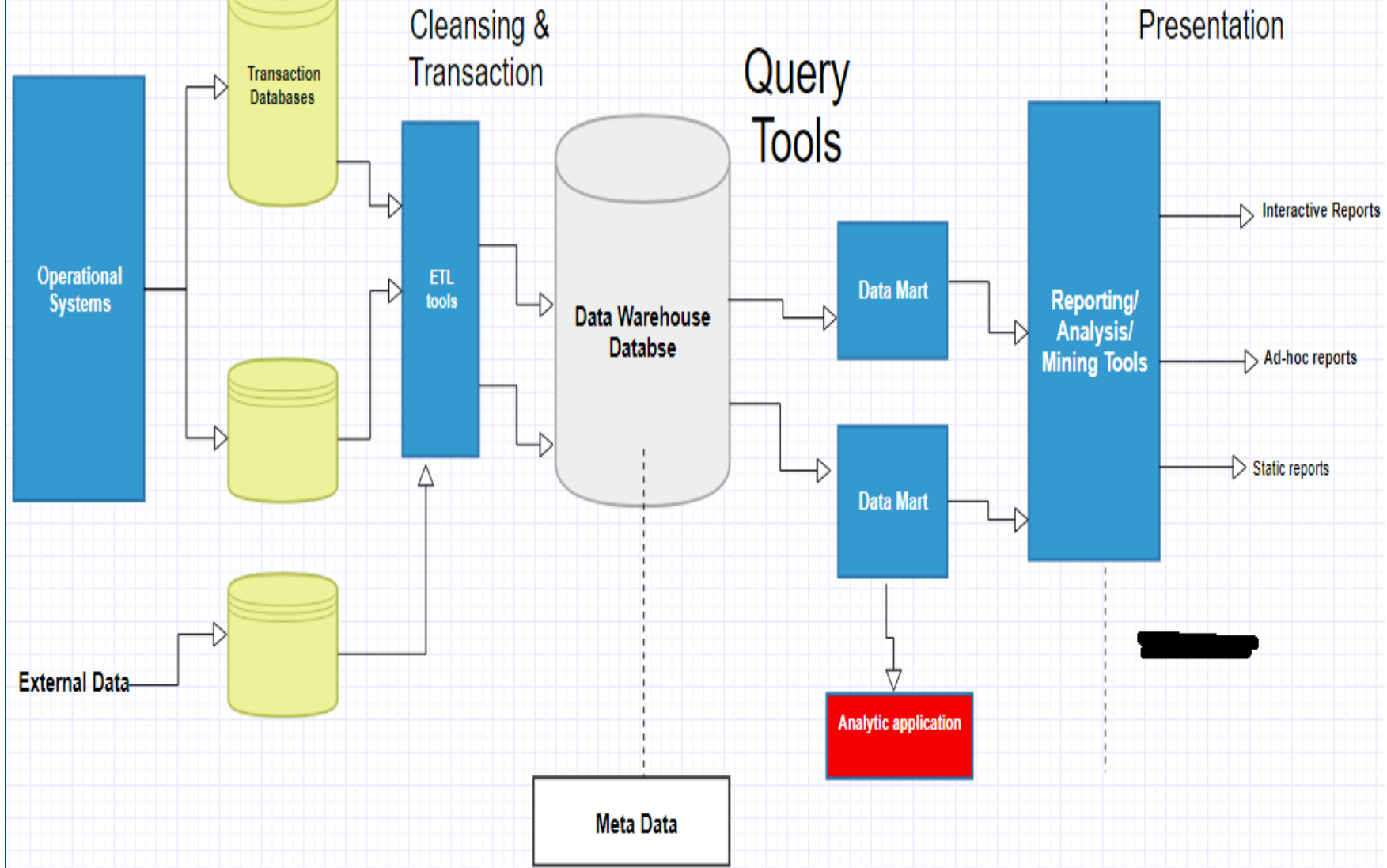


Data Warehouse Architecture

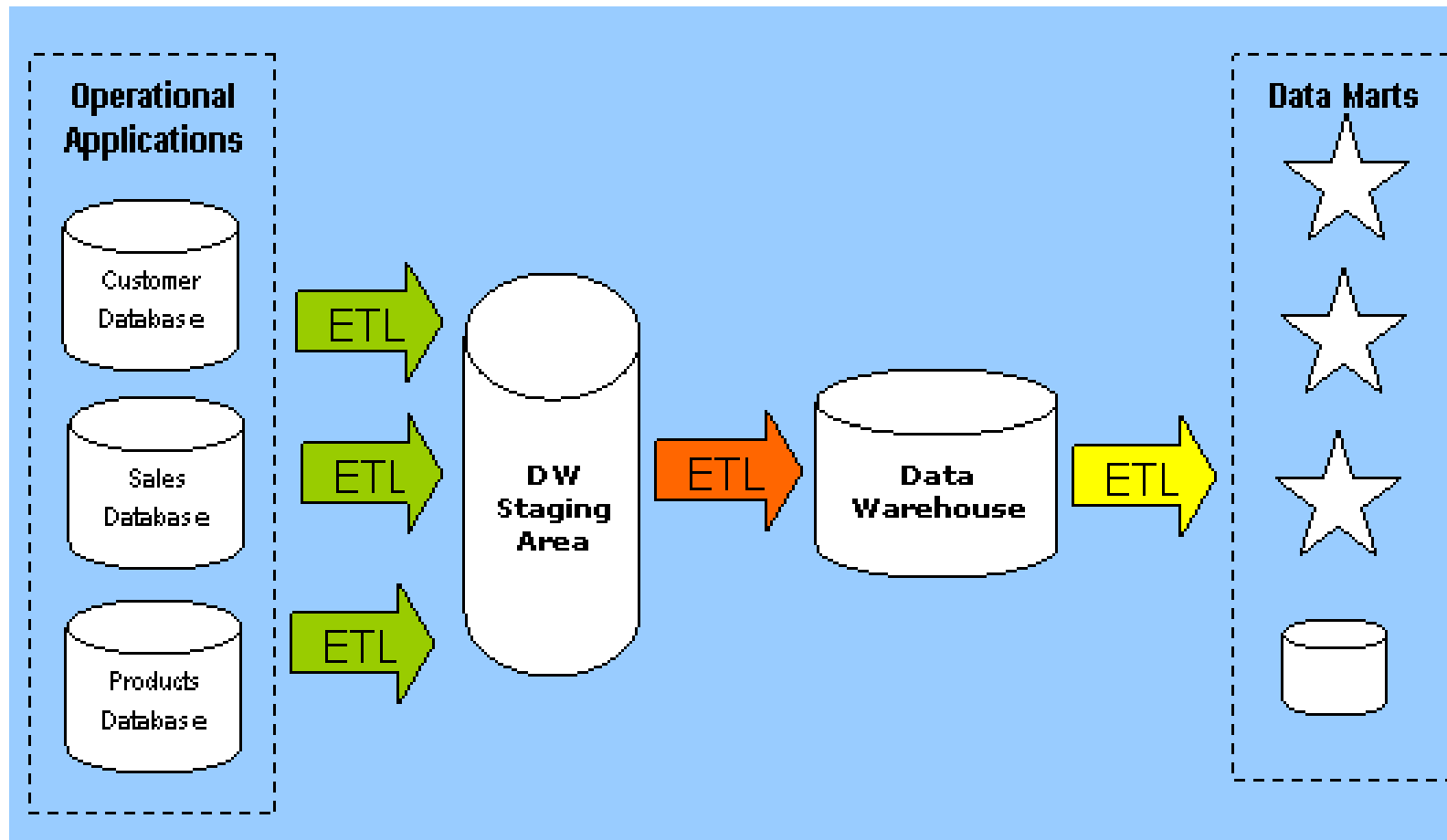
Data Warehouse Architecture



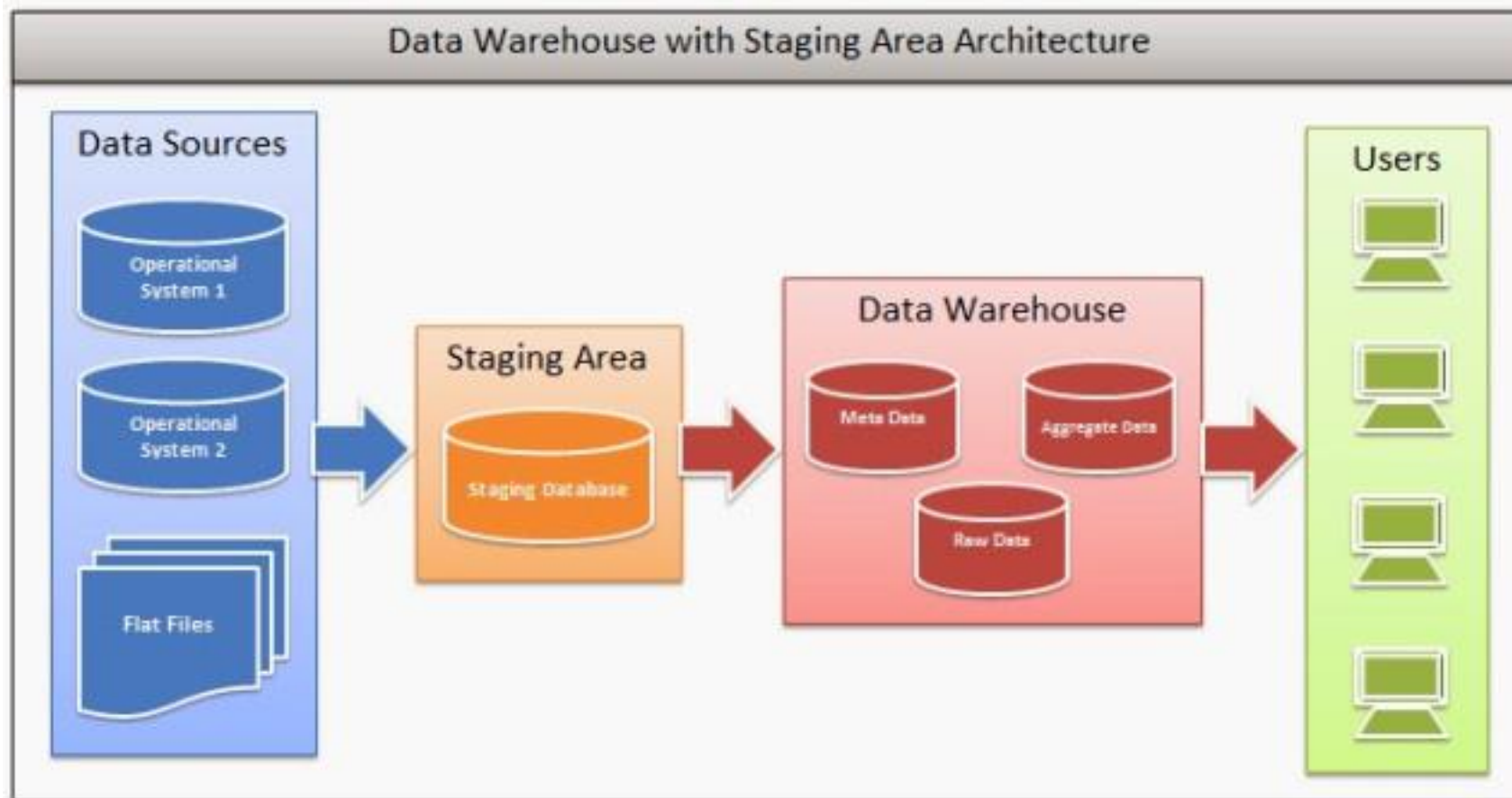
Data Staging

- A data staging area (DSA) is a **temporary storage area** between the data sources and a data warehouse.
- When **incremental data** must be loaded in the Data Warehouse then staging tables are used
- After data has been loaded into the staging area, the staging area is used to combine data from multiple data sources, transformations, validations, data cleansing.

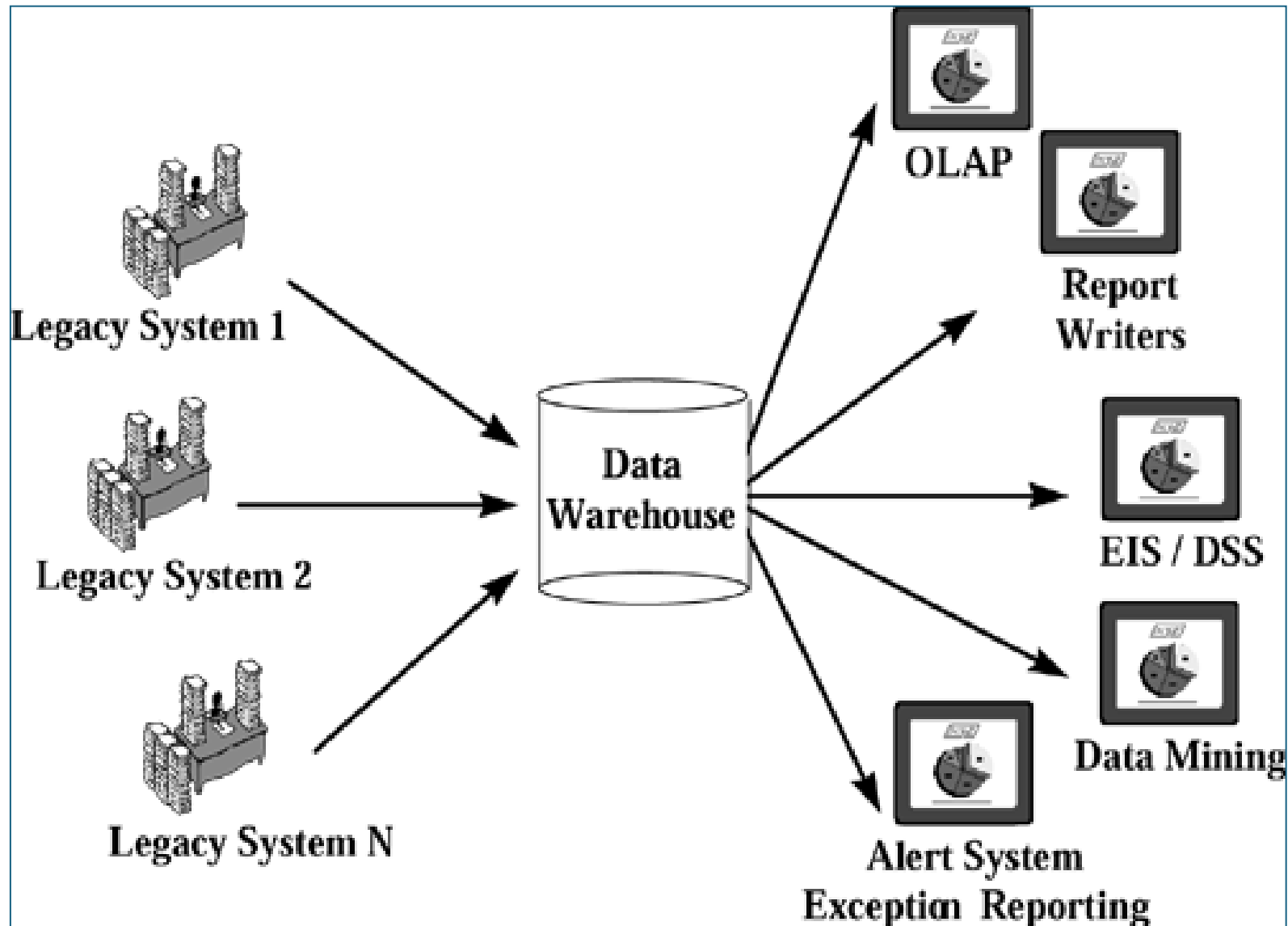
Example 1 of Data Stage



Example 2 of Data Stage



Multiple Inputs and Multiple Outputs via D/W



Volume of Data in a D/W

- Terabytes -- 10^{12} bytes: Wal-Mart -- 24 Terabytes
- Petabytes -- 10^{15} bytes: Geographic Information Systems
- Exabytes -- 10^{18} bytes: National Medical Records
- Zettabytes -- 10^{21} bytes: Weather images
- Zottabytes -- 10^{24} bytes: Intelligence Agency Videos