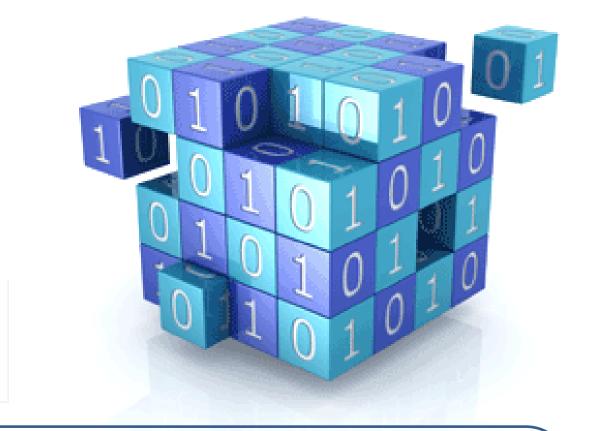
# Data Virtualization Analysis For Russell Investments

## Technology's Impact on Business

Jiuqun Fang jqfang7@uw.edu | Mengyuan Geng gengm@uw.edu | MSIM 2013 Capstone project





#### Russell Investments

Russell Investments is a global asset management firm which offers actively managed, multi-asset portfolios and services that include advice, investments and implementation.

21

1,800

2,400

Offices Worldwide Associates

\$173.5 Billion Assets under Management





Tons of Data

### Problem Identification

- Decentralization: data stored in silos
- Data exists in different types of sources which makes data extraction slow and costly
- Data management lacks of a global strategy
- Generating accurate and timely information from data is challenging
- Rebuilding the whole data management infrastructure is very difficult for the company

### Approach

- Background research: Access sources and practices regarding data virtualization
- **Interview**: learn from another company's experience on implementing data virtualization tools
- RFI (Request for Information): collect information from two major vendors-Composite and Denodo-in order to identify product requirements, services, and purchase options, etc.
- Comparative Analysis: Compare data virtualization products provided by different vendors, and make recommendations

## SALC (Software Acquisition Life Cycle)

Research

RFI (Request for Information)

**RFP** (Request for Proposal)

**POC (Proof of Concept)** 

**Implementation** 

**Decision Making** 

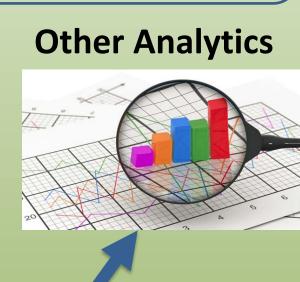
#### Solution-Data Virtualization

Data virtualization is a technology for integrating disparate systems through a common data access approach.

**Web Applications** 









## Tools Analyzed



# Data Virtualization Layer





**SQL Server Databases** 











**Other Data Sources** 

	Composite	Denodo
Components and functions	Database-based extraction advantage	Web-based extraction advantage
Price (License and Maintenance)	Charge by server; 30% for service, 70% for license;	Charge by person, in a timely base
Skills required of end users	Developers knowledgeable of relational databases and SQL programming; no technical knowledge required of business users	
Security	Authentication and authorization; detailed to column-level and row level	
Training	A complete training system	Course based training
Special features	Internal creation of data source drivers	Advanced web-based data extraction

By implementing and utilizing a Data Virtualization (DV) tool, Russell Investments will be able to manage its data in a much more effective and efficient way. The major benefit to Russell in using DV is the ability to integrate tremendous amounts of data from disparate sources. Our solution helps Russell Investments:

- Resolve the complexity of aggregating data from various sources leading to a reduction in inaccurate or incomplete data
- To enable a wide range of its end users to access and utilize data effectively

#### Next Steps

- Request for Proposal
- **Proof of Concept**
- Decision making
- Implementation

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