# METAMATRIX ENTERPRISE DATA SERVICES PLATFORM SUPPORTS MASTER DATA MANAGEMENT

DATA SERVICES CREATE THE SINGLE VIEW

Many corporations today are embarking on key initiatives that promise better management of information for the important master entities of the business: parties such as customers, trading partners, or employees; offerings such as products, services, or securities; or places such as office locations or geographic divisions. Master data and reference data representing the official truth must be gathered and carefully managed in order to provide consistent access to the information and ensure that it is accurate, complete, and up to date. Complete, canonical views of data must be created that reflect the organization's preferred standards and vocabularies, whether internal standards or industry models. In addition, this master information must often be combined with information from other systems to create comprehensive and tailored views for specific applications. As organizations seek to make the most of information they have available, the integrity and easy flow of master data drives business processes at all levels. Master data management initiatives have several goals:

- Create a single version of the truth—about a customer, product, or employee—for consistency that will reduce risk and eliminate debates about "whose data is right."

- Create a standard, shared vocabulary about the key "nouns" of the business, and standard ways they are described.

- Build a comprehensive view across silos, for example a "single view of the customer."

- Eliminate "spaghetti interfaces," streamlining the way systems access the information.

- Simplify data management and standardize interoperability as part of an SOA migration.

Multiple architectural approaches can be used to manage master data. The core question is how to create unified views of data from multiple systems and diverse sources, including internal and external data, legacy systems, rela-
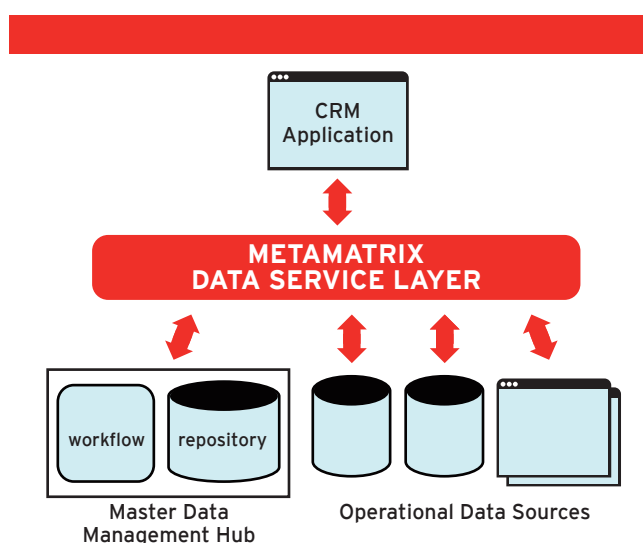
MetaMatrix can combine master data with data from other systems and deliver tailored views to diverse applications through SQL or Web service interfaces.

tional and XML-based systems, and packaged applications. Some organizations are adopting subject-area-specific software such as customer data integration (CDI) systems or Master Data Management systems to contain key customer information or reference data. Whichever approach is taken, there are questions to answer. Will data be stored physically in a hub or will the master data be virtual, drawn from diverse source systems to present the standard view? Will a new system of record be created? Will the data model be vendor-supplied or will the enterprise's standard data model be used? How will data quality be ensured? And how will data from the master be combined with data from other systems to deliver views containing information that will never be part of the master store? How will the system need to evolve over time?

"MetaMatrix can play diverse roles in a Master Data Management initiative, making many data sources look like one, as organizations work to create the canonical views of data—a true single view of information—that will address a variety of business requirements."

MetaMatrix accelerates the master data project by making it easier to bridge the gap between data in existing systems and new application data requirements. MetaMatrix DSP streamlines the process of resolving format and semantic differences by helping developers create data services that federate data from diverse sources to create a single view of the customer, security, product, or other entity. Using proven, model-driven approach, developers engage in a process of mapping and modeling, not programming, to create data services that are loosely coupled with applications. These data services present a business view of information, hiding the complexity of diverse data sources from the applications and facilitating straightforward reuse of data services. With MetaMatrix in the mix, you will find it faster and easier to deliver data in the forms your applications need. MetaMatrix can complement and support master data management initiatives in a few different ways depending on your organization's goals and your preferred architectural approach.

- **MetaMatrix can act as a Master Data Delivery solution.** While the master data hub may contain persistent, correct master data, it is not necessarily stored in the forms or combinations that all applications will need. MetaMatrix can be used to enable efficient delivery of master data to applications, providing the specific views or interfaces needed by those applications and combining the master data with other types of data such as specific transaction data when necessary.

- **MetaMatrix can act as the virtual data hub.** Master data can be physically persisted or it can be created on demand. MetaMatrix can provide access to virtual data structures that represent the master views you want to provide to applications. MetaMatrix can help federate data, providing views of data that match your canonical model and vocabulary, so a business view of data can be presented to applications. By supporting a variety of data sources and exposing data in a variety of interfaces and formats, MetaMatrix can address a wide range of enterprise requirements for creating reference data or master data and serving it to applications.

- MetaMatrix can help supply unified data to a master hub. MetaMatrix software can provide abstraction layers between the data sources and the master data, pulling together the right information for the master, resolving semantic and format differences, and creating integrated views of data that are ready to become part of your master data hub.

- MetaMatrix provides a service-oriented approach to complement SOA initiatives. For organizations embarking on master data management initiatives as part of a larger migration to service-oriented architectures, MetaMatrix provides a service-oriented approach to data access and integration, and enables both relational and XML-based data access. The flexibility of MetaMatrix makes it an ideal way to create, manage, and deploy the data services that are needed for your SOA initiative.

SOLUTION EXAMPLE:
Reference Data for Accurate Trading, Accounting

One of the world's leading financial management and advisory companies is a leading global underwriter of debt and equity securities and strategic advisor to corporations, governments, institutions, and individuals worldwide. With

securities data received from a wide range of sources and stored in multiple locations within the company, it was difficult to achieve consistent pricing and other securities data needed for trading and accounting. A consistent view of securities data such as issue and pricing information was required, but this information was derived from a variety of sources. Custom coding point-to-point data access for the various sources was too expensive and inflexible, requiring re-coding when new data sources became available. Once a system of record was established for each type of information, MetaMatrix was able to federate this information, creating the forms needed by the application, and convert it to XML for use with a messaging system that served over 50 frontend applications such as trading systems. Models in MetaMatrix defined a common view of the security information, and consuming applications were able to use data services in MetaMatrix to obtain the information. The result was consistent data, more accurate trades, and improved accounting and risk management. New data sources are


Investment Applications

Messaging Infrastructure

METAMATRIX

Product Data | Party Data | Pricing Data | Book Data | Other Ref Data/Corp Actions

MetaMatrix provides a layer of data services that helps deliver consistent securities data throughout the enterprise.

accommodated in a much shorter timeframe and over $3 Million was saved in IT costs overall.

SOLUTION EXAMPLE:
Banking Client Hierarchies

The investment banking division of a major worldwide bank wants to gather and maintain information about client account hierarchies for the entities with which it does business. Today several legacy systems each contain some client hierarchy information and there is limited sharing of data. Producing revenue reports across these systems is a slow, labor-intensive and inflexible process because there is no global standard on how to represent the clients with whom the bank does business or how to roll up revenue data. A comprehensive and accurate set of client hierarchies, shared among the various groups and revenue systems, will be critical to providing executives with decision support capabilities in order to, for example, identify potential cross-selling opportunities. MetaMatrix is providing a layer of abstraction over the data sources and creating a single view of data from those sources. The client hierarchy data will be provided to systems around the world through a layer of MetaMatrix data services. By creating this new system, the bank is able to improve client services for several different groups, eliminate maintenance costs for some older systems, produce accurate and consistent revenue reports, and make more effective use of the rolled-up client data for marketing and risk management.

SOLUTION EXAMPLE:
Standardizing Investment Suitability Information

The Defined Contributions group of a top-20 insurance, banking and asset management institution must conform to SEC Books & Records broker/dealer regulations that require confirmation of certain customer information relevant to suitability of investments and advice provided by the firm. Certain data regarding clients must be confirmed back to the clients within a specific timeframe and also made available to branch offices and licensed representatives. The regulations also mandate certain information
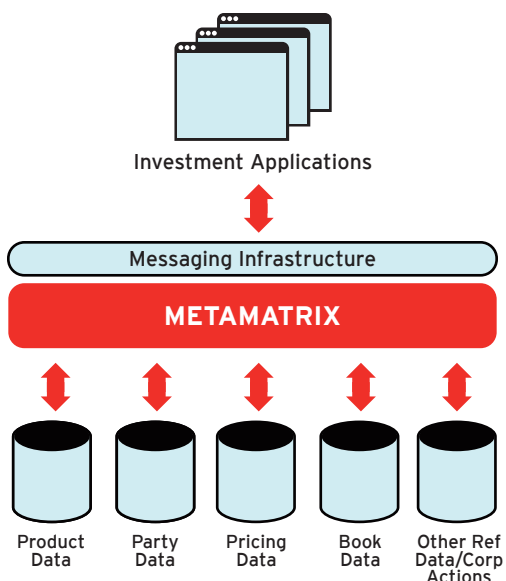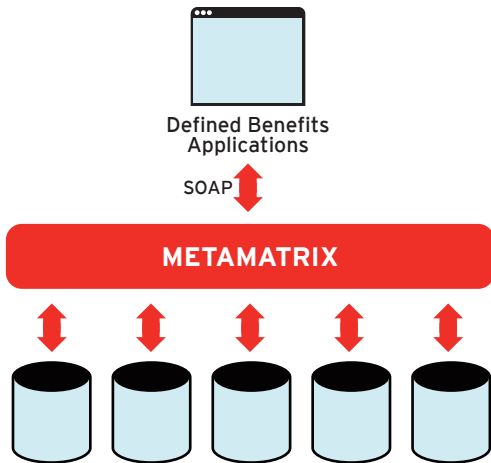
retention policies and provide for federal/state securities regulator access. The challenge is that today this information is spread around different systems in the organization. As customers provide and confirm their information, it needs to be stored andmade available in a single, consistent information flow. To meet regulation deadlines and provide the flexibility needed for a range of access requirements, the company chose MetaMatrix as the core of an information access service through which the customer information could be read or updated. This eliminated the need to create redundant point-to-point interfaces for data access by each of the client applications. In addition, the application team did not have to learn and code for the complexity of the various information sources, and they now have available data access services that can be reused for future projects. Data consumers are isolated from the complexities of source systems, and are able to use business nomenclature rather than having to navigate multiple database schemas. In addition, by using MetaMatrix, the company can provide both SQL interfaces and Web service interfaces to consuming applications even though most

Defined Benefits
Applications

SOAP

METAMATRIX

MetaMatrix helps create a single, consistent view of customer suitability information and make it available to diverse users and systems.

of the underlying data is relational. A range of client application development tools are used, including WSDL to Java, pure Java, and .Net. The suitability data is provided through a single standard set of services usable by any system that needs the information, which aids internal dissemination of the information as well as regulatory access.

SOLUTION EXAMPLE:
Insurance Case Management

The insurance unit of a top-20 insurance, banking and asset management institution decided to put in place a data services layer that would help provide better customer policy information to customer touch points such as call centers. They hoped to improve customer service as well as provide more opportunities for customer cross-selling and up-selling. All reporting applications and Web service calls would go through the data service layer; having data access and integration isolated in this layer would streamline development and maintenance by insulating applications from changes to the data sources. In one project, call center staff and other groups around the company used a portal application and needed to be able to look up policyholder information using wildcard entries for data elements such as policy number, last name, first name, zip code, and other information. Developers used MetaMatrix to create Web services that translated between the XML format used by the portal application and the native DB2 database containing the policy information. The MetaMatrix SOAP API enabled the portal application to send a SOAP message to retrieve results from the DB2 data source with performance sufficient to support real-time interactions with customers.

FOR MORE INFORMATION

JBoss Enterprise Middleware is a key to making service-oriented architecture simple, open and affordable. For more information on JBoss Enterprise Middleware, visit www.redhat.com/jboss or contact your Red Hat sales representative.

www.jboss.com
#473434_0409