

BUILDING AN EFFECTIVE FRAMEWORK FOR HEALTHCARE INFORMATION COLLABORATION

Healthcare Perspective

With the Patient Protection and Affordable Care Act being implemented in stages through 2020, there has never been a more critical need for effective information collaboration and interoperability across the healthcare ecosystem. A balanced structured approach focused on clear roles and responsibilities, policies, processes and controls for managing data and information as business assets are the foundation for interoperability and collaboration.

Initially, interoperability was defined for information technology or systems services to allow for information exchange; now we have to include social, political, and organizational factors that impact system-to-system performance. In healthcare, there is a need to have interoperability across the healthcare ecosystem and this has been an issue for some time. An additional challenge is the ability to define, build, and execute coherent services and models for users when the individual components are technically different and managed by different organizations.

UNDERSTANDING THE NEED

One of the main obstacles that surfaces time and again from our clients is that of data quality. Clients often deal with inconsistent data and many have given up on trying to tie results back across the organization due to the lack of uniformity in their numbers.

Information collaboration is not new. For example, look at the manufacturing industry – would the international space station have been built if there wasn't a collaborative environment between the various manufacturers? The automobile industry would also not be able to assemble cars if not for an agreed upon collaborate information sharing environment. Passage of the Patient Protection and Affordable Care Act has changed the urgency for the healthcare industry to adopt a collaborative information environment.

A STANDARD DEFINITION OF INTEROPERABILITY IS THE ABILITY OF MAKING SYSTEMS AND ORGANIZATIONS WORK TOGETHER OR INTER-OPERATE.

What is needed is a framework, disciplines, processes, and procedures both internally and externally in order to clearly address the information collaboration needed for the healthcare ecosystem.

The collaborative framework is made up of several disciplines and key technologies that are used as enablers for the infrastructure foundation. Together, these components create an unbreakable foundation that allows any healthcare organization to address the management of their vast information footing.

BENEFITS OF INFORMATION COLLABORATION

Information collaboration enforces consistency of information definition, usage, and quality. It establishes the first line of action for data quality, metadata (the intersection between business definitions and physical data implementation) and master data management (a structured approach to managing specific data domains as master data associated with core business entities). Active collaboration enhances enterprise agility by allowing for easier integration and migration and will:

- Improve the individual's experience
- Lower management costs through reducing data inaccuracies and redundancies
- Offer impact analysis across the organization for change requests
- Enhance the organization's ability to drive insight analysis and action creation based upon a balanced information asset environment

On the flip side, the absence of a strong information collaboration framework can pose serious risks across the organization, particularly as provisions of the Patient Protection and Affordable Care Act take effect. Inconsistency in reporting and analytics can lead to noncompliance with reporting requirements of the Act. Noncompliance, in turn, will trigger substantial financial penalties.

AN EXAMPLE OF INSUFFICIENT INTEROPERABILITY

Recently, while assessing a unique healthcare company's information management environment, a major gap in the framework was discovered. As part of the onboarding process for a client, new requirements for analytics were captured and documented. Those requirements were then coded, tested, and deployed prior to completion of the data loads. The missing component was understanding the impact that those changes had to other client analytics. As a consequence of no established metadata environment, outside of a technical definition, changes made to the analytical applications impacted other client's analytics and reporting - resulting in massive rework.

But that's just one example. Too many others in the healthcare industry are needlessly at risk because they remain stalled in an early, fairly undeveloped stage of information governance and lack momentum toward a fully realized, mature and highly effective information collaboration governance program.

A FRAMEWORK
ENSURES THERE IS
CONSISTENCY IN DATA
AND INFORMATION
DEFINITION, USAGE,
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AND SHAREABLE
KNOWLEDGE.

A model that addresses interoperability, collaboration, and information knowledge can be followed to address this issue. This framework has three pillars of foundation, requires business attentiveness and is enabled through an integrated technology backbone (See Figure 1 - Interoperability Accelerator).

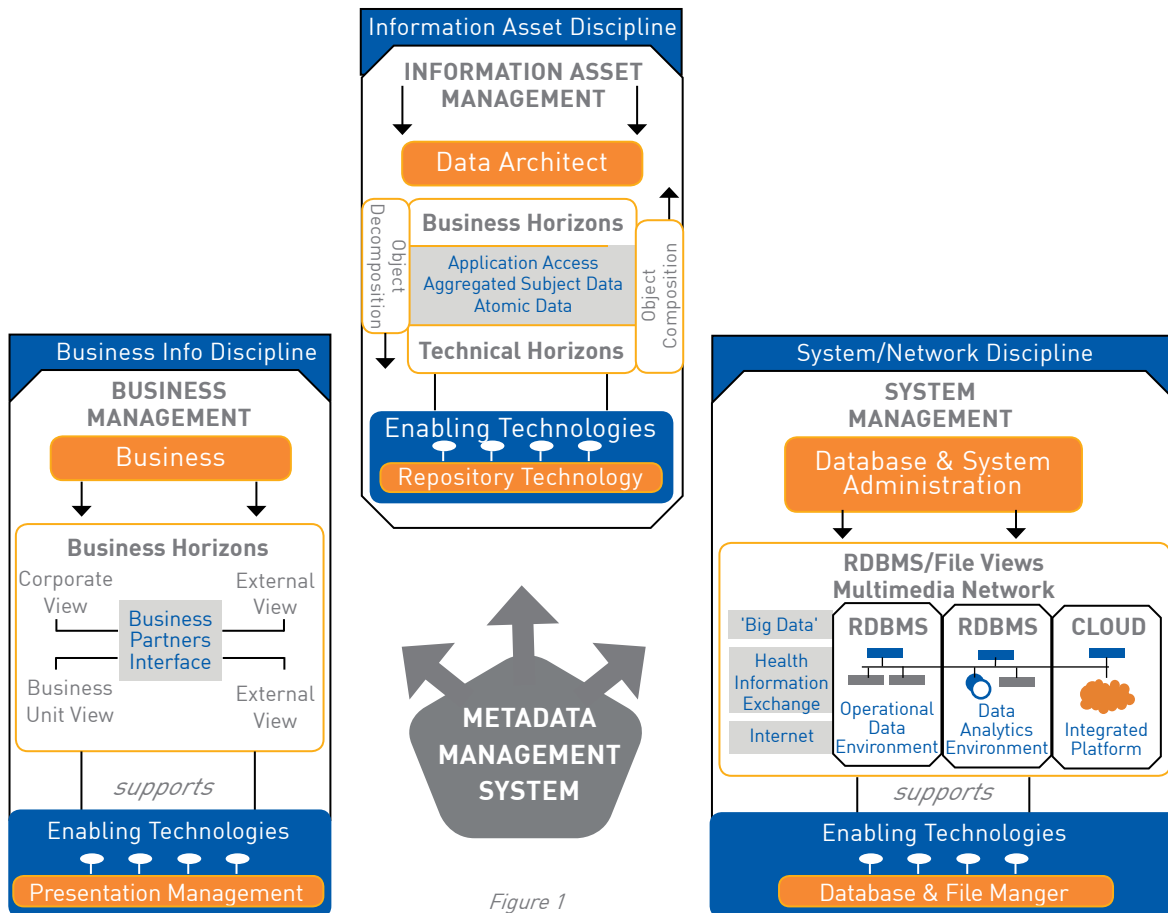


Figure 1

A FRAMEWORK FOR EFFECTIVE INFORMATION COLLABORATION

Successfully managing enormous amounts of data and creating actionable information from that data are daunting challenges for most healthcare organizations. Yet these challenges become far more manageable when approached under the guidance of a carefully designed framework for effective information collaboration. The framework is based upon three fundamental disciplines and supported with metadata foundation that connects and maintains the relationships between the three disciplines. The framework emphasizes a business first approach and requires that there is an overall culture for collaboration both internally and externally as well as having the functional capabilities well defined. The information collaboration defines how internal business departments work together to share and integrate data.

The Business Information Discipline (BID) defines the data and information necessary to support the operational goals of each department, business unit or division within the organization. Roles and responsibilities within the BID vary based on the size of the organization, but certain roles are central to the discipline.

One such essential role is the Business Information Steward (BIS). Typically, each department, business unit or division has its own BIS. This individual is responsible for the quality of data content within his or her own area and decides who will be permitted to create, read, write, update or delete such data. The BIS also defines acceptable values, domains and definitions of codes and determines how data will be made available to other areas within the organization (either as raw data directly from files and databases or through predetermined access routines). Stewardship will enable executives and front-line clinicians to communicate more clearly about data and information.

The Systems and Network Discipline (SND) defines the system roles and network analyst roles within the information environment. This is the discipline with the largest concentration of technical resources, each having a degree of stewardship responsibility. For example, application analysts and developers are tasked with understanding business requirements, creating meaningful applications to meet these requirements and designing the presentation of information. Network analysts work to ensure that the network can handle the volume of data or information being requested. Database administrators oversee the physical environment for data storage and provide for ongoing access to, and timely retrieval of, data. Production support, a responsibility shared by the business and IT groups that support the business environment, is another technical resource under the SND umbrella.

The Information Asset Discipline (IAD) is responsible for creating, maintaining and delivering information asset management for the organization. IAD outlines governance implementation, stewardship roles and general management of information, enabling impact analysis across the organization.

ROADMAP FOR THE FUTURE OF HEALTHCARE

Healthcare reform is law, and legislative efforts to repeal the law or make major changes to it face extremely high hurdles, including the president's veto authority. In the meantime, organizations must respond to the law and adapt their business models to comply with its requirements, all the while continuing to monitor reform-related legislative changes and regulatory guidance. The framework outlined here offers an excellent roadmap to help healthcare organizations take on the considerable challenge of meeting the law's integration and interoperability.

ABOUT NORTH HIGHLAND

North Highland is a global management consulting firm that delivers unique value, relevant big ideas and strategic business capabilities to clients around the world. The firm solves complex business problems for clients in multiple industries through an integrated approach and offers specialty services via its Data and Analytics, Managed Services, and Sparks Grove divisions. North Highland is an employee-owned firm that has been named as a "Best Firm to Work For" every year since 2007 by Consulting Magazine. The firm is a member of Cordence Worldwide (www.cordenceworldwide.com), a global management consulting alliance. For more information, visit northhighland.com and connect with us on [LinkedIn](#), [Twitter](#) and [Facebook](#).

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