MDM Alert™

"Milestones on the 2010-11 MDM Road Map"

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Milestones on the MDM Road Map

Master data management (MDM) is increasingly important in today's complex and harsh global business landscape-- due to demanding suppliers, trading partners and customers as well as financial challenges and government regulations. Despite the recent economic crisis, analyst firms have declared MDM to be "recession proof" as businesses strive to dramatically reduce costs, meet compliance reporting mandates, deliver increased sales and marketing effectiveness, and provide superior service to customers and suppliers. MDM and its variants – customer data integration (CDI), product information management (PIM), and data governance – all significantly contribute to these tactical business priorities.

Capitalizing on MDM in times of crisis, however, requires an understanding of key underlying business and technology trends. **Data from the MDM Institute's ongoing quarterly "Reality Check survey" shows some escalation in scope and funding of MDM and data governance programs in the first half of 2010**. **The findings from this survey will be presented at the series of MDM SUMMIT conferences throughout 2010 including London, New York City, San Francisco, Sydney, and Tokyo**.

Clearly, enterprise MDM is a major IT initiative being undertaken by a large number of market-leading global 5000 enterprises. Both as an IT discipline and an integrated set of technology solutions, MDM continues to evolve at a rapid pace.   Research analysts at the MDM Institute annually produce a set of ten milestones to help global 5000 enterprises focus efforts for their own large-scale, mission-critical MDM projects. For planning purposes, we identify a set of milestones with strategic planning assumptions that presents an enlightening view of trends and issues facing IT organizations.

An MDM roadmap helps global 5000 enterprises and IT vendors selling into this space utilize strategic planning assumptions to focus their own roadmaps on large-scale and mission-critical MDM projects.

Thus **the 2010-11 "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 and data governance projects**. During the following six months, 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. The remainder of this MDM Alert will present the below MDM Milestones:

1. Market maturation
2. Market momentum
3. Market consolidation
4. Budgets/skills
5. Data governance
6. Convergence
7. Architecture & data models
8. Identity resolution
9. Data quality
10. Enterprise search/semantic

1. MDM Market Maturation

- During 2010, the MDM market will broaden and deepen as mega vendors re-package/re-price solutions below the US$1 million price; concurrently Microsoft and other mid-market solutions will address departmental and SMB needs at prices below US$100,000.

- Through 2011-12, verticalization/horizontalization of MDM solutions will expand beyond corporate financial reporting, EMPI health care, etc. into financial services, government and higher education especially. Concurrently, both MDM and application package vendors will deliver applications (vertical and horizontal) natively aware of master data services – increasingly integrated and dependent upon such master data services.

- By 2013, the combined software and services market for enterprise MDM solutions to address both customer and product/thing master data will exceed $4 billion (CAGR of 15-20% during 2010-13).

2. MDM Market Momentum

- During 2010, mega vendor MDM solutions from IBM, Informatica, Oracle and SAP will monopolize majority market share in the global 5000 enterprise; midmarket solutions from DataFlux, IBI, Kalido, Liaison Technologies, Microsoft Oracle, and Stibo Systems will prosper; concurrently, specialty MDM applications will continue to thrive by geography and industry (Amdocs, Fiserv, GoldenSource, Orchestra Networks, VisionWare).

- Through 2011-12, MDM solutions will cannibalize the traditional master customer database business of Data Service Providers (e.g., Acxiom, Austin-Tetra, Dun & Bradstreet Epsilon, and Experian) as these vendors sprint to deliver on-premise data hub solutions in addition to Data as a Service (hosted/cloud MDM).

- By 2012-13, "stack wars" will wane as MDM-centric applications from IBM, Microsoft, Oracle, SAP, and Teradata dominate over MDM infrastructure vendors (Progress Software, Red Hat, TIBCO).

3. MDM Market Consolidation & Diversification

- During 2010, mega IT vendors (IBM, Informatica, Oracle, SAP) will continue M&A-driven R&D gyrations in moving to an enterprise MDM-centric portfolio with Oracle and SAP challenged additionally in moving from siloed application architectures into SOA-based architectures (Fusion and NetWeaver).

- By 2011, M&A attention will have shifted from MDM hub vendor targets into the more esoteric yet related technologies such as semantic database; concurrently, the last standing independent data quality providers (Clavis, Human Inference, Pitney Bowes Business Insight, Trillium) will succumb to acquisition.

- Through 2012, mega IT vendors (IBM, Oracle and SAP) will dominate the MDM market with niche/best-of-breed vendors (DNB/Purisma, IBI, Informatica/Siperian, Kalido, Microsoft, Progress Software, Teradata) thriving in specific industries and horizontal/corporate applications.

4. Budgets/Skills

- Through 2010-11, global 5000 size enterprises will spend on average US$1 million for their initial MDM software, with an additional $3 to 4 million for integration services; SMB enterprises will benefit from enlightened pricing of US$250,000-$500,000 for "entry level" MDM; despite the recession, the majority of MDM programs will receive initial or ongoing funding due to relentless demand for the cross-selling, up-selling, compliance, and M&A enablement afforded by MDM programs. On their own, most IT organizations will struggle to justify MDM's business value due to a lack of cross-LOB cooperation; high entry-level costs, and difficulties to launch appropriate accompanying data governance structures and processes.

- Throughout 2011-12, skill shortages will greatly frustrate MDM and data governance program execution and inflame project costs as demand for experienced individuals outstrips market supply for directors of data governance, MDM architects, etc.; concurrently, systems integrators will fill the void by baiting and switching rookies for veterans.

- By 2012-13, the MDM job market will stabilize as sufficient numbers of SI benchwarmers retreat back to the comfort of global 5000 enterprise full-time employment; until then, enterprises will struggle with reskilling the same resources multiple times (as evolving data management technologies such as Fusion and NetWeaver mature) and protecting these resources from SI recruiters.

5. Data Governance

- During 2010, the vast majority of enterprises will struggle with master data governance as they attempt to evolve from level I/II (anarchy, feudalism) to III/IV (monarchy, federalism) maturity levels.

- Through 2011, major systems integrators and MDM boutiques will focus on productizing data governance frameworks while MDM software providers struggle to link governance processes with MDM hubs; concurrently, the mega MDM vendors will begin delivery of integrated active data governance.frameworks to augment their data steward consoles (passive data governance).

- By 2012-13, integrated/active data governance will increasingly be the tipping point in MDM solution evaluations; concurrently, data governance solutions will transform from project-orientation to asset lifecycle orientation.

6. MDM Convergence

- During 2010, party and product/thing data interdependencies will continue to broaden MDM requirements – i.e., from "customer" to "product" to "vendor"; concurrently, select vendor dogma will promote nouveau approaches such as collaborative MDM to assuage multi-entity conundrum; global 5000 enterprises will broaden their MDM business initiatives from single use case, single entity to multi-style, multi-entity.

- By 2011-12, select best-of-breed vendors (DataFoundations, IBI, Kalido, Orchestra Networks, Progress Software) and mega vendors (IBM, Informatica, Oracle) will provide multi-hub (entity, architecture and brand) connectivity via hierarchy management extensions, semantic overlays, and identity resolution cross-system mappings.

- By 2013, semantic database technologies will begin to provide alternatives to MDM discontinuities as enterprises struggle to avoid building MDM silos. Concurrently, MDM vendors catch up to their business process management (BPM) counterparts in providing workflow orchestration to synchronize the trusted sources that comprise a federated master data store.

7. MDM Architecture & Data Models

- During 2010-11, vendors will expose MDM capabilities as "always on" SOA services in loosely coupled data integration architectures. Enterprises will establish central, business side-led data management teams with embedded data quality and external data update services in the flow of core business processes.

- Through 2011, mega vendors (IBM, Microsoft, Oracle) will focus significant resources on rationalizing "registry versus hub" dogma via semantic abstract data model layers and hierarchy management to provide integration (not migration) among purpose-specific MDM hubs.

- By 2012-13, 50% of global 5000 enterprises will have deployed two or more (different brand) MDM solutions to support their enterprise MDM strategies; concurrently, MDM mega vendors and MDM infrastructure vendors (Progress Software, Red Hat, TIBCO) will deliver foundational software to nascently support MDM application integration.

8. Identity Resolution

- During 2010, independent data quality vendors (Clavis, Pitney Bowes, Human Inference, Trillium) will focus on name and address cleansing as they struggle against better-funded match/merge and data profiling capabilities increasingly integrated with mega vendor MDM. Concurrently a dearth of non-aligned matching algorithms (Digital Trowel, InfoGlide, Omikron, Uniserve) will engender "algorithm envy" among disenfranchised MDM providers.

- During 2010-11, MDM capabilities will evolve to support "party" via classifying, discovering and archiving of party relationships; concurrently, users will remain challenged to discern price/performance/scalability and accuracy of matching algorithms.

- Through 2012, use of cross platform/cross brand customer keys (e.g., EMPI) will remain core to enabling seamless loyalty programs and online services; sophisticated MDM hierarchy management capabilities will include global IDs as mainstay features to link both legacy and newly built hubs with trusted data service providers' enrichment data.

9. Data Quality

- During 2010, enterprises will accelerate their shift from downstream data quality to pervasive/upstream data quality via MDM. Concurrently, solution providers will provide integrated data quality via partnerships with trusted data sources combined with an emphasis on "party data quality" (consumer, subscriber, owner, member, vendor, establishment, contact) .

- Through 2011, quality metrics will increasingly be defined specific to purpose of particular business function (product development, marketing, sales, order administration, service, compliance, analytics, etc.) and in turn be driven by enterprise-wide data governance initiatives. Such

dashboards will increasingly call out business impact metrics more so than discrete IT-specific measurements.

- By 2012-13, the majority of global 5000 enterprises will have widely deployed data integration architectures (loosely coupled, SOA, "always on") which will catalyze consumption of both master data and highly optimized data quality functions.

10. Enterprise Search/Semantics

- Through 2010-11, the unique properties and behaviors of master reference data will spawn a series of vertical applications and specialized features within MDM solutions (i.e., industry exchanges).

- Additionally through 2010-11, semantically-enabled metadata will increasingly enable search for both structured and unstructured information across a variety of applications such as catalog management plus deep Web and enterprise search.

- By 2012-13, enterprise semantics and SOA-enabled data services will provide the technology foundation for policy hubs as the fourth generation of MDM hubs which innately support and integrate with proactive, integrated data governance; concurrently, crowd-sourced glossaries/vocabularies will strengthen the business utility and acceptance of enterprise data governance.

BOTTOM LINE

For the global 5000 enterprise (and increasingly the small-to-midsized business), approaching enterprise MDM as an IT infrastructure development project is career-challenging. There is very little economic rationale in building such custom middleware (with associated high maintenance costs) when commercial off-the-shelf software meets the performance, reliability and scalability requirements of most every industry and size organization.

Clearly, enterprise MDM is a major IT initiative being undertaken by a large number of the market-leading global 5000 size enterprises. The value of enterprise MDM can be intuitively recognized in a range of business initiatives – from short-term fixes to a narrow set of problems to long-term enterprise-wide initiatives to delivering infrastructure agility. **Most enterprises and solutions vendors are finding near-term success with the single-faceted approach inherent with the third generation of MDM solutions**. Increasingly, however, these same enterprises are determining that this myopic strategy of 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 2010-11 are multi-entity MDM solutions characterized as the fourth generation of MDM solutions which address the requirement for multiple domains and styles as well as the roles of the consumers. Moreover, **the tipping point for enterprise MDM product evaluations during 2010-11 will increasingly be centered around the roadmap and delivery of integrated, active data governance capabilities**.

Survival of our businesses as well as future prosperity, market leadership and business process transformation during economic crises is dependent upon achieving a single view across the enterprise of key assets such as customers, products, suppliers, and employees.

Hopefully, the milestones discussed above will catalyze discussions (and consensus) within your IT organization regarding the roadmap IT professionals must craft for the next 12 to 24 months.

Hopefully, the milestones discussed above will catalyze discussions (and consensus) within your IT organization regarding the road map IT professionals must craft for the next 3-5 years. We look forward to your emails and phone calls during the next six months as we evolve these planning assumptions.

See you at the next annual MDM SUMMIT in your hemisphere.
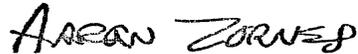
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- MDM SUMMIT Asia-Pacific 2010 Four Points by Sheraton – Darling Harbour, Sydney ▪ May 11-12
- MDM SUMMIT Tokyo 2010 ▪ Meguro Gajoen Tokyo ▪ May 18
- MDM San Francisco Summit 2010 Hyatt Regency ▪ June 2-3
- MDM Canada Summit 2010 Hyatt Regency Toronto ▪ June 13-14
- MDM SUMMIT Americas 2010 Crowne Plaza Times Square Manhattan, NYC ▪ October 3-5
- MDM SUMMIT Europe 2011 London venue t.b.a. ▪ March 21-23

About the MDM Institute

Aaron Zornes is chief research officer of the MDM Institute. For additional info on this topic or other MDM Institute offerings, please contact info@the-MDM-Institute.com.

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