Dimensional modeling

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1632

What is dimensional modeling?

- Dimensional modeling is widely accepted as the preferred technique for presenting analytic data because it addresses two simultaneous requirements:

- Source: Ross, Margy, and Ralph Kimball. The data warehouse toolkit: the definitive guide to dimensional modeling. John Wiley & Sons, 2013.

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  - Deliver data that's understandable to the business users.
  - Deliver fast query performance.
- Dimensional modeling is a longstanding technique for making databases simple.

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Main flow of dimensional modeling

- Start from **business requirements**
  - What needs to be done? Why?

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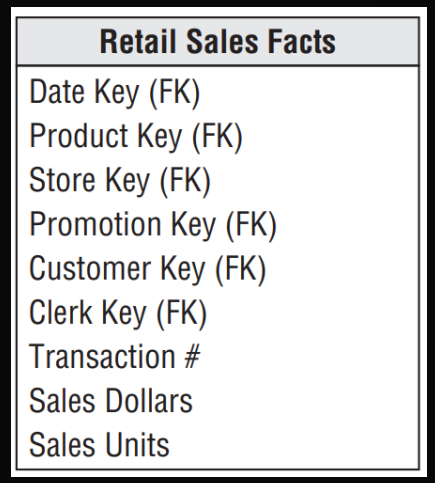
  - What needs to be done? Why?
- Design facts and dimensions

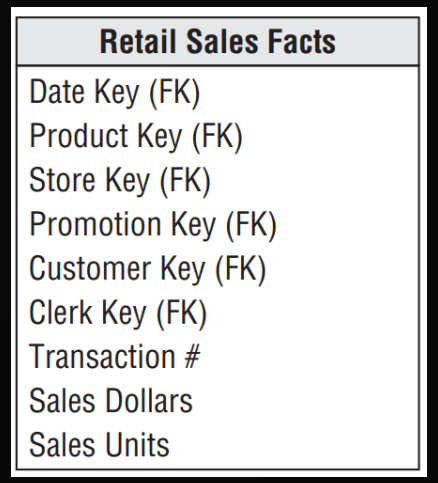
Facts and dimensions

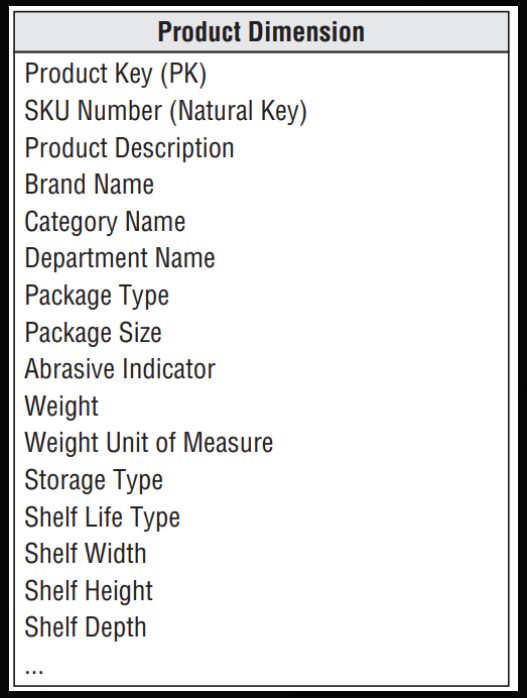
- Fact tables are for measurements



Facts and dimensions

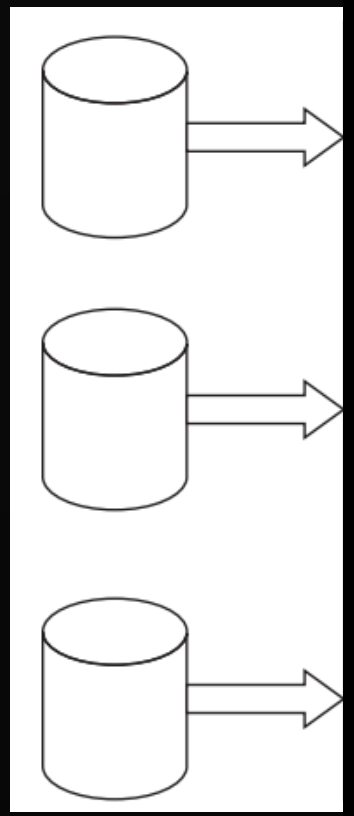
- Fact tables are for measurements
- Dimension tables are for descriptive context





General architecture

Sources



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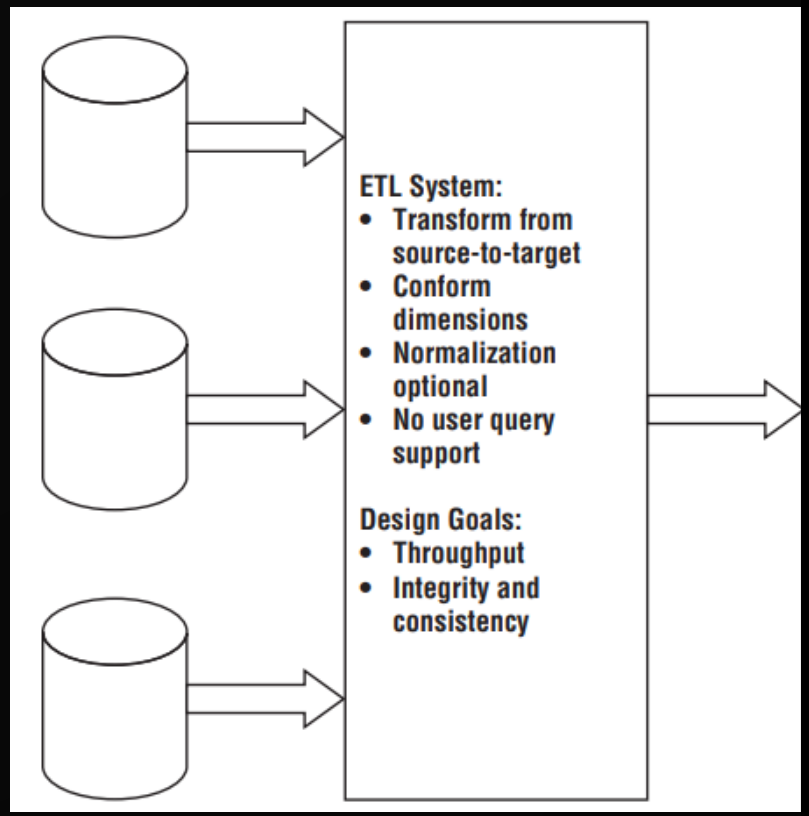
General architecture

Sources Staging area



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General architecture

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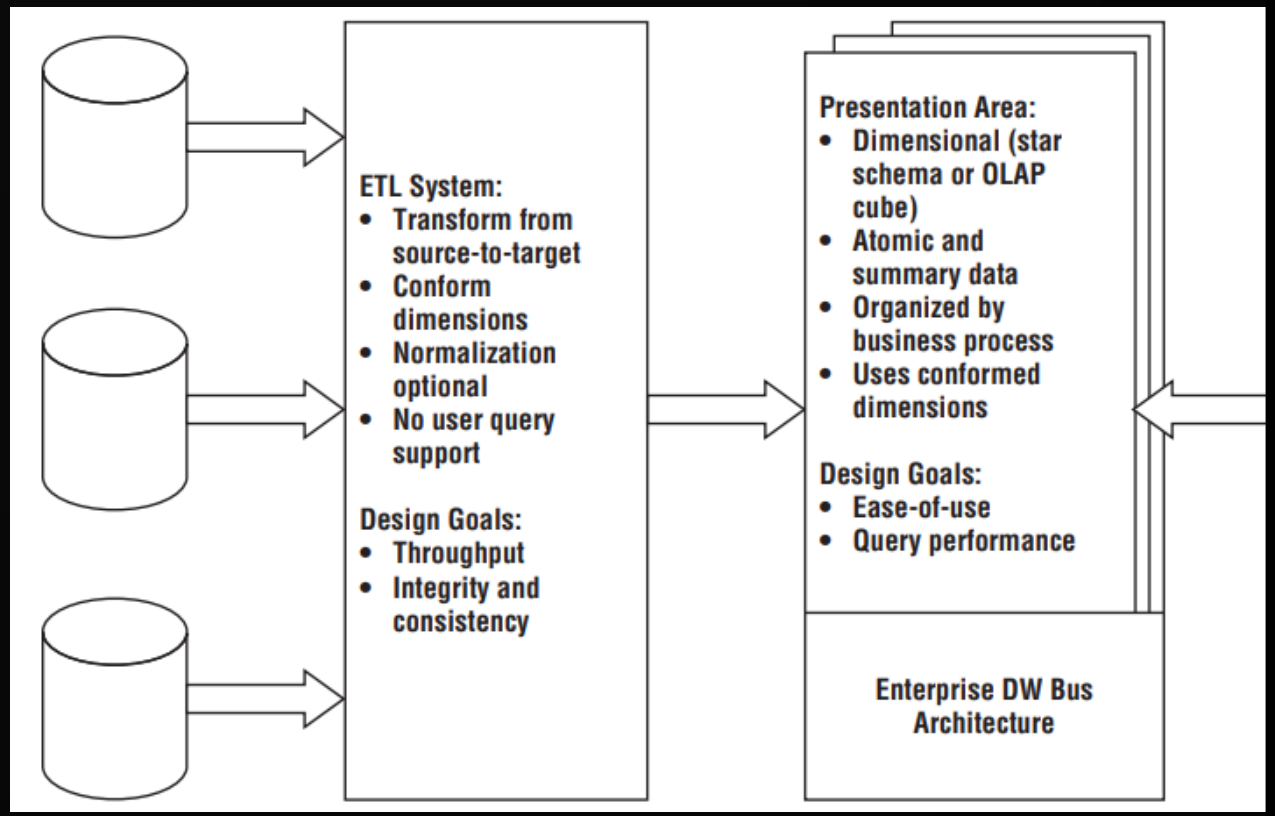

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General architecture

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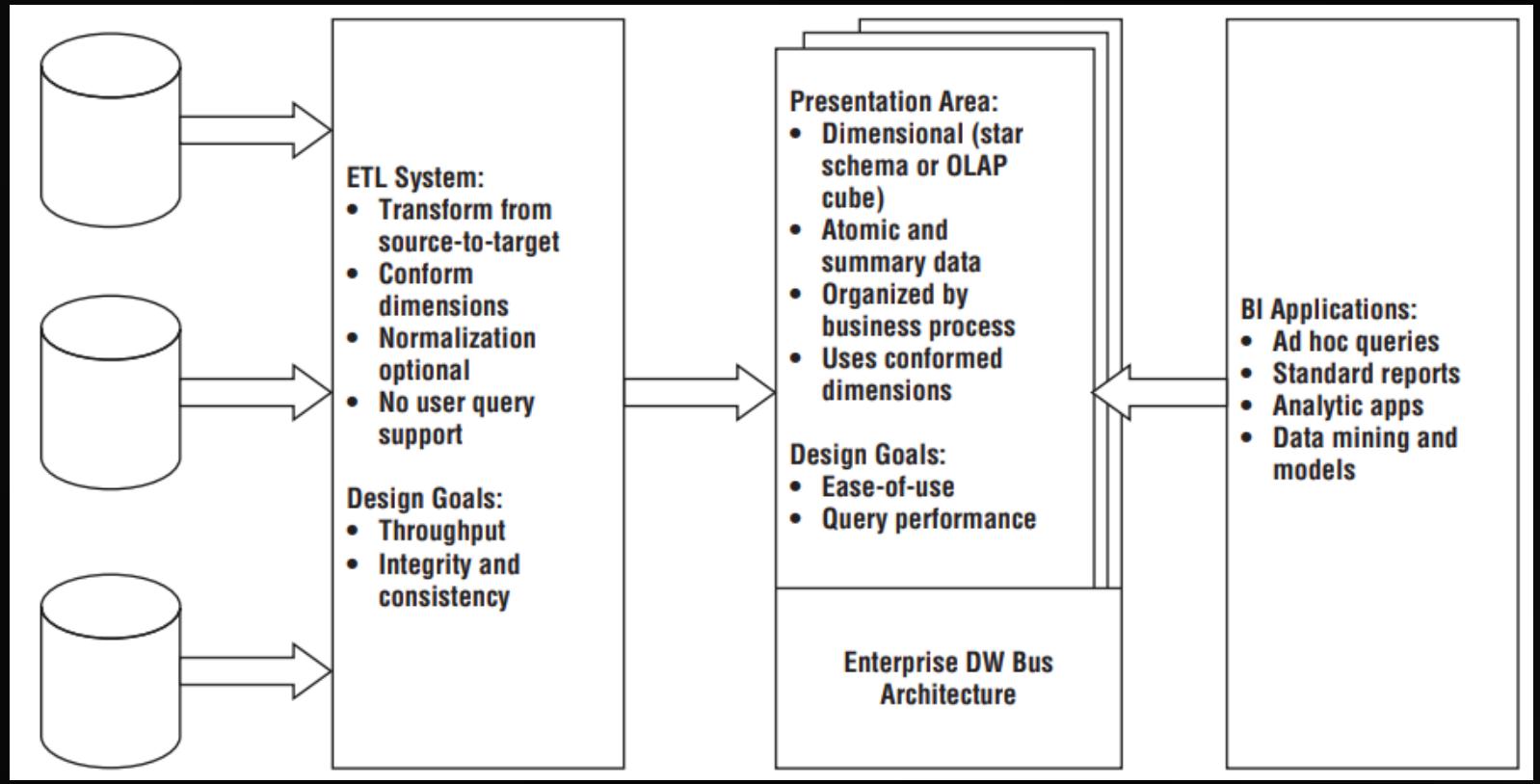

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    - CIF/EDW (Bill Inmon)
    - Data Vault

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  - DWH design
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    - Data Vault
  - DWH vs
    - Data Lake
    - Data Lakehouse