

## Master Data Management & Data Governance Planning Assumptions for 2011-12

subtitle: MDM the Next Decade: "Go Early, Go Governance"

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### SUMMARY

MDM is a strategic competitive business strategy. Is your business looking for new ways to drive down costs or enable better regulatory compliance? What about enabling growth as the economic upturn comes or when M&A (mergers & acquisitions) is on the horizon? Whether increasing revenue, improving risk management and compliance, optimizing operational efficiencies or strategically differentiating an organization from its competitors, MDM is widely recognized at the executive level as a compelling proposition – usually manifested in a strategic business initiative called "single view of the customer" or similar name.

Additionally, both master data management (MDM) and data governance programs are breaking new ground when it comes to complexity and business value justification for large scale integration projects such as multi-commerce – the blending of brick and mortar with ecommerce. MDM takes the notions of integration and transformation to new heights in that an enterprise MDM program proposes to integrate front office and back office, as well as (often competitive) business units within the enterprise by treating "data" as a corporate asset.

**Why is "data governance" of master data so important?** MDM solutions to a "unified customer/citizen/supplier view" and similar data integration initiatives range from do-it-yourself initiatives to commercial off-the-shelf solutions such as "data hubs" and "registries". Both variations require data governance solutions to navigate the physics and politics of large scale data management. Clearly, manual data governance is error prone, time-consuming and unable to ensure compliance or measure business impact. However, adding passive data governance (data steward consoles) alone to MDM does not fully leverage data quality as business processes themselves must be enabled and synchronized (via business process management or BPM) to benefit from this natural way of aligning data with business processes. What the market requires for enterprise-strength MDM is "proactive" upstream data governance – ideally integrated with an MDM platform such that the policies so documented become operational policies.

#### **Data Governance**

*Formal orchestration of people, process, & technology to enable an organization to leverage data as an enterprise asset across different lines-of-business and IT systems*

#### **Passive Data Governance**

*Data steward consoles & other reactive data management capabilities focused on after-the-fact data compliance; often batch-like & not integrated with MDM*

#### **Active Data Governance**

*Metrics-enabled, upstream data policy enablement; replaces manual data admin processes with role-based, real-time SME empowerment*

#### **Pro-Active Data Governance**

*Metrics-driven, crowd-sourced capability for business users & IT to actively control their shared data across different lines of business & IT systems*

**MDM is 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 six years as conference chairman for [MDM & Data Governance Summit](#), 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 5,000 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 Master Data Governance programs. Moreover, during 1Q2011, analysts at the MDM Institute reviewed more than 750 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.

**2011-12 “MDM 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 10-12 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 governance
- Customer data integration (CDI)
- Product information management (PIM)
- Reference data management (RDM)

## **A “Global” View of MDM**

*(survey findings presented at MDM & Data Governance Summit Europe– April 2011 in London)*

- 1. Compliance, single customer view, etc. are “universal” business drivers**
- 2. PIM (product master data) is very well established in Europe, CDI (customer master data) less so**
- 3. Enterprises are moving beyond CDI & PIM to include reference master data**
- 4. Enterprises have stopped calling out multi-domain & now assume MDM includes multiple domains**
- 5. North American enterprises rely more upon mega consultancies than European counterparts**

Thus the 2011-12 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. Market Maturation (Consolidation & Diversification)**

During 2011-12, as MDM platforms move from 3<sup>rd</sup> generation (service-oriented architecture, single domain focus) to 4<sup>th</sup> generation (BPM-enabled, Data as a Service), the mega vendors (IBM, INFA, ORCL, SAP) will dominate while specialty solutions proliferate by industry, use case, and geography. Application package vendors will have re-architected such that their 2011-12 solutions are “MDM-innate” rather than “MDM-enabled”. (“MDM-innate” means they are based on MDM concepts and use/require an MDM platform; “MDM-enabled” means they are somewhat “ready” to link to an MDM system after the fact but do not require nor are they based on MDM platform).

### **2. Master Data Governance**

Data governance of master data will remain problematic through 2011-12 as marketed solutions lack systemic rigor and E2E lifecycle support. Even more desirable is proactive integrated governance (rather than passive) wherein an asset-focused methodology is applied rather than the mismatch of applying project-oriented methodology. During 2012-13, frameworks addressing the “community” aspect of shared asset development – e.g. wikis for global corporate business vocabulary, etc. will arrive.

### 3. Policy Hubs

During 2011, MDM solutions providers and BPM solution providers will increasingly collide in the market as the latter acquire or build out BPM-centric MDM. Through 2012, however, BPM-centric MDM will suffer from BPM's traditional focus on modeling and not executing MDM rules. By 2013, all mega MDM and BPM vendors will have overcome this dogmatic bias. Moreover, enterprise BPM needs to execute within governance and vice versa be able to execute MDM workflows within BPM by sharing state, process and events. Lastly, enterprises apply different business processes for CDI vs. PIM and the 4<sup>th</sup> generation MD solutions need to heed. To further complicate matters, there will be an ongoing overlap (overbite?) between MDM solution providers and application package vendors – i.e., how far up (or down) the stack will MDM vendors and app vendors go? (reference SAP Enterprise MDM and Fusion MDM vs. the standalone MDM platforms).

### 4. MDM Convergence (Multi-Entity/Domain)

During 2011, corporate MDM platform evaluation teams will assume (and insist) that all MDM software platforms targeted on enterprise-level deployment or major role in mission critical systems fully support both PARTY and PRODUCT entity types. In our experience, RFIs/RFPs assume that “MDM” means “multi-domain MDM”. By 2012, large enterprises will also increasingly mandate that reference data management (RDM) be part of the MDM platform native entity types. Throughout the next two years, operational CDI hub vendors will add light PIM capabilities, and PIM vendors will add B2C PARTY capabilities.

### 5. Universal/Pervasive MDM (MDM as a Service)

During 2011, application package providers will deploy en masse the next generation of MDM-innate (as opposed to MDM-aware) applications; concurrently Software as a Service (SaaS/cloud) vendors will struggle to provide integrated/native MDM. Also during 2011-12, mega vendors MSFT and ORCL will essentially give away departmental MDM –via MSFT MDS and Oracle DRM respectively. By 2012, SaaS providers will have finessed this issue via strategic partnerships and investments in MDM solutions. Moreover, the market for MDM-enabled applications will continue to exceed that for standalone MDM software.

### 6. Budgets/Skills

During the 2011, the number of IT professionals trained in a specific MDM solution will increase 200% over the year prior, 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. During this time, enterprises will continue to spend the first year in the first year of deployment on average 3X to 4X in services vs. MDM software expenses. Both IT organizations and consultancies will be challenged to retain key employees. By 2012-13, the supply of MDM-experienced consultants will catch up with the pent-up demand of prior years and rates will fall proportionately.

## 7. Architecture & Data Models

Through 2011-12, registry-style MDM solutions will find favor in industries where the data is legally or physically too difficult to consolidate into a physical hub (especially government, U.S. healthcare). Additionally, mega MDM vendors will apply the powerful hierarchy management capabilities of native registry solutions to integrate both legacy MDM hubs and enterprise-content management. Concurrently through 2013-14, the mega vendors will adapt the matching algorithms of their registry MDM hubs to bolster the performance and accuracy of their operational/transactional hubs matching throughput.

## 8. Identity Resolution

During 2011-12, the requirement for accurate and scalable matching capabilities (identity resolution) will continue to frustrate certain vendors as others monopolize such capabilities for their own MDM platforms. Flexible hierarchy management for both consumer households (demographics) and business entities (firmographics) will look to 3<sup>rd</sup> party trusted data sources not just for name and address cleansing but also maintenance of hierarchy relationships – despite poor quality data outside North America and Europe for this purpose. By 2013-14, enterprise search and related semantic technologies will help make MDM more accessible.

## 9. Big Data, In Memory,

During 2011-12, the performance of all major aspects of base MDM functionality will benefit from the performance-enhancing capabilities of big memory configurations — from batch loading of MDM hubs to identity resolution to operational updates. Very large enterprises will be looking for real-time MDM flows and scaling of MDM solutions via the elasticity of Cloud-based solutions, in-memory cache databases, i.e., the next-generation of ETL/MDM.

## 10. Business-Critical MDM

During 2011, 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. By 2012-13, MDM platforms will provide in-situ capabilities to change the data model, business rules, etc. ... without taking the MDM services offline. Moreover this will impact the way master data services are syndicated and delivered ... again regardless of such regular ablutions as software upgrades.

### **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 2011, MDM is clearly “for the masses” as well as business-critical for large enterprises.

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) have been late to bring the two together to optimize the people, process, and technology.

Proactive, integrated data governance will remain problematic during 2011, however as software vendors struggle to rationalize MDM and BPM.

**MDM and data governance are codependent/interdependent. Invest upfront in data governance for MDM sustainability and ROI ... “go early, go governance”.**

## About the MDM Institute

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 regular updates on key MDM trends and issues via email and Twitter.

- **MDM Advisory Council™** of 150 organizations who receive unlimited MDM advice to key individuals, e.g. CTOs, CIOs, and MDM project leads
- **MDM Business Council™** of 18,000+ Global 5000 IT executives who receive a limited distribution, bi-weekly newsletter with MDM industry updates
- **MDM Alert™** newsletter and Twitter feed provides IT organizations, MDM vendors, and investors hard-hitting insights into best practices as well as market observations derived from interactions with the MDM Advisory Council™ and the MDM Business Council™. Free to qualified individuals, the MDM Alert™ is also posted on the company's website ([www.the-MDM-Institute.com](http://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 solutions and infrastructure.
- **MDM MarketPulse™** monthly survey results, e.g. budgets, success/failure rates, mindshare based on ongoing surveys of the MDM Advisory Council and the MDM Business Council
- **MDM Fast Track™** quarterly 1-day workshop – fee-based and rotating through the major North American, European and Asia-Pacific metropolitan areas
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