# **MDM Field Report**<sup>™</sup>

# Master Data Management & Data Governance Strategic Planning Assumptions for 2012-13

subtitle: Pervasive & Pandemic MDM is in Your Future

#### Monday, April 9, 2012

(Note: If you have trouble accessing the hyperlinked articles, please go directly to MDM Alerts)

#### **SUMMARY**

Master Data Management (MDM), and Data Governance are among the most widely adopted IT strategies in recent years. That's because both are critical for vital business outcomes such as 360 degree views of customers/products/suppliers, regulatory reporting and compliance, and in general treating data as an enterprise asset.

Across both private and public sectors, many organizations of all sizes continue to struggle to provide a single view of the truth -- whether for "party" (customer, citizen, supplier, etc.) or "thing" (product, location, measurements, etc.) across the enterprise.

**Data Governance is critical to achieving sustainable and effective MDM**. Failure to execute Data Governance concurrently with an MDM program greatly decreases the probability of success and economic sustainability of MDM programs.

Master data management (MDM) is no longer a "fast follower" technology but is now a mature solution providing tangible benefits for private and public sector organizations. The desired economic outcomes are new ways to drive down costs, enable better regulatory compliance, provide higher levels of customer satisfaction, and to provide increased agility -- whether to add new channels or products, or to prepare for and execute on mergers and acquisitions (M&A).

Why is Data Governance so important? MDM provides a trusted, consistent view of key information assets across the enterprise – ranging from "customers", "products", and "suppliers" to "locations" and more. In large corporations, MDM is becoming a business transformation strategy as the cornerstone of every critical business process and business decision. Data is an important asset to most companies and leveraging that data properly can result in operational & IT cost savings as well as drive business growth. Furthermore, managing strategic data assets is foundational to a service-oriented architecture (SOA), which in turn facilitates business process management (BPM). Clearly, MDM is an enticing proposition for many enterprises but to achieve these results, a proper "Data Governance" strategy must be in place. When deploying MDM, a proper Data Governance discipline should consider the business drivers, project scope, roles and people filling each role, policies and procedures, data quality, inheritability, social norms, and the business operating model. Data Governance is more than a single product or process, rather, it is an ecosystem of products, processes, people, and information. Based on recognition of issues at hand, an improving economy, and increasing regulatory requirements, businesses are now recognizing the opportunity to take a more strategic view of enterprise Data Governance. Clearly, MDM and Data Governance are codependent/interdependent. During 2012-15, savvy enterprises must invest upfront in Data Governance to realize MDM sustainability and ROI.

Why is 2012 a pivotal year? In addition to acquisitions of certain best-of-breed MDM solutions by mega vendors during 2011, the market increasingly demanded of all vendors increased focus on multi-domain support, reference data management, and integrated Data Governance -- as well as better integration with Business Process Management (BPM) solutions. In addition, there was clearly growing interest in the use of social data, Cloud-enablement and integration, and "big data" for analytics.

**MDM is both pervasive and pandemic.** MDM provides a trusted, consistent view of key information assets across the enterprise – ranging from "customers", "products", and "suppliers" to "locations" and more. In large corporations, MDM is becoming a business transformation strategy as the cornerstone of every critical business process and business decision. Over the past seven years as conference chairman for <u>MDM & Data</u> <u>Governance Summit</u>, I have observed hundreds of MDM implementations in almost every industry around the world ranging from very large, highly-heterogeneous distributed enterprises to midsize, mostly-homogeneous centralized/local enterprises. In this same time frame, more than 6,000 IT professionals have attended our workshops and tutorials in London, Frankfurt, Madrid, Moscow, New York City, San Francisco, Singapore, Sydney, Tokyo, and Toronto. In turn, we have distilled our findings into candid insight and experience-based guidance for IT professionals embarking upon their MDM and Data Governance case studies as part of the process to arrive at the ten strategic planning assumptions reviewed in this summary report. The typical audience for such guidelines includes: CTOs, CIOs, enterprise (data, solution) architects, vendor product management and product marketing, and investors.

**2012-13 "MDM & Data Governance Road Map".** Part of the deliverables for our client advisory council is an annual set of milestones to serve as a "road map" to help Global 5000 enterprises focus efforts for their own MDM projects. For planning purposes, we thus annually identify ten milestones which we then explore, refine and publish via our MDM Alert research newsletter. This set of "strategic planning assumptions" presents an experience-based view of the key trends and issues facing IT organizations by highlighting:

- Master data management
- Data governance

- Product information management (PIM)
- Reference data management (RDM)

• Customer data integration (CDI)

#### A "Global" View of MDM

(survey findings presented at MDM & Data Governance Summit Europe – April 2012 in London)

- 1. Compliance, single customer view (SCV), etc. are "universal" drivers
- 2. Data Governance is both synergistic & co-dependent with MDM
- 3. Enterprises have stopped calling out multi-domain & now assume MDM includes multiple domains
- 4. Enterprises have moved beyond CDI & PIM to include reference master data
- 5. Big data requires both MDM & Data Governance to be effective & sustainable

Thus the 2012-13 MDM road map helps Global 5000 enterprises (and IT vendors selling into this space) utilize these "strategic planning assumptions" to help focus their own road maps on large-scale and mission-critical MDM projects. During the following year, we use these milestones as the focus for our analyst research in that every research report we write either confirms or evolves one or more milestones as its premise:

- 1. Pervasive MDM
- 2. Data governance
- 3. Business process hubs
- 4. Universal MDM
- 5. <u>Reference data</u>

- 6. Social MDM
- 7. Identity resolution
- 8. <u>Big data</u>
- 9. Business-critical MDM
- 10. Budgets/skills

# BOTTOM LINE:

MDM is quickly broadening its attractiveness both as a key enabler of strategic business initiatives as well tactical P&L initiatives. As of 2012, MDM is no longer "fast follower" technology strategy but is clearly a business strategy "for the masses".

Seasoned MDM and Data Governance professionals acknowledge that successful MDM requires a significant up front Data Governance investment ... while Data Governance as a discrete discipline benefits tremendously from the application of MDM software.

These two initiatives really are co-dependent in \*so\* many ways ... yet the market (vendors, SIs, et al) remains late in bringing the two together to optimize the people, process, and technology.

Proactive, integrated Data Governance will remain problematic during 2012, however as software vendors struggle to rationalize MDM and BPM.

# 1. Pervasive MDM (MDM as a Service)

During 2012, application providers will deploy en masse, the next generation of MDM-innate (as opposed to MDM-aware) applications; concurrently SaaS vendors will struggle to provide integrated/native MDM.

Through 2012-13, mega vendors Microsoft and Oracle will effectively give away departmental MDM –via Microsoft MDS and Oracle DRM respectively.

By 2013, SaaS providers will have finessed this issue via strategic partnerships and investments in MDM.

By 2014, market for MDM-enabled applications will exceed that for MDM software. However, MDM-innate will overwhelm MDM-enabled applications.

# 2. Data Governance

Through 2012, most enterprises will struggle with enterprise Data Governance while they initially focus on customer, vendor, or product; integrated Data Governance that includes E2E data lifecycle will increasingly be mandated as a phase 1 deliverable.

During 2012-13, major SIs and MDM boutiques will focus on productizing Data Governance frameworks while MDM software providers struggle to link governance process with process hub technologies; concurrently enterprises will struggle to evolve enterprise Data Governance in cost-effective and practical ways from "passive" to "active" Data Governance modes.

By 2014-15, vendor MDM solutions will finally move from "passive-aggressive" mode to "proactive" Data Governance mode.

Data Governance for MDM is moving beyond simple stewardship to convergence of task management, workflow, policy management and enforcement.

# 3. Business Process Hubs

During 2012, MDM solution providers and BPM solution providers will increasingly collide in the market as the former acquire or build out BPM-centric MDM; both camps will be challenged to unify domain as there exist different business processes for CDI and PIM.

Through 2012-13, however, BPM-centric MDM will suffer from BPM's traditional focus on modeling and not executing MDM rules.

By 2014-15, all mega MDM and BPM vendors will have overcome this dogmatic bias as enterprise BPM needs to execute within governance and vice versa be able to execute MDM workflows within BPM.

From the enterprise perspective, a complete MDM solution requires both Rules and Reference Data to be applied across domains.

#### 4. Universal MDM

Through 2012, corporate MDM platform evaluation teams will assume (and insist) that all MDM software platforms targeted for enterprise-level deployment or major role in mission-critical systems fully support both PARTY & THING entity types.

During 2013-14, large enterprises will also mandate that REFERENCE data be part of the MDM platform's native entity types.

By 2015, all operational CDI hub vendors will add "PIM light" capabilities, and all PIM vendors will add B2C PARTY entity.

#### 5. Reference Data

Through 2012-13, reference data will emerge as a key entry point for enterprises and in turn unduly influence their choice of MDM for Customer, Product & other domains.

Concurrently, MDM vendors will rush to market reference data management (RDM) solutions to apply MDM approach for centralized governance, stewardship and control. Wipro, Kingland and other systems integrators will move via OEMing of Informatica and IBM MDM into "securities master" market under pricing umbrella of GoldenSource.

By 2015, pervasive, low cost RDM will be commoditized via the efforts of Microsoft and Oracle.

Managing "simple" reference data will prove to be a key sales entry point for MDM vendors.

# 6. Social MDM (Cloud-enablement, Architecture & Integration)

During 2012, cloud-enabled MDM will attract small- and mid-sized businesses as a means to engage in MDM without committing to long-term project and major expense; while offering enticing entry point for large enterprises (opex vs. capex, geographically distributed organizations, POCs).

Through 2013-14, cloud-integrated apps arrive via SFDC, SAP BBD, et al, however, enterprises will wrestle with data integration issues between on-premise and cloud with majority of organizations unwilling to house master data about customers, products and suppliers in public cloud.

By 2014-15, cloud-innate services for data quality and Data Governance will be more prevalent than full Social MDM. However, Enterprise MDM will remain "on premise" with increasing integration to public Cloud applications; concurrently, MDM-enabled applications will migrate to public Cloud, especially for decentralized/geographically distributed organizations.

# 7. Identity Resolution

Through 2012, registry-style MDM solutions will find favor in industries where data is legally or physically too difficult to consolidate into physical hub -- esp. government, U.S. healthcare).

During 2012-13, mega MDM vendors will apply the powerful hierarchy management capabilities of native registry solutions to integrate both legacy MDM hubs and enterprise content management (ECM).

By 2014-15, open source alternatives to monopolistic algorithm vendors will help reduce cost of MDM software procurement.

Mega vendors will adapt matching algorithms of registry MDM hubs to bolster performance and accuracy of their operational/transactional hubs matching throughput. This will be critical to the success of Social MDM.

# 8. Big Data

During 2012, performance of all major aspects of base MDM functionality will benefit from performanceenhancing capabilities of big memory configurations — from batch loading of MDM hubs to identity resolution to operational updates.

Through 2013, big data will repatriate itself into the MDM fabric via registry overlays as yet another source. Mining of big data to populate Social MDM and to perform entity matching on big data stores will help provision a 360° view of entity from public, subscription and enterprise data.

By 2014-15, very large enterprises (e.g., financial services, large government agencies) will look to real-time MDM flows and scaling of MDM solutions via elasticity of Cloud-based solutions, in-memory DBs, and next-generation ETL/MDM, while acknowledging that big data innately requires both MDM and Data Governance to be effective and sustainable.

# 9. Business-critical MDM

During 2012, dogmatic spats regarding analytical vs. operational vs. collaborative MDM use cases will blur as each of these become business-critical MDM which in turn demand zero downtime.

Through 2012-13, MDM platforms will provide in-situ capabilities to change the data model, business rules, etc. ... without taking the MDM services offline.

By 2014-15, this will impact the way master data services are syndicated and delivered ... regardless of regular ablutions such as software upgrades.

MDM is about improving business processes -- enterprises expect enterprise-strength MDM-powered applications targeted at their industry or problem set.

# 10. Budgets/Skills

During 2012, the number of IT professionals trained in a specific MDM solution will increase 200% Y2Y, however, IT organizations and consultancies will struggle to recruit and retain MDM veterans who have actually successfully had a major role in an MDM deployment.

Through 2013-14, enterprises will continue to spend to 3X to 4X in "plan" and "build" services vs. MDM software.

By 2014-15, supply of MDM-experienced consultants will catch up with demand and SIs will scramble to find new opportunities for their expensively recruited and trained talent.

Given substantial investment businesses undertake with SI partners, this must be scrutinized – not only in effort to contain costs, but also to insure success of this vital infrastructure investment.

#### **BOTTOM LINE REDUX**

Enterprise MDM is a major IT initiative underway at the majority of market-leading Global 5000 enterprises. Most enterprises and solutions vendors are finding near-term success with single-faceted approach inherent with 3rd generation MDM solutions (single domain, lacking integrated Data Governance, etc.). Myopically focusing solely on a single data domain and usage style is detrimental to the longer term business strategy of integrating supply, demand, and information chains across both intra- and extra-enterprise boundaries. Coming to market during 2012 are 4th generation multi-entity MDM solutions which address the requirement for multiple domains and styles as well as providing active, integrated Data Governance.

**Data Governance remains the "X" factor**. It is common business strategy now that while good MDM is the savvy foundation for multiple business and technology strategies, integrated Data Governance is mandated for long-term sustainability and ROI of MDM. Clearly, manual Data Governance is error prone, time-consuming and unable to ensure compliance or measure business impact.

**MDM is increasingly pervasive and pandemic** ... not just by market-leading type "A" or "fast follower" enterprises but also the mainstream type "B" organizations. While the overall market for MDM and related software and services has rapidly evolved and matured over the past three years, most organizations are still challenged by the discontiguous offerings that are required to be mated up to craft an MDM environment ... often from the same vendor!

<u>MDM and Data Governance are codependent/interdependent</u>. Savvy organizations must invest upfront in Data Governance for MDM sustainability and ROI.

"Go early, go governance".

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To provide feedback on our client's MDM initiatives we have two levels of sponsorship for IT organizations: (1) free membership (by invitation) in our MDM Institute Advisory Council providing unlimited MDM consultation by phone, and (2) free membership in our MDM Institute Business Council (survey base) which provides bi-weekly updates on key MDM trends and issues via an email newsletter.

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- MDM Institute Business Council<sup>™</sup> of 25,000+ Global 5000 IT executives who receive a limited distribution, bi-weekly newsletter with MDM industry updates
- MDM Alert<sup>™</sup> newsletter provides IT organizations, MDM vendors, and investors hard-hitting insights into best practices as well as market observations derived from interactions with the MDM Institute Advisory Council<sup>™</sup> and the MDM Institute Business Council<sup>™</sup>. Free to qualified individuals, the MDM Alert<sup>™</sup> is also posted on the company's website (www.the-MDM-Institute.com). The intended audience includes: enterprise architects, MDM project managers, CIOs, CISOs, CTOs, chief customer officers, chief privacy officers, data quality managers, data stewards, and project teams responsible for MDM and Data Governance solutions.
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