

Master Identity Management (MIM) is an extension of the Infoglide Software technology that was selected by the U.S. Department of Homeland Security to screen domestic airline passengers for terrorist threats. MIM is based on our Identity Resolution Engine™ (IRE) that aggregates information from multiple disparate data stores to form a clear, composite depiction of the identity of an individual. It applies sophisticated Similarity Search™ and clustering techniques to resolve identities and establish an index without losing forensic identity intelligence.

### **BUILDING ON MASTER DATA MANAGEMENT**

Master Data Management (MDM), according to Gartner, is a workflow-driven process in which business units and the IT organization collaborate to harmonize, cleanse, publish, and protect common information assets that must be shared enterprise-wide. MDM ensures the consistency, accuracy, stewardship, and accountability for the core information of the enterprise.<sup>1</sup> MDM platforms are not yet fully matured, and one area where they need to be extended is effectively managing identity information about people and other entities involved in business transactions.

Identity resolution adds the ability to apply, update, reuse, and retain resolved identities to MDM. As traditional MDM solutions often seek to cleanse and normalize data, they tend to remove data that either is valuable or may become valuable in the future. MIM strengthens MDM's ability to manage identity information by providing a single view of an identity without the need to actually combine and destroy data. As new information about those identities becomes available, MIM's active repository allows identities that were once linked to be unlinked and/or allows new, previously undetectable, linkages to be created.

### **EXAMPLE**

Two individuals with precisely the same name and address are likely to be combined by current MDM/CDI solutions, in effect "losing" one of the records. MIM scores these two records as having a very high likelihood of being the same identity but does not discard either record. Later, when subsequent data about the identity is added to the data record that shows that one individual has a birth date of 1-23-64 and the other has a birth date of 2-5-88, it becomes clear that the two identities represent two separate individuals with a likely parent-child relationship.

<sup>1</sup> "Hype Cycle for Data Management, 2007", Gartner

## **Enriching MDM: Master Identity Management**

MIM adds the following identity-focused capabilities to MDM:

- Context Building – Saves resolved identity information across time, preserving all information about that identity, including multiple instances of attributes (e.g., names, addresses) and references to source records.
  - Provides a persistent identity to which additional information can be related.
  - Provides persistent relationships to which additional information can be related.
- Annotation – Adds and retains incremental information about a resolved entity. Preserves history and enables information sharing and collaboration.
- Scalability – Scales to handle data sources representing in excess of 300 million records while maintaining high standards for performance.
- Linking/Relationships – Automatically detects relationships among data sources of interest and persists them. Authorized users can enhance them or add new relationships generated from external sources.
- Secondary Searching – Discovers hidden or indirect relationships among entities. Automated discovery is supported as well as iterative and investigative drill-down.
- Federated Identity Management – Manages entities across various departments of an organization as well as across organizations.
- Audit Log and Reporting – Provides a comprehensive audit and report of all identity resolution transactions in order to comply with privacy and compliance requirements.
- Collaboration – Allows teams to share information through integration with leading software packages such as Microsoft SharePoint.
- Integration – Allows easy integration into existing infrastructures and new solutions through open interfaces based on web services standards and message queues.

## MIM: BASED ON IDENTITY RESOLUTION ENGINE (IRE)

Resolving identities quickly and accurately leads to better decision-making across industries:

- Financial – Has this person created multiple identities to overextend the financial risk to the institution?
- Government – Is the person seeking entry at the border a known fugitive or deportee?
- Insurance – Has the same person submitted multiple claims using numerous slightly varied identities?
- Retailing – Is the person making an unreceipted return a known shoplifter or an employee?
- Telecommunications – Does this person already have an account closed for nonpayment?
- Transportation – Does the person about to board this airplane have a connection to a known terrorist?

Existing organizational data is typically available to solve identity problems, but it is distributed across many systems and geographies. The challenge is how to cost-effectively tap into and combine the data in real time to enhance operational decisions.



MIM is based on patented Identity Resolution Engine (IRE) technology that resolves multiple identities into one. By combining data from multiple sources to provide a unified picture and expose hidden relationships, IRE delivers the following actionable business intelligence to MDM systems:

- Applies sophisticated similarity algorithms to multiple sources of data in real time,
- Ascertain the identity-based risks and opportunities of each entity during each process, and
- Enables better decision-making in every aspect of business operations.

### Unique Capabilities

#### Similarity Search

- Patented Similarity Search algorithms far exceed exact match/fuzzy logic capabilities to uncover previously hidden identity information
- Detects misspellings or intentional data manipulations to reduce false negatives, ensuring nothing slips the net and providing the highest quality leads
- Unique ability to apply Similarity Search across multiple attributes to disregard irrelevant matches and reduce false positives

#### Multi-Database Access

- Identity analysis performed across multiple, disparate data sources
- Expand the breadth of analysis by uncovering matches and relationships within data regardless of the type or physical location of the data source
- Ability to incorporate commercial data sources and also validate identities

#### Flexible Integration

- Designed to quickly integrate with MDM solutions to provide advanced identity-focused analysis and results

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