

# [ Trends for the Maintain / Use Data Dichotomy ]

2003 GIS-T Symposium  
Colorado Springs, Colorado

presented by  
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## [ Maintain / Use Dichotomy ]

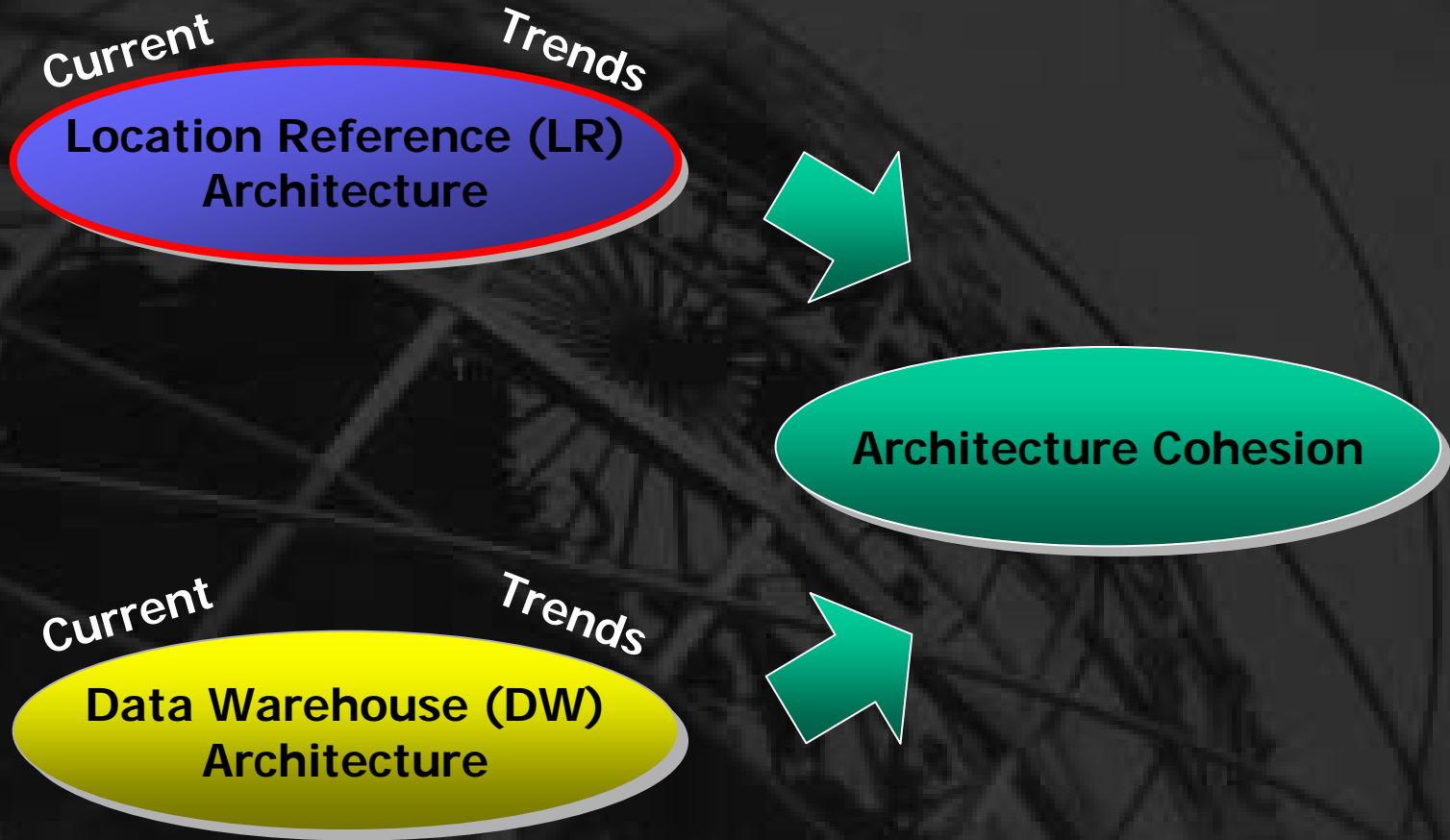
### Maintain Perspective

- Collect/Enter Once
- Data Integrity
- Hierarchies are King
- Single Op Perspective
- LOTS of data
- Living in the now

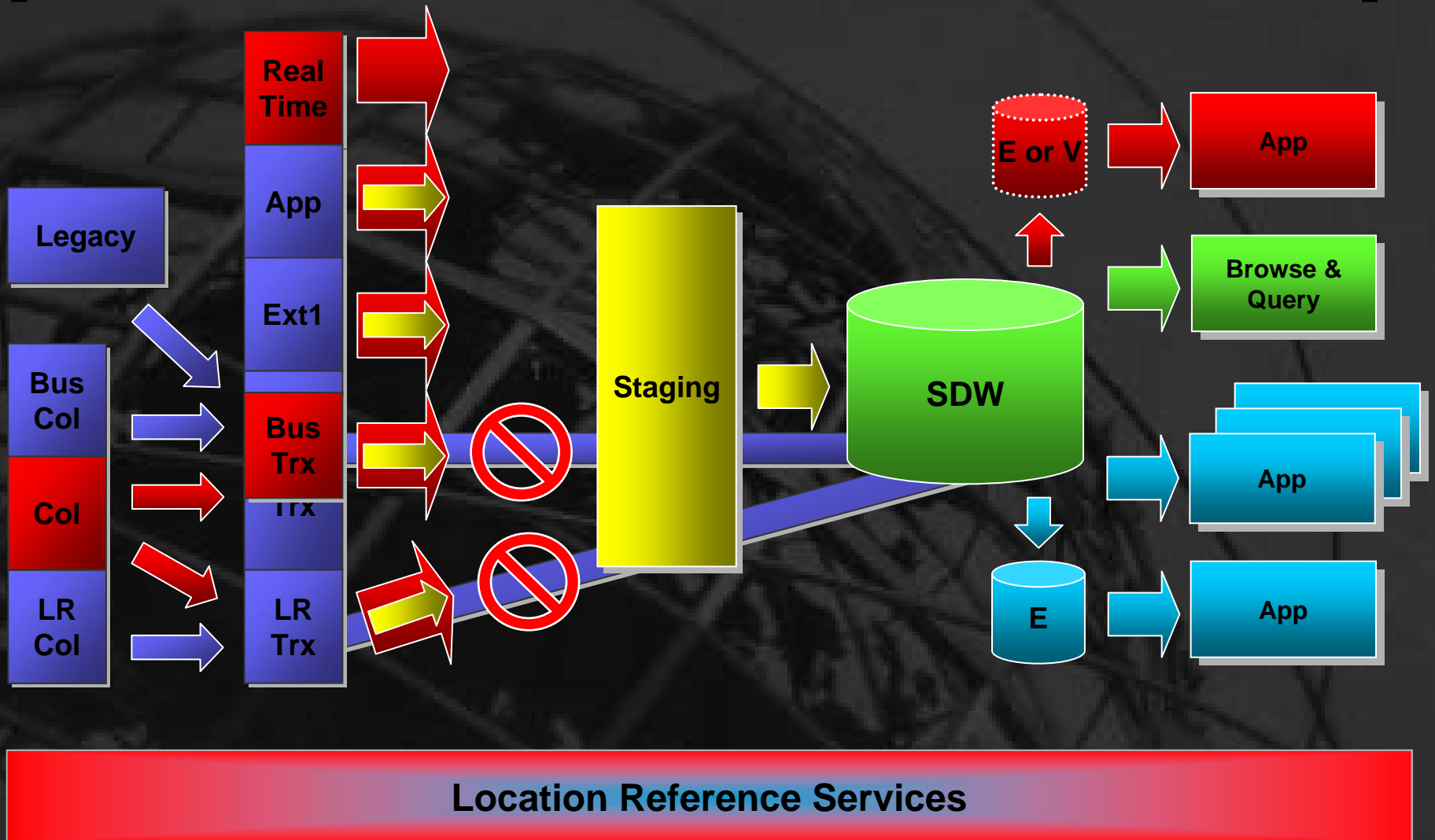
### Analysis Perspective

- Apply Many
- Speed/Performance
- KISS
- Enterprise Perspective
- Give me the facts
- Need Trends

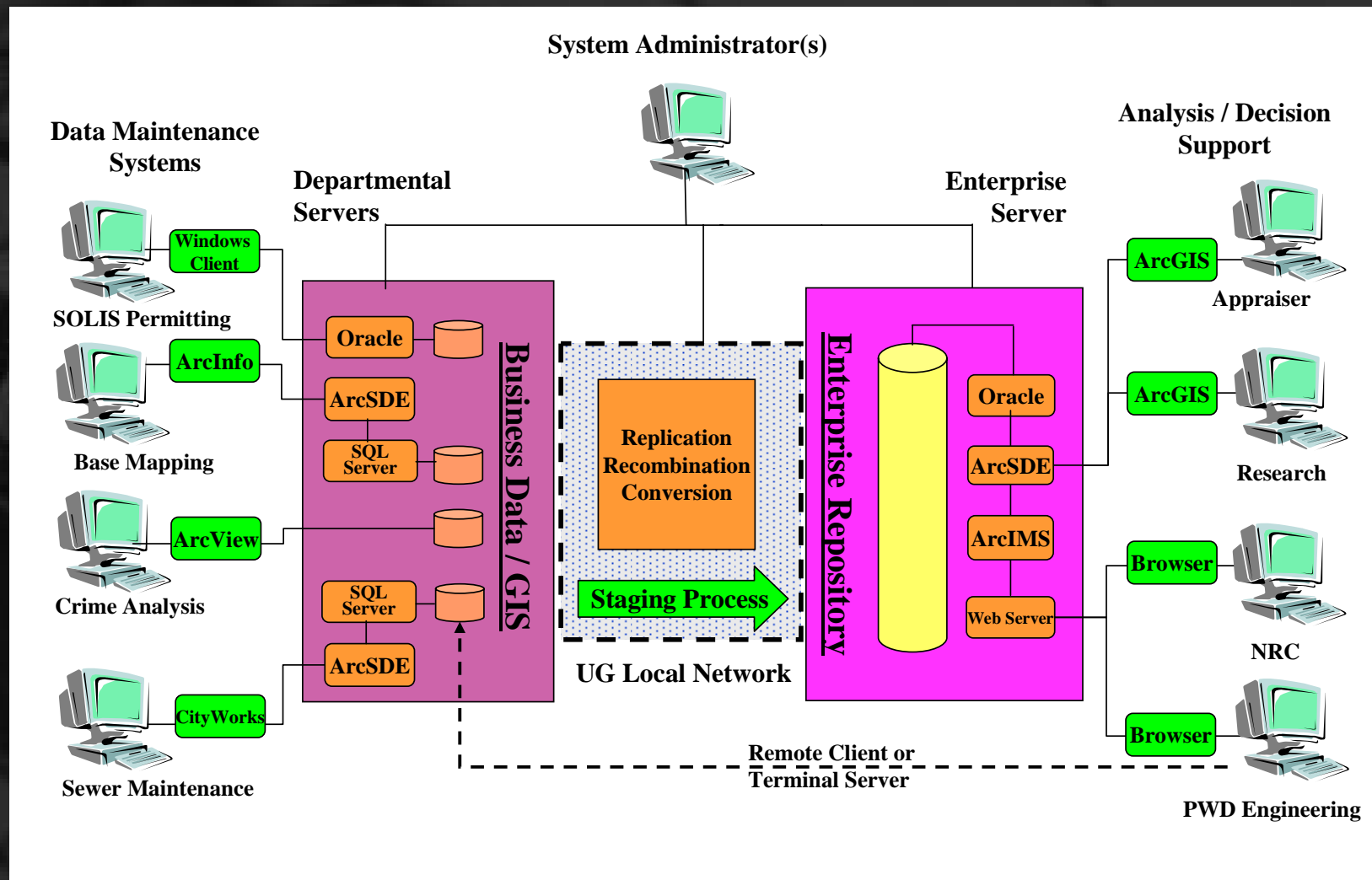
# [ Presentation Approach ]



# [ Location Reference Architecture – Current/Trends ]



# [ Example – Separation of Maintain / Use ]



# [ Example – Views of the SDW Data ]

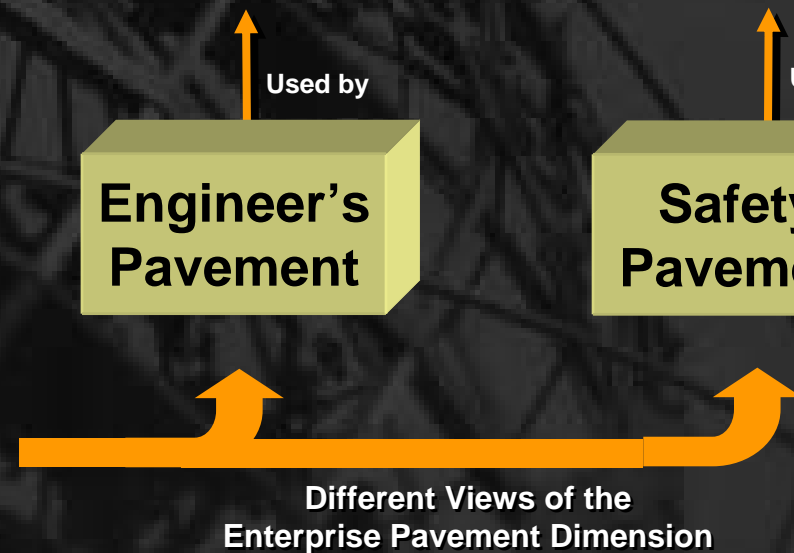
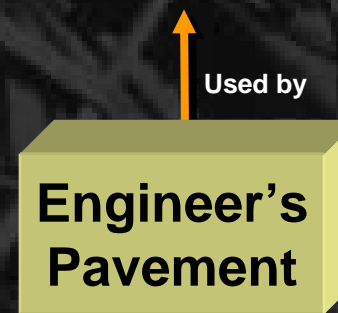
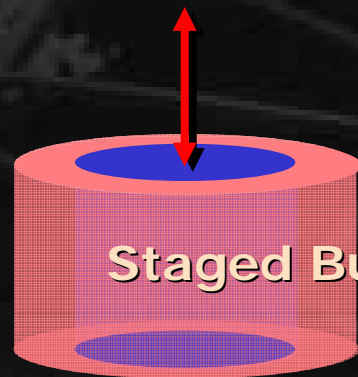
Data Catalog



Engineering



Safety



# [ Trends in Location Reference Services ]

Interfaces to Applications (XML, APIs)

Location Reference Services ("Apps Servers")

Collection

Transformation

Reorganization

Display/  
Report

QC/Change  
Propagation

Integration

Applied /  
Analytical

Interfaces to Data (OGC, XML, Other)

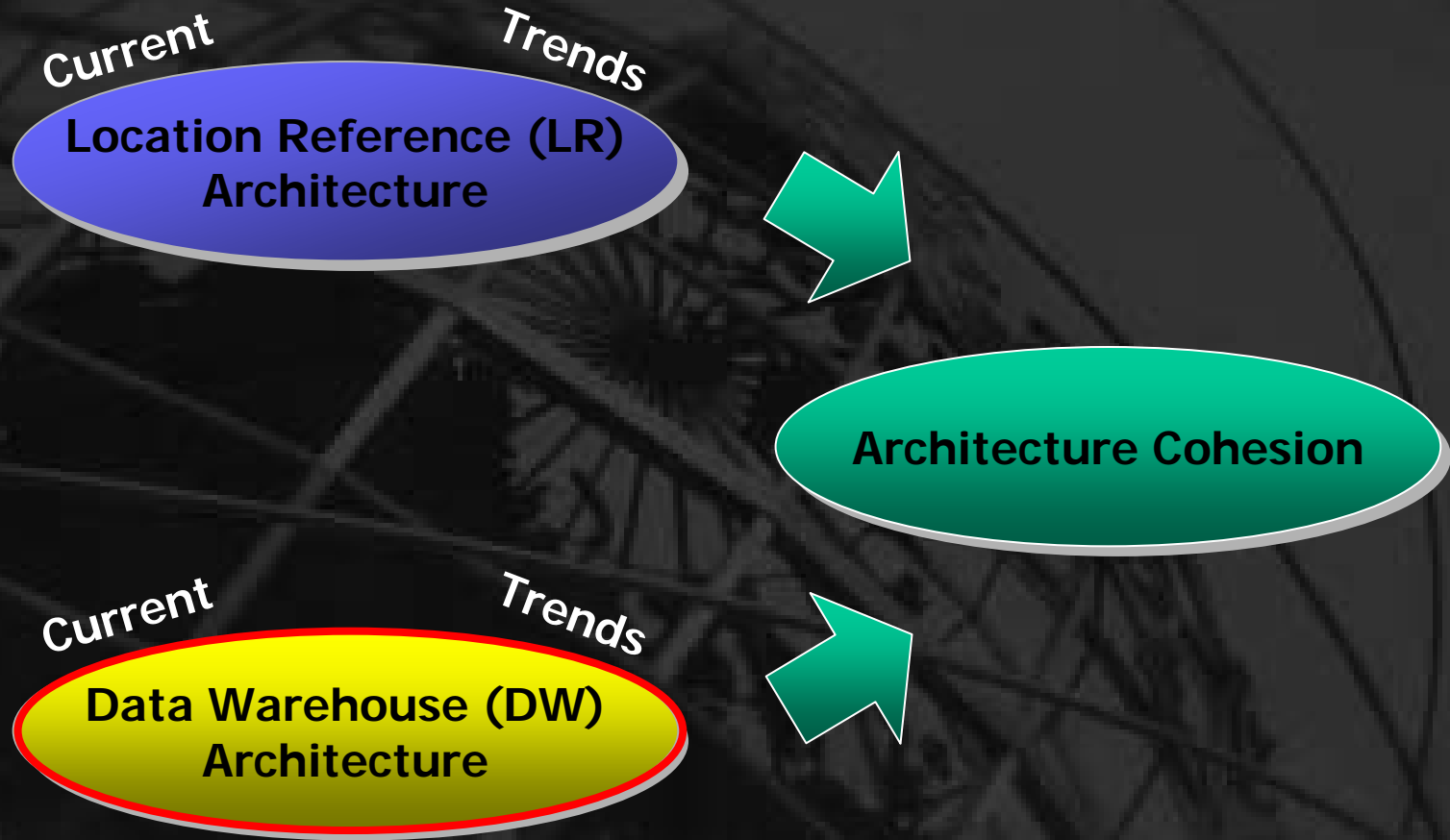
Persisted Location Reference Data (DBMS / File)

## [ Location Reference Trends ]

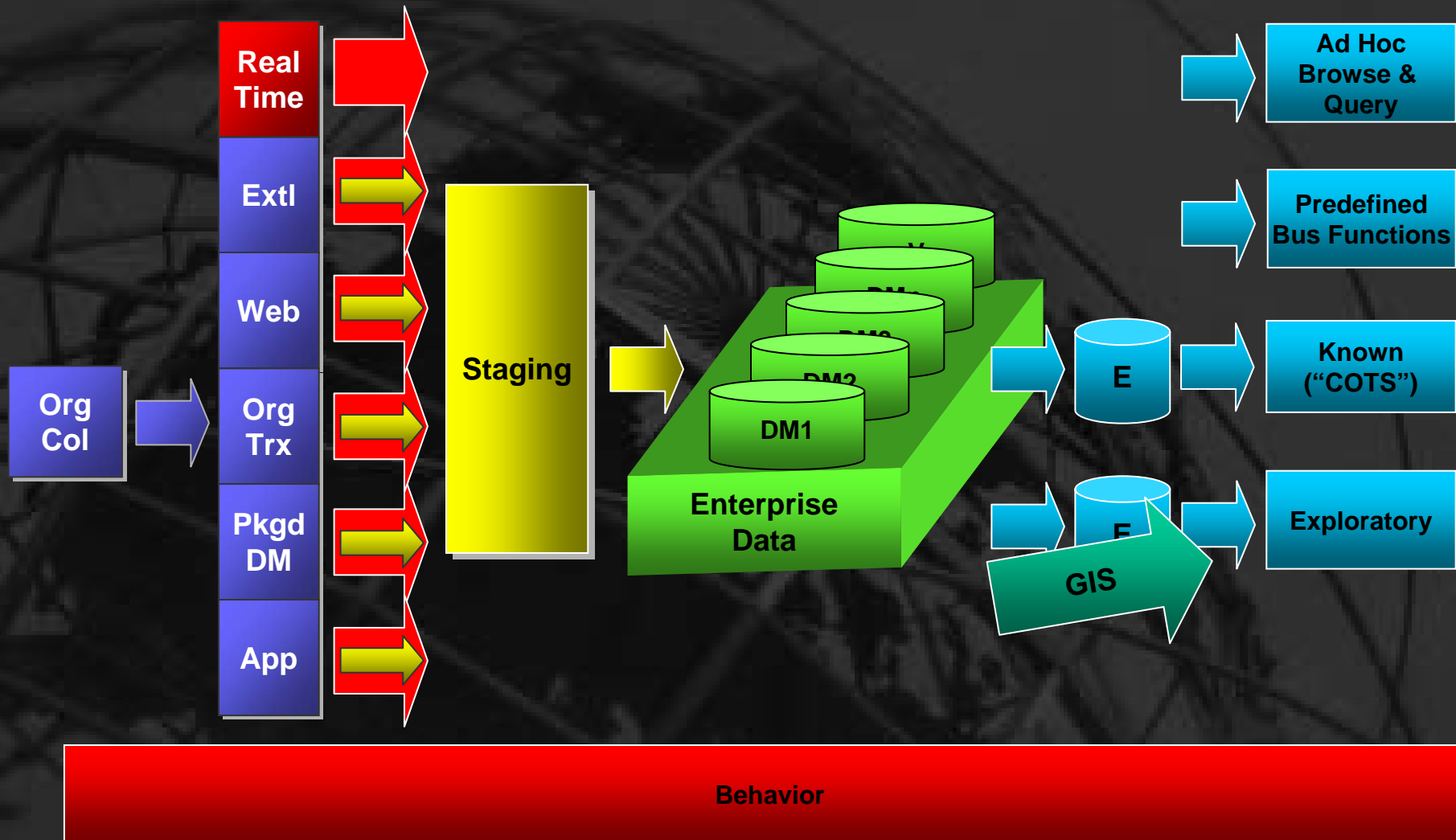
- More Detail
- More Real Time Collection
- More Integrated Business / Location Reference Collection
- Separating Transaction Management from SDW
- Movement to Location Reference Services



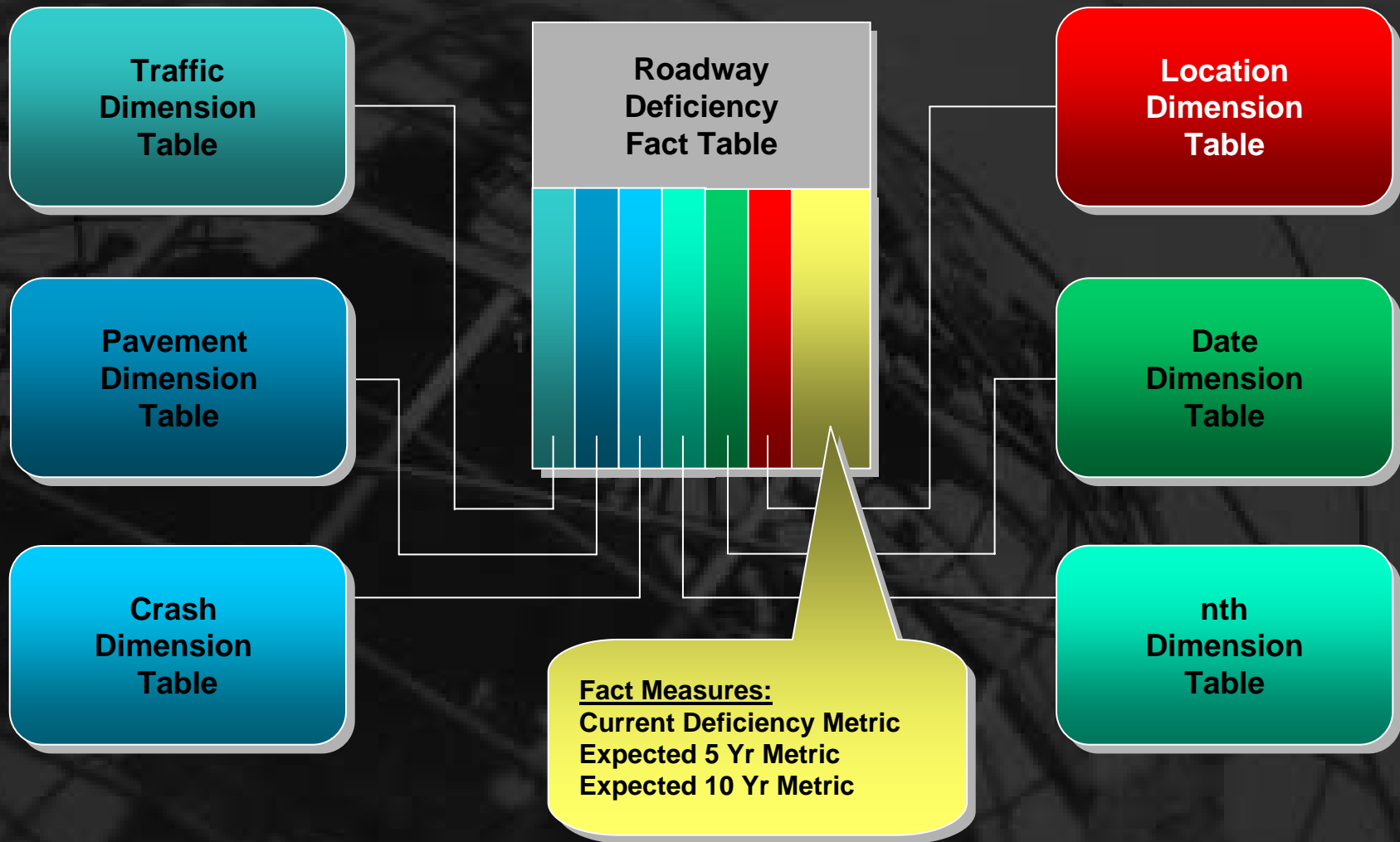
# [ Presentation Approach ]



# [ Data Warehouse Architecture – Current/Trends ]



# [ Data Mart Dimensional Design (Star Schema) ]



## [ Data Warehouse Trends ]

- Way It's Getting to Be
  - 24x7
  - Distributed or Federated
  - Operational Reporting (more than just execs)
  - Rapid/Predictable Response
  - Focus will remain text and numbers

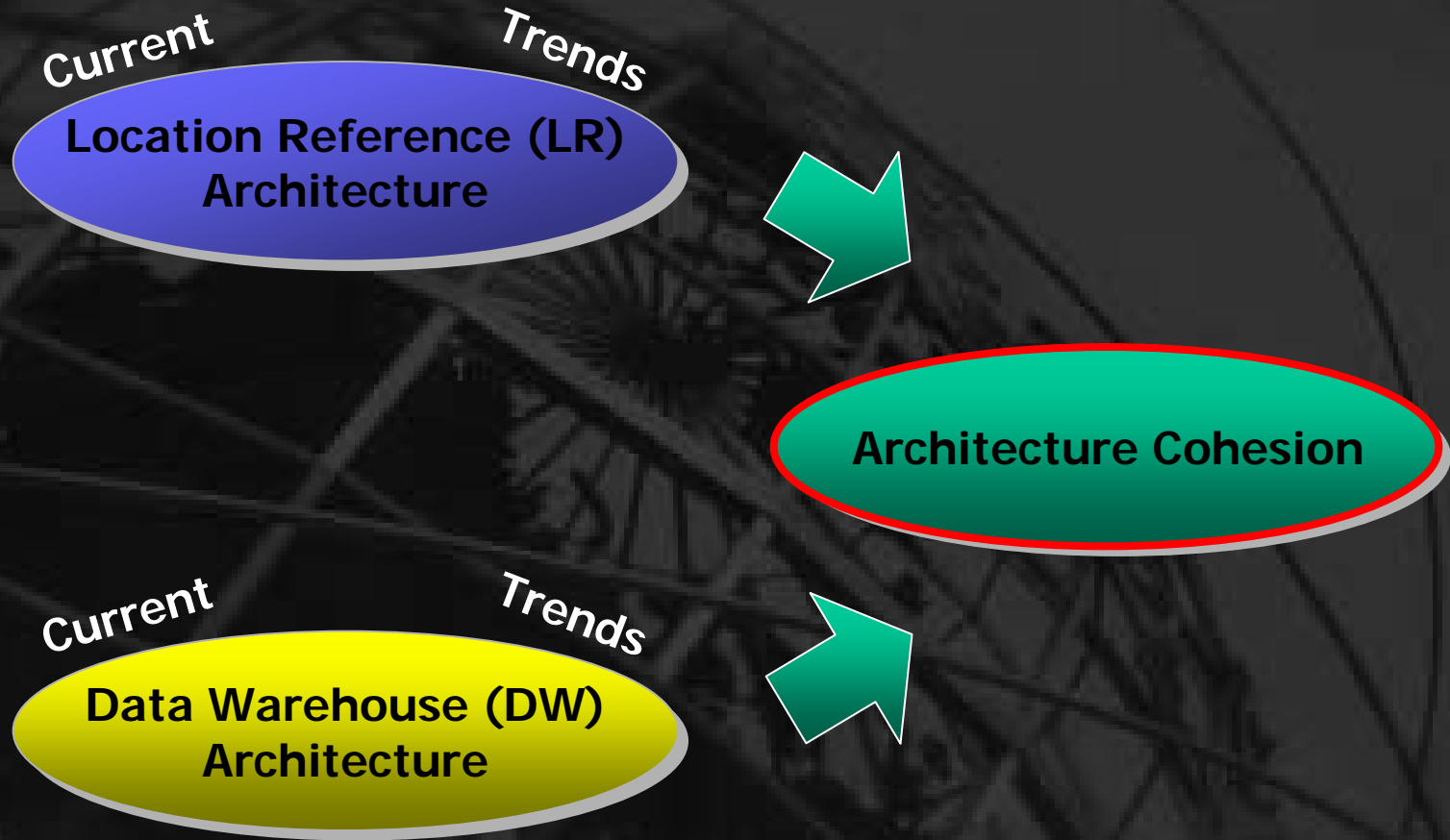
*After Schmitz, Kimball, 2003*

## [ Data Warehouse Trends ]

- Looking out 5+ Years
  - Increasingly fine grained atomic data
  - Increasing performance measure handling
  - Radically increased emphasis on real time data
  - Operations data will contain a location reference
  - New analysis paradigms for diagnosing/classifying behavior

*After Kimball, Schmitz, 2003*

# [ Presentation Approach ]



## [ DW/LR Architecture Cohesion – Why Care? ]

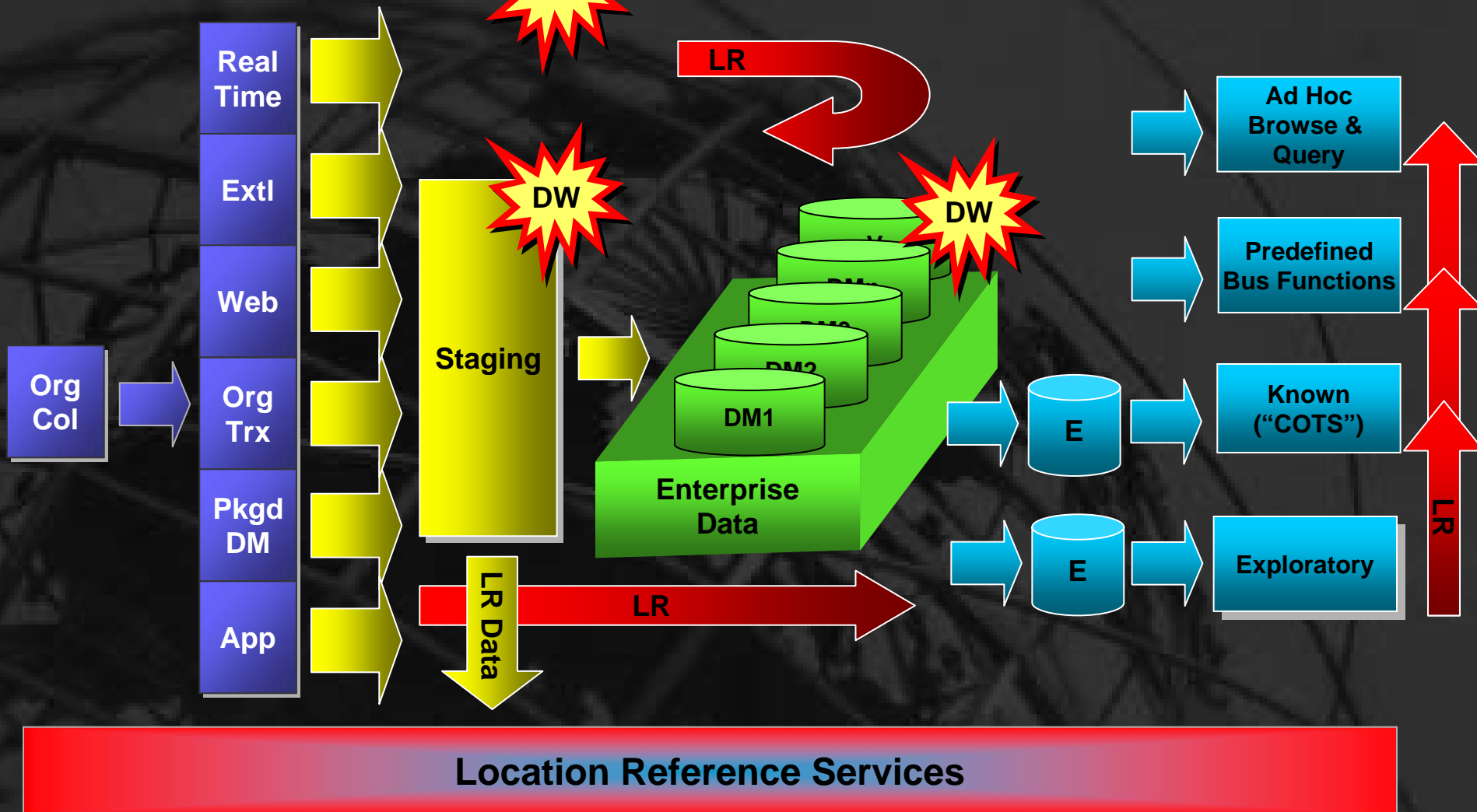
- Data Warehousing is a billions-of-dollars industry
- Data Warehousing is growing in the government sector
- DW and LR architectures could be brother and sister
- DW tools can handle RDBMS data (spatial in RDBMS)

## [ DW/LR Architecture Cohesion – Why Care? ]

- Text and Numbers still rule (over Graphics)
- Kimball, 2/03: “The average data warehouse does not have a cultural understanding of how to view GIS data and how to make decisions with it...”
- Who will drive the Enterprise Decision Support Bus?



# [ DW/LR Architecture Cohesion ]



# [Maintain/Use Dichotomy Challenges ]

## Location Reference

- How will we effectively harvest LR/LR-QC data from business data collection processes?
- Should Location Reference Transaction Applications be separate from but interfaced to Location Reference Services Applications?
- Will the industry take the Location Reference Services approach, and what will be the Interface Standards?

# [ Location Reference Maintain/Use Challenges ]

## LR/DW Cohesion

- Being An Enterprise Advocate and still not part of the Enterprise
- What can we learn from the DW Community
  - To implement right now?
  - For the next generation of LR Architectures?
- What will our relationship be to the DW Community?
  - How will we interface to DW Software?
  - Will dimensional (Star Schema) structures be our analytical / decision support futures?

Thanks!

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