



**Data Arching Strategy –Database Administration Overview**

**Meeting Date:** December 15, 2015 / 3:30 PM

**Purpose / Intended Outcome**

* DBA Technology Overview
* Oracle upgrade planned for 2016
* Challenges in roles

**Discussion Items**

* + Getting the business to agree on data management/purging has been a challenge
    - Looked at a partitioning strategy, but the project died
      * Had a strategy – didn’t like the archival aspect when talking about production
      * Concern of testing
      * Technically constraints – HP hardware (8 years old); changes would take a long time

o ESI is operating 8 times faster after hardware refresh

* + Consumption of disk space and management
    - Not worried about performance if data footprint increases
      * Left unchecked, performance issue will happened again though
  + DBAs have had to be reactionary versus on the front end of the design process
* Not really spending time rebuilding indexes – not best practices
  + Don’t do a lot of deleting, mostly inserts, so don’t have fragmentation
* Partitioning
  + Claim and line item tables – by date was obvious in 2008-2009
    - Didn’t know how things would be growing or where needs would be
  + There wasn’t a project to put it together
    - Need to work together with how to partition data
  + Want to get rid of dead data – don’t want to partition things not used by the business
* Databases
  + 90% of information on Solaris, Spark
  + Handful of stuff on HP UX – Federal mostly
  + Number of production databases – 15
    - Bulk of ETS is in one database
    - Separation with provider and Renaissance
    - Closer to 21 DB in UAT, 15 DB in Test, 4 DB in Dev
* Quarterly patches – done about twice a year

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o Don’t have a regular patching strategy

* Application code migration
  + Dev -> Test -> UAT -> production
* Stored procedures, schemas, Code value updates
  + ETS – DDL and store procedures done on build weekend; manual process
* How do DBAs share data internally between applications
  + Application code lives in Java
  + Java code will request data from DW
* Additional opportunities
  + Reporting database (CDC) is currently manual and will be automated next year
  + Shrinking the database size – Claim PR2 has growth by 5 TB in the last 5 months
    - Added 100 TB with hardware refresh
    - Add 100MM records a month
  + File and table organization
    - Use all small files now
    - Tables will need to be reorganize when data is purged
    - Talking about the physical storage
  + Backup and recovery strategy
    - Don’t have a great place for full image copies
  + Multi-tendency

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