

The 360° Solution



Most successful large organizations are organized by lines of businesses (LOBs). 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 of line of their LOB without having to worry too much about interference from other LOBs. The key characteristic of this model is that the data collected during the revenue generation and cost management processes by different LOBs remains mostly passive. It is stored as a record or the proof of the activity so that it can be reviewed, counted, audited and accounted at a later date like end of the month, quarter or year.

About 20 years ago data warehousing started as a discipline which allowed LOBs within an origination to actively use the collected data to help generate more revenues and manage costs better. As it is becoming abundantly clear to the LOB leaders that their data is the greatest asset in helping them improve their bottom line, they are making large investments in the transformation of their data into knowledge that can be readily used to make sound decisions. As great as this business intelligence strategy has been for the LOBs, it does have its limitation. It cannot analyse or make accurate predictions across LOBs because most LOBs have the autonomy to collect data in the format that was best suited for their specific LOB. This meant that organization containing the LOBs does not automatically have a harmonious and consistent view of the data within different LOBs that can be trusted to make important decisions based on the holistic view of the data.

In the recent years some organizations have taken this step further and attempted to harmonize the data across different LOBs. More and more organizations are realizing that the ability to have 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/upsell 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 LOBs 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 LOB silos. It also raises security questions about the data as it becomes easily shareable throughout the organization, and 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 customer domain 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 the separate customer information from these systems under one data warehouse, but they still represent different views of the same customer. The consolidation of customer attributes from disparate source systems by applying very specific data cleansing, standardization, de-duplication and matching rules provides a single and trusted view of the customer across all source systems.

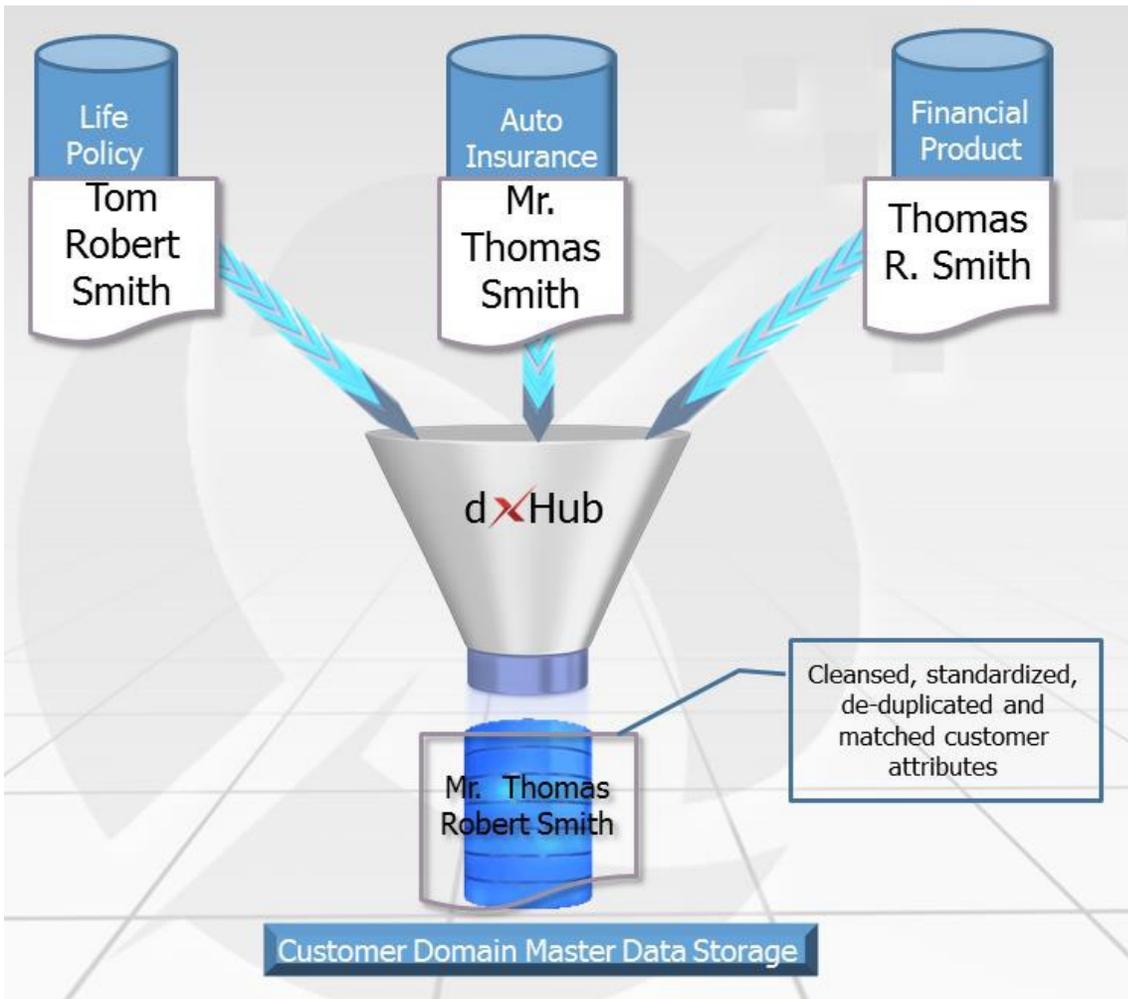
The operational customer domain MDM provides a consolidated and trusted single view of the customer back to all operational systems where customer information originated. This allows operational systems to avoid the unnecessary duplication of customer information, and provide most up-to-date customer information to their users. The implementation of operational customer domain MDM involves systems integration, but this integration must be between a clean and trusted source of customer data and an operational system.

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.

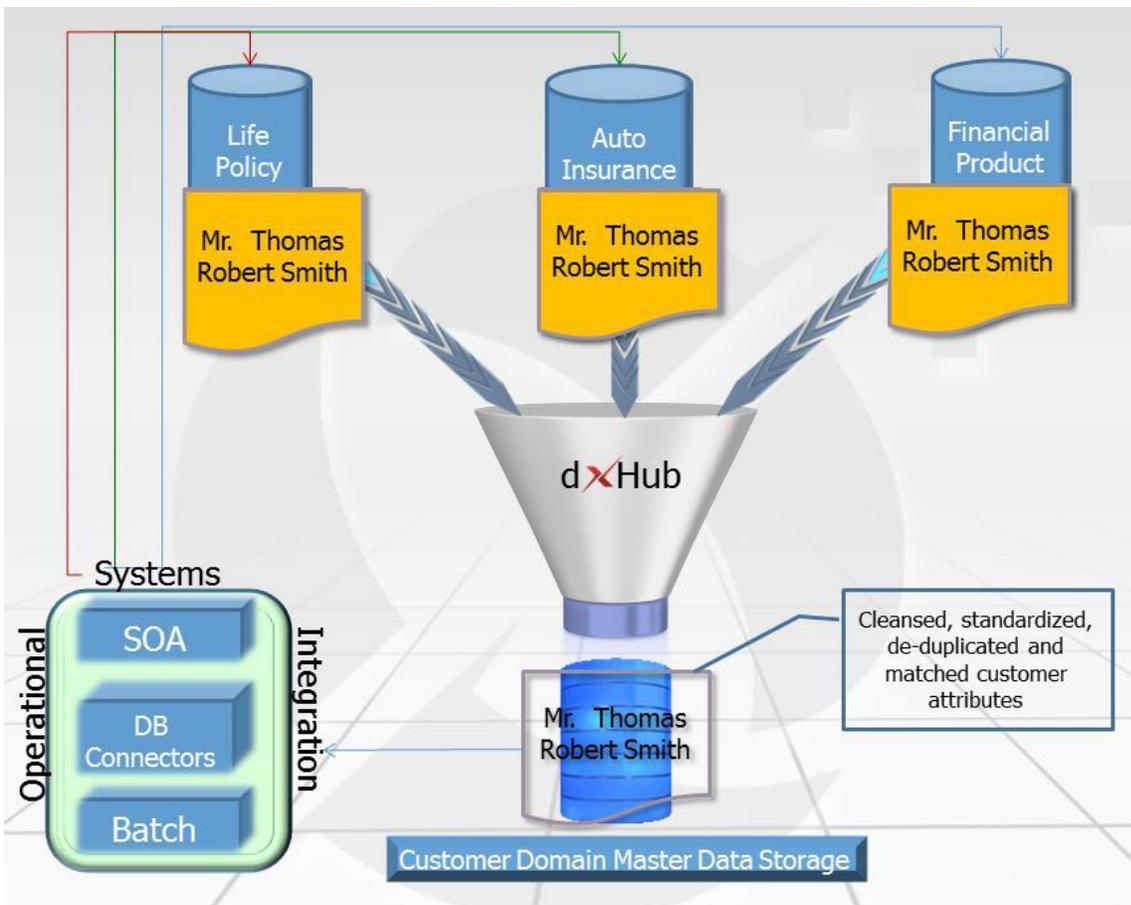
Denologix Approach

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 below:



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 below:



The benefits of the Denologix MDM offering:

- ✓ 360° 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

The key features of the Denologix MDM offering:

- ✓ 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 for optimized performance
- ✓ Standard database models for telecommunication, finance and insurance industries
- ✓ Flexibility to store customer domain MDM data in any relational database
- ✓ Web service templates for quick integration with the operational systems for real-time access to the MDM data storage