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Data Virtualization:
Successfully Integrating Data
and Applications During Acquisitions

DATA VIRTUALIZATION TECHNOLOGY REDUCES RISK, TIME TO VALUE:
Successfully Integrating Data and Applications During Acquisitions

The Problem

Integrating businesses during an acquisition or merger is hard—so hard, in fact, that many fail in the attempt. While there are many reasons for this (cultural, financial, political) many acquisitions don't live up to the expectations of either party because they fail to properly plan for and execute the integration of the dissimilar technologies of the two companies. In fact, a McKinsey study[1] discovered that while: "more than half the synergies in a merger are strongly related to IT…fewer than 40% of companies realize these benefits due to a lack of planning during the due diligence phase of the process." One approach that can substantially contribute to ensuring planned IT benefits are realized is the introduction and use of Data Virtualization.
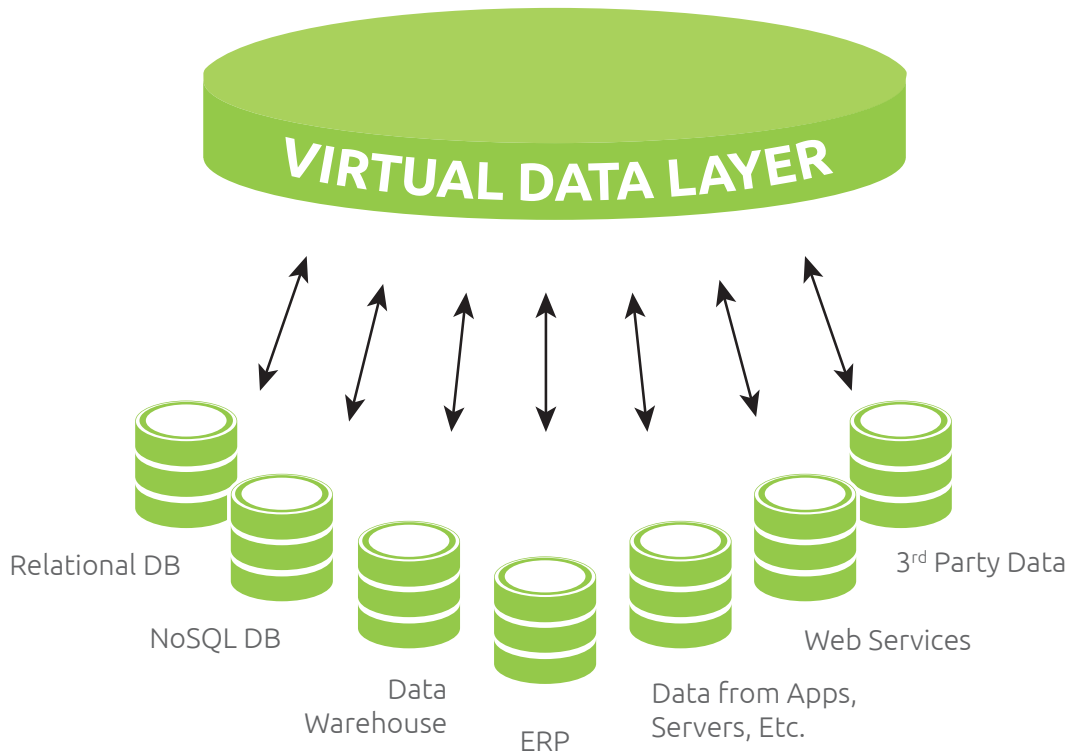
THE IMPACT OF DATA VIRTUALIZATION

Data virtualization is an emerging data integration technology that radically improves the productivity realized by organizations attempting to develop and modify reports as well as providing both end-users and developers unfettered access to data for analytical and application development purposes. For those not familiar with the term the following is a standard industry definition for data virtualization:

> Data virtualization abstracts data from multiple disparate sources creating a unified virtual data layer that provides users and technicians easy access to the underlying source data.

> Figure 1 is a graphic depiction of how data virtualization works.

Graphic depiction of how data virtualization works.

HOW DATA VIRTUALIZATION ENABLES SUCCESSFUL ACQUISITIONS

Following political and cultural challenges, data integration is the third greatest impediment to realizing the objectives of an acquisition[2]. These impediments stem from:
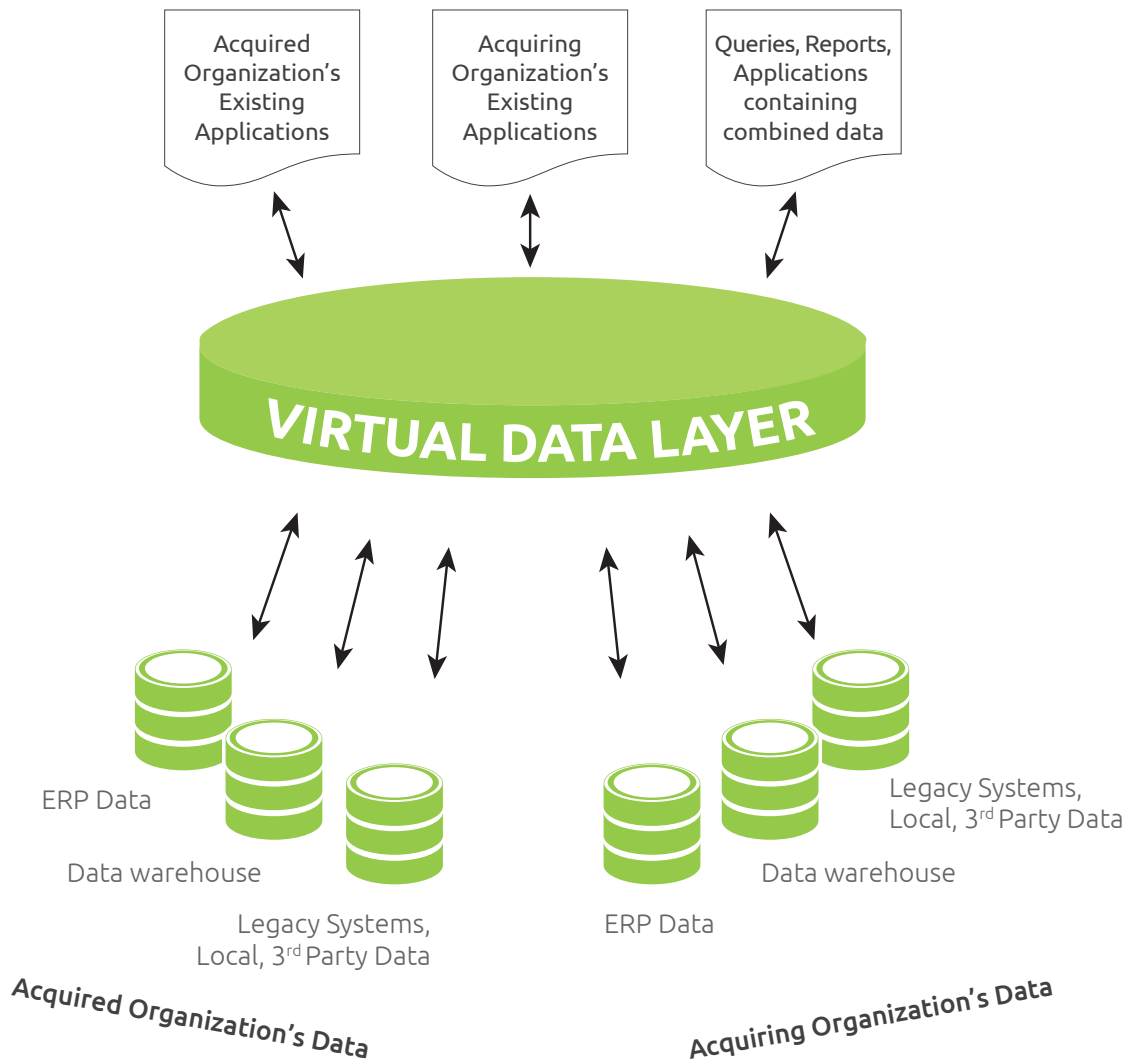
•   Reluctance of employees of the acquired organization to abandon their existing applications in favor of substitute applications of the acquiring organization.

•   Time and effort involved in identifying and accessing critical data sources in the acquired organization.

•   Lack of visibility into the integrated financial and operational data of the combined organizations.

However, when data virtualization is used in conjunction with an acquisition, resolution of these and other integration issues becomes straightforward:

•   By installing a virtual data layer all users can more easily access the underlying source data.This means new queries, reports and analytics containing the combined data from both organizations can be more easily generated. This, in turn, allows management to quickly get a handle on the combined business and make operational and financial decisions from a position of clarity.

- A data virtualization layer relieves the pressure to install enterprise-wide applications immediately post-acquisition, and may eliminate the need entirely under some circumstances. With data virtualization, staff in both the acquired company and acquiring companies can continue to run their legacy software as needed since the virtual data layer provides seamless access for integrated reporting or application development. Consolidation of duplicate or redundant applications into a single, enterprise-wide solution can be pursued deliberately, over time, when and if needed, selecting the best fit solution. Figure 2 depicts the successful implementation of this approach.

FIGURE 2 MOCK-UP

Acquired Organization's Existing Applications

Acquiring Organization's Existing Applications

Queries, Reports, Applications containing combined data

VIRTUAL DATA LAYER

ERP Data

Data warehouse

Legacy Systems, Local, 3rd Party Data

Acquired Organization's Data

Legacy Systems, Local, 3rd Party Data

Data warehouse

ERP Data

Acquiring Organization's Data

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- By approaching data integration via the methodical implementation of a data virtualization plan, key data sources are identified during the due diligence phase and incorporated into the data layer based on need, priority, and resource availability. Thus the most needed data sources are more easily made available first.

- By installing a virtual data layer in the acquired organization immediately following an acquisition, not only is the stage set to ensure a smooth transition, but identification and confirmation of potential financial and operational benefits of the acquisition are confirmed and quantified much sooner.

Additional post-acquisition benefits resulting from having implemented a virtual data layer are equally profound:

- The need to build costly and complex bridges and data conversion tables are eliminated.

- With data virtualization there is no need to move or replicate source data into a new or consolidated database or warehouse as that data are accessible directly from the virtual data layer.

- Reports and analytics can be created that draw upon data from both organizations. This means new as well as old reports can be mashed together from previously unavailable data sources in both organizations.

- End users acquire self-serve capabilities never available before. Reports and analytics desired by end users can be generated without the necessary involvement of IT.

- Reports and analytics can be generated using real time data. Source data is accessed in real time through the virtual data layer without delaying intermediary steps such as moving or copying source data to a data warehouse in preparation for access.

- Strong security is available by using the virtual data layer. Report and query requests are checked to ensure requesters are authorized access to the data they seek.

- Modern query and analytic capabilities can be built across a variety of data sources including relational and non-relational databases, 3rd party sources, and multiple legacy systems.

CREATING THE PLAN FOR UTILIZING DATA VIRTUALIZATION

A necessary first step for an organization considering the acquisition of one or more businesses, is to ensure their own IT function is operating in a controlled, reliable manner. If this does not include the installation and use of data virtualization, this should be initiated and implemented. Once accomplished (or assuming such is already in place), the IT team participating in the due diligence phase of the acquisition process can then proceed efficiently as follows to create an acquisition data integration plan:

Step 1. Identify key data sources of the acquisition target: This includes databases located in the dominant ERP system, legacy systems, data warehouses, local, third-party, and web-based sources.

Step 2. Assign a value to each identified data source considering criteria such as the source's criticality, need, effort (to acquire), and regulatory requirement for the availability and security of data. Use a weighting factor for each criterion to create a prioritized list of sources.

Step 3. Review the resulting prioritized list with the due diligence team and adjust the order based on their business insights.

Step 4. Use the revised prioritized list, the effort-to-acquire criterion, and the IT resources to be made available for the effort to create a time-phased plan for depicting how soon following the effective date of the acquisition data sources will be made available in the data layer. Figure 3 is an example data virtualization implementation plan.

Step 5. Based on the plan, discuss with the due diligence team whether additional resources should be assigned in order to make available more data sources sooner following the date at which the acquisition is effective.

Figure 3: Plan for Data Virtualization

Data Data Source	Data Source Criticality	Data Source Demand	Data Source Effort	Data Source Risk	Weighted Importance	Week									
						1	2	3	4	5	6	7	8	0
Data Source 01	5	5	5	5	100%									
Data Source 02	5	5	5	5	100%									
Data Source 03	5	5	5	5	100%									
Data Source 04	5	5	5	4	97%									
Data Source 05	5	5	4	4	85%									
Data Source 06	4	5	4	5	85%									

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Accur8 Software is a leading data unification company, focused on high performance, scalable and accessibly priced integration technology and tools. We recognize that companies' application environments are growing in complexity as they deploy more and more software applications to drive their businesses forward. This complexity hampers business performance because valuable data from across the company is not readily available to business users or systems. It forces IT staff to waste significant time and money dealing with the never-ending cycle of trying to integrate and share needed data across the organization.

The Accur8 Integration Engine is a data unification tool designed to help companies address the issue of complex application environments. It provides a flexible, agile way to unify data across processes and applications without coding. This means being able to integrate data and applications together whether they are in-cloud, on-premise or separated by geographical distance. It allows companies to access data and have it flow across the organization to users and systems as needed. Its capabilities include data integration, application integration, master data management, and reporting and analytics. It can be deployed as a point solution to integrate data between two applications or as a tool to unify all of a company's data and applications.

We have customers ranging from growth stage to Fortune 150.

Accur8 Software is one of CIO Review's Top 20 Most Promising Data Integration Providers for 2017.

For more information please visit our website at www.accur8software.com
or send an email to info@accur8software.com

(1) Techopedia, https://www.techopedia.com/definition/28008/application-management-am

(1) Understanding the strategic value of IT in M&A, Hugo Sarrazin and Andy West, January 2011, www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/understanding-the-strategic-value-of-it-in-m-and-38a

(2) The subject of this paper is the acquisition of one firm by another. However, the problems, approach, and benefits described are equally applicable to the centralization of a function or to the consolidation of two or more business units, product/services line, divisions or agencies within a private, public, or nonprofit organization.

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