



Data Virtualization for Business Intelligence Agility

A Whitepaper

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February 9, 2012

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Some of the material used in this whitepaper is based on the upcoming book *Data Virtualization for Business Intelligence Architectures* by Rick F. van der Lans; to be published by Morgan Kaufmann Publishers.

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1 Summary

Organizations are changing. The decision process is changing. As a result, business intelligence has to change. It has to adapt to the new reporting and analytical needs of business users. All these needs can be summarized with one word: agility. Business intelligence solutions have to become more agile. This whitepaper describes how data virtualization technology makes business intelligence systems more agile.

In 1964, Bob Dylan wrote the song 'The Times They Are A Changin'. He was (and is) probably not a business intelligence expert, although, with Dylan you never know. Still, this text is very much true for the current world of business intelligence. In the beginning, business users were satisfied with simple tabular reports showing what had happened. This was followed by the wish to present data more graphically. Next, users wanted to have more dynamic capabilities, they wanted to 'play' with the report data, they wanted to be able to do so-called drill-downs and roll-ups. And since then, the new demands kept coming. Their wishlist keeps changing. They demand new forms of reporting and analytics.

The biggest challenge facing the business intelligence industry today is how to develop business intelligence systems that have an agility level that matches the speed with which the business evolves. If the industry fails in this, current business intelligence systems will slowly become obsolete and will weaken the organization's decision-making strength. Now that the economic recession is not going to pass soon and now that businesses have to operate more competitively, the need to increase the *agility* of the business intelligence systems should be number one on every organization's list of business intelligence requirements. Agility is becoming a crucial property of each and every business intelligence system.

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This whitepaper discusses how data virtualization technology can help to make business intelligence systems more agile. This technology simplifies the development process of reports through aspects such as unified data access; data store independency; centralized data integration, transformation, and cleansing; consistent reporting results, data language translation, minimal data store interference, simplified data structures, and efficient distributed data access.

Data virtualization supports the ability to decouple reports from data structures, the ability to integrate data in an on-demand fashion, and the ability to manage meta data specifications centrally without having to replicate them. This makes data virtualization the ideal technology for developing agile business intelligence systems. This is the primary reason for the increased agility.

Data virtualization is the ideal technology for developing an agile business intelligence system.

Typical business intelligence application areas that experience an increased level of agility are virtual data marts, self-service reporting and analytics, operational reporting and analytics, interactive prototyping, virtual sandboxing, collaborative development, and disposable reports.