



Prevent Big Data Overload *Before* Your R12 Upgrade

OAUG Vendor Awareness Session



Aprameya Bhat (A.B)
ILM Architect and Practice Head



Julie Lockner
VP, ILM Business Unit



Agenda

- **The Impact of an Oracle E-Business Suite R12 Upgrade on Data Volumes**
- **Lean Data Management Best Practices**
- **Informatica Data Archive Case Studies**

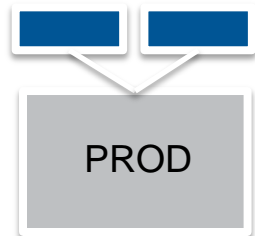
The Impact of an OEBS R12 Upgrade on Data Volumes

R12 Upgrade Commentary

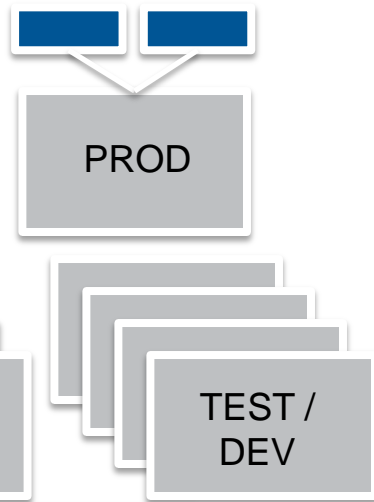
- **End of Extended Support for 11i/10 November, 2013**
- **R12 Hardware Requirements - baseline**
 - Disk Minimum 20% Growth
 - CPU Add 20% to 11i
 - Memory Add 20% to 11i

R12 Generates More Data

OEBS 11i



OEBS Upgrade Environments



Too much data:

- Slows performance
- Lengthens test/dev cycles
- Increases backup / recovery windows

OEBS 12



One Example Of R12 Accelerated Data Growth

New Modules I.e. Financial Services Accounting Hub (FSAH) – Now Called Financial Accounting Hub (FAH)

OEBS R12



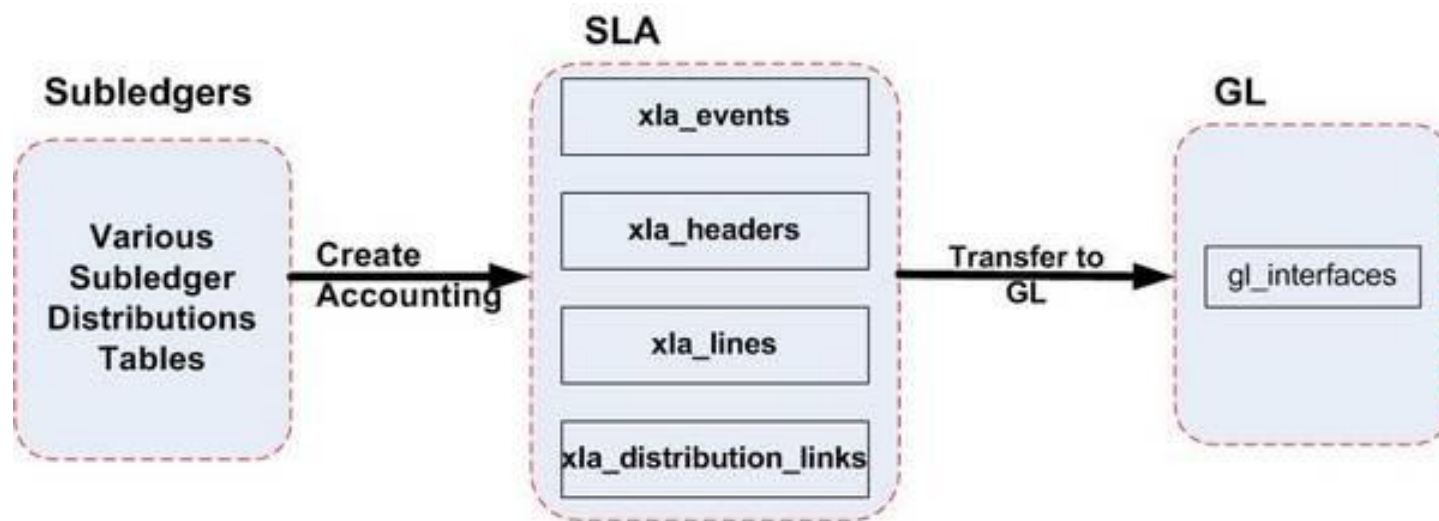
```
xla_ae_headers  
xla_ae_lines  
xla_distribution_links  
...
```

- Users can efficiently create detailed, auditable, reconcilable accounting records from a variety of source systems.
- This module serves as one enterprise-wide accounting repository to meet various corporate, management and reporting requirements.

With new functionality comes new tables and lots of data...

Functional Specification – XLA - FAH

- Subledger Accounting (XLA) is a Rule-based accounting engine, toolset & repository supporting most of Oracle business Suite modules
- It is an intermediate step between Subledger products and the Oracle General Ledger
- FAH efficiently creates detailed, auditable, reconcilable accounting for external or legacy source systems working with the subledger accounting engine





R12 Accounting Structures

Exponential data generation in XLA-FAH model

- All Subledger accounting data is generated and stored in shared SLA tables prior to transfer to GL, this requires extensive population of SLA tables.
- Each Subledger transaction that requires accounting is represented by a complete and balanced Subledger journal entry stored in a common data model called as event model that has event entity, event class and event type as transactional entities.
- Hence for one transaction enormous data is generated at XLA level.
- FAH includes an accounting transformation engine with extensive validations plus accounting and rules repositories
- The transformation engine consistently enforces accounting policies; the repositories provide centralized control, detailed audit trails, and facilitate simultaneously meeting diverse corporate, management and reporting requirements.
- As a result, between XLA and FAH, there is an uncontrollable and unmanageable data that is generated during implementations.

Replies: 5 - Pages: 1 - Last Post: Jul 11, 2012 5:19 AM Last Post By: EBSDBA

Rene Hernandez
Posts: 86
Registered: 08/06/10

LARGE SIZE XLA_DISTRIBUTION_LINKS AR AND AR_DISTRIBUTIONS_ALL   [Reply](#)
Posted: Jun 2, 2011 11:18 AM

I have EBS R12




Each week I have an increase of 400 Mb per week in the object XLA_DISTRIBUTION_LINKS (AR)and 90 Mb in the AR_DISTRIBUTIONS_ALL

It is normal? Or is there a bug?

Regards,

Guido

Hussein Sawwan
Posts: 57,006
Registered: 03/13/06

Re: LARGE SIZE XLA_DISTRIBUTION_LINKS AR AND AR_DISTRIBUTIONS_ALL   [Reply](#)
Posted: Jun 2, 2011 11:31 AM
 in response to: [Rene Hernandez](#)

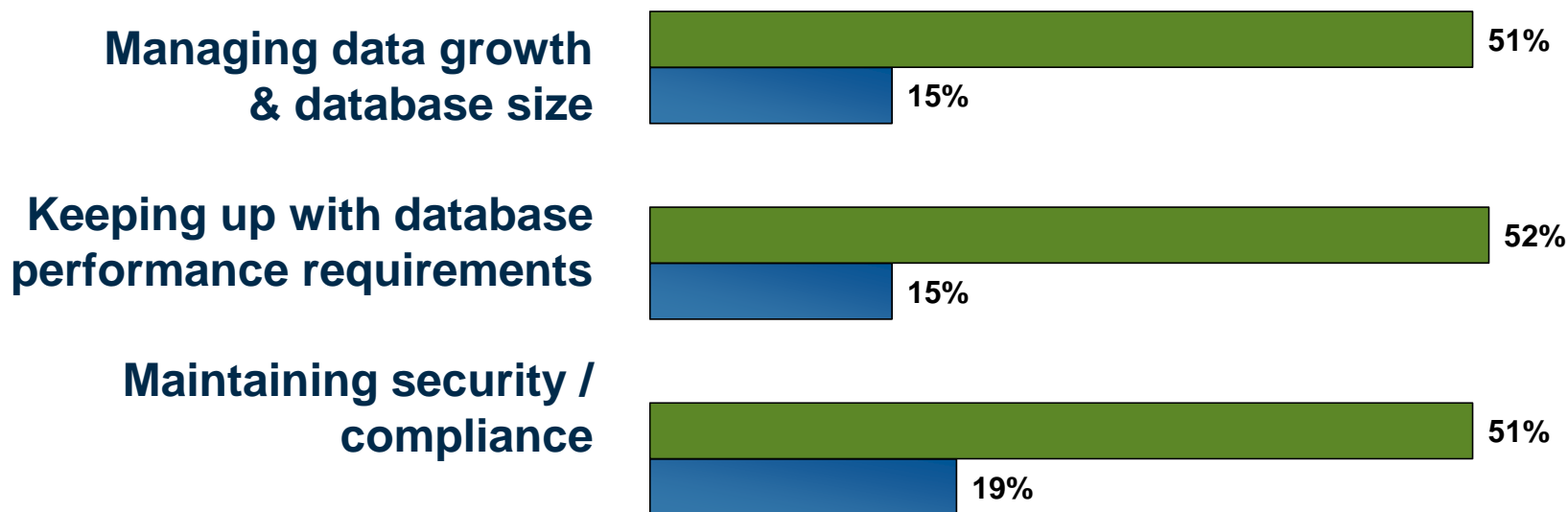
Please see these docs.

Any Available Method of Purging XLA Tables? [ID 1111390.1]
ARPURGE New Archive and Purge still leaves REC APP orphan rows in ar_distributions_all [ID 986640.1]

“What are your top data management challenges?”

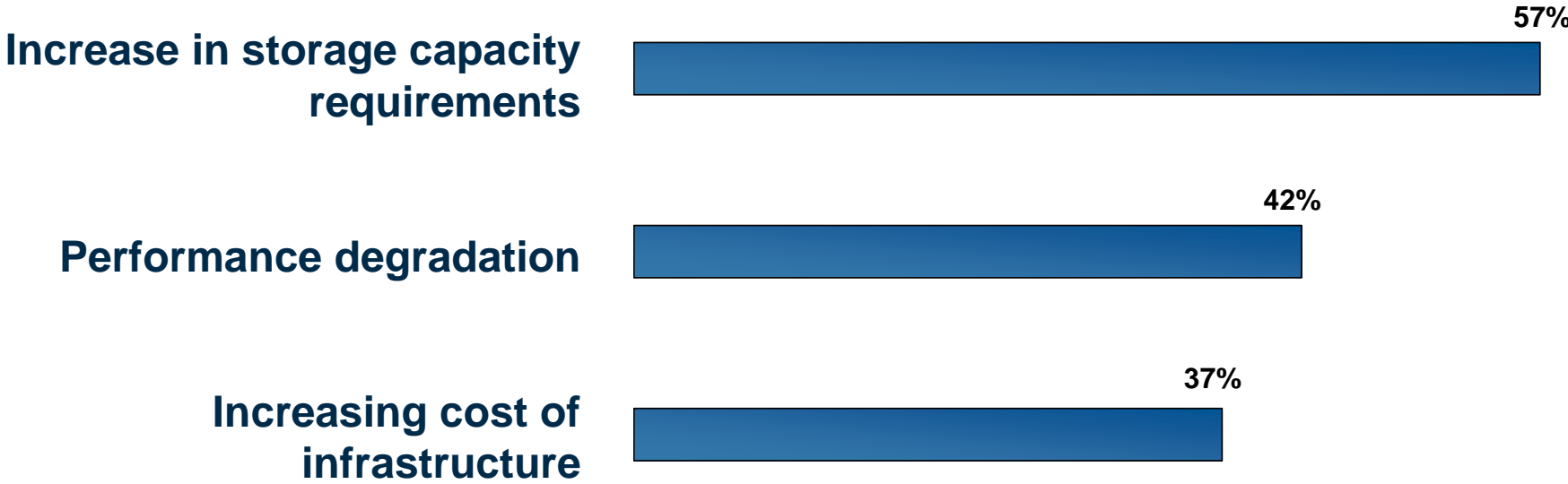
Top 3 Responses

■ All Challenges ■ Primary Challenge



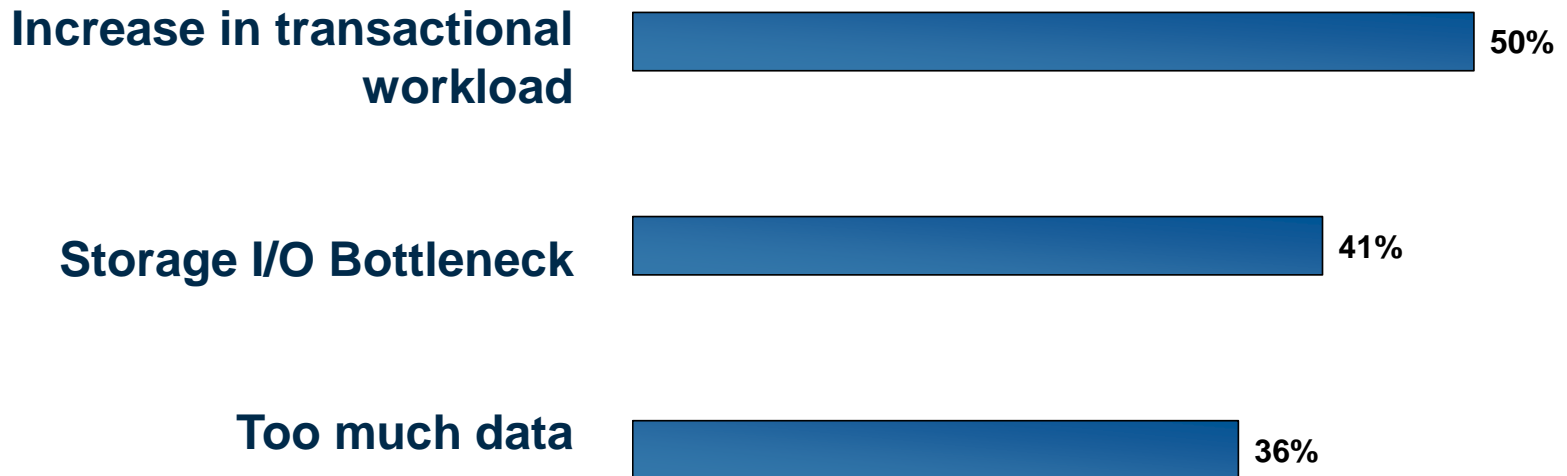
“How does data growth impact your organization?”

Top 3 Responses



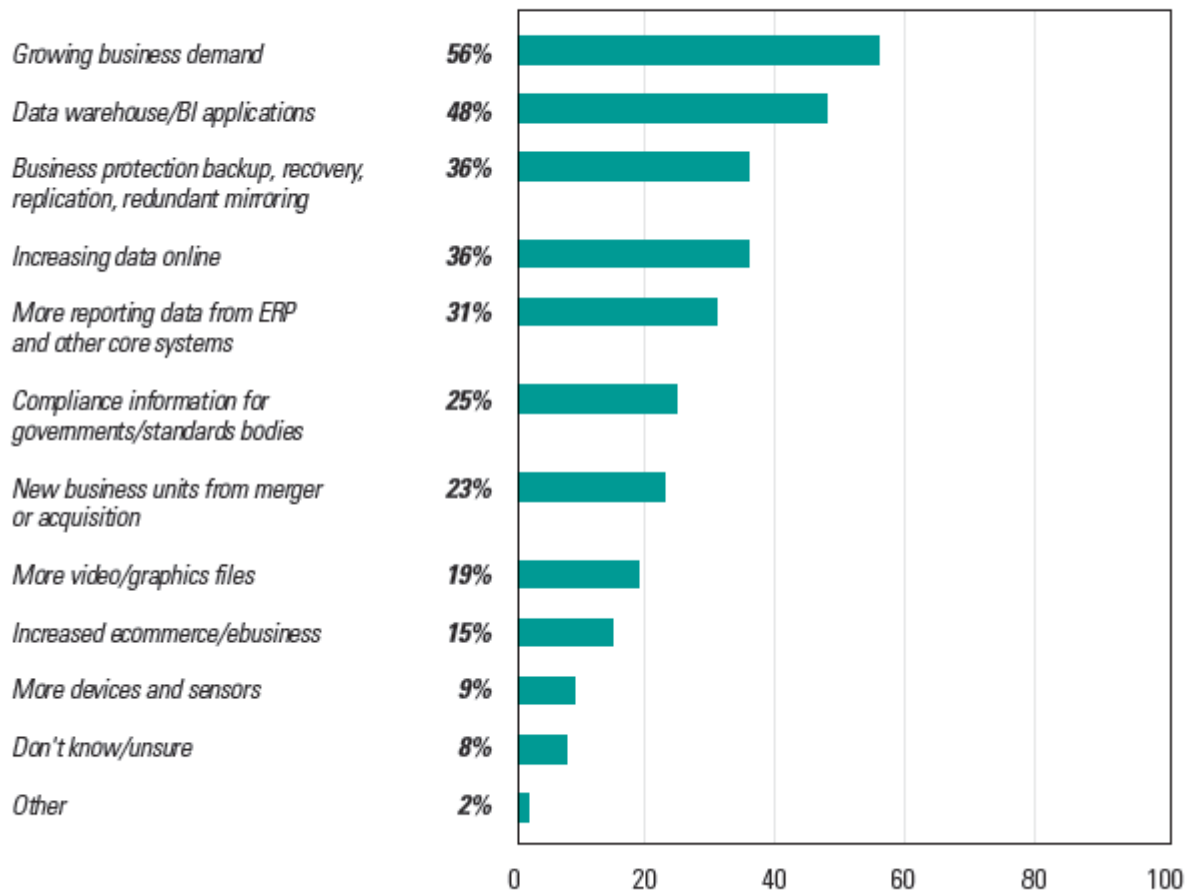
“What is causing database performance issues?”

Top 3 Responses



The Petabyte Challenge: 2011 IOUG DATABASE GROWTH SURVEY

Figure 6: Most Significant Sources of Data Growth



Options To Address R12 Upgrade Issues

- Upgrade to Oracle Exadata
- Leverage Columnar Compression
- Archive & Purge
- ...
- Lean Data Management



Upgrade Best Practices Continued...

- **Purging**
 - Use OAM to configure, initiate and monitor purge programs
 - Set the execution frequency and view program history
 - R12 purge programs tagged with the "Purge" program type
 - Access via: System Administrator > Oracle Applications Manager >Purging/Critical Activities

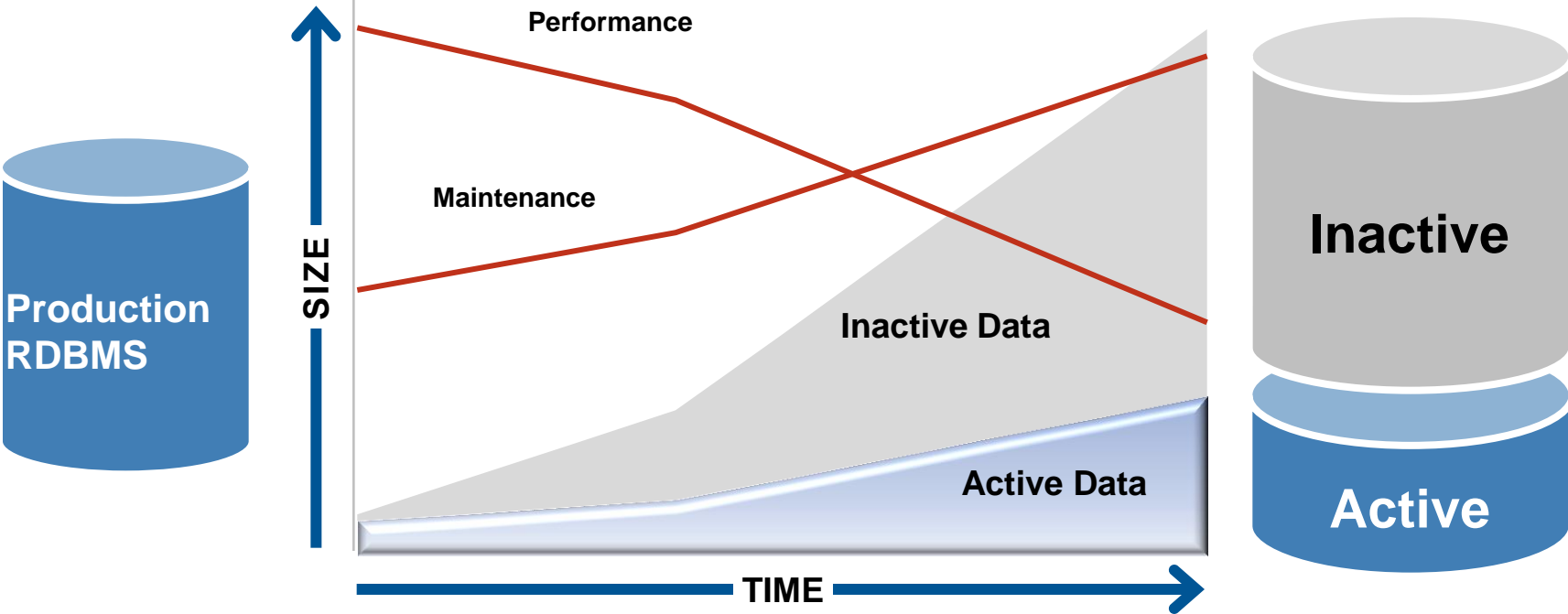
The screenshot shows the Oracle Applications Manager interface. The top bar includes the Oracle logo and the text 'Oracle Applications Manager'. Below the bar, there is a navigation pane on the left and a main content area displaying a table of purge programs. The table has columns for 'Program Name', 'Status', 'Created By', and 'Created Date'. The table contains several rows of data, including 'Purge' programs. The Oracle logo is visible at the bottom right of the screenshot.

Best Practices – Reduce Downtime

- Upgrade to 10gR2 Now if 11.5.9.2 or 11.5.10.2
- Convert to Oracle Applications Tablespace Model (OATM)
- Upgrade to latest tech stack ATG
- Use TUMS to skip unnecessary tasks
- Follow Module Specific Tasks to Reduce Downtime in Appendix E of the R12 Upgrade Guide
- Consider Archive or Purge
- Utilize adequate hardware
- Utilize multiple Apps DBAs for Test Upgrades
- Practice at least three times (gather all timings on tasks)

Best Practices with Lean Data Management

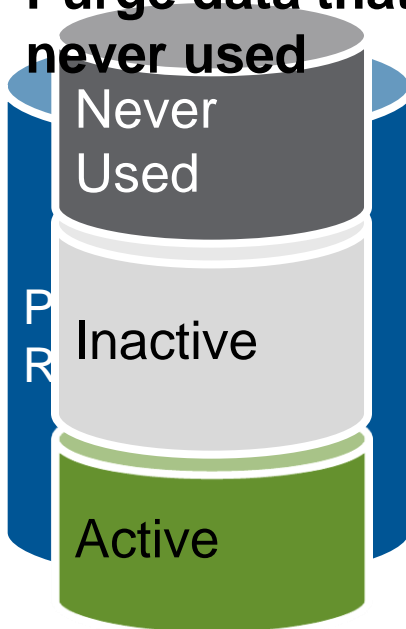
Lean Data Management



Lean Applications & Lean Testing

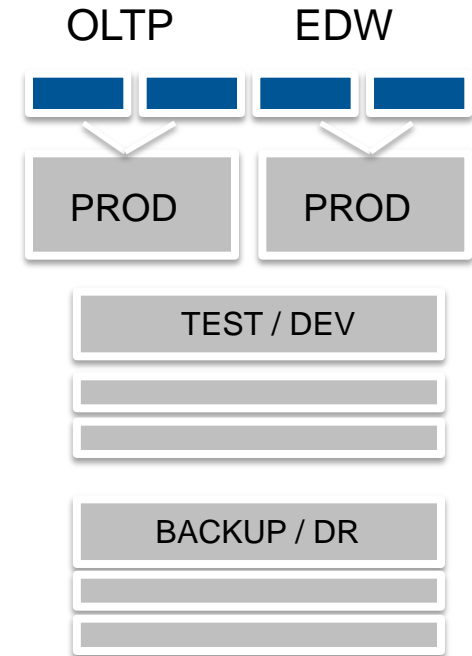
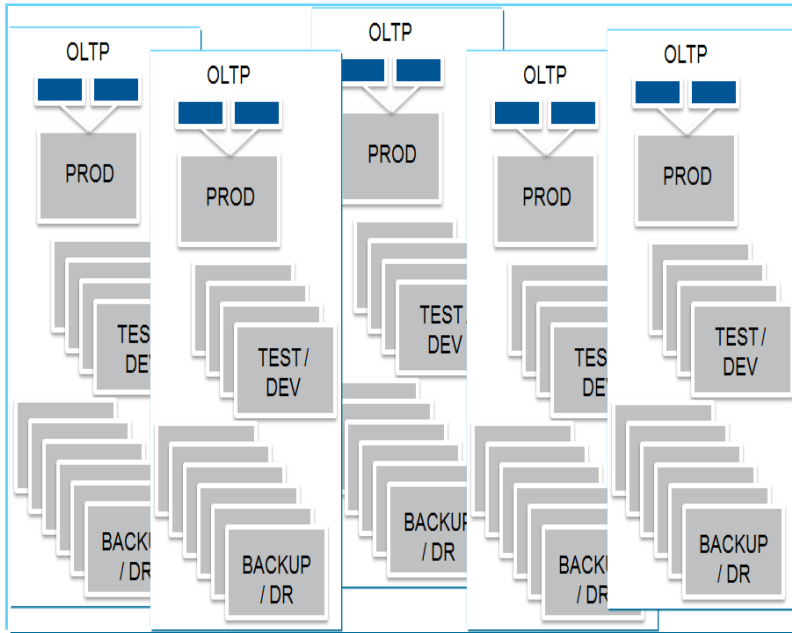
Informatica Data Archive

- **Purge data that is never used**



- **Partition & Archive data that needs to be retained**

Lean Data Management Benefits



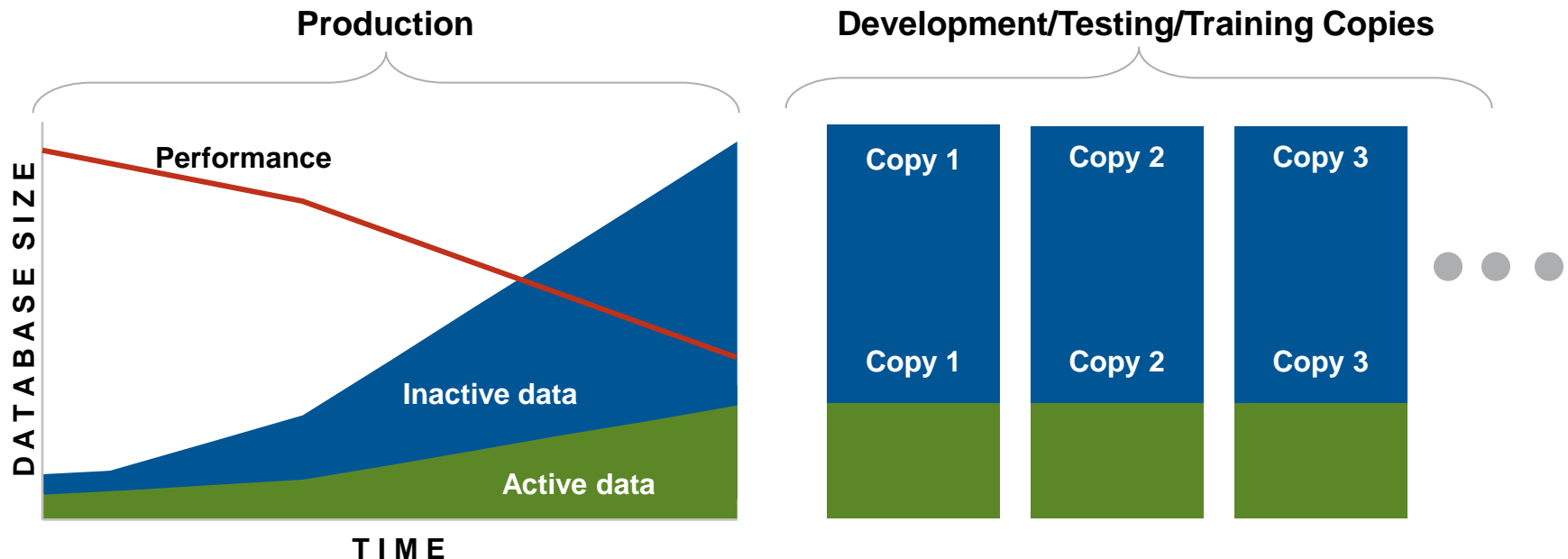
- **Reduce costs**
- **Improve performance**
- **Streamline operations**
- **Maintain compliance**

Informatica Data Archive

Informatica Application ILM Solutions Address Top R12 Upgrade Challenges

Key Benefits

- Increase performance
- Reduce storage, RDBMS license, personnel costs
- Reduce effort spent on maintenance & compliance
- Enforce retention and disposition policies



Data Archive Solution Architecture

Analyze & Act Based on Data Usage Patterns



- **Analyze and monitor data growth areas that impact performance**
- **Classify Active vs Inactive Data**
- **Develop an effective strategy & act swiftly to rectify**

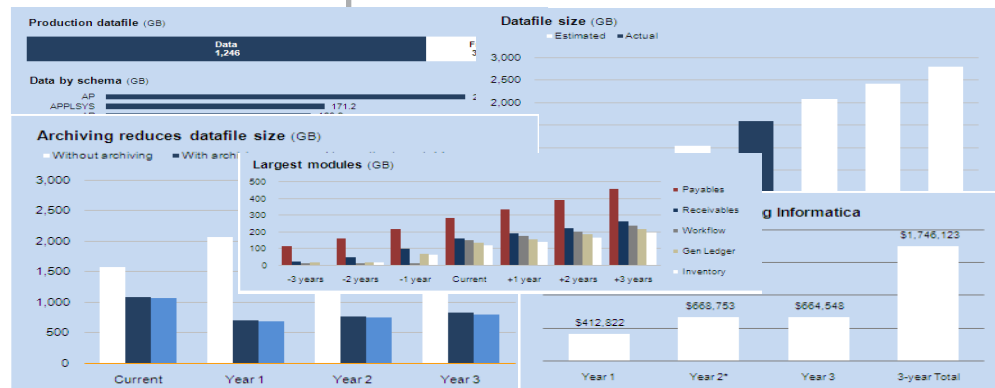
Identify Dormant Data for Oracle E-Business Suite with Pre-built Accelerators & Free Analysis



Determine Partition, Archive, & Purge Eligibility

Purgeable	NonPurgeable	Total
192116	679906	872022

Interim Table	Operating Unit	Purgeable	NonPurgeable	Total
XA_4104_AR_CUST_TRX_INTERIM	Aetna	192116	679906	872022
Exception(s)				Count
Adjustment to a non-postable transaction not approved or rejected				0
Adjustment(s) not posted or approved/rejected				3653
Adjustment(s) updated after parameter date				57390
Auto-rule line(s) not complete				0
Credit Memo unposted				0
Dependent Receivable Application(s) not purgeable				
Distribution line(s) not posted				
Distribution(s) updated after parameter date				
Has to remove the CMS ID				
Open return lines exist in OM				
Payment schedule open				
There is an open amount against a 'DEP' or 'GUAR' TRX				
Transaction Not Complete				
Transaction Type is not postable				



Informatica Data Archive Standard Edition



Partition



Smart Partitions



Archive
Restore



Live Archive

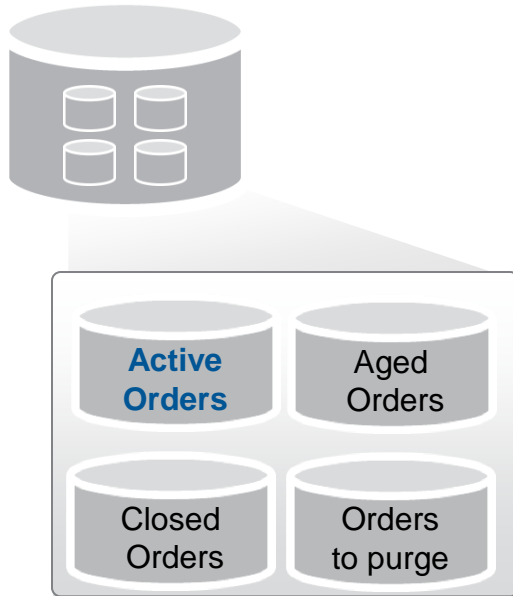


Central Rules Definition
And Management Console



Informatica Data Archive Standard Edition

Informatica Smart Partitioning



Optimize Resources

- Partition by time, geography, business unit, and/or active/inactive, status etc.
- Data is physically stored as relationally intact segments within the native database storage layer
- Partitions can be independently accessed and managed based on policy (i.e. compressed, archived purged, subset, etc.)

Benefits

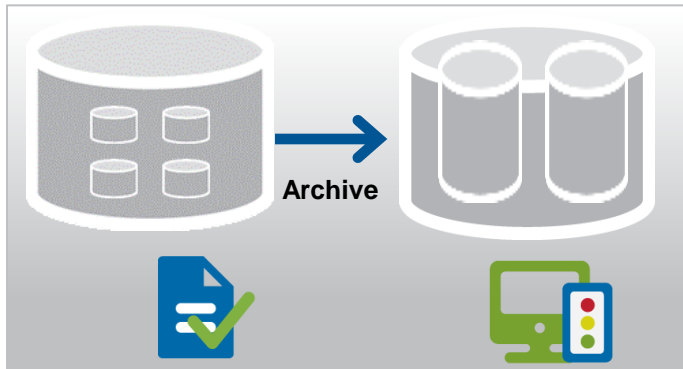
- Significantly improves application performance
- Automates complex database partitioning strategies based on business entities
- Simplifies future archiving as part of a comprehensive ILM strategy
- Streamlines cloning for test/dev by only copying relevant partitions
- No changes to how users access data

Informatica Live Archive

Standard Edition

Production

Live Archive



Optimize Resources

- Aligns archive jobs with application entities
- Data is archived completely out of production to either an online archive
- Maintains access to archive data either through native application UI or via standard ODBJ/JDBC connectivity

Benefits

- Application performance is significantly improved ensuring SLAs can be met
- End users access archive data via native application user interfaces
- Infrastructure costs and maintenance windows are drastically reduced
- Policies are centrally managed streamlining and improving compliance to retention policies

Retain Archive Access For Business Users



ORACLE
Oracle E-Business Suite

Login

Welcome to Oracle E-Business Suite

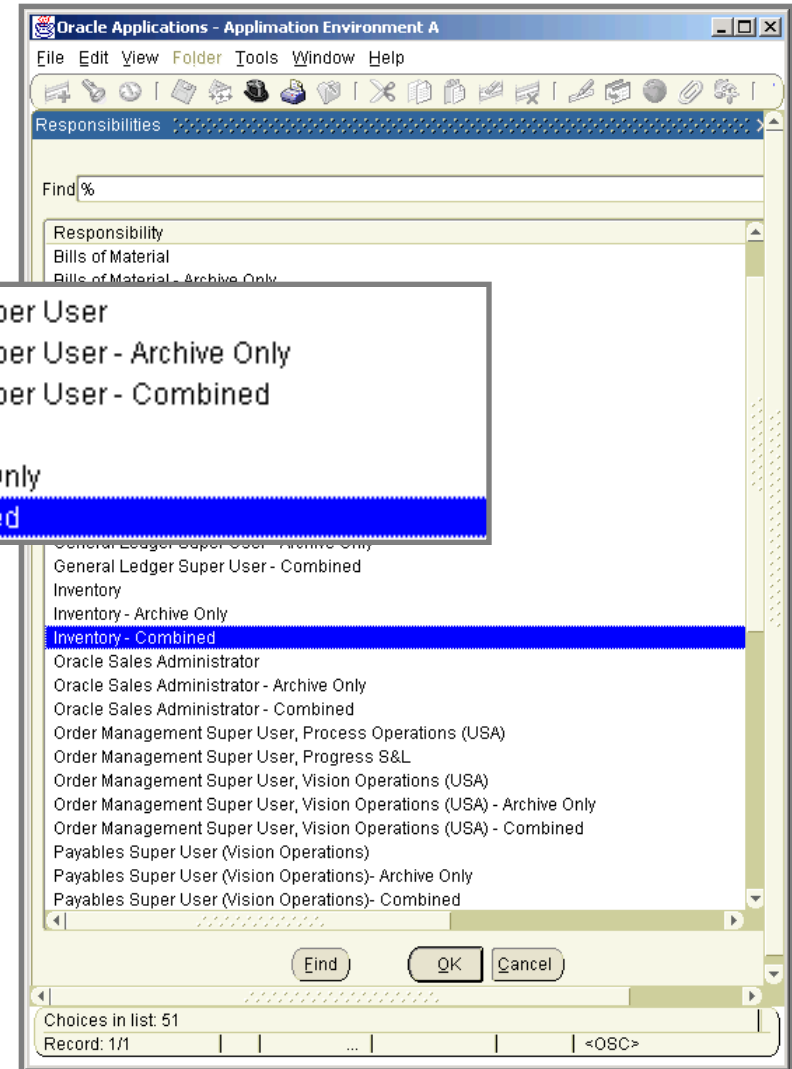
Enter your username and password to login

*Indicates Required Field

* Username

* Password

Log



Oracle Applications - Application Environment A

File Edit View Folder Tools Window Help

Responsibilities

Find %

Responsibility

- Bills of Material
- Bills of Material - Archive Only
- General Ledger Super User
- General Ledger Super User - Archive Only
- General Ledger Super User - Combined
- Inventory
- Inventory - Archive Only
- Inventory - Combined**
- General Ledger Super User - Archive Only
- General Ledger Super User - Combined
- Inventory
- Inventory - Archive Only
- Inventory - Combined
- Oracle Sales Administrator
- Oracle Sales Administrator - Archive Only
- Oracle Sales Administrator - Combined
- Order Management Super User, Process Operations (USA)
- Order Management Super User, Progress S&L
- Order Management Super User, Vision Operations (USA)
- Order Management Super User, Vision Operations (USA) - Archive Only
- Order Management Super User, Vision Operations (USA) - Combined
- Payables Super User (Vision Operations)
- Payables Super User (Vision Operations)- Archive Only
- Payables Super User (Vision Operations)- Combined

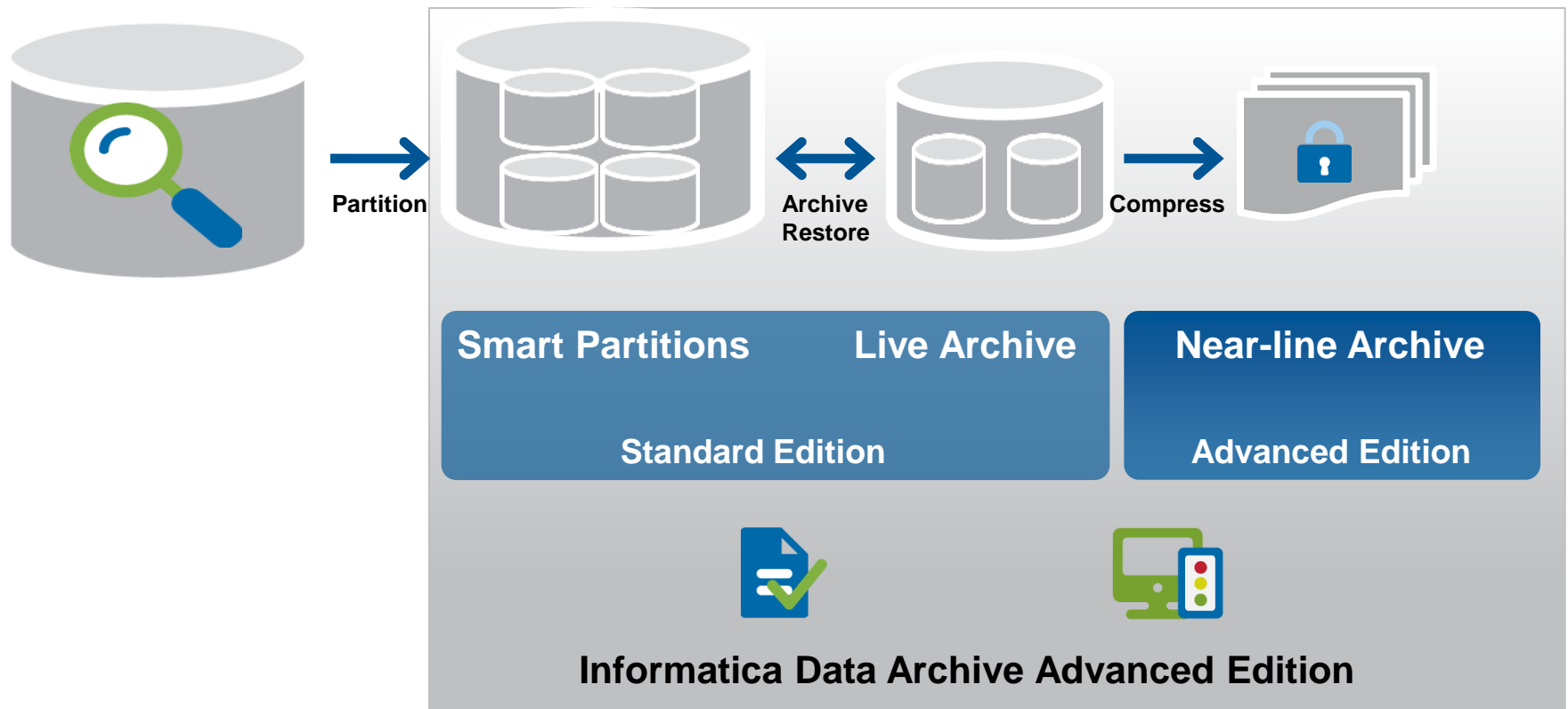
End QK Cancel

Choices in list: 51

Record: 1/1

- Uses Responsibilities to enable access
- No modifications to application code
- No additional application server
- No new user IDs
- No user re-training

Informatica Data Archive Advanced Edition



Maintain Zero Data Growth

Informatica Data Archive

BEFORE SOLUTION

Growing storage costs

Diminishing performance

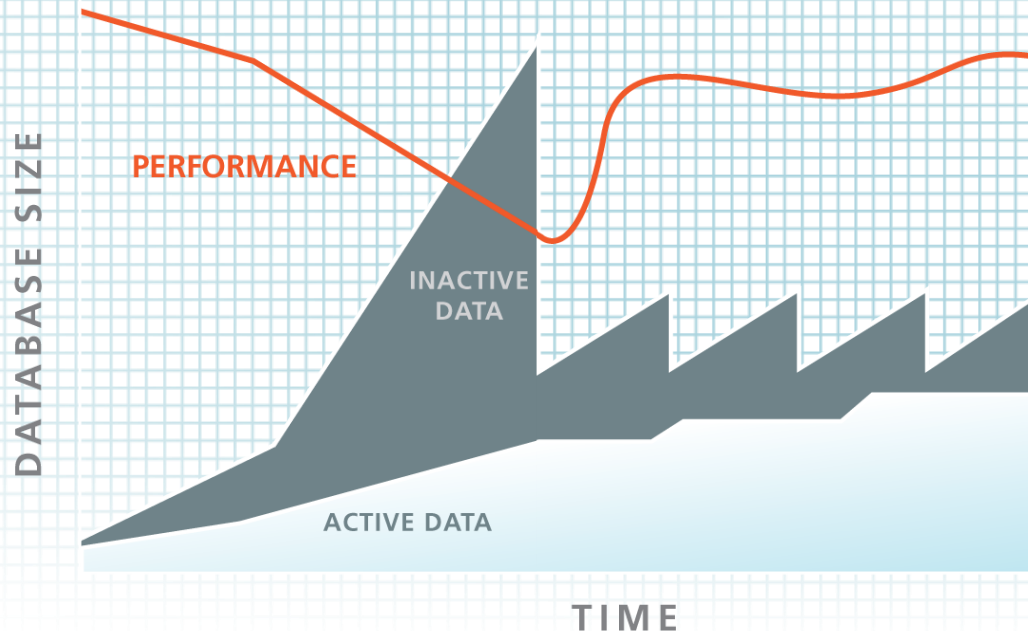
Increasing maintenance & Compliance work

AFTER SOLUTION

Predictable manageable growth

Improved, stable performance

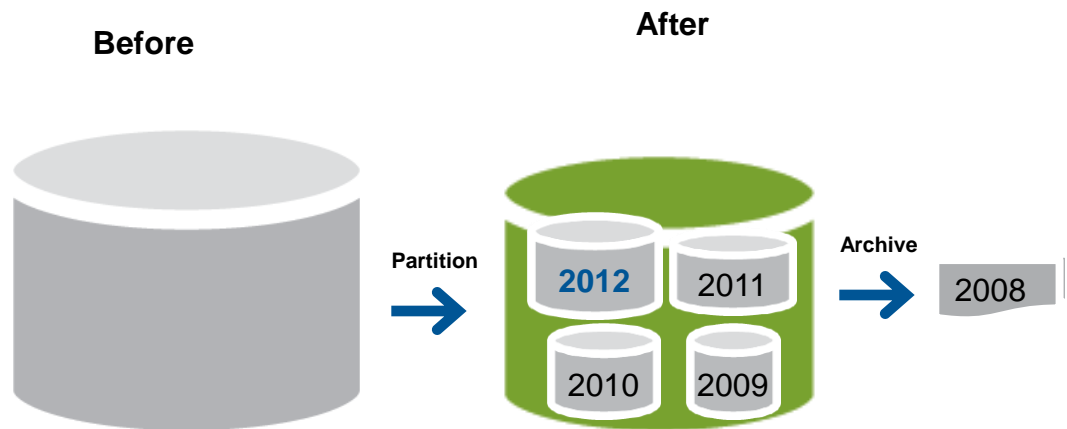
Reduced maintenance & compliance work



Lean Applications: Large Technology Manufacturer

Significantly Improves R12 Performance Post Upgrade

The Challenge. The R12 upgrade generated 25% more data post upgrade, impacting financial reporting performance and leaving the infrastructure team unprepared with accelerated storage consumption.



The Result

Maintain near zero data growth

Improved app performance to better than pre-upgrade

Predictable resource consumption

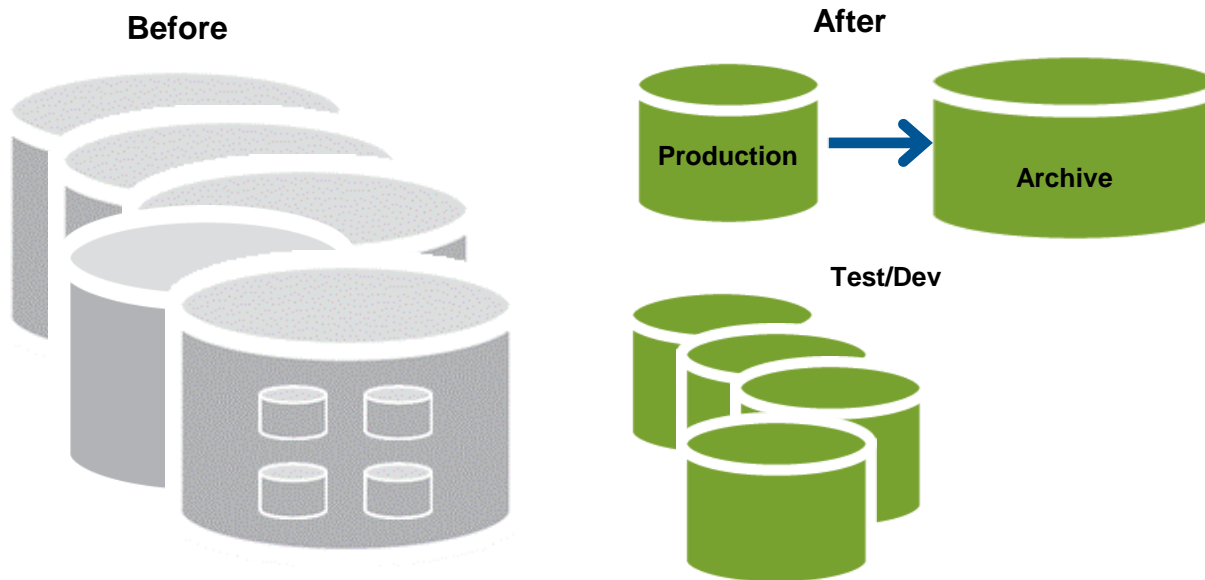
Reduced cloning times and resource requirements for non-prod

Lean Applications: IKON Office Solutions



Improves Customer Support Responsiveness & Saves \$1.5 M

The Challenge. Response times for the customer support application was impacted by data volumes accumulating in Oracle E-Business Suite. Additionally, full copies of production were used for test/dev unnecessarily.



The Result

Reduced storage costs
by \$1.5M

Saved 14TB capacity
using lean data
management practices

Saved 4.8TB by
archiving

Reduced backup
window by 25%

ROI in 6 months

You Can't Manage What You Can't Measure

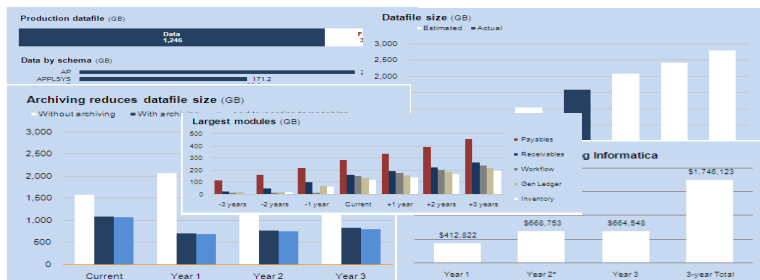
Take Advantage of 3 Free Offerings

1. Lean Data Management Business Value Assessment

INFORMATICA	
Application Retirement Business Case Analysis	
<i>Enter data in the green cells. Gray cells are calculated.</i>	
Summary of benefits	
Total Savings	
Benefit: Legacy Software Maintenance Elimination	
Benefit: Database Maintenance Elimination	
Benefit: Legacy Application Administration Savings	
Benefit: Storage Partitioning	
Total Value	
Benefits detail	
Benefit: Legacy Software Maintenance Elimination	
Application Retirement enables you to completely shut off ongoing annual maintenance.	
Example Benefit calculation	
Number of Legacy Applications to Retire	
Average annual cost of application maintenance	
Total application cost associated with legacy applications	
Total Application Maintenance Savings	
Benefit: Database Maintenance Elimination	
Application Retirement enables you to completely shut off ongoing annual maintenance. Once the database is on the application host.	
Example Benefit calculation	
Number of Legacy Databases to Retire	
Average annual cost of database maintenance	
Total application cost associated with legacy databases	
Total Database Maintenance Savings	

INFORMATICA	
Performance Archiving Business Case Analysis	
<i>Enter details in the green cells. Gray cells are calculated.</i>	
Summary of benefits	
Total Savings	
Benefit: Production Storage Savings	\$750,000
Benefit: Non-production Storage Savings	\$1,000,000
Benefit: Risk off Proactive Savings	\$100,000
Total Value	\$1,850,000
Benefits detail	
Benefit: Production Storage Savings	
Archiving enables you to relocate inactive application data out of a production database to a secondary archive location. This reduces the amount of data to read in high-cost, hot storage.	
Example Benefit calculation	
Number of databases being archived	10
Average size of each database being archived (TB)	5.00
Cost per terabyte of Tier-1 storage	\$50,000
Cost per terabyte of Tier-2 storage	\$10,000
Cost per terabyte of Tier-3 storage	\$5,000
Total amount of data (TB) to archive immediately to Tier-2	50.00
Total amount of data (TB) to archive immediately to Tier-3	50.00
Total Production Storage Savings	\$750,000
Benefit: Non-production Storage Savings	

2. Application Data Growth Analysis



3. Lean Data Warehouse Health Check



Next Steps and Q&A

Contact

Caroline Atherton
catherton@informatica.com

Visit our website for more information

Informatica Solutions for Oracle
www.informatica.com/solutions/oracle

Application ILM and Data Privacy Solutions
www.informatica.com
>solutions>application ILM

Highlighted Asset

White Paper
[Managing Data Growth in Oracle E-Business Suite with Enterprise Application Archiving, Test Data Management and Data Masking](#)

Upcoming Events

Oracle Open World
September 30-October 4, 2012
San Francisco, Moscone Center
Booth 2115, South Hall & Oracle Solaris Partner Pavilion

UK Oracle User Group Conference
December 3-5, 2012 – ICC, Birmingham, UK

DOAG Conference + Exhibition
November 20-22, 2012 – Nuremberg, Nuremberg Convention Center East (NCC)

Thank-you!