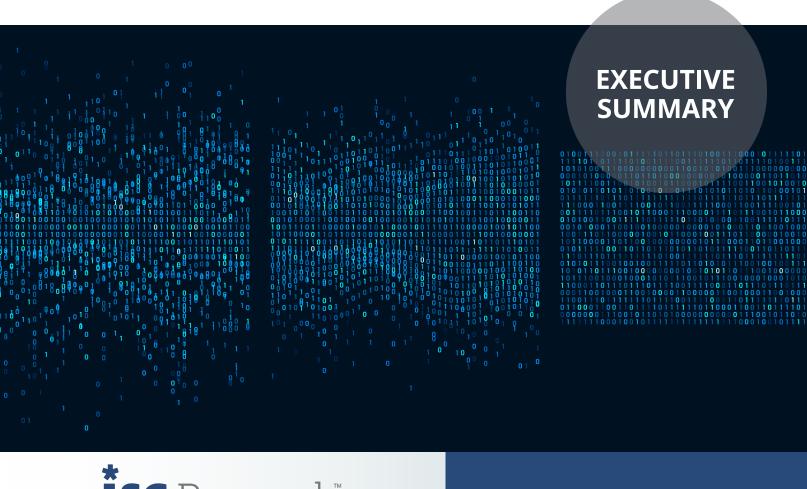
Master Data Management Buyers Guide

Software Provider and Product Assessment



ISG Research™



Master Data Management

Despite efforts made by enterprises to be more data-driven, some of the most fundamental questions about an enterprise—such as how many customers it has—remain difficult to answer. Trust in data is foundational for an enterprise to make data-driven business decisions. The problem lies not just in being able to accurately count how many customers the enterprise has by combining data from multiple business entities, regions, departments and applications, but also in ensuring those various entities, regions, departments and applications are using the same definition of what constitutes a customer.

ISG Research defines master data management as the practice of establishing and protecting foundational reference data used by an enterprise to provide an agreed list of entities that can be shared throughout the organization, including categories such as parties (customers or

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Master data management products enable enterprises to ensure data is accurate, complete and consistent to fulfill operational business objectives. workers), places (addresses or regions) and things (products, assets, financial instruments). Master data management encompasses data validation, matching and merging duplicate records and enriching data with related information. Another important component of MDM is data modeling, which documents the relationships between data elements. This results in the generation of data catalog entries or enterprise glossary information that can be shared across the enterprise, as well as with partners and suppliers.

Creating a "single version of the truth" that provides an agreed definition of customers, products, suppliers or workers is a perennial challenge for many enterprises. One-half of participants in Ventana Research's Data Governance Benchmark Research say disagreement on the definitions of data is a primary concern in managing data effectively. Master data management products

enable enterprises to ensure data is accurate, complete and consistent to fulfill operational business objectives.

While MDM is a dedicated business process, it is also an important aspect of a larger data governance strategy that includes policies and rules to govern accessing and editing master data. Enterprises must be able to trust the data to deliver operational efficiency and analytics insight. Ensuring the integrity of data used for business decision-making can be difficult, given that enterprises have an increasing volume and range of data sources to contend with. More than 8 in 10 participants in Ventana Research's Data Governance Benchmark Research use MDM technologies for data governance and those that do have greater confidence in the use of data. Almost three-quarters of those that use MDM for data governance are confident in the enterprise's ability to govern and manage data across the business, compared to only 27% of those that do not use MDM for data governance.



The benefits of MDM are well understood, and MDM as a discipline has been an important aspect of data management for decades. However, MDM is also traditionally seen as a complex, costly and manual task that requires expert users and can slow innovation by failing to move at the pace of change necessary for contemporary enterprises. While this may have been true of legacy MDM products, the use of artificial intelligence and machine learning in today's MDM software—as well as cloud consumption—increases automation, accuracy, agility and speed.

While it is an established and mature sector of the market, MDM is also a primary focus for innovation in data management. MDM software was initially developed to target two key domains: customer data integration and product information management. These remain natural starting points for MDM initiatives. Enterprises can be negatively impacted by the lack of processes to track customers, customer service and retention. Cross- and upselling opportunities could also be missed. Similarly, if enterprises cannot track the bills for materials, the ability to produce, market and sell products can be negatively impacted, along with product maintenance and customer engagement.

Some enterprises still focus MDM efforts solely on customer or product data, but this could undermine the broader purpose of MDM to ensure smooth and efficient operations. Data-savvy enterprises seek out MDM products with multi-domain capabilities, providing the functionality to address customer and product data alongside data about workers, assets, suppliers, locations and other pertinent business data. Managing data from across multiple domains can be easier said than done, given the increasing range of data sources and formats as well as growing data volumes.

MDM as a discipline has been an important aspect of data management for decades, but the tools and platforms used for MDM initiatives have evolved rapidly in recent years. MDM has

traditionally involved complex, manual processes and expert users. The current generation of MDM products incorporates artificial intelligence and machine learning to automate approaches to mastering data that have traditionally been manual and time-consuming. This facilitates improvement in operational efficiency and time to value from data-driven initiatives.

Al/ML enables automation to improve efficiency and lowers barriers to collaboration across domains. Through 2026, more than three-quarters of enterprises' data management processes will be enhanced with Al and ML to increase automation, accuracy, agility and speed.





Utilizing AI/ML in MDM software can make data more accessible and usable in several ways. For example, AI/ML can support personalization by identifying and providing access to information most likely relevant to a specific user and their role. AI/ML-guided authoring and assistance, including usage recommendations, can automate data profiling processes. Recommendations may also highlight related information from multiple domains in the data governance process.

The core processes involved in master data management can also be enhanced with AI/ML. Multiple matching algorithms combined with ML scoring capabilities can help improve accuracy, while AI/ML can also accelerate dynamic data classification, data profiling and in-line data enrichment.

ML techniques can also automatically identify missing or inaccurate relationships in data that might have otherwise been overlooked in manual processes. Examples include identifying whether individual customers are members of the same household or whether businesses are related entities. Al/ML can also be used to automatically identify rules for data quality, standardization, enrichment and matching based on previous processing outcomes as well as facilitating automated enforcement as data is processed.

These are not theoretical examples of how AI/ML could be applied to MDM but practical examples of how AI/ML is employed in the current generation of MDM products, lowering the barriers to successful adoption and accelerating time to value. MDM is not a new concept, but



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Enterprises looking to make more data-driven decisions should evaluate the new breed of MDM products to increase trust in data and data management processes. Enterprises with greater confidence in data can move more quickly to make data-driven decisions and respond faster to worker and customer demands for more innovative, data-rich applications and personalized experiences, gaining competitive advantage.

Our Master Data Management Buyers Guide is designed to provide a holistic view of a software provider's ability to deliver the combination of functionality to provide a complete view of MDM with either a single product or suite

of products. As such, the Master Data Management Buyers Guide includes the full breadth of MDM functionality. Our assessment also considered whether the functionality in question was available from a software provider in a single offering or as a suite of products or cloud services.



ISG Buyers Guide™: Master Data Management

The ISG Buyers Guide™ for Master Data Management evaluates products based on data modeling, data stewardship and master data rules. To be included in this Buyers Guide, products must also include capabilities to facilitate the configuration of MDM software. The evaluation also assessed the use of AI to automate and enhance MDM.

This research evaluates the following software providers that offer products that address key elements of master data management as we define it: Ataccama, Boomi, Cloud Software Group, IBM, Informatica, Oracle, Precisely, Reltio, SAP, Stibo Systems, Syndigo and Syniti.



Buyers Guide Overview

For over two decades, ISG Research has conducted market research in a spectrum of areas across business applications, tools and technologies. We have designed the Buyers Guide to provide a balanced perspective of software providers and products that is rooted in an understanding of the business requirements in any enterprise. Utilization of our research



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methodology and decades of experience enables our Buyers Guide to be an effective method to assess and select software providers and products. The findings of this research undertaking contribute to our comprehensive approach to rating software providers in a manner that is based on the assessments completed by an enterprise.

The ISG Buyers Guide™ for Master Data Management is the distillation of over a year of market and product research efforts. It is an assessment of how well software providers' offerings address enterprises' requirements for master data management software. The index is structured to support a request for information (RFI) that could be used in the request for proposal (RFP) process by incorporating all criteria needed to evaluate, select, utilize and maintain relationships with software providers. An effective product and customer experience with a provider can ensure the best long-term relationship and value achieved from a resource and financial investment.

In this Buyers Guide, ISG Research evaluates the software in seven key categories that are weighted to reflect buyers' needs based on our expertise and research. Five are product-experience related: Adaptability, Capability, Manageability, Reliability, and Usability. In addition, we consider two customer-experience categories: Validation, and Total Cost of Ownership/Return on Investment (TCO/ROI). To assess functionality, one of the components of Capability, we applied the ISG Research Value Index methodology and blueprint, which links the personas and processes for master data management to an enterprise's requirements.

The structure of the research reflects our understanding that the effective evaluation of software providers and products involves far more than just examining product features, potential revenue or customers generated from a provider's marketing and sales efforts. We believe it is important to take a comprehensive, research-based approach, since making the wrong choice of master data management technology can raise the total cost of ownership, lower the return on investment and hamper an enterprise's ability to reach its full performance potential. In addition, this approach can reduce the project's development and



ISG Buyers Guide™: Master Data Management

deployment time and eliminate the risk of relying on a short list of software providers that does not represent a best fit for your enterprise.

ISG Research believes that an objective review of software providers and products is a critical business strategy for the adoption and implementation of master data management software and applications. An enterprise's review should include a thorough analysis of both what is possible and what is relevant. We urge enterprises to do a thorough job of evaluating master data management systems and tools and offer this Buyers Guide as both the results of our indepth analysis of these providers and as an evaluation methodology.



How To Use This Buyers Guide

Evaluating Software Providers: The Process

We recommend using the Buyers Guide to assess and evaluate new or existing software providers for your enterprise. The market research can be used as an evaluation framework to establish a formal request for information from providers on products and customer experience and will shorten the cycle time when creating an RFI. The steps listed below provide a process that can facilitate best possible outcomes.

1. <u>Define the business case and goals.</u>

Define the mission and business case for investment and the expected outcomes from your organizational and technological efforts.

2. Specify the business needs.

Defining the business requirements helps identify what specific capabilities are required with respect to people, processes, information and technology.

3. Assess the required roles and responsibilities.

Identify the individuals required for success at every level of the enterprise from executives to frontline workers and determine the needs of each.

4. Outline the project's critical path.

What needs to be done, in what order and who will do it? This outline should make clear the prior dependencies at each step of the project plan.

5. Ascertain the technology approach.

Determine the business and technology approach that most closely aligns to your enterprise's requirements.

6. Establish software provider evaluation criteria.

Utilize the product experience: Adaptability, Capability, Manageability, Reliability and Usability, and the customer experience in TCO/ROI and Validation.

7. Evaluate and select the technology properly.

Weight the categories in the technology evaluation criteria to reflect your enterprise's priorities to determine the short list of software providers and products.

8. Establish the business initiative team to start the project.

Identify who will lead the project and the members of the team needed to plan and execute it with timelines, priorities and resources.



The Findings

All of the products we evaluated are feature-rich, but not all the capabilities offered by a software provider are equally valuable to types of workers or support everything needed to manage products on a continuous basis. Moreover, the existence of too many capabilities may be a negative factor for an enterprise if it introduces unnecessary complexity. Nonetheless, you may decide that a larger number of features in the product is a plus, especially if some of them match your enterprise's established practices or support an initiative that is driving the purchase of new software.

Factors beyond features and functions or software provider assessments may become a deciding factor. For example, an enterprise may face budget constraints such that the TCO evaluation can tip the balance to one provider or another. This is where the Value Index methodology and the appropriate category weighting can be applied to determine the best fit of software providers and products to your specific needs.

Overall Scoring of Software Providers Across Categories

The research finds Informatica atop the list, followed by IBM and Oracle. Companies that place in the top three of a category earn the designation of Leader. Oracle has done so in six;

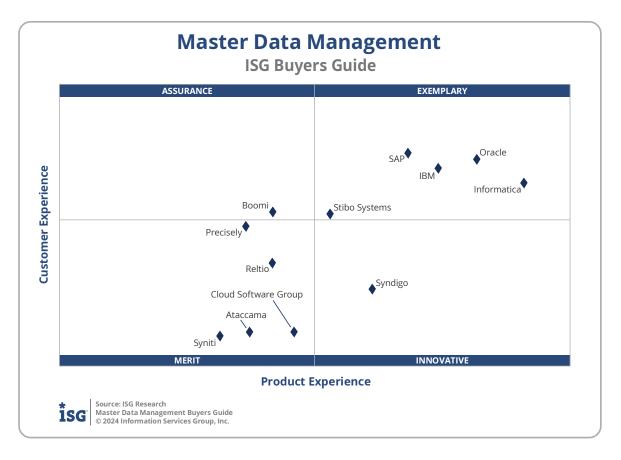
Informatica and SAP in five; IBM in three; Stibo Systems and Syndigo in one category.

The overall representation of the research below places the rating of the Product Experience and Customer Experience on the *x* and *y* axes, respectively, to provide a visual representation and classification of the software providers. Those providers whose Product Experience have a higher weighted performance to the axis in aggregate of the five product categories place farther to the right, while the performance and weighting for the two Customer Experience categories determines placement on the vertical axis. In short, software providers that place closer to the upper-right on this chart performed better than those closer to the lower-left.

Overall					
Providers	Grade	Performance			
Informatica	A-	Leader	83.8%		
IBM	B++	Leader	76.6%		
Oracle	B++	Leader	76.3%		
Stibo Systems	B+		74.2%		
SAP	B+		72.3%		
Syndigo	B+		71.6%		
Boomi	В		66.5%		
Reltio	В		66.3%		
Cloud Software Group	В		65.9%		
Ataccama	В		63.2%		
Precisely	B-		61.4%		
Syniti	B-	5	9.3%		

The research places software providers into one of four overall categories: Assurance, Exemplary, Merit or Innovative. This representation classifies providers' overall weighted performance.





Exemplary: The categorization and placement of software providers in Exemplary (upper right) represent those that performed the best in meeting the overall Product and Customer Experience requirements. The providers rated Exemplary are: IBM, Informatica, Oracle, SAP and Stibo Systems.

Innovative: The categorization and placement of software providers in Innovative (lower right) represent those that performed the best in meeting the overall Product Experience requirements but did not achieve the highest levels of requirements in Customer Experience. The provider rated Innovative is Syndigo.

Assurance: The categorization and placement of software providers in Assurance (upper left) represent those that achieved the highest levels in the overall Customer Experience requirements but did not achieve the highest levels of Product Experience. The provider rated Assurance is Boomi.

Merit: The categorization of software providers in Merit (lower left) represents those that did not exceed the median of performance in Customer or Product Experience or surpass the threshold for the other three categories. The providers rated Merit are: Ataccama, Cloud Software Group, Precisely, Reltio and Syniti.



ISG Buyers Guide™: Master Data Management

We warn that close provider placement proximity should not be taken to imply that the packages evaluated are functionally identical or equally well suited for use by every enterprise or for a specific process. Although there is a high degree of commonality in how enterprises handle master data management, there are many idiosyncrasies and differences in how they do these functions that can make one software provider's offering a better fit than another's for a particular enterprise's needs.

We advise enterprises to assess and evaluate software providers based on organizational requirements and use this research as a supplement to internal evaluation of a provider and products.



Product Experience

The process of researching products to address an enterprise's needs should be comprehensive. Our Value Index methodology examines Product Experience and how it aligns with an enterprise's life cycle of onboarding, configuration, operations, usage and maintenance. Too often, software providers are not evaluated for the entirety of the product; instead, they are evaluated on market execution and vision of the future, which are flawed since they do not represent an enterprise's requirements but how the provider operates. As more software providers orient to a complete product experience, evaluations will be more robust.

The research results in Product Experience are ranked at 80%, or four-fifths, of the overall rating using the specific underlying weighted category performance. Importance was placed on the categories as follows: Usability (10%), Capability (20%), Reliability (10%), Adaptability (20%) and Manageability (20%). This weighting impacted the resulting overall ratings in this research. Informatica, Oracle and IBM were designated Product Experience Leaders.

Many enterprises will only evaluate capabilities for workers in IT or administration, but the research identified the criticality of adaptability

Master Data Management Product Experience Providers Grade Performance Leader Informatica Α-69.6% Oracle 66.1% IBM Leader 63.2% SAP B++ B+ Syndigo B+ Stibo Systems В Cloud Software Group Boomi В Reltio В Ataccama B-Precisely B-Syniti B-Source: ISG Research Master Data Management Buyers Guide Master Data Management buyers and © 2024 Information Services Group, Inc.

(20% weighting) to enable responsiveness to changing business requirements.



Customer Experience

The importance of a customer relationship with a software provider is essential to the actual success of the products and technology. The advancement of the Customer Experience and the entire life cycle an enterprise has with its software provider is critical for ensuring satisfaction in working with that provider. Technology providers that have chief customer officers are more likely to have greater investments in the customer relationship and focus more on their success. These leaders also need to take responsibility for ensuring this commitment is made abundantly clear on the website and in the buying process and customer journey.

The research results in Customer Experience are ranked at 20%, or one-fifth, using the specific underlying weighted category performance as it relates to the framework of commitment and

value to the software provider-customer relationship. The two evaluation categories are Validation (10%) and TCO/ROI (10%), which are weighted to represent their importance to the overall research.

The software providers that evaluated the highest overall in the aggregated and weighted Customer Experience categories are SAP, Oracle and IBM. These category leaders best communicate commitment and dedication to customer needs.

Some software providers we evaluated did not have sufficient information available through their website and presentations. While many have customer case studies to promote success,

Providers	Grade	Performance	
SAP	A-	Leader	17.1%
Oracle	A-	Leader	16.8%
BM	A-	Leader	16.6%
Informatica	B++		16.2%
Boomi	B++		15.2%
Stibo Systems	B+		15.0%
Precisely	B+		14.8%
Reltio	В		13.7%
Syndigo	В		12.9%
Ataccama	B-	11	1.6%
Cloud Software Group	B-	11	1.5%
Syniti	B-	11	.4%

several lack depth in articulating their commitment to customer experience and an enterprise's master data management journey. As the commitment to a software provider is a continuous investment, the importance of supporting customer experience in a holistic evaluation should be included and not underestimated.



Appendix: Software Provider Inclusion

For inclusion in the ISG Buyers Guide™ for Master Data Management in 2024, a software provider must be in good standing financially and ethically, have at least \$50 million in annual or projected revenue verified using independent sources, sell products and provide support on at least two continents, and have at least 50 customers. The principal source of the relevant business unit's revenue must be software-related and there must have been at least one major software release in the last 12 months.

"Master data" is the term used for an enterprise's foundational reference data. It provides an agreed list of entities that can be shared throughout the enterprise. Master Data Management is the practice of managing the enterprise's master data. It encompasses processes such as data validation, matching and merging duplicate records and enriching data with related information. Another important component of MDM is data modeling, which documents the relationships between data elements. This results in the generation of a data catalog or enterprise glossary that can be shared across the organization as well as with partners and suppliers.

To be included in this Buyers Guide requires functionality that addresses the following sections of the capabilities document:

- Configuration
- Data modeling
- Data stewardship
- Master data rules
- Al

The research is designed to be independent of the specifics of software provider packaging and pricing. To represent the real-world environment in which businesses operate, we include providers that offer suites or packages of products that may include relevant individual modules or applications. If a software provider is actively marketing, selling and developing a product for the general market and it is reflected on the provider's website that the product is within the scope of the research, that provider is automatically evaluated for inclusion.

All software providers that offer relevant master data management products and meet the inclusion requirements were invited to participate in the evaluation process at no cost to them.

Software providers that meet our inclusion criteria but did not completely participate in our Buyers Guide were assessed solely on publicly available information. As this could have a significant impact on classification and ratings, we recommend additional scrutiny when evaluating those providers.



Products Evaluated

Provider	Product Names	Version	Release Month/Year
Ataccama	Ataccama ONE	15.2.0	May 2024
Boomi	Boomi Enterprise Platform	August 2024	July 2024
Cloud Software Group	ibi Data Intelligence, TIBCO EBX	1.1.0, 6.20	July 2024, June 2024
IBM	IBM Cloud Pak for Data	5.0.1	July 2024
Informatica	Informatica Intelligent Data Management Cloud - Master Data Management Cloud		August 2024
Oracle	Oracle Enterprise Data Management	June 2024	June 2024
Precisely	Precisely EnterWorks	11.1	August 2024
Reltio	Reltio Connected Data Platform	2024.2.7.0	August 2024
SAP	SAP Master Data Governance, cloud edition	August 2024	August 2024
Stibo Systems	Stibo Systems Enterprise Platform	2024.2	February 2024
Syndigo	Enterprise Data Suite	2024.R5	June 2024
Syniti	Syniti Knowledge Platform	August 2024	August 2024



Providers of Promise

We did not include software providers that, as a result of our research and analysis, did not satisfy the criteria for inclusion in this Buyers Guide. These are listed below as "Providers of Promise."

Provider	Product	Annual Revenue >\$50M	Operates in 2 Countries	At least 50 Customers
Congruity360	Classify360	No	Yes	Yes
Irion	Irion EDM	No	Yes	Yes
MIOsoft	MIOvantage	No	Yes	No
PiLog	Master Data Record Manager, Data Quality HUB	No	Yes	Yes
Profisee	Profisee	No	Yes	Yes
Semarchy	Semarchy Data Platform	No	Yes	Yes
Tamr	Tamr	No	Yes	Yes



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