

**The Synergy of**

**Metadata**

**and**

**Data Governance**

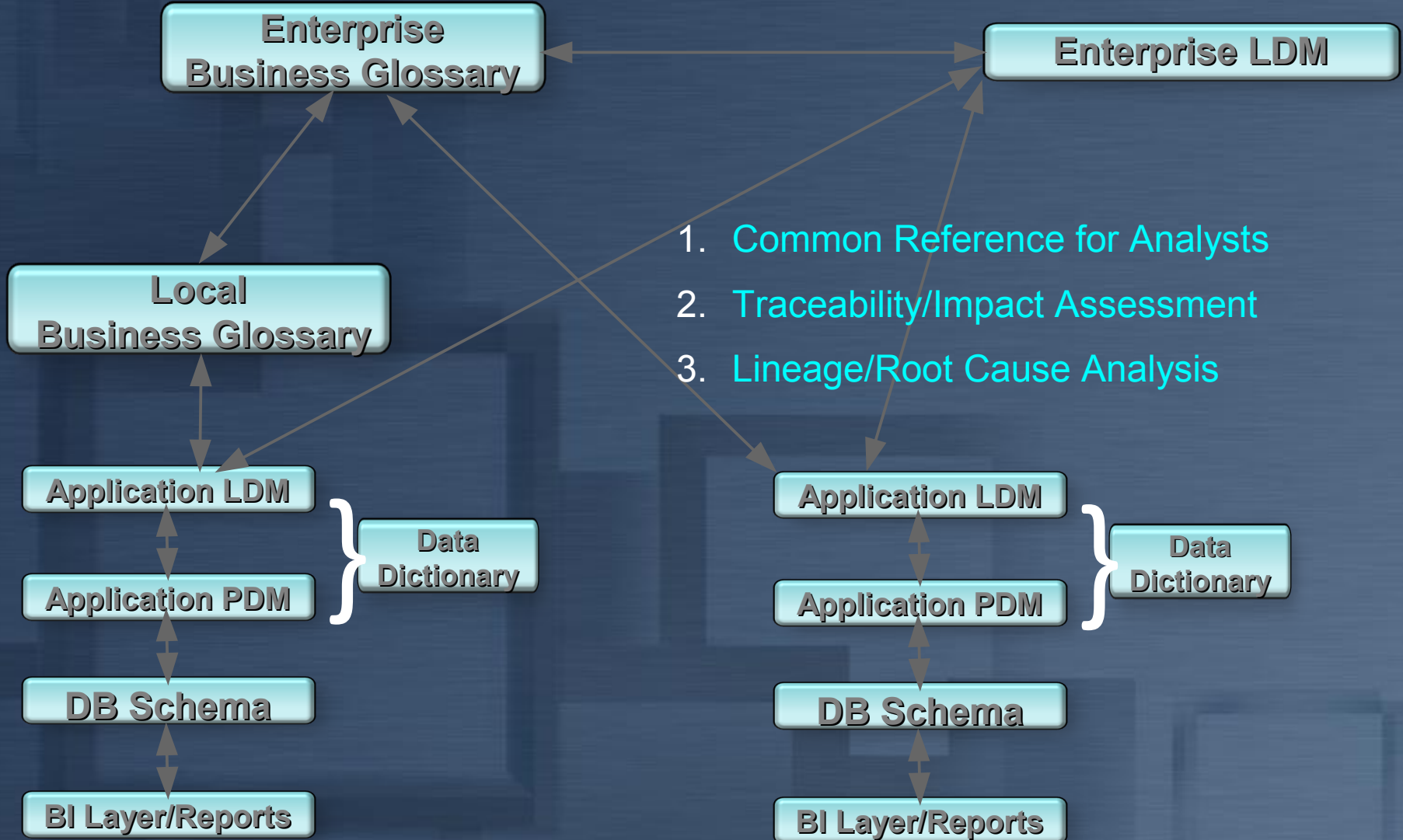
# Data Governance

**Data Governance is a broad subject area**

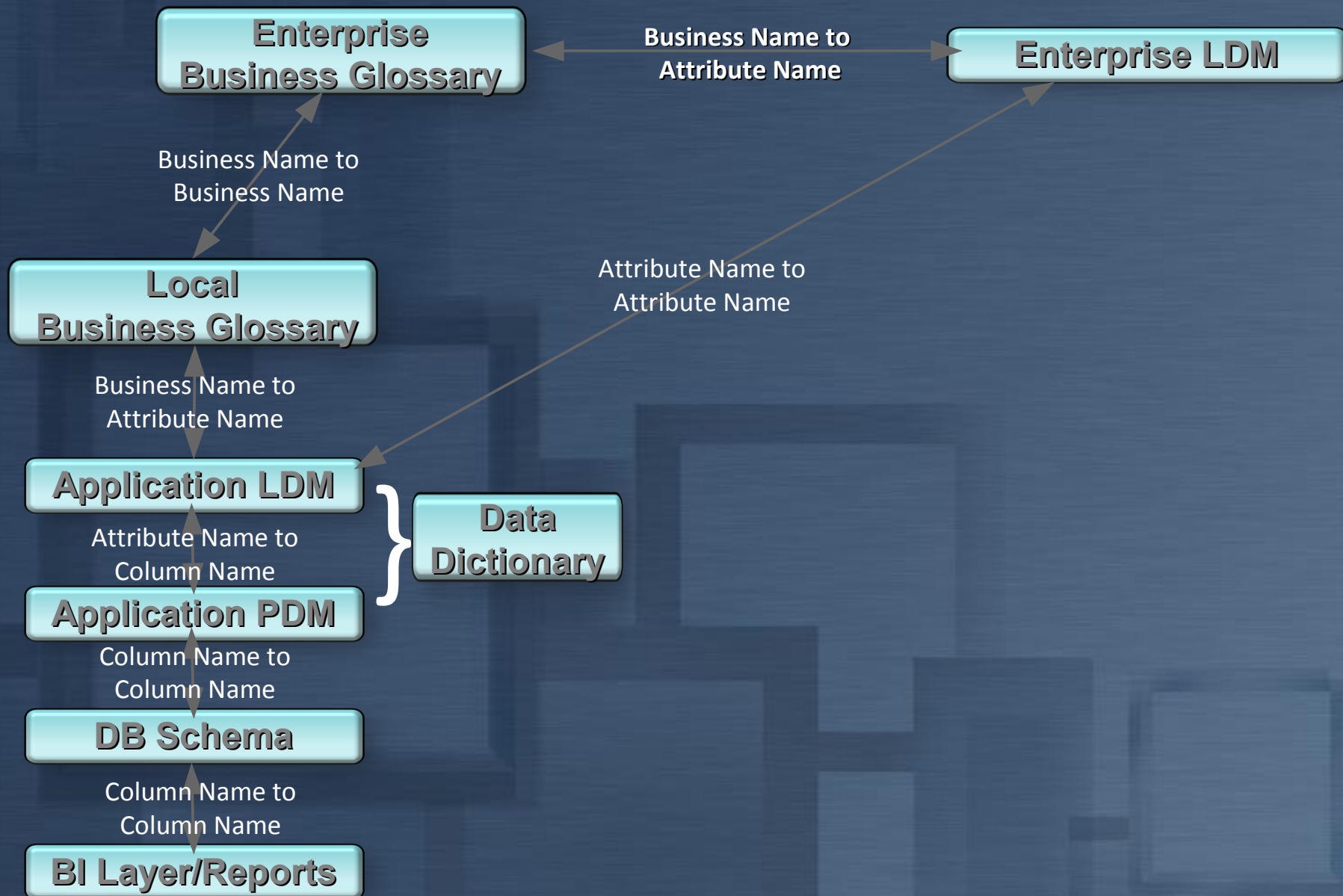
**For this discussion the focus is on a subset of activities:**

- **Defines controls on data assets**
- **Defines and monitors how data management functions are performed**
- **Develop and approve data standards, procedures and guidelines**
- **Review and approve the data architecture**
- **Manage and resolve data related issues**
- **Monitor and ensure regulatory compliance**

# IT Metadata



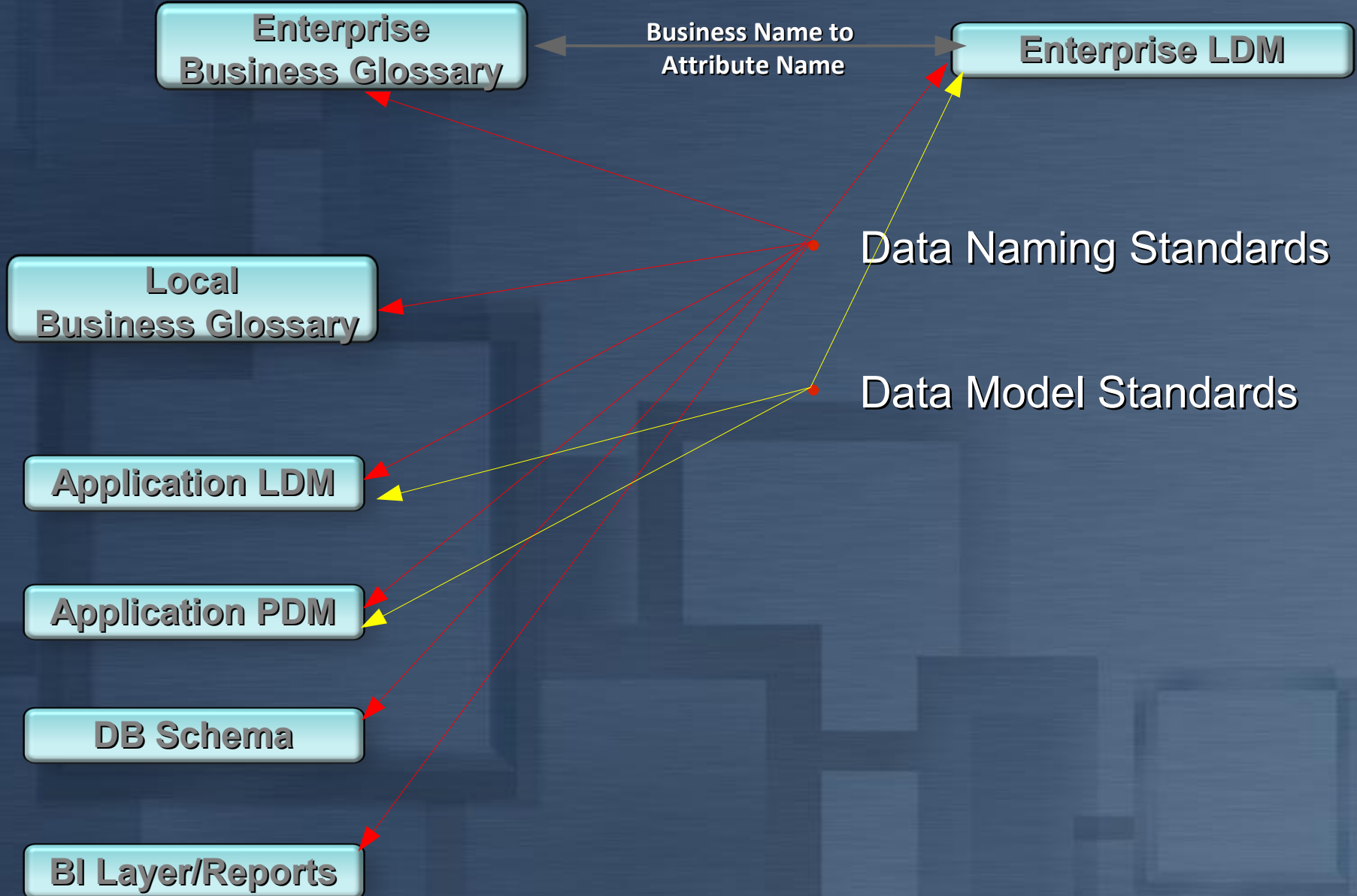
# Architectural Layers and How They are Tied Together



# How Data Governance Enables Metadata

1. Provides policies and standards that create common and consistent ways of doing things
  - Data Naming Standards
  - Data Modeling Standards
  - Interface Control Standards
  - Data Mapping Standards
2. Compliance Monitoring and Reporting
  - Different levels of compliance
  - Different levels of reporting
  - Dashboard metrics
3. Enforcement of the standard
  - Just because a standard exists does not mean it is enforced

# Standards Enabling Metadata Quality

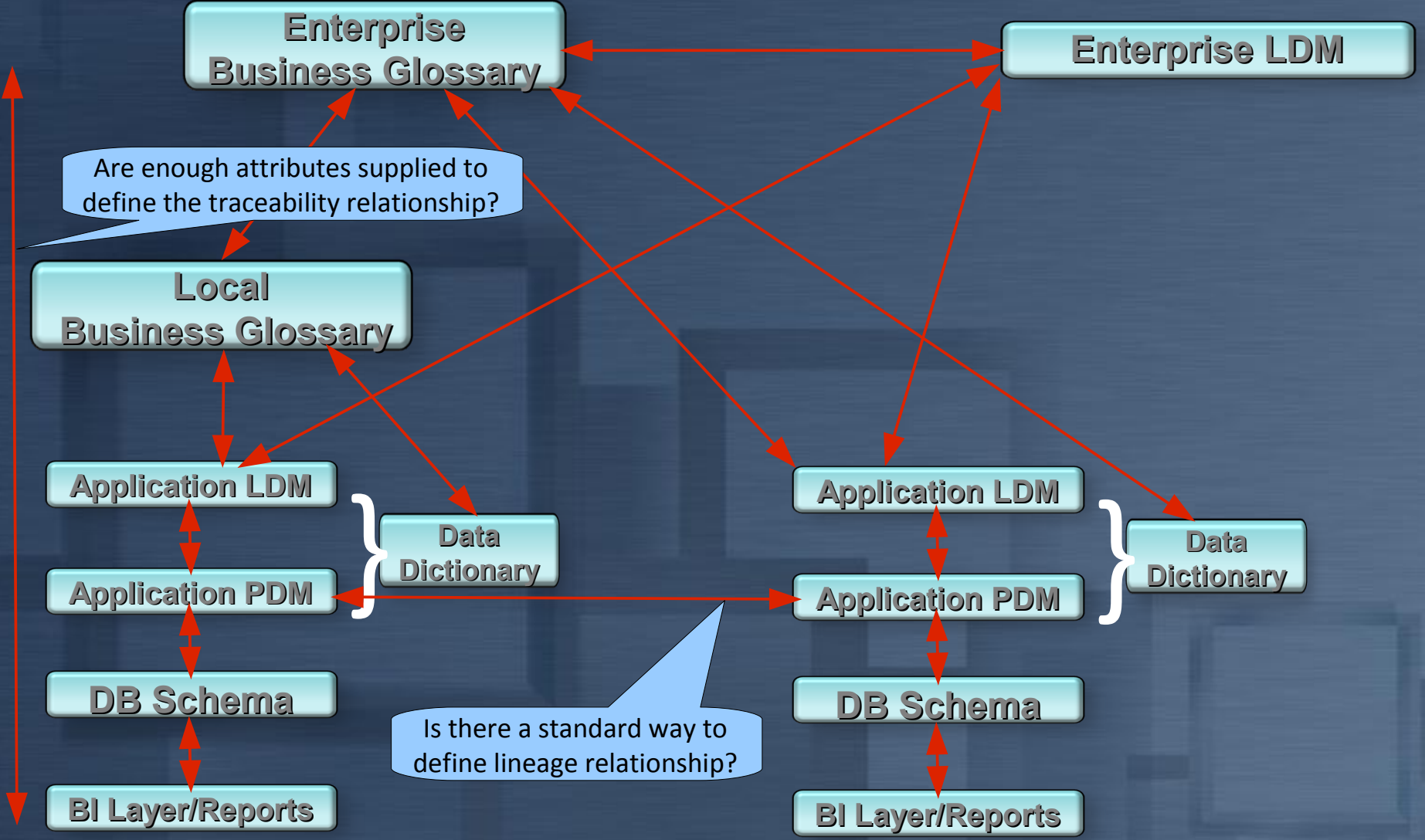


# How Metadata Enables Data Governance

1. Enables control of the business vocabulary
2. Serves as a reference for data related mandates
3. Enables a different perspective of existing metadata
4. Exposes inconsistent ways of doing similar things across the enterprise:
  - Glossary vs Data Dictionary
  - Enumerated lists with different values
  - New use cases and relationships require common language
  - Different default values
  - Different datatypes
  - Different nullability
  - Different definitions
  - Identifying different ways of housing a Glossary
  - Identifying different ways of housing Data Dictionary
  - Different ways of mapping source to target

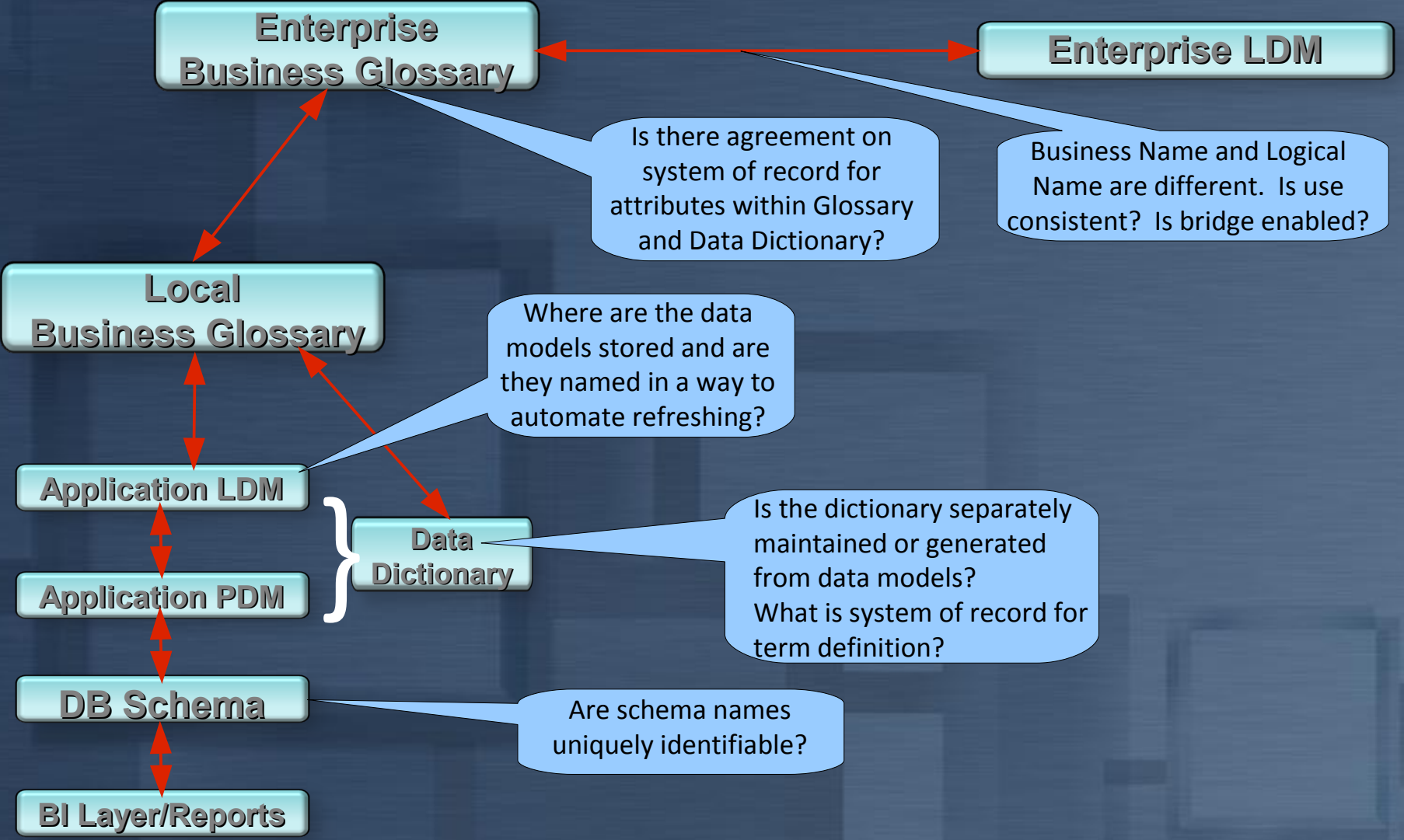
# Metadata Brings Transparency to Data Management

Red lines show relationships for metadata use cases  
Something that was not necessarily there when the artifacts stand alone



# Metadata Brings Transparency to Data Management

Red lines show relationships for metadata use cases  
Something that was not necessarily there when the artifacts stand alone



# Metadata Growth Identifies Patterns

## Metadata growth occurs in at least two dimensions:

1. More metadata of a type that is already in the repository
2. Different types of metadata than what is currently in the repository

## Most metadata harvesting cycles go through a similar process:

1. Define use case new metadata will enable
2. Identify metadata you want to capture
3. Scan it from a trusted source
4. Store it
5. Define relationships with other metadata
6. Make it accessible for viewing
7. Enable it to be exported

## Which result in patterns for each dimension:

1. Increasing the inventory of existing metadata
  - Show inconsistent use of existing tools and constructs
  - May uncover new capability from existing metadata
2. New types of metadata result in new use cases
  - New relationships require metadata on both ends
  - This metadata not typically defined in a consistent manner

# Metadata Growth Pattern

## 1. Harvest new metadata

## 2. Identify patterns of similarity

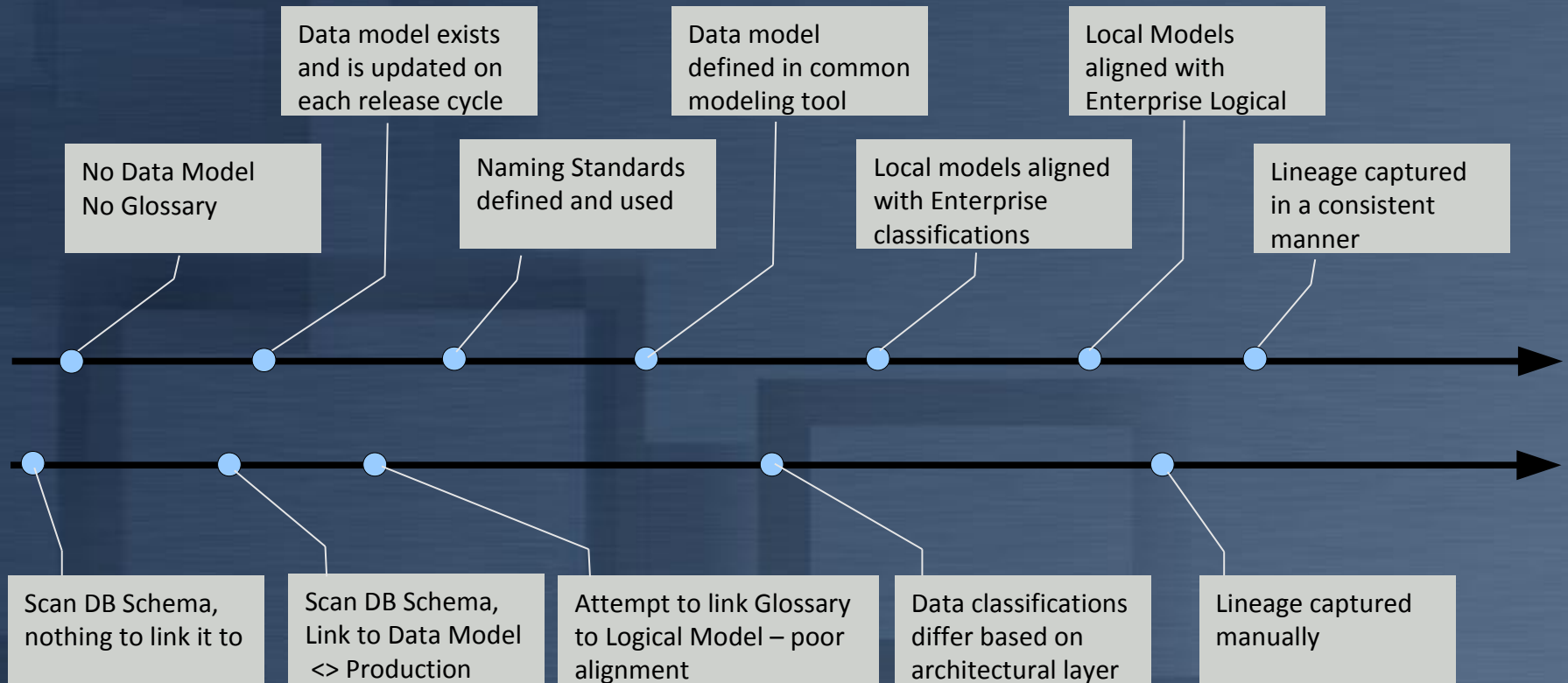
- Bring in the metadata, connect it, make it available

## 3. Identify patterns of difference

- If generic pattern already established then coach source system contacts
- If new pattern then consult with all teams that influence, create, or use the associated data to determine common way to express
- Add difference to metadata base
- Determine if patterns and guidelines need updating
- Determine if any standards need updating
- Educate user base on enhancements

# Disparate Alignment

## Data Governance Maturity Timeline



## Metadata Maturity Timeline

# Maturity Levels Must Grow Together

**Getting ahead of the curve means one team is trying to accomplish something without support:**

- Some effort is manual
- Poor metadata quality
- Effort needs to be redone

**Coordinating efforts:**

- Collaboration leads to new discoveries
- Do the work once
- More consistent user experience

**Collaboration helps both programs grow:**

- Business Glossary vs Data Dictionary
- Business terms, Logical names, Physical names
- Business rules vs Data Quality rules
- Lineage recorded in data models, spreadsheets, control documents

# **The Synergy of Metadata and Data Governance**

---

**Norman A Steele, CDMP**

**Metadata Analyst, Fannie Mae**

**Norman\_Steele@FannieMae.com**

**NormanSteele3@gmail.com**

**DAMA-NCR – Washington DC**

**November 8, 2011**