Prevent Big Data Overload Before Your R12 Upgrade

OAUG Vendor Awareness Session

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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

Too much data:
- Slows performance
- Lengthens test/dev cycles
- Increases backup / recovery windows
One Example Of R12 Accelerated Data Growth

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

- 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.
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.
Re: LARGE SIZE XLA_DISTRIBUTION_LINKS AR AND AR_DISTRIBUTIONS_ALL

Hussein Sawwan

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

Re: LARGE SIZE XLA_DISTRIBUTION_LINKS AR AND AR_DISTRIBUTIONS_ALL

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

Is it normal? Or is there a bug?

Regards,
Guido

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 XLA_distributions_all [ID 1085840.1]
“What are your top data management challenges?”

Top 3 Responses

- Managing data growth & database size: 51% (All Challenges), 15% (Primary Challenge)
- Keeping up with database performance requirements: 52% (All Challenges), 15% (Primary Challenge)
- Maintaining security / compliance: 51% (All Challenges), 19% (Primary Challenge)

Source: ESG Research Report, 2011 Data Management, Survey
“How does data growth impact your organization?”

Top 3 Responses

- Increase in storage capacity requirements: 57%
- Performance degradation: 42%
- Increasing cost of infrastructure: 37%

Source: ESG Research Report, 2011 Data Management, Survey
“What is causing database performance issues?”

Top 3 Responses

- Increase in transactional workload: 50%
- Storage I/O Bottleneck: 41%
- Too much data: 36%

Source: ESG Research Report, 2011 Data Management, Survey
Figure 6: Most Significant Sources of Data Growth

- Growing business demand: 56%
- Data warehouse/BI applications: 48%
- Business protection backup, recovery, replication, redundant mirroring: 36%
- Increasing data online: 36%
- More reporting data from ERP and other core systems: 31%
- Compliance information for governments/standards bodies: 25%
- New business units from merger or acquisition: 23%
- More video/graphics files: 19%
- Increased ecommerce/e-business: 15%
- More devices and sensors: 9%
- Don’t know/unsure: 8%
- Other: 2%
Options To Address R12 Upgrade Issues

- Upgrade to Oracle Exadata
- Leverage Columnar Compression
- Archive & Purge
- Lean Data Management
Best Practices with Lean Data Management
Lean Data Management

- Production RDBMS
- Active Data
- Inactive Data
- Performance
- Maintenance
- TIME
- SIZE

Inactive

Active
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

![Graph showing performance decrease and database size increase over time with green for active data and dark blue for inactive data, along with blue boxes labeled Copy 1, Copy 2, Copy 3 for development/testing/training copies.](image-url)
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**

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<thead>
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<th>Interim Table</th>
<th>Operating Unit</th>
<th>Purgeable</th>
<th>NonPurgeable</th>
<th>Total</th>
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<tbody>
<tr>
<td>XA_4104_LAR_CUST_TRX_INTERIM</td>
<td>Aetna</td>
<td>192116</td>
<td>679906</td>
<td>872022</td>
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<tr>
<td><strong>Exception(s)</strong></td>
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<tr>
<td>Adjustment to a non-postable transaction not approved or rejected</td>
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<td>Adjustment(s) updated after parameter date</td>
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<td>57390</td>
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<td>Auto-rule line(s) not complete</td>
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<td>Credit Memo unposted</td>
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<td>Dependent Receivable Application(s) not purgeable</td>
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<td>Distribution line(s) not posted</td>
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<td>Has to remove the CMS ID</td>
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<tr>
<td>Open return lines exist in OM</td>
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<td>Payment schedule open</td>
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<td>There is an open amount against a &quot;DEP&quot; or &quot;GUAR&quot; TRX</td>
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<tr>
<td>Transaction Not Complete</td>
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<tr>
<td>Transaction Type is not postable</td>
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</tr>
</tbody>
</table>

**Informatica**

22
Informatica Data Archive Standard Edition

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

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

- 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

Discover → Optimize → Archive → Retire

Partition → Archive Restore → Compress

Smart Partitions  Live Archive  Near-line Archive

Standard Edition  Advanced Edition

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

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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

2. Application Data
   Growth Analysis

3. Lean Data Warehouse
   Health Check
## Next Steps and Q&A

### Contact

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>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!