

Planning for Oracle Exadata Migrations & Conversions

#### **Agenda**

### Planning for Oracle Exadata Migrations and Conversions: Don't Just Forklift to Exadata

- Customer Case Studies
- Q&A
- About Teleran



### **General Preparation for Exadata**

- Source Systems. Individual workload profiles
- Target Systems. Composite workload behavior
- Readiness. Workload's readiness for Exadata



# Hypothesis: Application Readiness Matters

- Old, poorly written applications do not 'fork lift' well
- Inappropriate user behavior can impact performance
- Right sizing applications, users, and data model will improve performance



### **Application Readiness Requires Visibility**

- Who are the users of the application /system?
- How are they using the application?
- When are they using it?
- What tools are they using?
- What data objects are they using?
- How do they all interact and share the Exadata?



# **Slow Consolidations / Migrations**

- Moving 50 databases, marts, ODSs & OLTPs onto Exadata
- Oracle, DB2, & SQL Server (several versions)
- 24 x 7 global operations
- Some applications in poor health

Assess application readiness to find database hints & assess Smart Scan readiness



## Customer Challenge: Exadata Slowdown / Fall Down

- Exadata performance slowing over course of the day
- Exadata occasionally crashed
- Identified poorly-coded application
- Database connections left open, resources exhausted

Discover poorly written bad queries impacting Exadata performance



### Customer Challenge: Un-Authorized Datamarts

- Identified 7 datamarts (avg. 450 GB, max. 7 TB)
- Resources wasted with tools like MS Access, Toad
- Bogged-down throughput, missed SLAs
- Compliance & security violations

Discovery of unwanted activities in source systems targeted for Exadata can be critical to deployment.



## **Customer Challenge: Un-Healthy Source Systems**

- DB2 EDW, Oracle ODS supporting 1000's Web users
- Too many DB errors, real-time ETL deadlocks
- DB tuning highly over budget & behind schedule
- New CEO & VP IT

Database "Fork lifting" does not always work...



## **Customer Challenge: Measuring Exadata Benefits**

- Highly-tuned DB2 & Oracle warehouses
- BI: Home-grown, SAP BusinessObjects, OBIEE
- Need to validate Exadata improvements
- Identify & benchmark key queries, indices

Evaluate application readiness to find optimal index plan based upon actual workloads



### **Key Exadata Readiness Considerations**

- Database Hints
- Database Errors
- Inappropriate Queries
- Smart Scan Ready
- Index Lite Ready



#### **Approach for Assessing Readiness**

- Database Monitor. Track SQL and metrics of profile
- Data Reduction. Process to cluster similar events
- Readiness Analysis Engine. Produce actionable results



### Conclusion/Q&A

- There is no replacement for careful planning
- Exadata is fast, but cannot 'heal the sick'
- 'Fork lift' migrations are not, 'one size fits all'
- Bad behavior can dramatically affect performance



#### **About Teleran**

Visibility, usage analytics & policy management to understand & actively manage data-intensive applications

- Software & services company
- 4<sup>th</sup> generation software solutions 8 patents
- Oracle partner 10 years
- Solutions Exastack Certified, installed at Oracle Solutions Centers













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