



## Benefits of Data Virtualization

Data virtualization is the process of offering data consumers a data access interface that hides the technical aspects of stored data, such as location, storage structure, API, access language, and storage technology. Consuming applications may include: business intelligence, analytics, CRM, enterprise resource planning, and more across both cloud computing platforms and on-premises.

Data Virtualization Benefits:

- Decision makers gain fast access to reliable information
- Improve operational efficiency - flexibility and agility of integration due to the short cycle creation of virtual data stores without the need to touch underlying sources
- Improved data quality due to a reduction in physical copies
- Improved usage through creation of subject-oriented, business-friendly data objects
- Increases revenues
- Lowers costs
- Reduces risks

Data virtualization abstracts, transforms, federates and delivers data from a variety of sources and presents itself as a single access point to a consumer regardless of the physical location or nature of the various data sources.

Data virtualization is based on the premise of the abstraction of data contained within a variety of data sources (databases, applications, file repositories, websites, data services vendors, etc.) for the purpose of providing a single-point access to the data and its architecture is based on a shared semantic abstraction layer as opposed to limited visibility semantic metadata confined to a single data source.

Data Virtualization software is an enabling technology which provides the following capabilities:

- Abstraction – Abstract data the technical aspects of stored data, such as location, storage



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structure, API, access language, and storage technology.

- Virtualized Data Access – Connect to different data sources and make them accessible from one logical place
- Transformation / Integration – Transform, improve quality, and integrate data based on need across multiple sources
- Data Federation – Combine results sets from across multiple source systems.
- Flexible Data Delivery – Publish result sets as views and/or data services executed by consuming application or users when requested

In delivering these capabilities, data virtualization also addresses requirements for data security, data quality, data governance, query optimization, caching, etc. Data virtualization software includes functions for development, operation and management.