Master Data Management & Data Governance Strategic Planning Assumptions for 2016-17

subtitle: Next-Generation MDM is Coming Sooner Than You Think (Big Data, Social, Cloud, Mobile & Real-Time)

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SUMMARY

Because master data is required to provide competitive advantage, increase customer service levels & drive new product/service combinatorial market offerings, Master Data Management (MDM) must embrace Big Data analytics in order to deliver such capabilities ... as well as Cloud-enablement/deployment/integration.

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.

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).

At our 11th annual San Francisco MDM & Data Governance Summit (June 8-10, 2016), we predict increased attendance as organizations across all industries and geographies must grapple with fundamental CDI and PIM requirements (which still drive the majority of MDM procurements). Yet clearly, Big Data, reference data, cloud deployment/architectures and social MDM also continue to push the envelope.

Moreover, we are experiencing an ongoing battle of intrinsic MDM and data governance programs (that will help enterprises compete, market, grow and regulate their business) versus the oncoming wave of IoT- , ecommerce- and social network-related Big Data analytic requirements (that will help gestate the next generation of digital-driven industries).

Thus, there is real angst or conflict in the ranks of data and solution architects as to where to prioritize their company's priorities as well as their own career focus. These worlds will continue to collide, yet innovative and successful organizations will continue to mix pragmatic MDM (onboarding customers/suppliers/products) with next-gen sources and targets (mobile commerce, IoT).

BOTTOM LINE: **The more agile enterprises (and individuals) will have minimal conflict between mixing intrinsic MDM capabilities with next-gen MDM requirements. Cloud, Big Data, Graph DB, real-time MDM, multi-domain reference data, master relationship management, cognitive data-driven apps? We've got all these vital topics covered at this year's 11th annual summits in <u>London</u>, <u>San Francisco</u>, <u>Sydney</u>, <u>Tokyo</u> and <u>New York City</u>.**

2016-17 "MDM & Data Governance Road Map". Part of the deliverables for the MDM Institute's customer 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 programs. 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:

1. Next-Generation MDM
2. Pervasive MDM-Enabled Cognitive Apps
3. Data Governance
4. Cloud MDM
5. Reference Data Management (RDM)
6. Business-Critical MDM
7. Social & Mobile MDM
8. Big Data (& In Memory)
9. Business Process Hubs
10. Budgets/Skills

1. Next-Gen MDM (Master Relationship Management)

- During 2016, MDM 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 and THING entity types; this dogma remains known as Universal MDM or Multi-Domain MDM

- Through 2016-17, mega vendors will continue to deploy separate CDI and PIM stacks while nouveau MDM vendors attempt to position this as a "legacy MDM" failing; MDM-ready data models will continue to bolster mega vendor MDM sales – esp. IBM, Oracle and SAP

- Given the majority of operational CDI hub vendors have added "PIM light" capabilities, and concurrently most PIM vendors have added B2C PARTY entity domain, the degree of out-of-the-box support for Reference Data remains a key differentiation; this lack of lightweight system footprint combined with inflexible pricing by mega vendors is resulting in "MDM duology" for many enterprises – wherein mega vendor (IBM, INFA, Oracle, SAP) MDM hub deployed for Customer/Product/Supplier with lesser priced 2nd/3rd tier MDM solution for "everything else" (RDM, location, et al)

- By 2017-18, graph DB technology will increasingly provide "hub of hubs" MDM layer to rationalize complex relationships across and within domains to provide "Master Relationship Management" modelling and analytics; this next-gen MDM capability will enable the cognitive data-driven apps that in turn will drive the next generation of business e-transformation and industrial re-tooling

2. Pervasive MDM-Enabled Cognitive Apps (Master Data as a Service)

- During 2016, mega MDM vendors will increasingly build and market data-driven applications that compete directly with mega ERP and vertical industry app providers
- Through 2016-17, SaaS vendors will struggle to provide integrated/native MDM; select SaaS providers will finesse this issue via strategic partnerships and investments in MDM; Graph DB technology is one area of focus by all vendors to support the need for managing and analyzing increasingly complex relationships and hierarchies, in turn which will enable data-driven cognitive apps of all sizes and shapes
- By 2018, the market for data-driven cognitive (MDM-innate) applications will exceed that for MDM platform software

3. Data Governance

- Through 2016, most enterprises will struggle with enterprise DG while they initially focus on customer, vendor, or product; integrated enterprise-strength DG that includes E2E data lifecycle will remain elusive as most organizations turn to lightweight glossaries with modest Data Steward workflows to support devolved autonomy and multi-disciplinary, bi-modal teams
- During 2016-17, the majority of MDM software and service providers will focus on productizing such lightweight DG frameworks while mega MDM software providers struggle to link governance process with process and data hub technologies
- By 2018, mega vendor DG solutions will finally move from "passive-aggressive" mode to "proactive" Data Governance mode

4. Cloud MDM (Cloud-Enablement, Architecture & Integration)

- During 2016, single- and multi-tenant Cloud MDM will continue to attract SMBs (and increasingly large enterprises) to achieve MDM benefits without long-term project and major expense; such offerings will provide enticing entry point for large enterprises (opex vs. capex, cost effective POCs) and potential for infinite elasticity as well as federated architecture for geo-distributed organizations; however, native Cloud MDM platforms will underwhelm market expectations relative to classical MDM while concurrently such Cloud MDM solutions' pricing models will stress mega software vendors' EBITA near term
- Through 2016-17, integration of on-premise MDM with SaaS apps will 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/SUPPLIERS in public cloud; Enterprise reference data remains an exception to this dogma; concurrently, MDM-enabled apps will migrate to public Cloud, especially for decentralized/geographically distributed organizations
- By 2018, Cloud-innate services for Data Quality and Data Governance will be more prevalent; however, enterprise operational MDM will remain "on premise" with increasing integration-to-Cloud applications

5. Reference Data Management (RDM)

- Through 2016, reference data will continue as a key entry point for enterprises and in turn unduly influence choice of MDM for Customer, Product and other domains; large enterprises will continue to mandate that Reference Data be part of MDM platform's native entity types
- During 2016-17, MDM vendors will begin to market RDM to apply an MDM approach for centralized governance, stewardship and control; while many organizations will apply RDM to manage and rationalize reporting dimensions across data marts (or monster marts via Hadoop), increasingly the compelling use case is data standardization on the way into Big Data lakes, i.e. cleansing/taxonomizing of real-time data streams feeding the Big Data Lakes
- By 2018, pervasive, low cost RDM will be commoditized via the efforts of Ataccama, Microsoft and Oracle; mega vendors will respond by providing throttled" MDM hub with RDM as licensed domain

6. Business-Critical MDM

- Through 2016, dogmatic spats regarding analytical vs. operational vs. collaborative MDM use cases become historic artifacts as each become business-critical MDM which demands zero downtime; certain MDM vendors will continue to sell better in Reference Data user use cases due to lack of scalability imposed by their semantic flexibility; similarly, as multi-domain MDM has become commoditized among the mega MDM vendors, the need to compete at application-level will surge; clearly, MDM is all about improving business processes as enterprises demand enterprise-strength MDM-powered applications targeted at their industry or problem set
- During 2016-17, enterprises will increasingly focus on 1:1 marketing as the importance of "master relationship management" and "system of engagement" becomes a leading MDM business case for many industries; concurrently, MDM platforms will provide in-situ capabilities to change data model, business rules, etc. … without taking MDM services offline
- By 2018, this will impact way master data services are syndicated and delivered … regardless of regular ablutions such as software upgrades

7. Social & Mobile MDM

- During 2016, 360° view of "X" will take on new meaning due to "data blind spots" of traditional MDM; enterprises will realize need to reconcile social identity with corporate/household identity to provide authoritative master data to drive e-marketing and commerce within social networks
- Through 2016-17, next-generation MDM will address "sphere of influence" to incorporate both extended and non-obvious relationships to grow share of wallet from individual to exo-ego network as disruptive sales strategy (vs. ego-centric marketing); "system of engagement" will begin to surpass "system of record" for most industries and use cases
- By 2017-18, mobile location-based services enhanced with location-specific customer info will raise ante for e-commerce within and outside major social networks; Data-related processes must align and real world intricacies – especially complex relationships/hierarchies of mobile customers and extended social networks

8. Big Data (& In Memory)

- During 2016, performance of all major aspects of base MDM functionality will benefit from performance-enhancing capabilities of big/in memory configurations — from batch loading of MDM hubs to real-time identity resolution to operational updates; managing BI dimensions of "monster marts" (Hadoop) will revitalize notion of "analytical MDM" use case
- Through 2017, Big Data will continue to repatriate itself into MDM fabric via registry overlays as yet another source; mining of Big Data to populate Social MDM and perform entity matching on Big Data stores will help provision 360° view of entity from public, subscription and enterprise data
- By 2017-18, very large enterprises (e.g., fin 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; in-memory DB will further escalate ability of Graph DB to deploy as super layer onto multiple MDMs

9. Business Process Hubs

- During 2016, MDM solution providers and BPM solution providers will moderately collide in market as former acquire or build out BPM-centric MDM; both camps will be challenged to unify domains as there exist different business processes for CDI and PIM; again, Graph DB technology will be seen as the solution to domain cross-walks and rule/data integration/analytics
- Through 2016-17, however, BPM-centric MDM will continue to suffer from BPM's traditional focus on modeling and not executing MDM rules, as well as BPM-centric vendors' ineffectiveness in marketing against MDM-centric vendors
- By 2018, 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

10. Budgets/Skills

- During 2016, the number of IT professionals trained in a specific MDM solution will increase 15-20% Y2Y, however, IT organizations and consultancies will struggle to recruit and retain IT veterans who have had a major role in a successful MDM or DG deployment
- Through 2016-17, enterprises will continue to spend 3X to 4X in "plan" and "build" services vs. MDM software; MDM and Data Integration COE leadership will increasingly evolve into CDO careers
- By 2017-18, supply of MDM-experienced consultants will catch up w/ demand and SIs will scramble to find new Big Data-driven opportunities for their expensively recruited and trained talent; Data Governance positions will continue to demand strong native language skills and localized presence