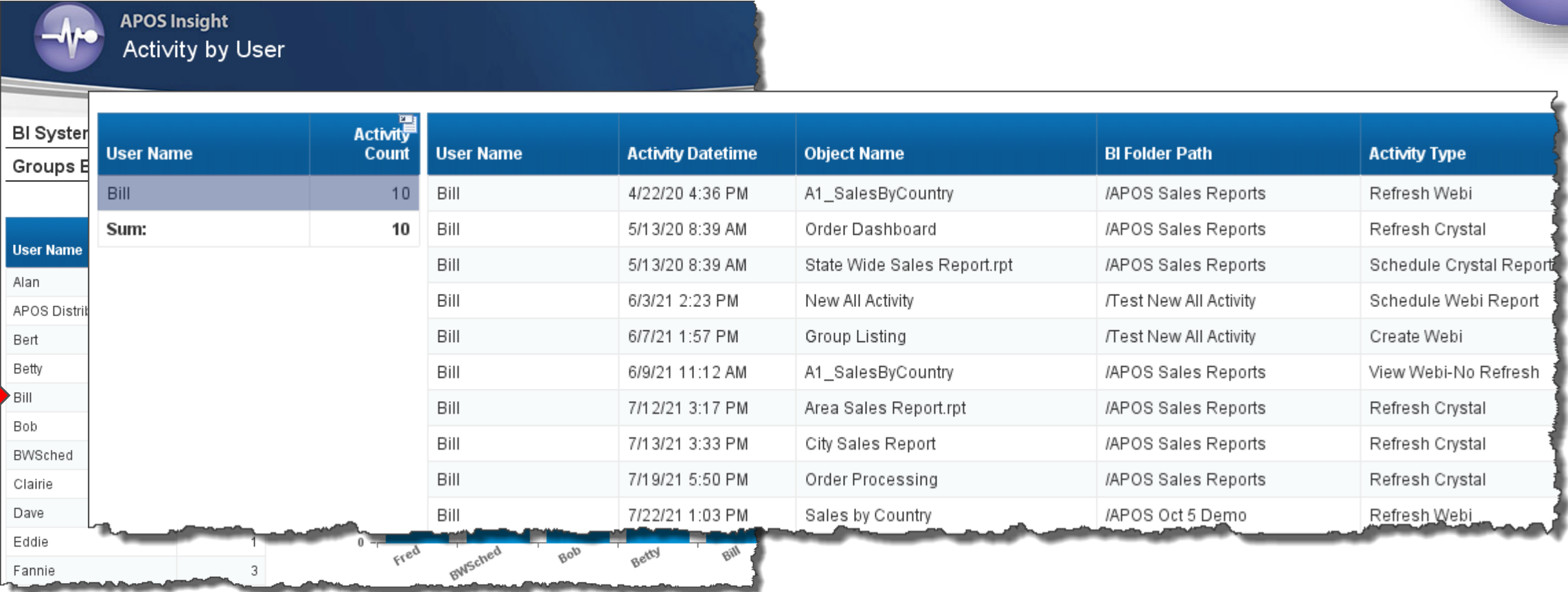


User Activity



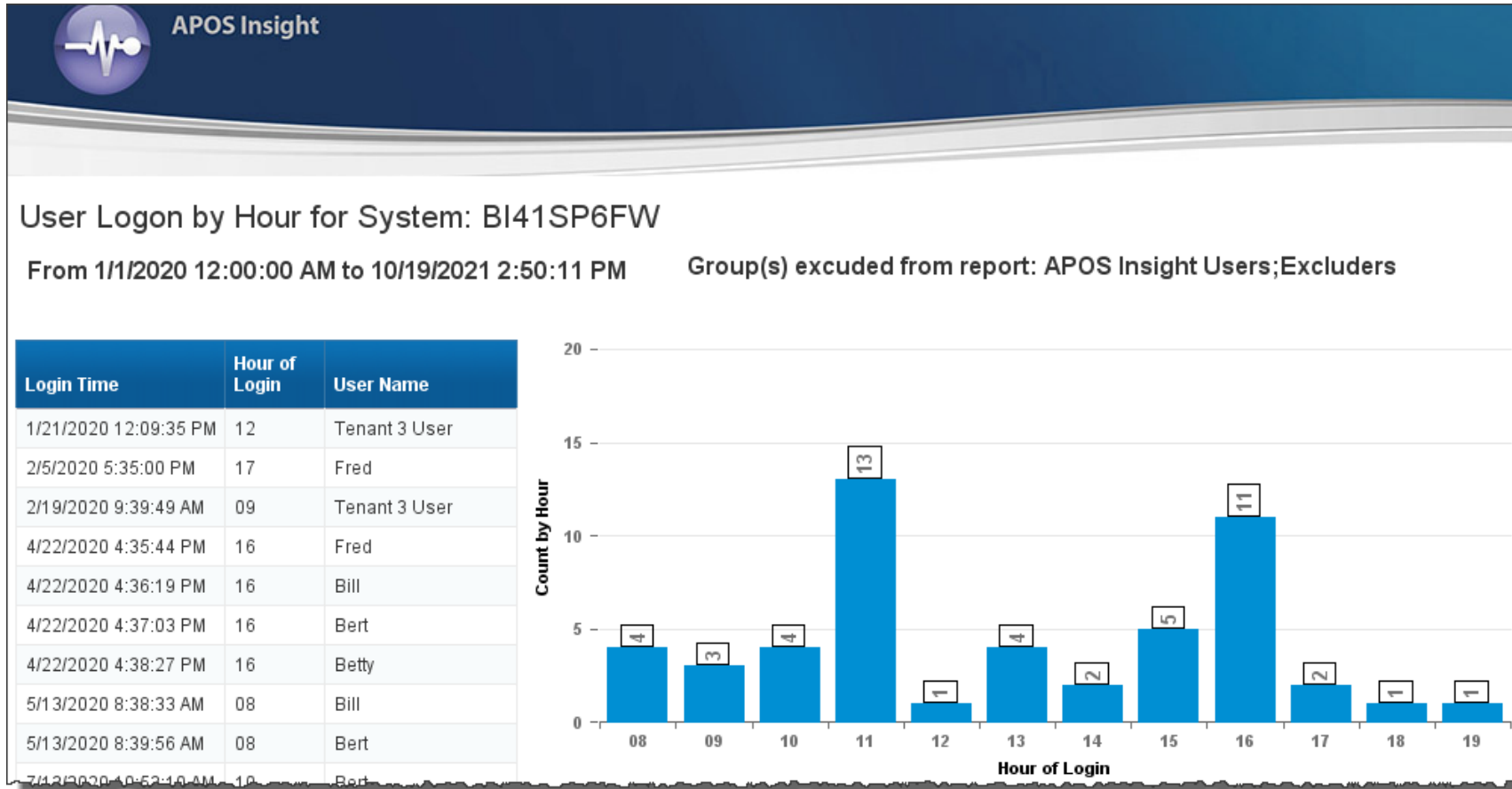
Activity Summary by User

User Activity



Activity Detail for User

User Activity



Understand the busiest times based on User Logins

User Activity/License Usage



APOS Insight <i>Inactive Users in Date Range</i>	
<i>Inactivity Date Range From 8/1/2021 to 10/20/2021</i> <i>For System: BI41SP6FW</i>	
User Name	Group Memberships
Acct1	Everyone
Alan	Administrators, Design Studio Administrators, Everyone
APOS Distribution Server	Administrators, Everyone
Asia1	Everyone, Sales Asia
Asia2	Sales Asia, Everyone
Bert	Everyone, Administrators
Betty	Everyone, Administrators, APOS Insight Users
Bill	Administrators, Everyone, Excluders, APOS Insight Users
Bob	APOS Insight Users, Bob, Excluders, Administrators, Everyone
BWSched	NSP~001@BOBJ41_ROLE, Everyone, Administrators

Discover Inactive Users in the BI System

Customer Success – User Activity



Health Care Provider in North East

- As part of onboarding new hospitals, needed to understand patterns of new user communities
- Insight has allowed them to understand who are the most active users, and what reports they are using

US State Government Agency

- Needed to find the last time users logged into the BI system in order for them to track usage
- Insight has enabled them to confidently perform a large purge of unnecessary users and user groups, and ongoing maintenance purges



Flashes of Insight



Hardware/Server Utilization

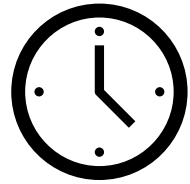
- Job Server usage
- Tomcat resource usage
- FRS usage/availability



Hardware/Server Utilization



Why Important?



Manage Infrastructure Efficiently



Manage Infrastructure Effectively



Performant System = Happy Users

Hardware/Server Utilization



Understanding which of your BI servers are being used the most, and how they are being used is the first step in ensuring that your BI system is running in the most efficient way possible.


There are a number of data points to be analyzed in terms of server usage

- Number of schedules executed per job server
- Number of successful instances retained
- Input and Output FRS growth
- Tomcat hardware resource usage



Hardware/Server Utilization



<div>APOS Insight</div> <div>Scheduling Server Used</div>		
Server Used	Instance Status	Instance Count
	Failure	35,354
BI41SP6FW.AdaptiveJobServer	Failure	6,928
BI41SP6FW.AdaptiveJobServer	Success	10,050
BI41SP6FW.JobServer_CEO	Failure	5,665
BI41SP6FW.JobServer_CEO	Success	5,495

Identify the loads on Report Job Servers

Hardware/Server Utilization



<i>Instance Statistics</i>		
Report Name	# of Instances	Instance Size (Bytes)
ZZ_Charting	1	605,635
Comparative Income Statement	13	13,286,400
World Sales Report	10	9,477,120
EfashionReport	53	2,060,137
Sales By Country	2,931	171,449,291
Xtreme Sales By Country	1,565	54,843,734
Activity_TopLevel_ExcludeGroup	6	749,027
Group Listing	25	1,263,914
Sales By Country_SelfForm.rpt	9	367,542
Sales By Country_Parameters	4	155,099
Xtreme Sales By Country_Prompts	16	563,696
Xtreme Sales By Country_AllCountries	1	36,227
TestFredJuly28	1	8,704
Report Queries Sorted By Duration	1	36,356
	4,636	254,902,882

Identify the number of instances being retained and the disk cost associated with that.

Hardware/Server Utilization



Understand the disk space used
by the Input & Output FRS

FRS Disk Space		
Scan Date	% Available	Bytes Available
Input File Repository Server E:\SAP FRS\FileStore\Input		
8/23/2021 10:55:29AM	18.11%	23,331,000,320
8/23/2021 10:52:50AM	18.11%	23,331,213,312
8/26/2021 3:46:45PM	18.14%	23,374,913,536
10/20/2021 11:35:33PM	18.08%	23,300,775,936
10/20/2021 11:09:25PM	18.08%	23,300,907,008
10/21/2021 4:28:56AM	18.08%	23,299,334,144
10/21/2021 7:14:16AM	18.08%	23,299,465,216
10/21/2021 6:29:45AM	18.08%	23,299,530,752
10/21/2021 6:03:32AM	18.08%	23,299,661,824
10/21/2021 5:19:02AM	18.08%	23,299,727,360
10/21/2021 4:15:49AM	18.08%	23,299,858,432
10/21/2021 4:05:19AM	18.08%	23,300,055,040
10/21/2021 3:05:02AM	18.08%	23,300,120,576
10/21/2021 1:54:18AM	18.08%	23,300,317,184
10/21/2021 12:43:40AM	18.08%	23,300,513,792
10/21/2021 12:17:26AM	18.08%	23,300,710,400
10/21/2021 12:01:41AM	18.08%	23,300,775,936
Output File Repository Server E:\SAP FRS\FileStore\Output		
8/23/2021 10:55:29AM	18.11%	23,331,000,320
8/23/2021 10:52:50AM	18.11%	23,331,213,312
8/26/2021 3:46:45PM	18.14%	23,374,757,888
10/20/2021 11:35:33PM	18.08%	23,300,775,936
10/20/2021 11:09:25PM	18.08%	23,300,907,008
10/21/2021 4:28:56AM	18.08%	23,299,334,144
10/21/2021 7:14:16AM	18.08%	23,299,465,216
10/21/2021 6:29:45AM	18.08%	23,299,530,752
10/21/2021 6:03:32AM	18.08%	23,299,661,824

Hardware/Server Utilization



AP_ProcessName	AP_MachineName	AP_WorkingSet64	AP_PeakWorkingSet64	AP_NonpagedSystemMemorySize64	AP_PagedMemorySize64	AP_PeakPagedMemorySize64
Tomcat9	BI43FW	1222856704	2017775616	56704	1392877568	2239692800
Tomcat9	BI43FW	1219166208	2017775616	56568	1389170688	2239692800
Tomcat9	BI43FW	1216049152	2017775616	56840	1386082304	2239692800
Tomcat9	BI43FW	1215492096	2017775616	56488	1385492480	2239692800
Tomcat9	BI43FW	1214996480	2017775616	56840	1385029632	2239692800
Tomcat9	BI43FW	1213923328	2017775616	56568	1383915520	2239692800
Tomcat9	BI43FW	1212354560	2017775616	56568	1382342656	2239692800
Tomcat9	BI43FW	1207279616	2017775616	57512	1377308672	2239692800
Tomcat9	BI43FW	1214468096	2017775616	56760	1384501248	2239692800
Tomcat9	BI43FW	1213399040	2017775616	56488	1383391232	2239692800
Tomcat9	BI43FW	1209208832	2017775616	56568	1379188736	2239692800

Understand which processes consume OS resources.
Be prepared for the next upgrade.

Customer Success – Hardware/Server Utilization



North American Pharmaceutical Company

- Insight allows them to track the memory usage of Tomcat on their system to better scale resources
- Insight allows them to track user sessions to ensure that open sessions are actually being used, and that they're not being tied up

US Healthcare Network

- Regularly reviews content being stored on the BusinessObjects server to evaluate which content is most costly in storage resources
- Insight provides the added information needed to help in content purge decisions and actions



Insight – Usage Analysis



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

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

APOS Publisher for Cloud

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



APOS Insight for Cloud

Monitor – tracking & alerting for:

- SAC story performance
- System response measures

Validation automated comparisons across SAC versions of:

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

Impact analysis – granular auditing of SAC story structure metadata

APOS Semantic Layer Migration

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



Upcoming Events

Webinar

Fast Forward your BI: Automate WEBI UNIX migration for database upgrades & more

November 18, 2021 – 11 am EST

As data platforms advance, they may no longer support older BusinessObjects features such as UNV universes. The challenge becomes enormous: upgrade data platforms, but also upgrade universes and repoint Web Intelligence reports to the new UNIX universes.

This webinar will examine several use cases in which SAP BusinessObjects customers used **APOS Migrator for Web Intelligence** to automate the conversion of their UNV universes and repoint their Web Intelligence reports.

We will discuss:

- Data platform support for SAP BusinessObjects
- Simplified conversion of UNV universes to UNIX universes
- High-volume, high-speed, controlled repointing of Web Intelligence reports
- Factors affecting your upgrade decisions



Register at www.apos.com



Upcoming Events

Webinar

Automated Report Testing for SAP BusinessObjects - Flashes of Insight

December 2, 2021 – 11 am EST

Content validation is a necessary step in the implementation of new versions and SPs of SAP BI. Automated report testing ensures your reports stay the same through environmental changes (database, universe, operating system/software upgrades), compliance, upgrade testing, and day to day testing, while eliminating much of the drudgery of this part of the process.

We will discuss:

- Regression Testing
- Upgrade/Migration Testing
- Report Modification Governance

... and more



Register at www.apos.com



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Thank You!

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