denologix
INFORMATION MANAGEMENT

"Master Data Management ... It's easier than you think!"

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DENOLOGIX MDM SOLUTION

Most successful large organizations are organized by lines of business (LOB). This has been a very successful way to organize for the accountability of profit and loss. It gives LOB leaders autonomy to make decisions that directly benefit the bottom line of their LOB without having to worry too much about interference from other LOB. The key characteristic of this model was that the data collected during the revenue generation and cost management processes by different LOB remained mostly passive. It was stored as a record or the proof of the activity so that it could be reviewed, counted, audited and accounted at a later date like end of the month, quarter or year.

In the early 1990s data warehousing started as a discipline which allowed organizations to centralize data from different LOB and actively use the collected data to help generate more revenue and manage cost. This made it very clear to the organizations that their data is their greatest asset and it cannot remain passive in some database. It must be moved from the operational systems to the data warehouses or data marts to allow for better decision making. This discipline has now evolved to business intelligence which incorporates data warehouse along with tools and processes that allow end users to analyse data and predict outcomes in multiple ways, quickly and effectively. As great as this business intelligence strategy has been, it still has its limitation. It cannot analyse or make accurate predictions across lines of business because most lines of business have the autonomy to collect data in the format that was best suited for their specific group. This meant that the organization as a whole does not automatically have a harmonious and consistent view of the data that can be trusted to make important In recent years some organizations have taken this a step further and attempted to harmonize the data across different lines of business. More and more, organizations are realizing that the ability to have a trusted view of their data across the LOB boundaries is essential to the success of their business. For some organizations this has been a

strategy to improve customer experience, cross sell/up sell and cost consolidation, but others must do it to meet different regulatory requirements for their specific industry. There are several types of reference data that organizations are seeking to synchronize across LOB boundaries like customers, products, partners, suppliers, etc.

The need to have a holistic view of all customers across lines of business has existed for a long time, and to some degree various organizations have attempted to solve this problem with various degree of success. The challenge has been that this is not only a technically complex process, but more importantly it forces the change to the culture of the organizations that has been operating comfortably with the autonomy of
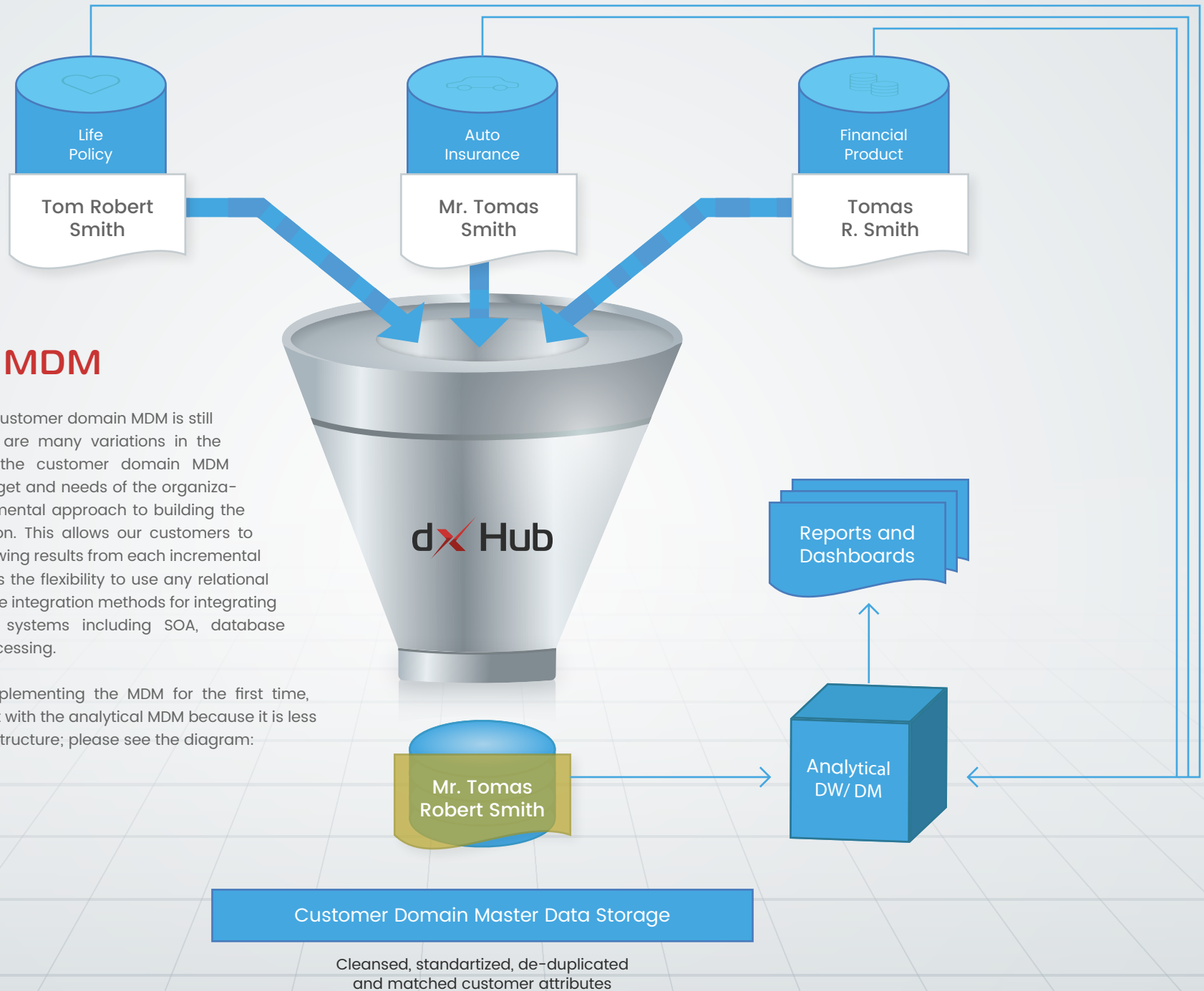
lines of business silos. It also raises security questions about the data as it becomes easily shareable throughout the organization, and in some cases, to external parties.

The solution is to design and implement a process and system that can address organization culture, technical complexities and data security. This process of consolidation of all customer information from various systems across all LOBs is called customer domain Master Data Management (MDM). There are two approaches to implementing the customer domain MDM, analytical and operational. The analytical MDM approach consolidates the key customer attributes from various operational systems into another system, mostly a data warehouse. Most existing data warehouses already bring customer information from various disparate source systems, but they merely centralized customer information from each of the operational system under one data warehouse. The problem however is that they still represent different views of the same customer. The solution is the consolidation of customer attributes from disparate source systems by applying very specific data cleansing, standardization, deduplication and matching rules to provide a single and trusted view of the customer for the entire organization.

The operational customer domain MDM provides a consolidated and trusted single view of the customer back to all operational systems where customer information originated. This allows operational systems to avoid the unnecessary duplication of customer information, and provide the most up-to-date customer information to their users. The implementation of operational customer domain MDM involves systems integration, but integrating systems alone does not guarantee that the operational system will contain a single and trusted view of the customer. To ensure that each operational system contains a single and trusted view of the customer, it must integrate with the consolidated customer attributes that have been processed with very specific data cleansing, standardization, de-duplication and matching rules.

The availability of consolidated customer data across the organization that can be trusted as a single source of truth by all parties with varying objectives, and different roles within the organization, is as much about the policies and processes of an organization as it is about the technology. The technology is necessary to implement the solution, but the useful and safe usage of the customer domain MDM can only be achieved if an organization has a strategy in place for data quality, data management, data policies, business process management, and risk management. This discipline is now commonly called the data governance. Data governance strategy must be created and implemented alongside the technical implementation of the customer domain MDM.
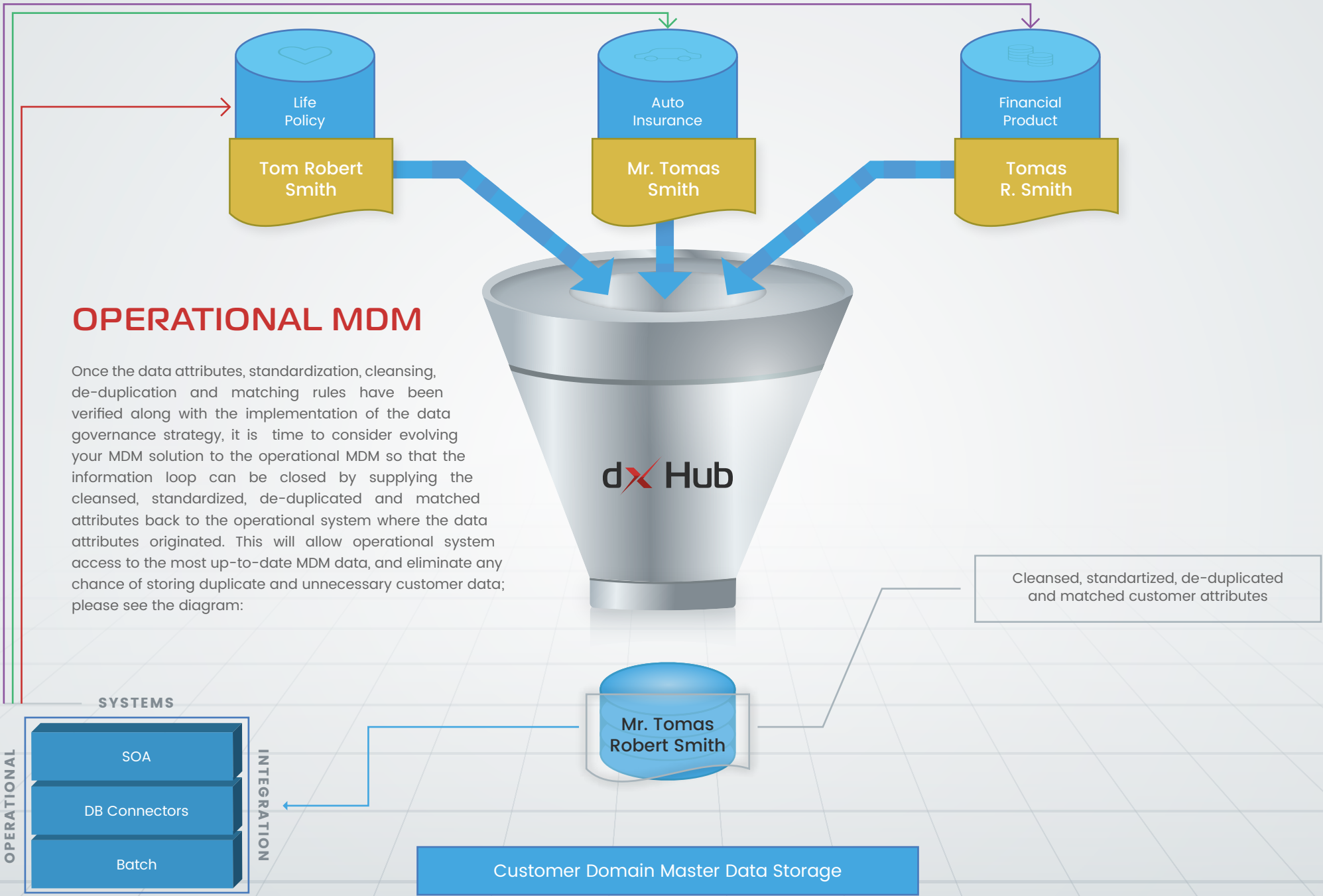
Data governance strategy must be initiated before or alongside the initiation of the MDM initiative. Data governance strategy will provide a framework and rules to deal with issue related to data quality, data management, data policies, business process management and risk management. It is almost a given that these some or all of the issues will surface during the implementation of the MDM. If a framework and rules are not already in place to address these issues, it will delay or derail the entire MDM initiative. A steering committee consisting of C level executives should be created to come up with the data governance strategy for the organization assisted by someone who has experience with data governance and MDM.

ANALYTICAL MDM

Denologix recognizes that the customer domain MDM is still evolving as a solution. There are many variations in the implementation process for the customer domain MDM based on the size, culture, budget and needs of the organization. Denologix offers an incremental approach to building the customer domain MDM solution. This allows our customers to refine the objectives after reviewing results from each incremental step. Our solution also provides the flexibility to use any relational database, and provides multiple integration methods for integrating with the operational source systems including SOA, database connectivity and batch file processing.

For organizations that are implementing the MDM for the first time, Denologix recommends to start with the analytical MDM because it is less intrusive to the existing IT infrastructure; please see the diagram:
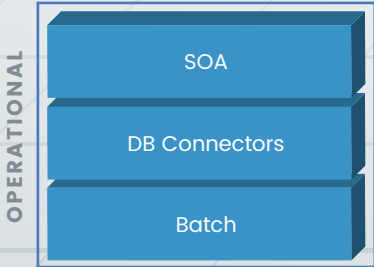
Life Policy

Tom Robert Smith

Auto Insurance

Mr. Tomas Smith

Financial Product

Tomas R. Smith

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Reports and Dashboards

Analytical DW/ DM

Mr. Tomas Robert Smith

Customer Domain Master Data Storage

Cleansed, standartized, de-duplicated and matched customer attributes

OPERATIONAL MDM

Once the data attributes, standardization, cleansing, de-duplication and matching rules have been verified along with the implementation of the data governance strategy, it is time to consider evolving your MDM solution to the operational MDM so that the information loop can be closed by supplying the cleansed, standardized, de-duplicated and matched attributes back to the operational system where the data attributes originated. This will allow operational system access to the most up-to-date MDM data, and eliminate any chance of storing duplicate and unnecessary customer data; please see the diagram:

Life Policy

Auto Insurance

Financial Product

Tom Robert Smith

Mr. Tomas Smith

Tomas R. Smith

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Cleansed, standartized, de-duplicated and matched customer attributes

Mr. Tomas Robert Smith

SYSTEMS

OPERATIONAL

INTEGRATION

SOA

DB Connectors

Batch

Customer Domain Master Data Storage

Key Features:

- Consulting services for assisting clients with the implementation of the data governance strategy

- Embedded data cleansing and standardization engine using SAS DataFlux

- Configurable data cleansing and standardization rules

- Rule based data matching engine fully threaded for parallel processing resultingin the best performance possible based on the available hardware resources

- Standard database models for telecommunication, finance and insurance industries which are extendible based on specific organizational needs

- Flexibility to store customer domain MDM data hub in any relational database

- Data integration connectors to integrate with operational systems in real-time or batch mode.

- SOA enabled to reduce the duplication of development effort and duration for integration with operational systems to provide real-time access to the MDM data hub

- Web service through Canada Post partnership to allow future data entry systems to validate and fix customer addresses at the time of entry

Benefits:

- 360º view of your customer accessible real-time

- Consistent customer experience

- Improve customer retention and satisfaction

- Increase up sell and cross sell to your customers

- Integrated operational analysis

- Compliance with customer-centric regulatory needs

Why Denologix

○ Provides an MDM solution that is dynamic and fluid, and can be moulded to meet the specific requirements of any organization

○ Not a software tools vendor that provides a set of tools and spends a great deal of consulting time building the solution; instead we start with the standard data model, standard business rules and pre-built components that can be configured and extended to meet any requirement

○ Experience with MDM implementations

○ Works with the client IT standard processes and tools instead of imposing new ones, and ready to recommend processes or tools if there are any gaps

○ Denologix team works jointly with the client business and technical team to make sure client team takes ownership of the system from the start with ongoing knowledge transfer

○ Incremental implementation process to ensure feedback from the previous step is incorporated in the next step to ensure no require-ments are missed

○ We start with a meaningful Proof Of Concept based on a subset of client requirements that can be used as the first step towards the complete implementation

○ Very senior technical and project management staff that have worked on several successful enterprise system integration projects for multiple clients over the 20+ years

○ One of the lowest total cost of ownership due to our quick imple-mentation methodology along with joint team environment and knowledge sharing

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