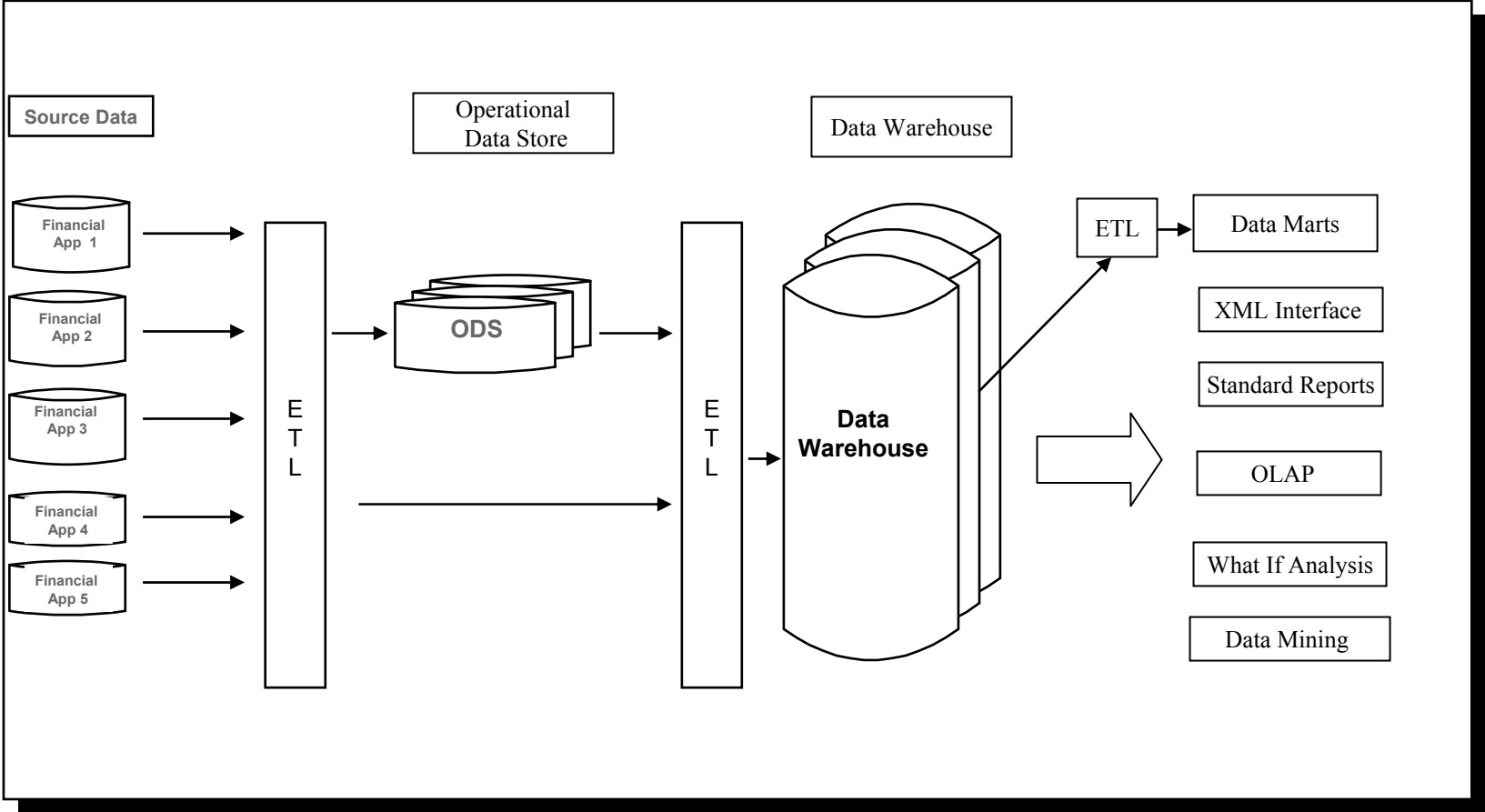




Data Warehousing Architecture & Major Components

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Data Warehouse Architecture



Major Components

- Multi Dimensional Database
- ETL
- OLAP
- Meta Data

Multi Dimension Database

- ✓ **Data Mart are normally a multi dimensional database using industry standard STAR Schema approach. This will include:**
 - Dimensions tables
 - Fact Tables
 - Hierarchies (For Drill down and drill across)
 - Role Models (Multiple references of Dimension to the Fact table)
 - Summary / Aggregate tables
 - Snow Flaking and Normalization as required

- ✓ **Optimized database design for better performance**
 - STAR Transformation
 - Bit Map Indexes
 - Database Partitioning

ETL

- Create Source and Target Meta Data
- Identify the Source & the Target data mart data structures
- Create Extraction Programs using ETL tool (e.g. Ascential Data Stage / Informatica)
- Define data cleansing, transformation and aggregation rules
- Perform data capture and enrichment processing
- Evaluate incremental (delta) refresh option of the data mart to reduce the production cycle

OLAP

- ✓ **OLAP (Online Analytical Processing) tool provides the front end analytical capabilities**
- ✓ **Functionality provided**
 - Slice & Dice
 - Drill up, Drill down & Drill across
 - Pivoting
 - Trend analysis across Time
 - Easy interface to tools such as Excel / MS Word
- ✓ **Implemented in a three tier web based architecture**

Deliverables

- Project management plan(PMP)
- Business requirements and analysis document
- Hardware and software recommendations
- Data mart architecture document
- Data mart design document
- Logical design (data model)
- Physical database design
- ETL program (automatic data loader)
- Incorporating BI reporting and OLAP interface
- Establish testing process / system test plan
- UAT test plan
- Implementation plan

Thank you

For Further details please contact

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