

ECO AUG

Using a Data Mart to Improve the Month-End Close Process

BY:

- Charlie Merrigan - Applications Consulting Specialists
- Kurt Duncan - Applications Consulting Specialists



Applications Consulting Specialists, Inc.

Data Mart vs. Data Warehouse

Data Mart

- Focused data
- Department owned
- Users = farmers
- Based on set of user requirements

Data Warehouse

- Generic data
- Enterprise owned
- Users = explorers
- No particular purpose or requirements



As Data Warehouses grow large...

- Resource consumption becomes a problem
- Data becomes harder to customize
- Cost of processing increases as volume of data increases
- Software available for analysis of large amounts of data not as sophisticated as that available for smaller amounts of data



By Using a Data Mart...

- Depts can process at will without consideration of impact on other depts
- Depts can customize the data as it flows into the Data Mart
- Depts can select software that is custom tailored to its needs
- Amount of historical data dependent on needs of dept, not corporation



Advantages of Data Marts

■ Less costly than Data Warehouses

- Design
- Implementation
- Testing
- Installation

■ Easier to get approved politically

- Cost less
- Completed quickly
- Perform specific functions for a dept



Financial Data Mart

- Assurance of a single answer to a given question
- Secure analysis for analysis and reporting
- Less time and resources than a Data Warehouse
- Smaller amounts of source data and simpler data models
- An integrated data source providing improved management reporting and shorter closing and budgeting cycles



Data Marts

■ Dependent

- draw data from an existing central data warehouse

■ Independent

- stand-alone systems built from scratch using operational and/or external data



About Data Marts

- Patterns of Data Mart Development
 - 1.) Subset of the Data Warehouse
 - 2.) Independently derived from island of data
 - 3.) Developed parallel with Data Warehouse; both developed from islands of information



About Data Marts

- Types of data in a Data Mart:
 - summary, detailed, ad-hoc, prepared
- What is Metadata?
 - information about the source, amount, and type of data that is being loaded into the Data Mart
 - information concerning any conversions or alterations that were performed on the data
 - is created/updated during the load program



About Data Marts

- Expectations for performance
 - Data Warehouse = low
 - Data Mart = high
- Security - level of security is dependent on sensitivity of data
- Monitoring
 - Data usage
 - Data content



Options

- Build Data Mart in-house
- Use Oracle Data Mart Suite
- Hire consultants that specialize in Data Marts



Designing a Data Mart

- Clearly and explicitly define goals and scope of the project



Designing a Data Mart

- Decide which schema or combination of schemas will be used
- Define the source of the data
- Smaller team is better
- Key to success is CLARITY and FOCUS



Designing a Data Mart

- Prototypes
 - use early and often
 - use real legacy data
 - create star schema, gets facts/dimensions right
 - interview managers, business analysts, DBAs, end-users
 - allows users to provide valuable feedback to data mart design team



Designing a Data Mart

- Star Schema
 - Fact Table = real data is stored; numerical attributes
 - Dimension Table = provide descriptive information about each row in Fact table
 - alternative = Snowflake Schema



Designing a Data Mart

- Understand the business need/problem
- Outline the sets of information needed
- Define the data transformation required
- Define schemas for efficient querying and analysis
- Examine means for optimizing query performance



Designing a Data Mart

- Work with user to determine their requirements and needs
- Data Mart must be easily adaptable if it is to remain valuable to the organization
- Data Mart must be able to support changing business needs and user requirements



Why a Data Mart?

- Organizations both big and small need more analysis on a narrower range of data than provided by a data warehouse
- Data marts deliver value quickly, with less complexity and expense than a data warehouse
- Data marts are not data driven, but are a response to real business needs



Conclusions

- Data Marts can provide cost and time efficiencies in providing departmental information needs
- In order for Data Marts to be used effectively in the corporate environment focus and clarity of goals must be maintained



?? Questions ??

- Questions?
- This presentation can be found at the ACS Website: <http://www.acsi-usa.com>
- Questions/Comments can be emailed to Charlie (cmerrigan@acsi-usa.com) or Kurt (kduncan@acsi-usa.com)

