

# ENTERPRISE ARCHITECTURE FOR HEALTHCARE

## The Issues

Numerous reports citing critical issues facing today's healthcare industry list topics such as consumer directed healthcare, the urgent need to reduce medical errors, and the need to move to an Electronic Medical Record (EMR). And while these are undeniably legitimate concerns, they don't get to the root of the problem. In actuality these are not business problems, but rather problems resulting from underlying technology issues. Until the healthcare industry addresses the lack of interoperability and integration among systems, it will never achieve the benefits promised by EMR and consumer directed healthcare.

Healthcare has become a system of data silos that operate independently of one another. Business divisions adopted technology at different speeds and for different reasons. Moreover, vendors developed solutions that

didn't integrate with current systems. As a result, systems are incapable of communicating with one another which leads to fragmented care and services, wasted money and resources, and customer dissatisfaction.



Without interoperability, EMR adoption will propagate the information silos that exist in today's paper-based medical files. Without interoperability the customer and provider will continue to be

frustrated with disparate answers, requests to provide the same set of data multiple times, and pervasive inefficiency. Further, many hospitals have lost opportunities for their marketing staff to profile customer requirements and create appropriate products and targeted sales campaigns. Without interoperability the number of preventable medical errors such as incorrect medications and improper diagnoses will continue to rise.

Interoperability is the premier building block in leveraging technology to improve the quality of healthcare. It provides the opportunity to make any healthcare organization an information-rich, patient-focused enterprise in a value-driven environment. Enterprise Architecture provides the path to interoperability.

## The Technology

Enterprise Architecture crosses organizational boundaries, solving the visibility and communication problems that exist in the healthcare industry. These problems typically occur as a result of stove-piped, disparate systems that communicate in different ways. A point-to-point solution can be difficult to manage and does not scale. Enterprise Architecture presents significant opportunities for the healthcare industry because it provides a comprehensive view of the entire operation. This viewpoint

provides a complete inventory of the different facets of the business and how they work together. By seeing how these relationships interact, the various departments within a healthcare organization can begin to see how every decision they make impacts the entire operation.

Enterprise Architecture provides the roadmap for the organization, but not the mechanism to reach the destination. Service Oriented Architecture (SOA), Business Process Management

(BPM) and Model Driven Architecture (MDA) provide the means for an organization to realize their business vision and maximize their IT investment.

These leading edge technologies solve the interoperability problem, enabling your healthcare organization to develop an EMR, reduce medical errors and put consumers at the center of their care.

**The Benefits**

When you consider that healthcare is one of the last vestiges of the paper-driven era, you realize that interoperability can result in countless benefits to the individual healthcare organization and the industry as a whole.

When data is transitioned into information and information is shared across the healthcare system, the informed consumer can begin to make choices and actively participate in their own care. Further, the healthcare organization is now capable of defining the customer, understanding their requirements and building systems

and processes around the customer and their needs.

The Electronic Medical Record (EMR) is not an entity in and of itself. It is a pool of data that can be viewed in multiple different ways and exchanged across various settings. A common misconception is that the EMR will improve information sharing. In actuality, information sharing will enable the EMR.

By linking with the laboratory and other data centers, the EMR will have the ability to reduce medical errors by checking the patient's allergies as well as possible drug interactions. It will also result in reductions in duplicate orders for laboratory tests.

While product and data integration is one of the most complex challenges facing an IT organization, the ability to share data across systems in a logical and organized fashion is a fundamental requirement for competitive success in the healthcare industry.



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**The Company**

VisumPoint is an Enterprise Architecture Strategy Group that helps organizations bring clarity to the complexity of the business environment.

The only constant within any organization is change. Through the establishment of Enterprise Architecture, organizations can begin to understand the context of that change and the impact of sustainable change.

Once defined, your Enterprise Architecture gives you a roadmap to your business goals, and technology becomes an enabler. Through the use of leading edge technologies such as SOA, BPM and MDA, your IT investment can help realize and achieve your business vision.

Our company doesn't just adhere to the healthcare technology standards, we help

create them. We are contributing authors to OMG and HL7 standards that support Enterprise Architecture. We go beyond understanding the complexity of today's healthcare organization; we are actively trying to change it.

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