Informatica™
Professional Services

Customer – Location MDM

Contents Document Revision History

Version	Date	Revised By	Phase
V 0.1	02/25/2022	Arivu Selvam Venkatachalam	Document created
V 0.2	02/26/2022	Arivu Selvam Venkatachalam	Draft created
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V 0.4	04/11/2022	Arivu Selvam Venkatachalam & Tanuja Rawat	Updated with IDMC, CDI, DQ details
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V 0.6			Updated revision for review
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Document Reviewer(s)

Name and Title	Signature	Comments	Date

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Name and Title	Signature	Comments	Date

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Overview

Background

Customer collects property location information as part of the underwriting process from multiple and dynamic sources, with little ability to automatically integrate the data across those sources. Lack of integrated, accurate location and property data impedes critical decisions in prospecting, risk selection, pricing, and claims processes.

Key Objectives and Benefits

- Provide a single golden record view of property locations by improving operational processes and data accuracy during creation, identification, cleansing and selection of property location data and linking internal and external location data sources, ensuring consistency and control in maintaining the single golden location record

- Consolidating location data from applications and business processes for Middle Markets, Large Property and Alternate Markets that will benefit from Location MDM and enable data sharing between BUs to enhance business performance decisions and insights, better Risk selection and pricing, which in turn will lead to Increased data accuracy for Underwriting and improved Book performance (Known applications such as Source 1, Zapper, GW PC, Neo, SOURCE 2, REDS and Claims systems have been identified as the initial set of applications)

- Integration with Claims systems will enable more robust Performance Analytics and generate insights on Location level loss drivers.

- Ability to validate Broker/Customer submitted SoVs which sometimes have "Composite coded" default values for Risk attributes and tie SoVs to golden Location MDM record

- Capability to track historical Customer loss activity for a location irrespective of which customer occupies the location currently

- Increased efficiency: The golden record will allow for automated integration of data from disparate sources, reducing manual time in integration and manual preparation

- Improved ability to create and use insights:

    - A unified data set will allow for the creation of better insights through higher quality data and reduced time needed to prep data for analysis as well as ensure the most accurate data and insights reach the user.

    - Better insights and reduced time spent manually moving data also allow for increased use of insights

- Improved employee satisfaction:

    - Reducing time spent on basic data munging allows employees to spend time on the activities where the data is useful in making business decisions such as assessing risk, structuring deals, etc.

- A long tail of additional benefits, including (but not limited to) includes better customer experience, improved reserving ability, and better claims servicing.

Assumptions

ID	Assumption	Notes/Comments	Phase
AS1	Only data in the Large Property domain will be included in Phase 1.		
AS2	The Initial Data Load are all batch for this phase.		
AS3	The current phase will include Location data from three sources: 2 Internal (Source 1, SOURCE 2) and one external source Source 3.		
AS4	While the solution will be sized to handle 5 years of historical data, no automated archival process is available out of the box. If required a custom process will need to be designed and implemented to archive/purge data in MDM.		
AS5	Out of Box Business Process Management workflows for data approvals (1-Step or 2-Step approval process)	From SOW	
AS6	No Development of Real-Time integrations for the initial release.	From SOW	
AS7	All integrations assume the use of Informatica products for efficiency of integration. No third-party products will be in scope.	From SOW	
AS8	The data owners will have responsibility to take data exceptions/rejects from MDM ingress and assess with the source systems for any issues.	From SOW	

System Users Requirements

Functional Requirements

ID	Requirement Description	Notes/Comments	Phase
LOC_BSNS-01	Establish the definition of location, particularly related to address, building, suites and other location-related concepts / components as identified by the business.		
LOC_BSNS-02	Provide capability to map addresses to location(s) and assign a unique ID to the location(s).		
LOC_BSNS-03	Provide capability to define relationship structure between addresses and / or buildings such as campuses, floors within a building, and other relational data between different types of locations.		
LOC_BSNS-04	Provide accurate geocodes for location-related concepts / components (e.g., buildings, addresses, etc.).		
LOC_BSNS-05	Provide capability to map building IDs and sub-building IDs (when applicable) to additional data including external data already in use and for known future data points (service providers TBD); this applies to COPE and other data. Note: Expanding the amount of information we have about a given building beyond current internal / external sources is out of scope for this phase per business.		
LOC_BSNS-06	Provide ability to search for, retrieve and view a single location's data from multiple sources (i.e., SOURCE 1 and SOURCE 2).		
LOC_BSNS-07	Provide ability to cleanse and standardize address to provide better matching capability.		
LOC_BSNS-08	Establish a data stewardship process.		
LOC_BSNS-09	Define and build the trust (survivorship) rules for match and merge to define the best view of the data.		
LOC_BSNS-10	Provide ability to modify location information.		
LOC_BSNS-11	Provide ability to view historical changes for a location from a single view.		
LOC_BSNS-12	Provide ability to add a new location.		
LOC_BSNS-13	Provide ability to merge duplicate locations and update source systems, if applicable.		
LOC_BSNS-14	Provide ability to unmerge duplicate locations and update source systems, if applicable.		
LOC_BSNS-15	Provide ability to cross reference location information to the source system that owns the data.		
LOC_BSNS-16	Intake historical data for existing locations as part of		

	the startup for the location MDM.		
LOC_BSNS-17	Create integration for one-time historical and incremental as is source data to flow into MDM through match and merge and data stewardship processes. Historical data captured in the source systems is out of scope. The one-time load is the current as is for the initial population.		
LOC_BSNS-18	Create functionality for notifications (updates) to the MDM to integrated applications; subject to change based on design.		
LOC_BSNS-19	Profile source system data to identify any additional cleansing rules, data cleanup prior to historical load, etc., as well as identify location-related data scenarios / patterns and components, and document via logical data model, metadata definitions, and data worked examples.		
LOC_BSNS-20	Define the hierarchy or network of locations to capture for each location/property, as applicable to include, at a minimum address, building, site, etc. as defined by the business and define location-related data scenarios/ patterns to be accommodated by MDM, including scenarios requiring manual data stewardship intervention.		
LOC_BSNS-21	Define the list of attributes required to build the master data view (golden record).		

Non-Functional Requirements

ID	Requirement Descriptions	Notes/Comments	Phase
LOC_NFR-01	Operational Monitoring Location MDM platform (iedashboard) to have adequate monitoring tools to allow CUSTOMER to assure the performance and reliability of the platform.		
LOC_NFR-02	Platform must meet CUSTOMER requirements for availability based on business criticality.		
LOC_NFR-03	Platform must meet/exceed to be defined performance requirements.		
LOC_NFR-04	Platform must meet/exceed scaling requirements to meet peak loads.		
LOC_NFR-05	Platform must meet CUSTOMER requirements for Disaster Recovery.		
LOC_NFR-06	Platform must meet CUSTOMER requirements for Fault tolerance.		
LOC_NFR-07	Platform must meet CUSTOMER requirements for Business Continuity.		

LOC_NFR-08	Platform must meet to CUSTOMER requirements for Storage and Backup.		
LOC_NFR-09	Platform's identity management must integrate with CUSTOMER's standard identity management platform e.g., Okta.		
LOC_NFR-10	Platform must provide full automated audit trails of changes. For any given change, the Location MDM solution to record when it was made, who made it, and the nature of the change.		
LOC_NFR-11	Platform must provide automated audit and logging maintenance. Logging must be configurable.		
LOC_NFR-12	Data retention standards must be implemented to meet CUSTOMER standards, where applicable.		
LOC_NFR-13	Platform must support various data privacy standards (e.g., PII, HIPPA, PCI) to meet CUSTOMER requirements, where applicable.		
LOC_TECH-01	Provide necessary authentication, authorization and security for data viewing and access as defined by the business needs to view and maintain data and by privacy / compliance needs.		
LOC_NFR-14	Environment setup should be specific to DEV, QA and PROD.		
LOC_NFR-15	Informatica platform updates are expected to be coordinated and updated on demand and not automatically to allow for proper impact evaluation and testing.		

Data Requirements

Data Sources

ID	Requirement Descriptions	Notes/Comments	Phase
DR_DS_1	The MDM solution will receive Location data from Under Writing Source 1		
DR_DS_2	The MDM solution will receive Location data from Risk Engineering Source SOURCE 2 (Group Risk Engineering Workstation)	OUT OF SCOPE Was on original list of sources but haven't obtained data access. This source data has not been profiled and will be	

		excluded from current project of implementation	
DR_DS_3	The MDM solution will receive Location data from External Location data source Source 3		

Master Data Fields

ID	Requirement Descriptions	Notes/Comments	Phase
DR_MDF_1	The MDM Solution will need to include the following fields for Location Data location EID building ID location name location description location type		
DR_MDF_2	The Location Address will need to store the following attributes Address Line 1 Address Line 2 Address Line 3 City District County or region State or province Postalcode Postalcode Extension Country Longitude Latitude Geocoding Type		
DR_MDF_3	The Location Details will need to store the following attributes structure height structure square footage structure length structure width structure shape Footprint / Polygon Fire Construction Codes CAT Construction Code number of units number of stories number of buildings number of basements year built occupancy code	number of stories: (Source 1 defaults to 0 if not provided on the SOV) number of buildings: (Source 1 defaults to 1 if not provided on the SOV) year built: (when construction on the structure was completed) occupancy code: (what type of	

	SIC code Source 1 SIC ID usage start date owned / rented / leased (other values?) sprinkler density	business is happening) – see Source 3 occupancy codes; may not have occupancy at a building level if there are multiples usage start date: (when the intended usage of the structure began i.e., an opening date for a mall)	
DR_MDF_4	The Weather and Other details will need to store the following attributes earthquake zone flood zone wind zone Tornado Zone Hail Zone Wildfire Zone		

Data Model Requirements

Data Model

ID	Requirement Descriptions	Notes/Comments	Phase
DR_MDF_1	Data Model must accommodate all fields for Locations as per section 3		
DR_MDF_2	The MDM Data Model must store data for the following entities: - Location - Address (with rel to Location) - Location Details - Location to Location relationships - Location Enterprise ID		
DR_MDF_3	The structure of the tables and the table relationships for data can be found in the Location MDM-Logical Model document.		

Hierarchy

ID	Requirement Descriptions	Notes/Comments	Phase
DM_HM_01	Hierarchy configuration for Location entities E.g. Address -> Location -> Building -> SubBuilding -> Unit		

Data Quality Requirements

The Master Data Management solution will include the following Data Quality cleansing rules. Source data will be passed through these rules on the way into MDM. These rules are assuming the DQ accelerators have been purchased and are available.

ID	Requirement Descriptions	Notes/Comments	Phase
DQ_CL_1	Cleanse	All the free text fields will be passed through this rule to eliminate any additional space. loc_desc, Addr, City, Postal Code	
DQ_CL_2	rule_ADDR_VALIDATION	".", "UNKNOWN", NULL like values to be sent to error table	
DQ_CL_3	rule_CITY_Validation	NULL and blank values to be errored out	
DQ_CL_4	rule_STATE	This rule uses a reference table to standardize input states to the list of allowable state abbreviations. If not found in the reference table, the value will be sent to error table	
DQ_CL_5	rule_ZIP	Records with NULL Zip will be errored out. TBD	
DQ_CL_6	rule_COUNTRY	This rule uses a reference table to standardize input 3 Digit Country code to the list of 3-character ISO country code. If not found in the reference table, the value will be sent to error table	
DQ_CL_7		What happens when LOV is not found, or the values are null for below codes: • Fire Construction code • CAT Construction Code • OCCY_TYP_CD • SIC • EQ_RATING_ZONE RATIG Flood Zone	
DQ_CL_8	rule_BASEMENT	NBR_BSMT must be a negative number	
DQ_CL_9	rule_Yr_BLT	For NULL values replace it with 9999 or vice versa?	

DQ_CL_10	rule_Address_Enrichment	This rule uses Address Doctor validation and standardization to cleanse and validate Addresses.	

Error Handling

All records that do not comply with Data Quality rules are sent to the Error Handling spreadsheet (Error Handling.xlsx).

Data Verification

ID	Requirement Descriptions	Notes/Comments	Phase
NA	No Data Verification Rules		

Match and Merge

Data Matching and Merging

ID	Requirement Descriptions	Notes/Comments	Phase
MM_MT_1	Matching will utilize cleansed fields only; non-cleansed raw data will be available in MDM but not utilized for matching purposes.		
MM_MT_2	The following should be the Exact Location Match Columns: Address Line1 Address Line2 Address Line3 City Country Code State/Province Postal Code Postal Code Extension Location Name Location Type Latitude, Longitude		
MM_MT_3	The following should be the Fuzzy Party Match Columns: Address_Part1 (Address Line 1, Address Line 2, Address Line 3) Address_Part2 (City, State, Postal Code, Postal Code Extension) Organization_Name (Location Name) Postal_Area (Postal Code, Postal Code Extension)		

	Geocode (Latitude, Longitude)		
MM_MT_4	The Zurich Location MDM SaaS document contains the latest Match Rules for Location Domain.		

Trust Framework

ID	Requirement Descriptions	Notes/Comments	Phase
LOC_TF_01	Source 1 data is more trusted on all Location attributes over SOURCE 2 and Source 3 data		
LOC_TF_02	The source ranking would be as follows Location MDM SaaS – Rank 1 Internal Source Source 1 - Rank 2 External Source Source 3 - Rank 3	If trust is equal then whichever record has the more recent last update date wins. Data Stewardship changes from UI should survive over source specific updates.	
LOC_TF_03	For relationship details Source 3 data is trusted over other sources		

Validation

ID	Requirement Descriptions	Notes/Comments	Phase
NA	No Data Validation Rules		

Data Security and Roles

Roles & Security

ID	Requirement Descriptions	Notes/Comments	Phase
LOC_RS_01	Platform's identity management must integrate with CUSTOMER's standard identity management platform e.g., Okta.		
LOC_RS_02	The following Out of box roles would be utilized from MDM to allow for the required data access and control:		

	a) Customer 360 Analyst - Create & edit records; these changes trigger review process for approval from a 'Customer 360 Manager' role; file import for Location entity b) Customer 360 Manager - Can review & approve changes. Create & edit records without approval process, file import for Location entity c) Customer 360 Data Steward - Can create & edit records without approval. Run jobs. Can review & approve changes, file import for Location entity d) MDM Business User - View only; cannot create or edit records; no file import		

User Interface and Workflow

User Interface

ID	Requirement Descriptions	Notes/Comments	Phase
LOC_UI_01	Configure a subject area for Location data to search, view/display, edit all their child attributes and the location-specific attributes based on the role privileges		

Workflow

ID	Requirement Descriptions	Notes/Comments	Phase
LOC_WK_01	Configure a manual merge task type for Data Stewards to review and reconcile potential Location matches found by the Location manual match rules.		

Data Loads

Initial Data Load

ID	Requirement Descriptions	Notes/Comments	Phase
DL_IDL_1	MDM will receive an Initial Load of Location data from the following systems for Initial load:		

	• Source 1 • Source 3 (TBD) Time: TBD		
DL_IDL_2	The last two or one year of data is expected to be onboarded to MDM. Locations that are not booked can be exclude	TBD on filter criteria	

Periodic Incremental Data Load

ID	Requirement Descriptions	Notes/Comments	Phase
DS_INCR_1	MDM will receive an Initial Load of Location data from the following systems for Initial load: • Source 1 • Source 3 (TBD) Time: TBD		

Data Interfaces/Integration

Inbound Batch Interfaces

ID	Requirement Descriptions	Notes/Comments	Phase
DI_IB_1	MDM will expect to receive data from all sources for the Initial data load, as per section 10.1) via batch processing		
DI_IB_2	MDM will expect a daily feed of data from Source 1, (Source 3 yet to Confirm) Source to load into MDM.	TBC	
DI_IB_3	All inbound batch Location records must meet the minimum entrance criteria for MDM record creation which is the following: Mandatory fields to be listed	If minimum entrance criteria are not met then record will be rejected on its way into MDM	

Outbound Batch Interfaces

ID	Requirement Descriptions	Notes/Comments	Phase
DI_OB_1	MDM will publish a one-time outbound Batch after the initial data load into Source System (Source 1)		
DI_OB_2	MDM will publish an incremental batch update data daily to source system (Source 1)		

Real Time Interfaces

ID	Requirement Descriptions	Notes/Comments	Phase
DI_RT_1	MDM will expect real-time inbound data coming from the following sources: Source 3 (TBD)		
DI_RT_2	Data can be fetched from MDM using out of box real-time web services.		

IDMC Components

Cloud Data Quality

ID	Requirement Descriptions	Notes/Comments	Phase
IDMC_DQ_1	Address data from Source 1 will be cleansed and standardized before transferred to MDM.		
IDMC_DQ_2	De-dupe address rule based on all address attributes ingress to MDM. One distinct address or one unique combination of address data elements would be sent to MDM, if true duplicate exists will be rejected and must be fixed at source before it can be successfully sent to MDM.		

Cloud Data Integration

ID	Requirement Descriptions	Notes/Comments	Phase
IDMC_CDI_1	CDI will load the data into MDM Staging tables for all batch inbound interfaces.		
IDMC_CDI_2	CDI will be able to pull from a publishing layer of MDM views for any outbound publishing of MDM data.		
IDMC_CDI_3	CDI would be responsible for Delta Detection/CDC for all batch data.		

Informatica Data Services

ID	Requirement Descriptions	Notes/Comments	Phase
IDMC_DS_1	The Informatica Data as a Service (DaaS) Address Verification service would be		

	utilized to cleanse and standardize the address records submitted to MDM		
IDMC_DS_2	The Informatica Data as a Service (DaaS) GeoCoding service would be utilized to obtain the Latitude, Longitude Geocoding details for the address records submitted to MDM		

External Components

Third Party Components

ID	Requirement Descriptions	Notes/Comments	Phase

Archival and Auditing

History

ID	Requirement Descriptions	Notes/Comments	Phase
AA_H_1	All history of data changes for all MDM objects should be maintained for 5 years	System has been sized for five years of data. As mentioned in assumptions section – no automated data cleanup process in place.	

Audit

ID	Requirement Descriptions	Notes/Comments	Phase
AA_A_1	MDM system should allow for visibility of traceability and lineage data for Location data for any changes to data in MDM (insert, update, merge, unmerge)		
AA_A_2	MDM system should store and make available crossreference data for the source system contributors of a golden record.		

Definitions, Acronyms, and Abbreviations

ID	Descriptions
MDM	Master Data Management
CDC	Change Data Capture
CDI	Cloud Data Integration
DaaS	Data as a Service
DI	Data Integration
DQ	Data Quality
EID	Enterprise Identifier
SOURCE 2	Group Risk Engineering Workbench
SaaS	Software as a Service
SOV	Schedule of Values
SOW	Statement of Work
TBD	To Be Decided
CUSTOMER	Customer North America