

# Practical Solutions for Enhancing BI Performance

**Session ID: 10354**

Understand BI performance and areas of improvement. Real-life examples included to showcase practical solutions.

**Prepared by:**

MorganFranklin Consulting

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#C16LV



# Your Presenters

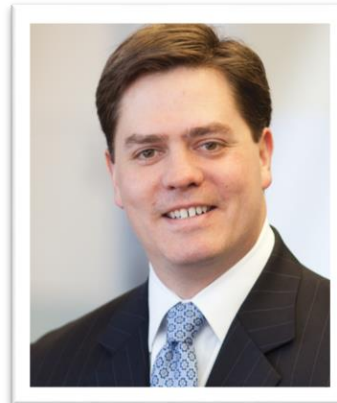


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Ajit Kale is a Senior Manager for Business Intelligence practice with 16+ years of professional experience and over ten years in consulting and implementing Data Management and Business Intelligence solutions.



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Geoff Harkness is a Managing Director and Information Management & Technology Leader. He is responsible for leading complex business and technology transformation efforts, including IT strategy and optimization, enterprise resource planning (ERP), business intelligence (BI), enterprise risk management (ERM), data management and analytics, and shared service centers.



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# Oracle Service Offerings

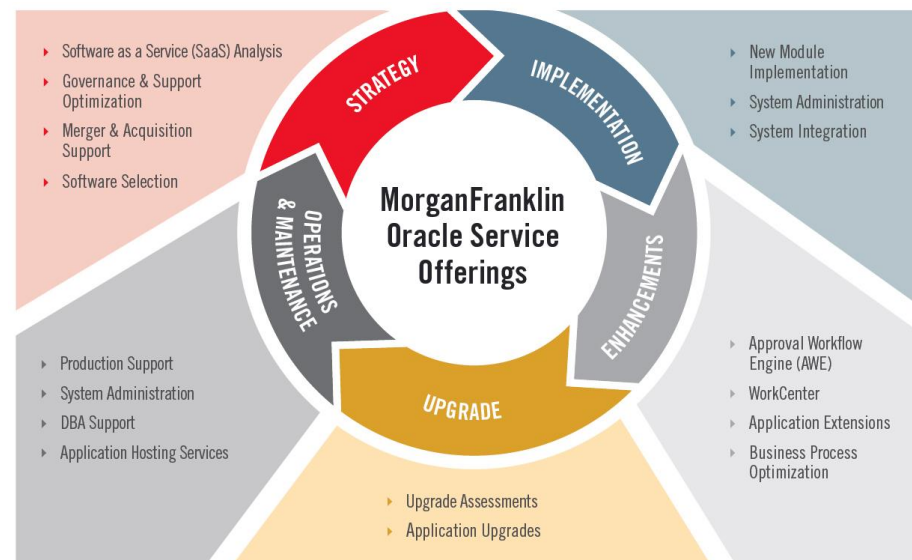


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As an Oracle Partner Network Gold Level Partner, MorganFranklin Consulting helps organizations quickly and cost effectively address numerous value-creating opportunities while tackling the challenges that come with implementing and upgrading the Oracle product suite—from selection to retirement.

- Direct access to decision makers and stakeholders at the front end of the buying process
- Advisors on vendor selection and evaluation during our IT strategy & assessment engagements
- IPO Readiness clients move from mid-market to enterprise level needs with capital expansions



# Agenda

- Pain Points & Common Challenges
- Overview of BI Architecture
- Pillars of Successful BI Implementation
- Understanding Performance Zones
- In-Depth Analysis of Zones
- Continuous Optimization
- Practical Examples



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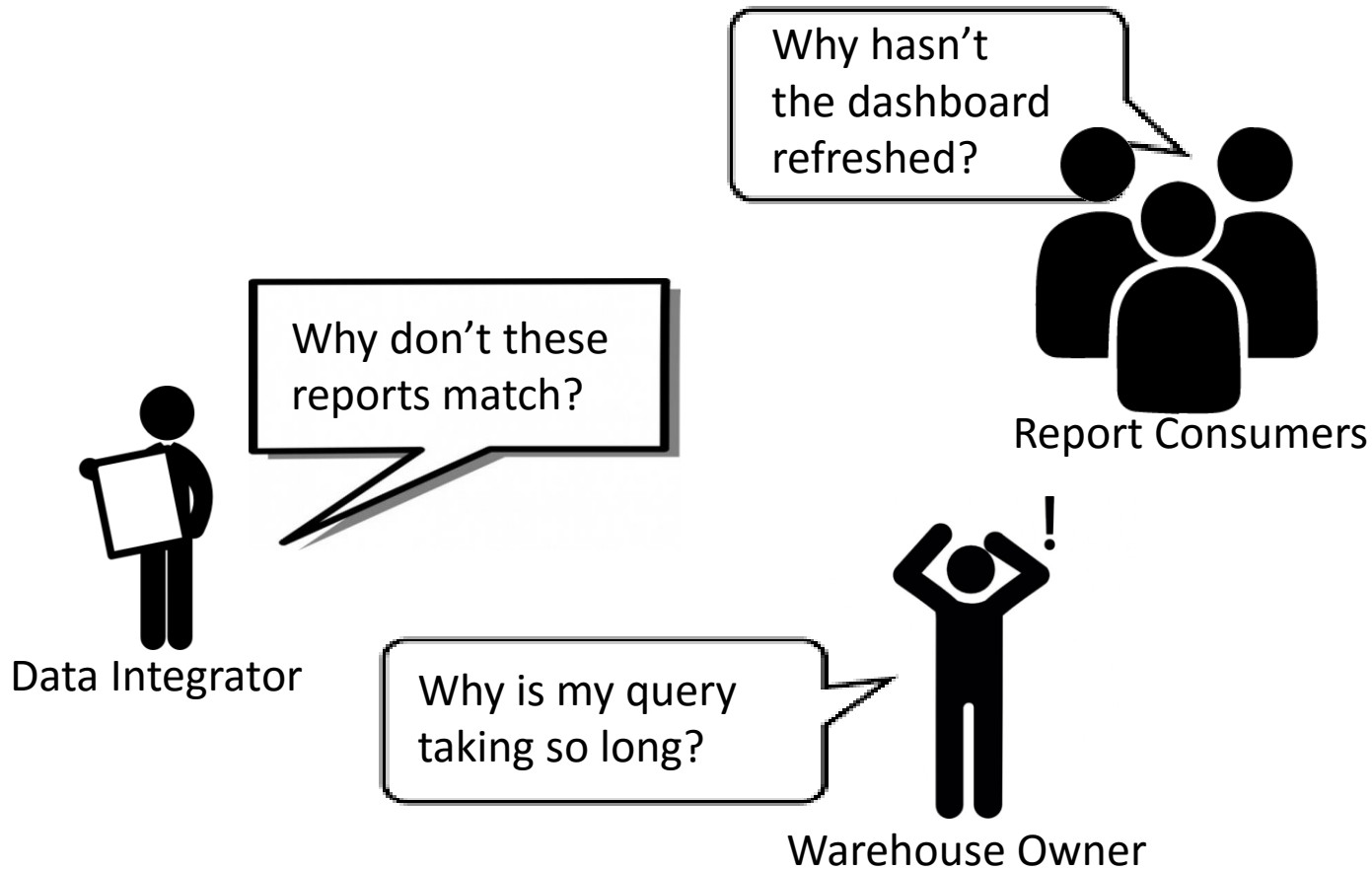
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# Pain Points & Common Challenges



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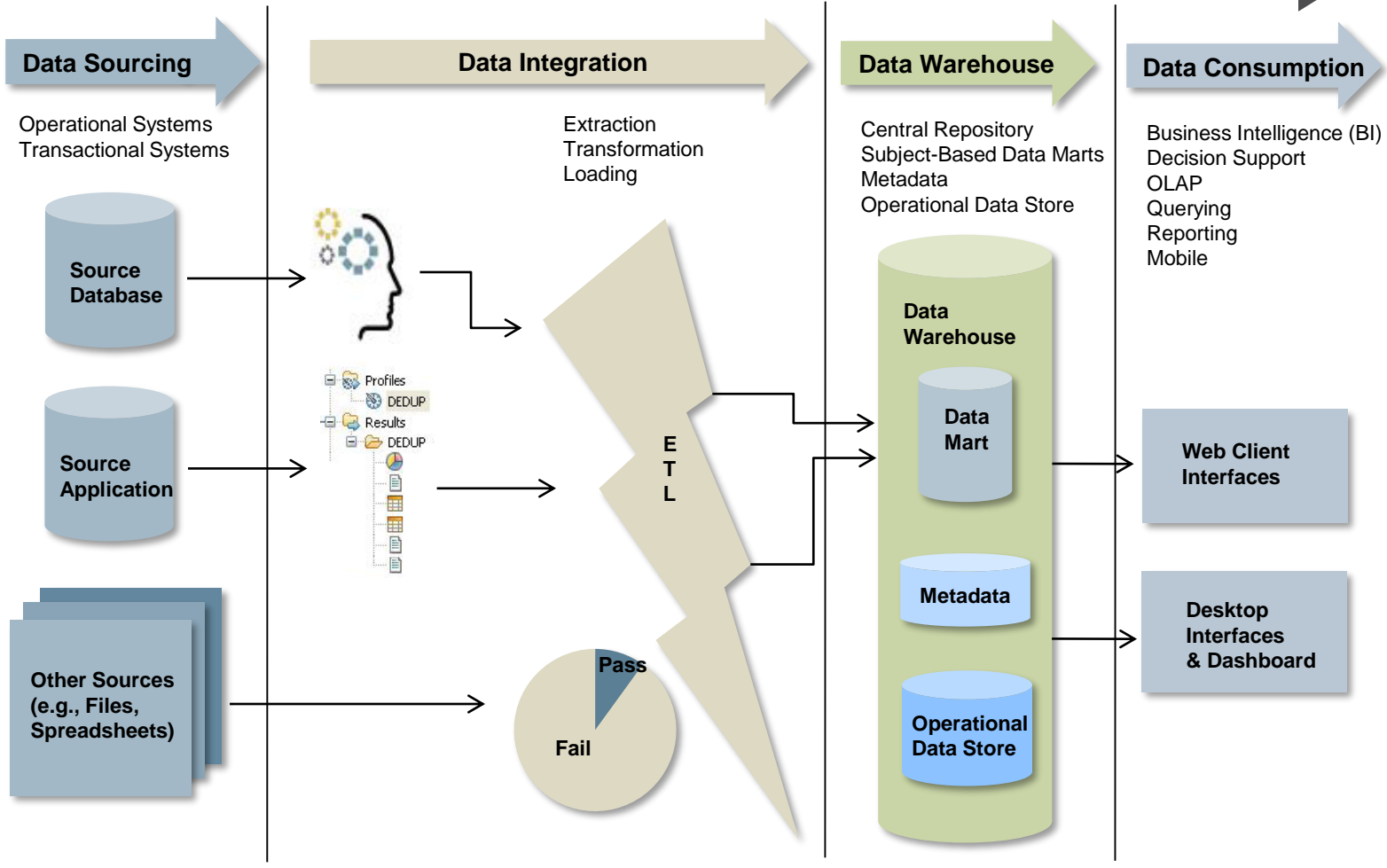


# Overview of BI Architecture



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## Data Management

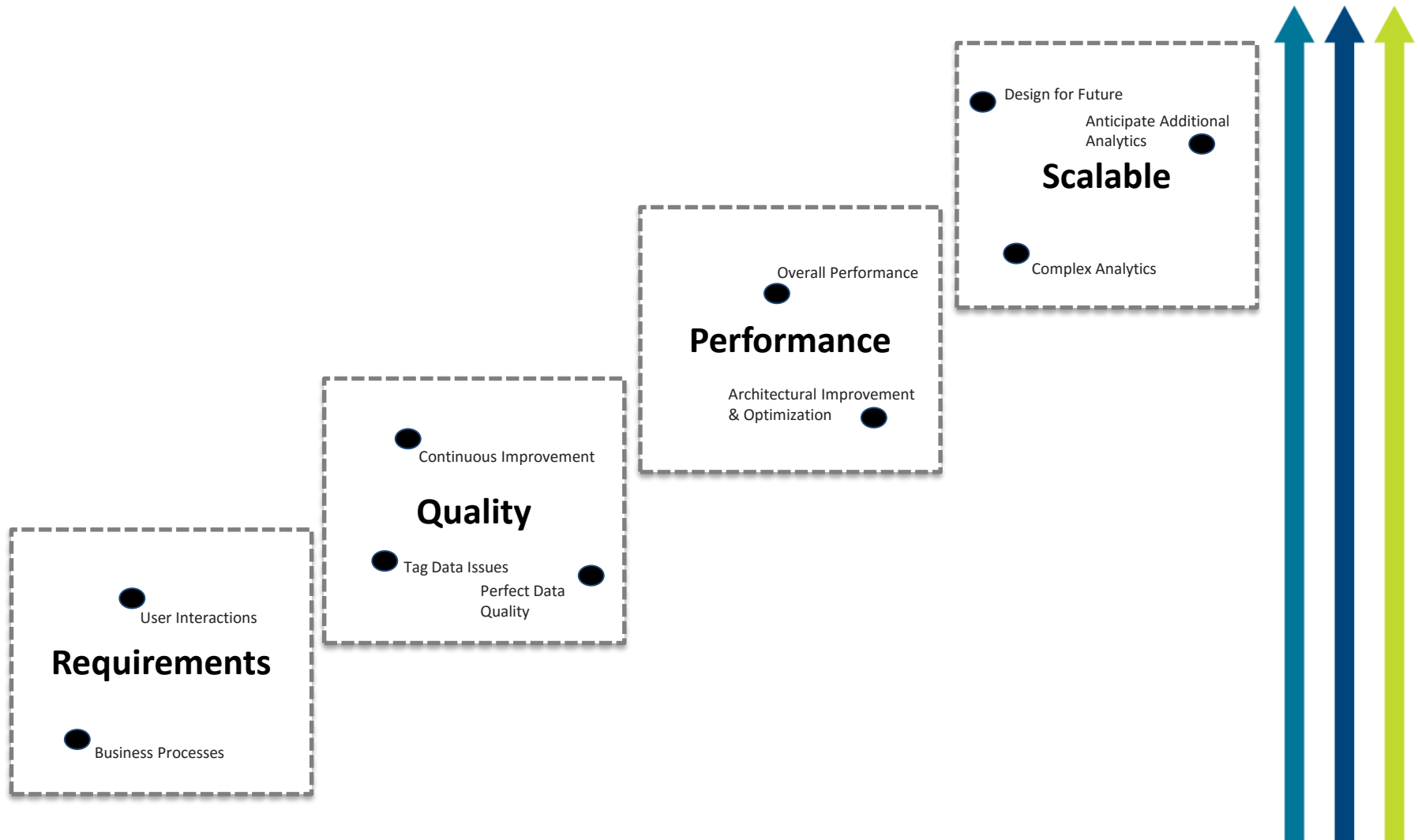


# Pillars of Successful BI Implementation



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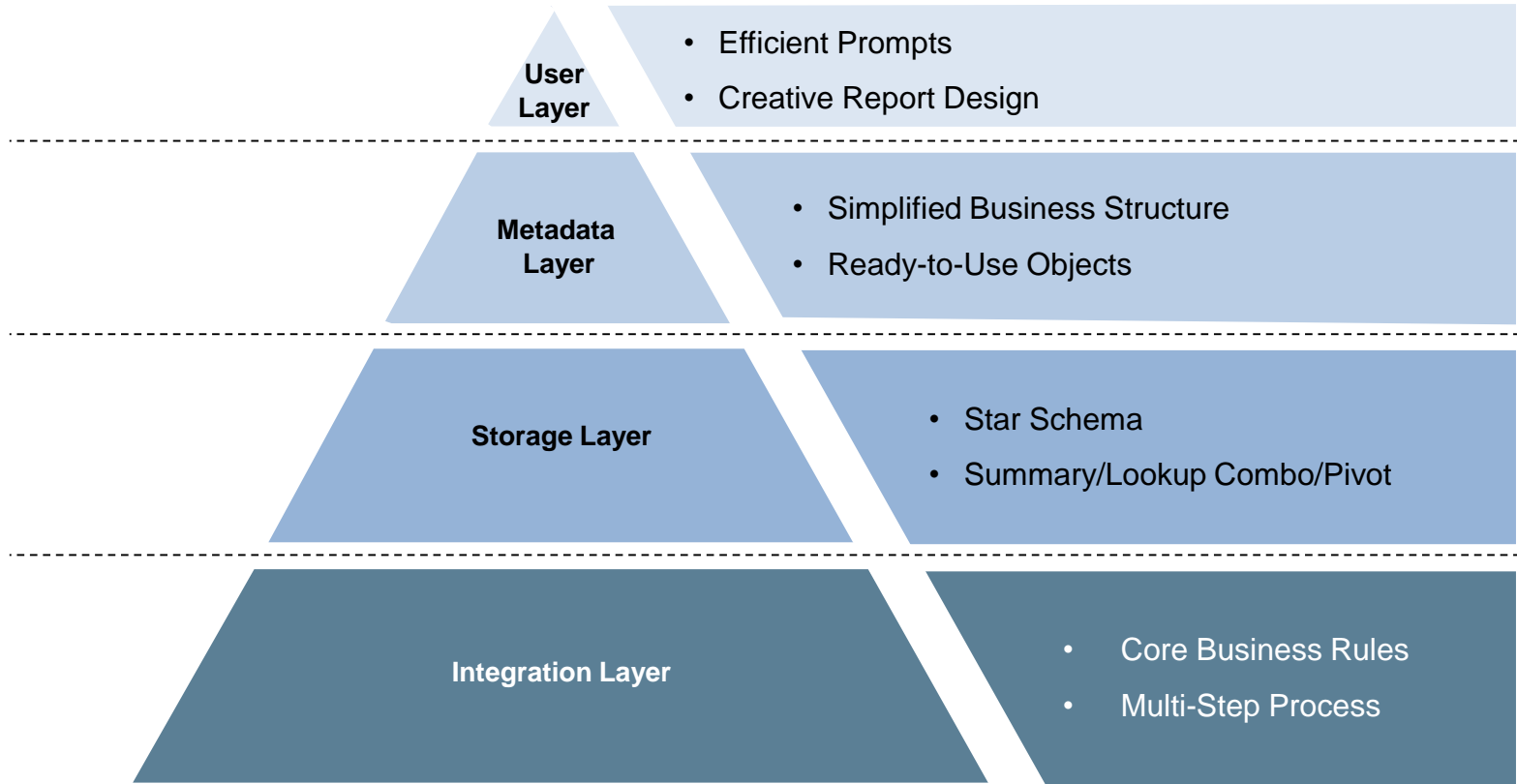
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# Understanding Performance Zones



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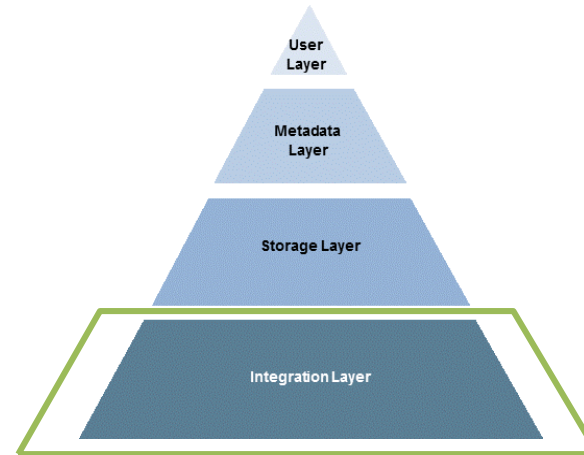
## Key Business Objectives :

- Improve Performance
- Minimize User Interaction (Clicks)
- Customize Reports
- Develop Key Prompts
- Fine-Tune Reports
- Simplify Data Flow



# Integration Layer: Core Logic

- Business Rules
  - Leverage Requirements
  - Compile Business Rules
  - Analyze Core Business Rules
- Multi-Step Process
  - Building Block Approach
  - Multiple Staging Areas
- Cost-Benefit Analysis of Rules Positioning
  - Extraction vs. Storage vs. Metadata vs. User Layer
  - Extraction Layer: Core/Universal Rules
  - User Layer: User Specific



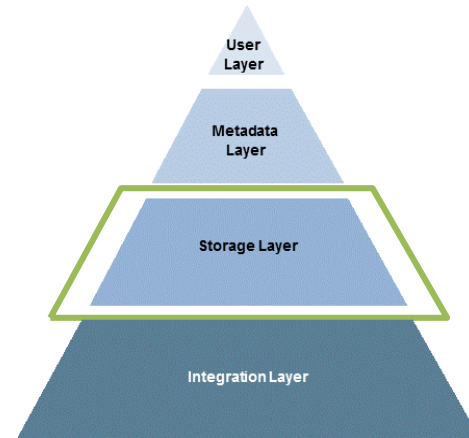
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# Storage Layer: Quick Retrieval

- Star Schema
  - Fact and Dimension Table
  - Extensibility
- Summary Tables
  - Multiple Summarizations
  - Aggregate Aware
- Lookup Tables for Prompts
  - Unique Sets Across Dimensions
  - Filter/Block/Guide Users
- Creative Data
  - Flatten Data
  - Use Creative Codes (1/-1 vs. DR/CR)
  - Custom Date Table



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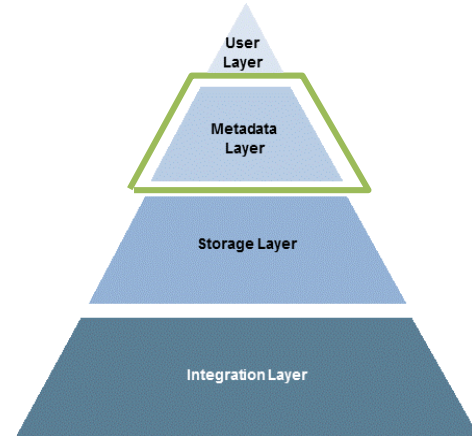


# Metadata Layer: Business Focus



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- Mimic Business Process
  - Hide Storage Layer Complexity
  - Design/Arrange Based on User Interaction
- Leverage Metadata Strength
  - Multiple Date Objects Based on Date Field
  - Define Aggregate aware



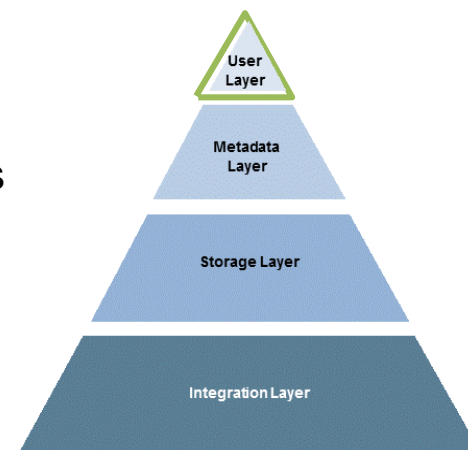
# User Layer: Minimum Clicks



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- Efficient Prompts
  - Position/Order Prompts Per Business Process
  - Cascade Values Based on Unique Set
  - Customize by User
  - Fewer Mandatory Prompts
- Creative Report Design
  - Prepopulate Prompts
  - Position/Order/Flow of Columns
  - Sort and Exception Highlighting
  - Expose Embedded Criteria for Quick Reference

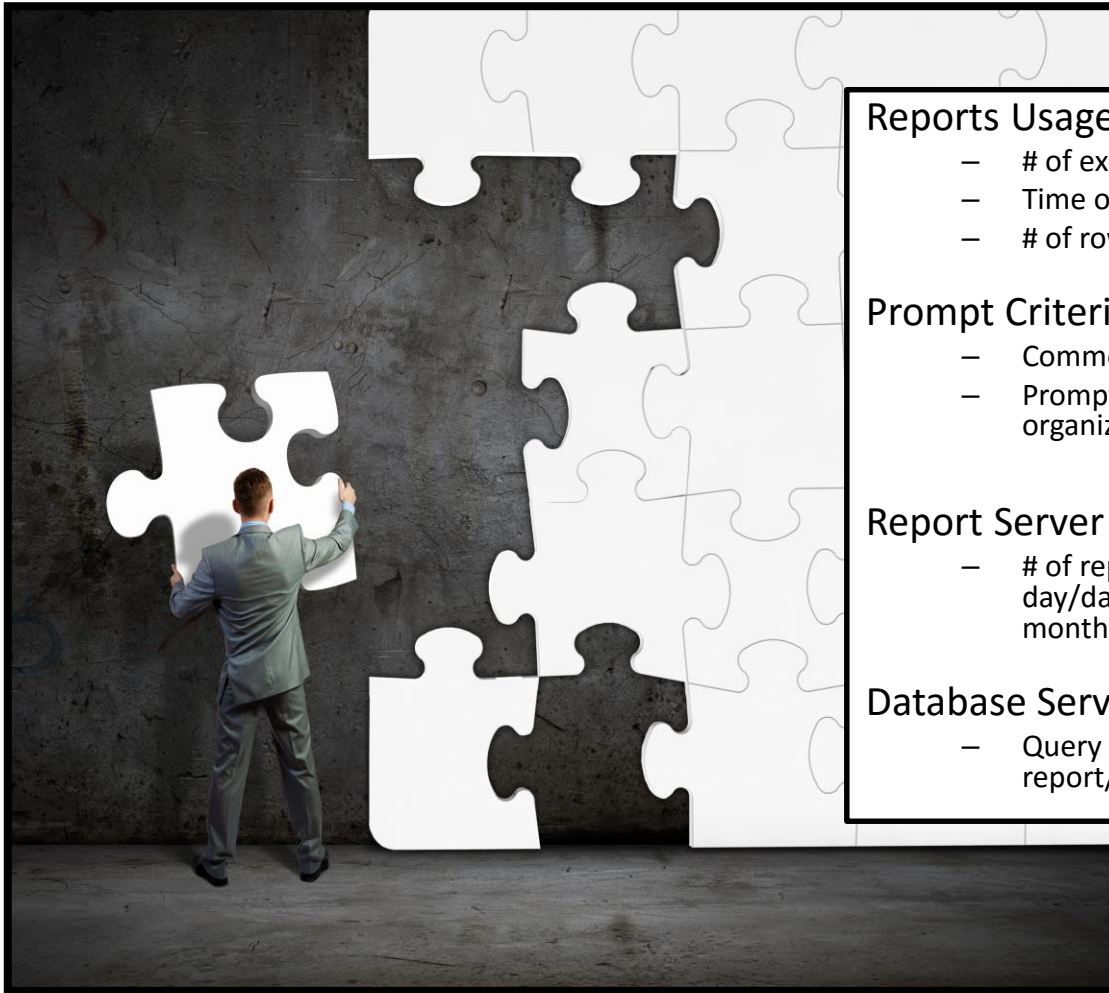


# Continuous Optimization



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## Reports Usage

- # of executions
- Time of execution
- # of rows

## Prompt Criteria

- Common prompts by report
- Prompt values by organization

## Report Server Usage

- # of reports by hour of day/day of week/day of month

## Database Server Usage

- Query execution times by report/users/time of day

# Example 1: Can I Run the Report?



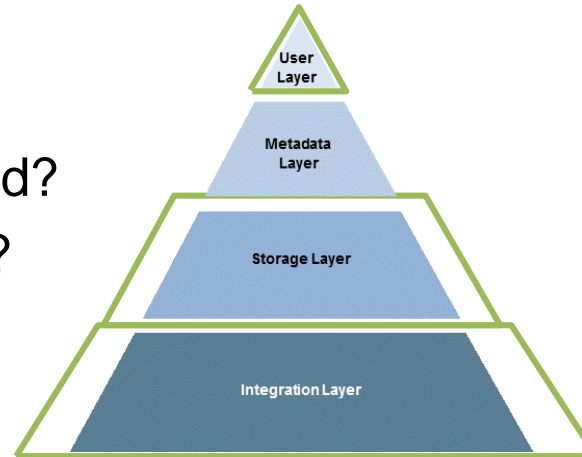
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## Challenge:

- Has the data been refreshed?
- Have we closed the period?
- When was the last refresh?

## Design Consideration:

- Leverage date table/prompt to communicate
  - Flip active switch in date table
  - Closed period vs. open period



# Example 2: Transpose Data



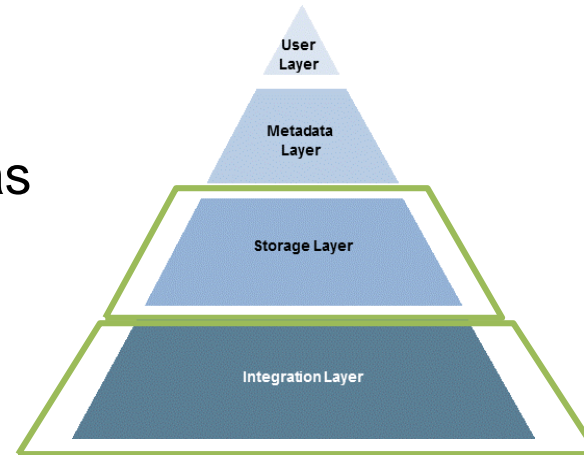
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## Challenge:

- Security prices are stored as 4 rows: Bid, Ask, Bid Adj, and Ask Adj

## Design Consideration:

- Flatten/transpose into one row



# Example 3: Stack Data Sets



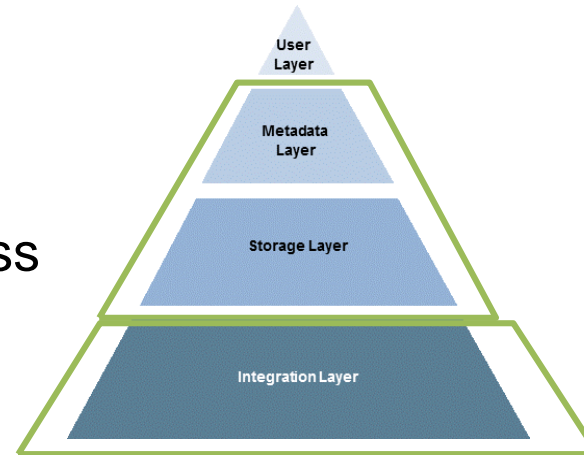
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## Challenge:

- Source system stored multiple stages of a business transaction in one table

## Design Consideration:

- Identify and segregate each stage as separate data set
- Link each data set to stack data sets next to one another





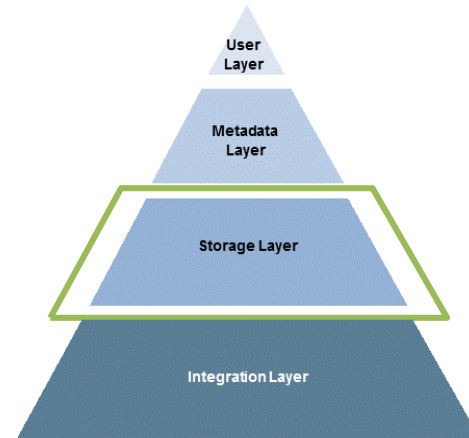
# Example 4: Creative Use of Code



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## Challenge:

- DR/CR code was stored as 1/0, and conversion to signed number required CASE statement



## Design Consideration:

- Instead of 1 and 0 use 1 and -1
- To convert into signed number, multiply the unsigned number with the DR/CR code column



# Example 5: Code Assignment



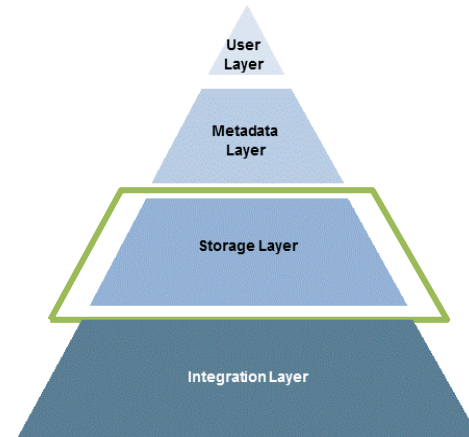
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## Challenge:

- Code assignment for Assets, Liability, and Tax

## Design Consideration:

- Asset 1XXX
- Liability 2XXX
- Tax 3XXX



# Example 6: Leverage Prompts



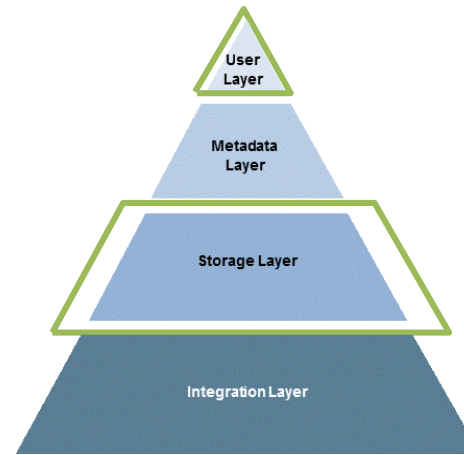
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## Challenge:

- Dropdown prompts relevant to reports
- Prepopulate values in prompts
- Monthly/Quarterly etc. reports

## Design Consideration:

- Map prompts to cascade according to business logic for report
- Usage analysis to prepopulate prompts
- Monthly reports: Ask for month + year (Jan2015) vs start and end date of month (multiple clicks)



# Example 7: Leverage Server – Filter



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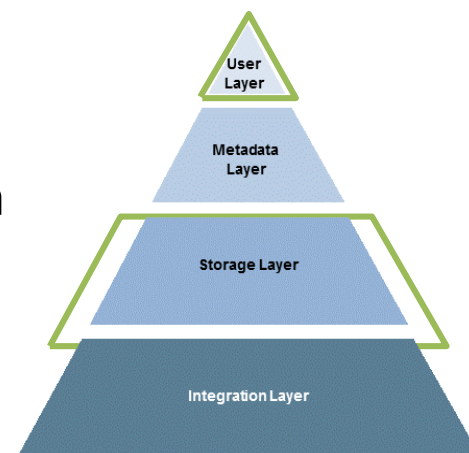
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## Challenge:

- Detail report contains rows with ZERO values

## Design Consideration:

- Filter out data on database server/report server vs. transmitting to report desktop



# Example 8: Leverage Server – Summary



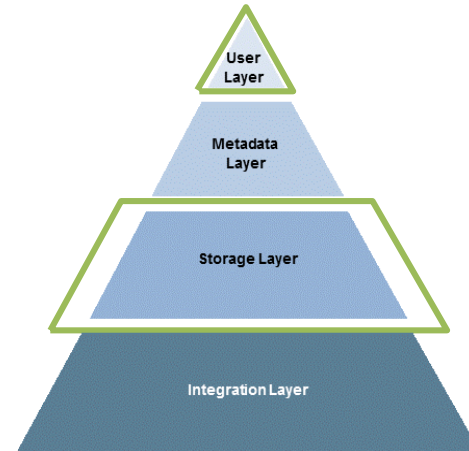
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## Challenge:

- Report displays summary information but brings back detailed data

## Design Consideration:

- Leverage back-end server to summarize (faster and less data over network)
- Drill down for details



# Example 9: Business Conditions



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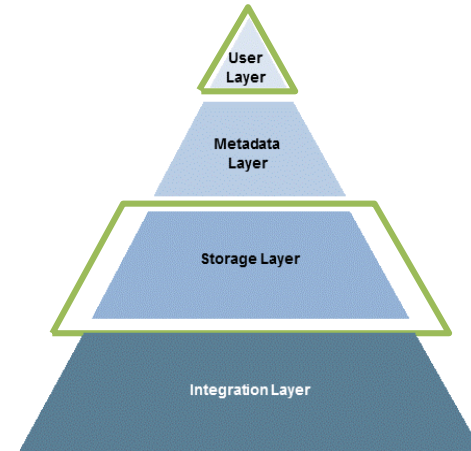
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## Challenge:

- Calculations based on net transactions

## Design Consideration:

- Apply filter to ignore reverse transactions



# Example 10: Custom Groupings



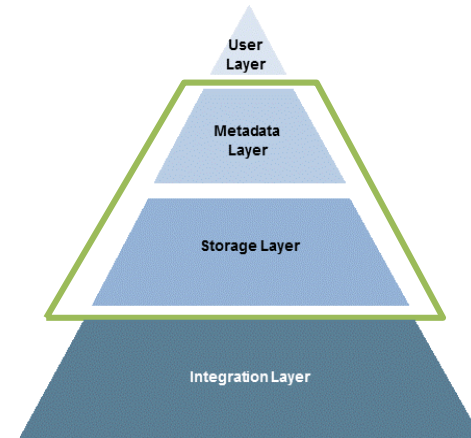
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## Challenge:

- Report always looks at a specific customer vs. group of other customers

## Design Consideration:

- Create a custom dimension that groups values for a specific customer
- Use the group in the prompt/filter



# Thank You



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