From Crowd Sourcing to Outsourcing:
BEST PRACTICES IN MASTER DATA MANAGEMENT

Knowing who's who among customers is no longer enough to guide pharmaceutical sales and marketing decisions; it's now vital to know who is influenced by whom across professionals and organizations. That requires an understanding of the hierarchy within provider organizations and of the affiliations between physicians, group practices, integrated delivery networks (IDNs), accountable care organizations (ACOs), and payers. Consequently, companies rely heavily upon the sales force to report on these relationships. However, the reliance on many to obtain critical information can be difficult. Can you trust "crowd sourcing" when it comes to information on which so much rides? Can you afford not to?

The accuracy of a company's customer master file is not only a matter of efficiency and effectiveness, but strong legal and compliance implications are at stake as well. How can a company both gather field-reported data on customers and ensure that it is properly vetted before becoming the basis for targeting, sampling, call planning, messaging, and compliance reporting?

What should happen, for example, when a doctor proves to a rep that she is a high-prescribing internist, but the home office classifies the doctor as a pediatrician and will no longer allow her to be detailed? Or, what should reps do when the address changes they submit don't stick?

The answer lies in having a well-conceived Master Data Management (MDM) strategy and in applying best practices in data governance and stewardship. These specialized responsibilities can now be outsourced — a solution that it is becoming an industry best practice in and of itself.

An End-to-End Solution

Subscribing to MDM as a service (MDMaaS) means outsourcing the hosting and ongoing maintenance of the information assets that define one's customer base — provider profiles and affiliations, and plan details. The goal is to maintain a single, authoritative source across the enterprise containing timely and accurate data, thus eliminating conflicts and discrepancies.

End-to-end services for MDM encompass strategy development, hosting, ongoing data governance, data enrichment, and functional capabilities — all based on a foundation of industry reference data. Ideally, such a system accommodates the company's own data as well as subscription-based reference data and market transaction data. Turning to a service provider to host and manage a master data file is similar in concept to other cloud-based service solutions now commonly used for CRM or analytics, for example.

The best architecture centralizes customer data in a customer hub that feeds into back-office systems (such as sales reporting, compliance reporting, compensation and contracting) as well as integrates with customer-based applications including sales force automation, call center support, order management systems, expense and finance systems, campaign management, speaker programs, websites and physician portals. *(Please see chart)*

Alternately, some companies have opted to manage their customer data from within their CRM system. This arrangement may suffice for the sales force, but is not flexible enough to provide enterprise-wide MDM. Such applications don't capture all customers or necessary customer attributes, and they don't provide audit trails or data governance. These internal CRM systems can foster redundancies and inconsistencies.

The Foundational Strategy

There is no one-size-fits-all approach to MDMaaS; the best strategy blends the right components for meeting an organization's unique goals. This involves:

» **Assessing and benchmarking the current state.** How well are the processes and applications working with the existing customer master files or with data in functional silos?

» **Identifying the businesses' objectives and data needs.** The ultimate use will drive the level of quality, timeliness and governance required. This step often extends to evaluating and recommending changes to related tools (CRMs, reporting, and analytics systems). An MDM solution should not be designed in isolation.

» **Developing data stewardship and governance policies.** Determinations must be made

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on the data structure, how quality will be maintained and what roles can access what data for what purposes.

» **Preparing a road map and transition plans** to achieve the desired state — all within the allotted budget and time span.

» **Using organizational maturity and cultural assessment models** to determine what changes will be required for the company to benefit from a higher-order system.

The initial roll out can be designed to serve one business unit or sales force or to involve only selected data sources, with others added in time.

Platform Options

There are several options for the technology platform that supports MDMaaS. It can reside in "the cloud," meaning that it is accessed via the Web, and computing resources are available on demand with pay-as-you-go pricing. The cloud can either be a "public cloud" such as those offered by Amazon AWS, Microsoft, and Google or a "private cloud," which consists of essentially the same architecture, just created for the exclusive use of a single client. Or, the platform can be hosted within the service provider's on-premise data center. Of these three options, the first is by far the most cost effective and the latter the most expensive.

All three models offer several benefits over platforms hosted and managed internally:

» **No technology investment.** The provider takes care of all the computing hardware needs and maintains the system. Subscribers simply "plug into" existing solutions.

» **Flexibility.** The on-demand model accommodates peaks and valleys in usage.

» **Continuous performance improvement.** The provider makes enhancements and delivers upgrades automatically.

» **Improved resource availability.** Scarce internal IT resources can become a bottleneck when companies attempt to host and manage their master data themselves.

» **Potential lower cost of ownership**, based on individual customer requirements.

The platform should be built with open application program interfaces (APIs) to accommodate real-time access from various applications as well as scheduled batch transfers of data to and from the client.
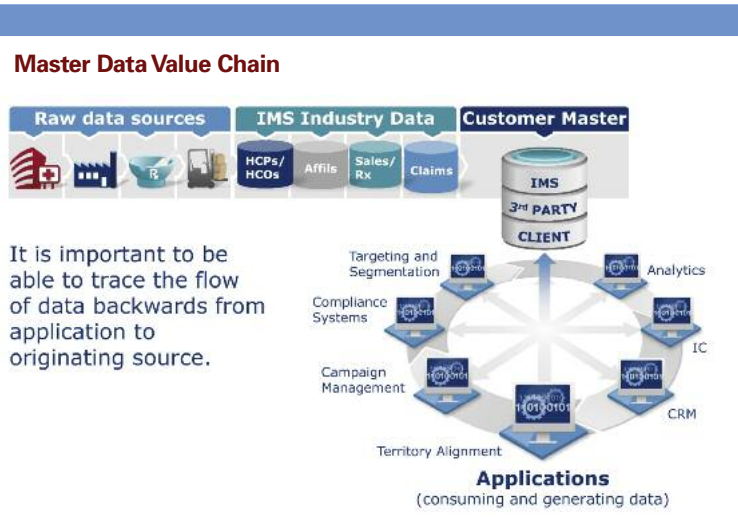
Whether the platform exists in the cloud or on the vendor's premises, the model must ensure secure data transmission through encryption, authenticated logins, audit trails, attack warnings, and proactive backup and recovery procedures. While the private cloud provides security by means of physical isolation from other subscribers, public clouds must provide security via digital isolation across multiple subscribers.

A Process-Centric Approach

Given the importance of a company's master data, its use and maintenance must be carefully guarded. Specifically, this involves setting standards on data definitions, taxonomy, metrics and measures as well as developing policies and procedures for monitoring quality, handling discrepancies and accessing the data. Historically attempts have been made to "crowd source" customer reference data, however without the appropriate process rigor this can put foundational data at risk.

Best practices in data governance and stewardship include:

» **Developing the framework with input from all stakeholders**, then following the recommendations of experts who understand the data at a micro level as well as the industry and the greater healthcare environment on a macro level.

» **Entrusting the daily work to professionals specializing in Master Data Management.** This is, in fact, one of the key benefits of contracting for MDMaaS. Making decisions on the disposition of individual customer records often involves the painstaking process of tracing a record back through the delivery chain all the way to the originating source, such as a state licensing board. It also entails making judgment calls on the disposition of entries, for instance, to determine what specialty a customer should be listed under for

Master Data Value Chain

It is important to be able to trace the flow of data backwards from application to originating source.

promotional purposes or to identify which address should be used for in-person promotion vs. direct mail.

» **Performing an annual audit** to confirm that the core data attributes are meeting the established quality standards. Ideally, the company's data are benchmarked against industry reference data to identify gaps and inconsistencies.

Without clearly articulated rules and data quality assurance policies, reporting and sharing data across the enterprise quickly becomes unmanageable.

A Workable System

The best MDM services provide a number of features and functions that boost both usability and ongoing quality assurance. First, the platform should integrate seamlessly with the company's systems and applications such that users can sign in once and move from one application to another. Second, the hub bearing the customer profiles should be able to draw from multiple sources and provide for ongoing record cleansing, matching and merging. The best-in-class capabilities layered on top of this infrastructure include:

» **A mechanism for the field force to challenge**, update or add information to the file. This is accomplished one of two ways: either reps can suggest changes within their sales force automation system to be reviewed by a central source prior to inclusion in the master file, or reps can request a change through a separate user interface.

» **Real-time customer search.** Any user adding a new contact should first be able to search all known customers against a trusted source of the customer universe in real time. This feature reduces the time before new data can be accessed and acted upon.

» **Customer profile enrichment.** Ideally, any new customer entry is automatically augmented

with full profile information contained in the relevant industry reference database.

» **Management and updating of industry identifiers** and the ability to code multiple identifiers to a given prescriber as appropriate.

The Benefits

When the fundamentals of Master Data Management are handled properly in an end-to-end solution from a trusted partner, a company enjoys:

» **Improved data quality and reporting accuracy.** With a consistent view of the customer through all consuming applications, there are fewer issues requiring investigation.

» **Faster time to insight.** Companies spend less time integrating disparate data sources and have more time to mine their customer data to improve elements like targeting, messaging and campaign management.

» **Lower total cost of ownership.** The cloud-based, software-as-a-service computing model offers economies of scale and the ability to adjust resources up or down as needed.

» **Better use of internal resources.** With specialists handling MDM, a company's IT resources are re-directed to other tasks, and reps can focus on selling without being distracted by data quality issues.

Implementing an effective and efficient MDM strategy is no simple task; it requires specialized expertise in data governance and stewardship and a reliance on best practices devised over time and across experiences. In particular, it requires the ability to track customer information from its source through to its ultimate consumption. When this expertise is coupled with the benefits of cloud-based hosting, companies have greater confidence in the quality and completeness of their reference data — and an infrastructure that supports effective sales and marketing initiatives and regulatory compliance. ⓟⓥ

IMS Health *offers end-to-end Master Data Management Services encompassing strategy development, hosting, ongoing data governance, data enrichment, and functional capabilities — all on a foundation of IMS HCRS reference data. On- and off-shore stewards ensure the integrity of the data in the Customer's Hub, which integrates with IMS One, a cloud-based platform that integrates sales and marketing applications.*

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