



MDX
MASTER DATA EXCHANGE



**Solution
Positioning**

**Information Agility™
For Healthcare Payers**



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Introduction

Gain provides Master Data eXchange (MDX), a Master Data Management (MDM) software platform tailored for healthcare payers and the challenges they face in the aftermath of healthcare reform. The MDX software abstracts operational applications, analytic databases and external data sources in order to create **Information Agility™** for our clients.

Healthcare payers (HCPs) are experiencing an unprecedented period of change. It is clear to most payers that new systems and capabilities will be required to conduct business in the modern healthcare market, but they still face many unknowns. What is clear, is that payers must be able to react quickly to threats and opportunities as the market develops, and that information will play an ever greater role in both the commercial and clinical aspects of healthcare.

Information Agility™ is enabled by an Enterprise Information Management (EIM) architecture that enables HCPs to leverage new information quickly, improve data quality and, at the same time, reduce systems integration costs.

- The ability to import new data sources without the need to change existing operational or analytic systems.
- To maintain multiple views of the same information to support differing needs between different stakeholders.
- To provide a set of data services that will simplify the exchange of information between systems therefore reducing cost and complexity for the enterprise.
- Establish a central point of control for data governance.

This paper is arranged around a series of macro observations from the healthcare industry, and their implications on enterprise information management architecture.

Role of the Consumer

Observation #1

Consumers must now bear a larger portion of the cost of medical services through higher deductibles and increased co-insurance, and consequently are more vested in the purchasing decision. Much has been made of consumer choice through public exchanges but a far greater percentage of the payer membership will make individual purchasing decisions through private exchanges, consumer driven health plans and value-based insurance products. Healthcare pricing will become increasingly driven by market forces and heavily influenced by outcome-based decision making. Consumers will leverage digital channels for information and social media will play an ever greater role in influencing consumer decisions.

Consumers will be incentivized to play a greater role in managing cost-benefit analysis. Government agencies, health exchanges and payers will continue to make more and more information available to the public in order to support these decisions. Already more than 11 million users in Europe and Latin America use Doctoralia to evaluate physician performance and schedule appointments.

As with all consumer markets, customer loyalty is earned through trust and transparency. Consumers will demand visibility into pricing and service options from their insurer.

Implications for Data Management

HCPs must be able to incorporate publicly available information into their internal analysis to promote the strengths and address the weaknesses within their own care network. The payer must find ways to share this analysis with their members and prospective members to facilitate consumer choice and build loyalty.

A greater awareness of social media will be necessary to understand consumer sentiment and feedback on service levels to stay in touch with customers. HCPs should be wary of third party analysis of market sentiment without the ability to link this data to its own membership.

Evolving Delivery Networks

Observation #2

The shift from a fragmented fee-for-service model to an integrated outcome-driven model is creating collaborative opportunities for payers, providers and patients. Integrated Delivery Networks (IDNs) and Accountable Care Organizations (ACOs) are playing an ever greater role in the way healthcare services are delivered and paid for. This is an extremely dynamic area with a great deal of variety between the various forms of IDN and ACO. New structures such as Patient Centric Medical Homes (PCMHs) and Provider-Payer ACO's are springing up as the market explores the most profitable model for consumer healthcare.

Implications for Data Management

HCPs must expand their traditional view of providers to incorporate a much richer set of attributes and relationships. Payers will need to import data from multiple sources to describe the relationships between different participants in the provider delivery network. This provider view is not static and requires ongoing maintenance. HCPs will end up with tens, or perhaps hundreds of data files that contribute to their provider knowledgebase.

Not all stakeholders within the HCP will share a common view of provider relationships and it will be necessary to maintain multiple views of the same provider information to accommodate different business processes and analysis.

Information Explosion

Observation #3

Information is playing a more important role in both the commercial and clinical aspects of healthcare. New data sources are becoming available with regularity and HCPs that make the best use of this data will create competitive advantage and win profitable market share from those with less information intelligence. Wellness devices and mobile apps will continue to generate vast amounts of health information with Gartner predicting that by 2016 U.S. health plan members will realize over \$1 billion in reduced cost sharing and other benefits arising from wellness devices and app data¹.

¹ Predicts 2014: New Landscape Demands New Business and IT Approaches for Healthcare Payers, G00258118, Published: 12 November 2013, Analyst(s): Robert H. Booz, Jeff Cribbs.

In the new healthcare market, predictive analytics and data analysis will underpin fee schedules and drive profitability more than ever before. HCPs with rich information about their members and provider delivery network are going to enjoy a significant advantage over their less informed competitors².

Implications for Data Management

HCPs must recognize that information is a critical and valuable enterprise asset, and the ability to manage and enhance this asset creates a measurable competitive advantage. Organizations must create a strong data governance competency in order to support the sourcing, integration, quality, privacy and security aspects of enterprise data.

Modernize Applications

Observation #4

Many HCPs have resisted the multi-million dollar investments in modern application technology, preferring to extend their legacy systems with bolt-on extensions. However, the pace of change is so rapid as a result of healthcare reform that it is no longer practical to stick with home grown legacy systems. Recent Gartner research³ shows that more than 60% of IT budgets are spent on maintaining legacy systems and interfaces, which severely limits the funding available for critical innovation.

Implications for Data Management

HCPs require modern, rules-driven applications that can be configured quickly without a need for systems development. In addition, given the increasing role of information in healthcare, it needs to be possible to add new data to enterprise applications without the need to update a multitude of interfaces.

² Competing on Analytics. Thomas Davenport, Harvard Business Review, January 2006.

³ U.S. Healthcare Payer CIOs Face Modernizing Core Administration or Risk Falling Behind, G00252437, Published: 23 August 2013, Analyst(s): Christina Lucero

A Modern Information Architecture for HCPs

Modern information architecture should enable new data to be added to the enterprise without impacting existing systems. A well architected integration layer will abstract the complexities of data integration from operational systems that produce and consume information.

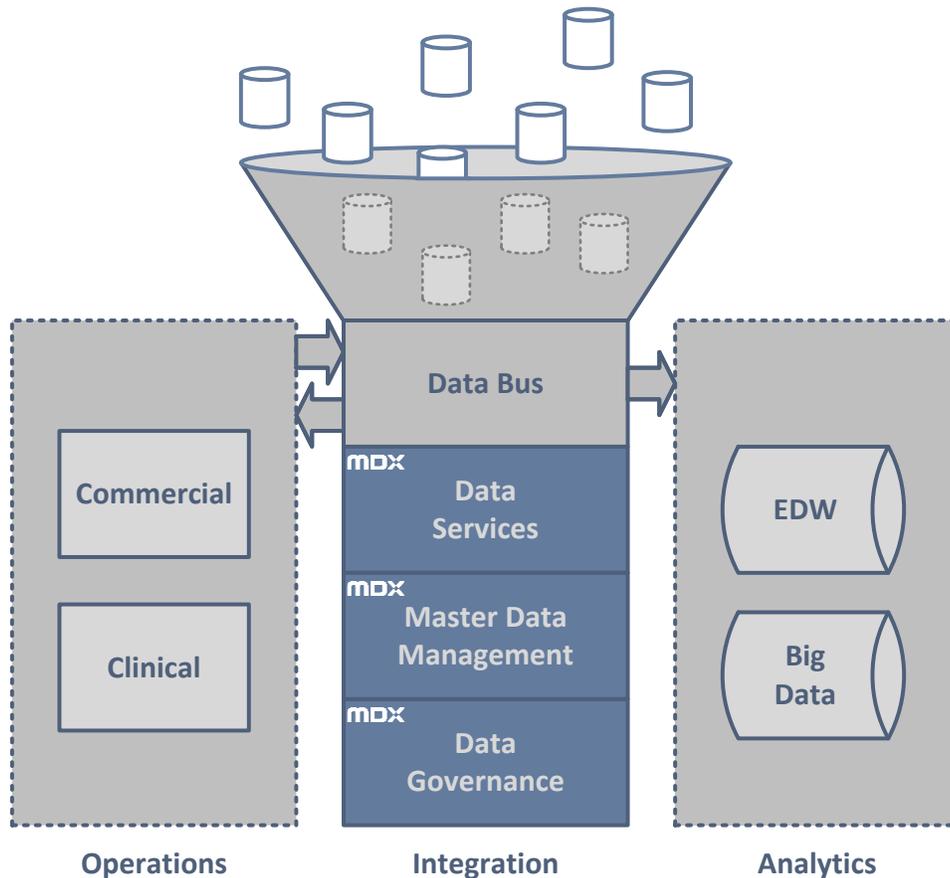


Figure 1 – MDX Data Integration Stack

Data Bus

The data bus is a component of Enterprise Service Bus (ESB) architecture. The data bus has a transportation and coordination role between producers and consumers of information generally via a set of services. ESB architecture is broadly accepted and generally well entrenched in most modern IT infrastructures. As the role of ESB is much broader than just supporting data services we consider it outside the scope of the MDX Data Integration Stack.

Data Services

Data Services provide the abstraction between where the data is stored and the requesting application. Data services that are suitably coarse-grained simplify application interfaces and reduce development cost and complexity. MDX services remove the need for each service requestor to understand the complexities of enterprise information management by providing simple web services such as PUT and GET. In addition, HIPPA compliance, security and privacy can be controlled through this set of data services.

Master Data Management (MDM)

MDM rationalizes data about the same “thing” between multiple data sources. For an HCP this means linking information about providers, provider networks, members and patients in order to create a rich, trusted knowledgebase of information. MDM also provides data services to validate data quality, conform data to an enterprise model and harmonize shared data between applications. MDX provides a sophisticated MDM platform with a library of rules and data models specific to the healthcare market.

Data Governance

Data governance is a broad topic that includes people, process and technology as it relates to enterprise information management. The data governance function within the data integration layer should include the sourcing of information, standards and rules for managing this information, privacy, security and quality standards. MDX provides more than 30 data governance processes tailored for healthcare payers and providers.

Healthcare Payer of the Future

Successful HCPs will rely upon predictive analytics and actuarial models to make decisions about fee schedules, ACO relationships, member risk, and even design proactive care programs to reduce costs and improve outcomes.

HCP's will be able to augment their traditional internal databases with additional information sources from social platforms. Public and private databases will enhance their understanding of their members and providers. Progressive HCPs are already leveraging social media to augment their member profiles with relationship status, employment history, professional qualifications and many other actuarial data points of interest.

Provider networks are becoming more complex and understanding the capabilities, capacity and performance of provider groups, not just individual physicians, will be important. The traditional claims-centric view of provider data hides the intricacies of the way providers are related to each other, local of service, ACO relationships, hospital systems, group practices etc. The HCP of the future will understand all of these relationships and be able to refine its fee schedules to optimize pricing agreements.



Gaine is helping leading healthcare payers leverage information as they reinvent their business models. The Gaine software platform MDX provides healthcare payers with **Information Agility™** that maximizes flexibility and minimizes cost.

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