The Data Reintegration™ Methodology

Quick Info:

The Data Reintegration Methodology:

- *makes current state of the art data integration methods unnecessary and obsolete*
- *eliminates the need for tedious, complex and expensive programming approach to data integration*
- *integrates data at a fraction of the effort and resources currently required*
- *corrects the database design methodology flaw that causes data isolation*
- *integrates all data in its native database without impacting the associated application layer*
- *integrates data from any heterogeneous database into a single distributed network of integrated databases*
- *provides a real-time data integration solution*
- *is unlimited in the number of databases that are integrated*
- *integration effort does not increase as the number of data sources increases*
- *reintegrates data that never should have been isolated*

A fresh and innovative data integration methodology

Data Isolation Problem Solved

Current database design methods create heterogeneous databases. The data isolation that results from these heterogeneous databases is sometimes referred to as silos of information or islands of disparate data. Current database design methods do not produce data integration friendly databases.

Organizations are paying dearly for this database design inadequacy as they attempt to resolve these data isolation problems via data integration, data governance, master data management and a plethora of other expensive and time consuming techniques.

Why should data ever exist in isolation? One could, in theory, construct a very large data model of all data and find that there is no natural isolation of data elements.

Our research proves that the lack of metadata commonality between data models is a major contributor to data isolation. Beyond the lack of metadata commonality, the lack of data commonality also impacts data isolation. Data Reintegration corrects these database design issues and provides data integration friendly databases. More remarkable is that currently existing databases may be augmented to remove the existing data isolation in a manner that does not impact the application layer associated with the augmented databases.

The patented Data Reintegration methodology is based upon a data architecture that is developed using a top-down approach. As a result, any independently designed heterogeneous data model may be updated to become a Data Reintegration data model. Any Data Reintegration data model becomes a part of the single distributed network of integrated data models. Any data model may be related to any other data model within the distributed network.

Master data is like the edge pieces of a puzzle in that it creates a boundary into which all the other data is pieced together!

Any Data Reintegration database will also become a part of a distributed network of integrated databases. Each Data Reintegration database will have direct data access paths to any other so designed database.

Current Data Integration Deficiencies

All prior state of the art data integration methods are an attempt to integrate information silos and islands of disparate data subsequent to the design of the databases. Our patented Data Reintegration methodology is used to design data integration friendly databases. Since data integration is achieved in the database design, all prior art data integration methods become unnecessary and obsolete.

Current state of the art data integration only addresses very few data sources because the complexity, costs, and required resources increase exponentially as the number of data sources increases. The Data Reintegration methodology may be used to integrate an unlimited number of databases as the complexity, the cost, and the required resources remain linear as the number of databases increases.

Current state of the art data integration is not a permanent solution. The source databases remain isolated heterogeneous databases and any integration databases created are themselves heterogeneous databases. Data Reintegration databases contain both metadata commonality and data commonality components with enforced referential integrity between these databases. Each Data Reintegration data model becomes a part of the distributed network of integrated data models. Each Data Reintegration database becomes a part of the distributed network of integrated databases.

The Data Reintegration methodology may be used to transform an existing populated database into a Data Reintegration database without impacting the software application layers that may be associated with that database. This Data Reintegration methodology also provides a permanent solution to the data integration problem. Every Data Reintegration database will always use the same data integration components. These Data Reintegration components will not be displaced by any other subsequent data integration efforts.

Strategic Insights, Inc.

Illuminating solutions for your business information needs!

In 1994, Strategic Insights was incorporated in New Jersey. Since then, we have provided consulting services to many fortune 500 companies. Dr. Robert Mack, the president of Strategic Insights, has been working on data related issues for over 25 years. He developed and owns US Patent ***7,979,475****. This patent is the basis of the Data Reintegration methodology of data integration. In addition, he has several other pending patents that expand upon the Data Reintegration methodology.*

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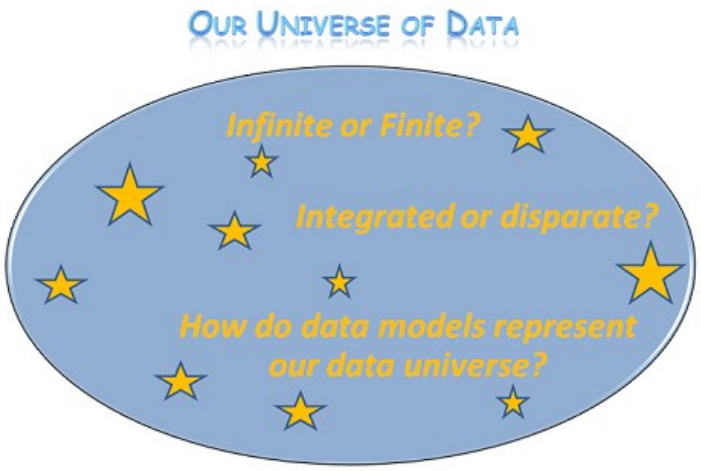
The Data Reintegration Data Architecture

The Data Reintegration data architecture is based upon a paradigm to optimize the sharing and the integration of all data. Our data architecture development began with the examination of our universe of data. Our universe of data is composed from all metadata and all data from all data sources. Our universe of data represents the scope of the Data Reintegration data architecture. What properties would of our universe of data feature? Is our universe of data infinite or is it finite? Is the data in our universe of data formed into silos of information and islands of disparate data or is the data completely integrated? How do current data models reflect the properties of our universe of data?



Our universe of data is a hypothetical representation of all metadata and all data from each and every data source combined.

Data models are perhaps our best depiction of our universe of data. Within each well developed data model, every data entity is connected by entity relationships to other data entities. No data entity or cluster of data entities is isolated or partitioned from any other cluster of data entities. There are no islands of disparate data represented within a single data model. There is no sign of data isolation within a single data model. The fact that we produce silos of information or islands of disparate data in our data architectures does not appear to be the fault of any single data model.

While we have certainly developed information silos or islands of disparate data within our data architectures, data integration methods may be applied to integrate data from these silos and islands. Since this data isolation may be resolved, one could therefore expect that our universe of data should be integrated.

A major problem with our current data modeling methodology is that most data models developed are independently defined and composed from heterogeneous metadata. The lack of metadata commonality and the lack of links between data models result in metadata isolation. Since each database is normally developed from a single data model, the resulting database is just as isolated as the original data models.

The source of silos of information and islands of disparate data is the lack of metadata commonality between data models. Metadata and data commonality are both required to alleviate the data isolation problem and to provide links between data models.

The Data Reintegration data architecture provides metadata commonality to each Data Reintegration data model. These data models now have metadata links between them. Within the Data Reintegration data architecture, each data model becomes a part of a distributed network on integrated data models. When database are instantiated from these data models, they become a part of a single distributed network of integrated databases.

Every data model has a boundary which is composed of reference data entities or master data entities. However, in examining multiple data models, each data model appears to have different boundary data entities. Our research in this area has established that our universe of data is finite and therefore does indeed have a boundary. A patented method of determining the actual boundary data entities has been developed.

All current state of the art data models are based upon a set of artificial boundary data entities. Metadata commonality does not exist between these isolated data models. One could envision all current data models afloat and lost in our universe of data.

Current data models do not accurately reflect the properties of our universe of data. These data models are not properly anchored, and certainly do not support integrated data.

The Data Reintegration data architecture accurately reflects the properties of our universe of data. The Data Reintegration methodology adds actual boundary data entities to each data model which anchors that data model within our universe of data. These actual boundary data entities in each Data Reintegration data model are the foundation of metadata commonality linking data models together. Again, each Data Reintegration data model becomes part of the single distributed network of integrated data models.