Disclaimer

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle’s products remains at the sole discretion of Oracle.
Introduction

Many companies still don’t have a true view of their customers, products, suppliers, and sites much less their inventory and financials. While they invest in new, sophisticated enterprise applications to handle business processes, the data they generate is not centrally managed. In fact, these systems often generate inconsistent and conflicting information. Master Data Management (MDM) is a discipline that can help organizations get a handle on all this data.

The Oracle Insight team has created an MDM maturity model that can help organizations understand where they stand in their MDM journey. The model, based on Oracle Insight engagements with companies from around the world, covers maturity levels around five key areas:

• Profiling data sources
• Defining a data strategy
• Defining a data consolidation plan
• Data maintenance
• Data utilization

Around each of these data management areas, the Oracle MDM Maturity Model defines four maturity levels:

• Marginal
• Stable
• Best Practice

• Transformational

This paper defines each of these areas so you can begin to evaluate your company's maturity when it comes to managing your master data.
Profile Data Sources

Profiling data sources involves taking an inventory of all data sources from across your IT landscape. The data sources can include Customer, Product, Supplier, Site and Financial master data. Then evaluate the quality of the data in each source system. This enables the scoping of what data to collect into an MDM hub and what rules are needed to insure data harmonization across systems. Many organizations have multiple sources of master data with varying degrees of data quality in each source, e.g. customer data stored in the customer relationship management system is inconsistent with customer data stored in the order management system. Some questions to ask are: How do we define a customer? What is a product? How do we define a site? Data profiling should result in the following:

- A documented inventory of data sources, requirements, and security controls
- An understanding of the magnitude of the data quality issues
- An understanding of scope of data entities to be mastered
- A consistent, global definition of all key data entities

Define Data Strategy

A data strategy requires an understanding of the data usage. Given data usage, various data governance requirements need to be developed. This includes data controls and security rules as well as data structure and usage policies. A well-defined data management strategy is aligned to the business strategy and helps create the governance needed to ensure that data stewardship is in place and data integrity is intact.

The data strategy exercise should result in:

- A documented data strategy on who uses each data attribute and how the data is to be used
- A documented governance structure to manage data quality
• A source systems mapping of all key attributes to be stored for the mastered entities
• Documented data structures with the policies to maintain the attributes

Data Maintenance
A data strategy requires an understanding of the data usage. Given data usage, various data governance requirements need to be developed. This includes data controls and security rules as well as data structure and usage policies. A well-defined data management strategy is aligned to the business strategy and helps create the governance needed to ensure that data stewardship is in place and data integrity is intact.

• Select tool(s) and define rules for standardization
• Select tool(s) and define rules for matching
• Select tool and define rules for cleansing and normalization
• Insure that data stewards are in place and documented procedures exist on how to manage the data

Utilize the Data
What data gets published, and who consumes the data must be determined. How to get the right data to the right place in the right format given its intended use must be understood. Validating the data and insuring security rules are in place and enforced are crucial aspects for full no-risk data utilization. A key benefit of a master data management strategy is not only to clean the data, but to also share the data back to the source systems as well as other systems that need the information. The data utilization process should:

• Identify what data is published and consumed by the subscribing applications
• Document how the master solution is to be used in data integrations between applications
• Insure validation procedures exist at the point of entry, and reconciliation processes are in place to remediate
• That access rules for master data is defined and enforced

Maturity Levels

For each of the above data management areas, a maturity level needs to be assessed. Where your organization wants to be should also be identified using the same maturity levels. This results in a sound gap analysis your organization can use to create action plans to achieve the ultimate goals.

Marginal

This is the lowest level. It is characterized by manually maintaining trusted sources; lacking or inconsistent, siloed structures with limited integration, and gaps in automation.

Stable

This is the next leg up the MDM maturity staircase. It is characterized by tactical MDM implementations that are limited in scope and target a specific division. It includes limited data stewardship capabilities as well.

Best Practice

This is a serious MDM maturity level characterized by process automation improvements. The scope is enterprise wide. It is a business solution that provides a single version of the truth, with closed-loop data quality capabilities. It is typically driven by an enterprise architecture group with both business and IT representation.

Transformational

This is the highest MDM maturity level. At this level, MDM is quantitatively managed. It is integrated with Business Intelligence, SOA, and BPM. MDM is leveraged in business process orchestration.
### Conclusion

It has been said that MDM is a journey; to take that journey from tactical to enterprise wide benefits requires professional grade software. MDM products from vendors like Oracle can help. But organizational issues, executive support and cooperation between business and IT is critical to your success. Take an inventory using this approach and see where you are in your journey to full MDM maturity and all the business benefits that accrue to organizations who have mastered their data for the benefit of all operational applications, business processes, and analytical systems.