



## Microsoft Health Information Exchange Solution

Microsoft delivers a Health Information Exchange (HIE) Solution to meet both your immediate infrastructure requirements and the longer-term goals of health reform. The Microsoft HIE Solution:

### Addresses the challenges posed by lack of data standards and consistency.

Multiple data standards and formats are a reality today – and likely will be for many years to come.<sup>1</sup> The Microsoft HIE Solution uses available standards when source systems are capable, but does not require them.

### Delivers an agile infrastructure that meets today’s requirements while providing a foundation that can continually evolve to meet future needs.

The Microsoft HIE Solution delivers core capabilities to rapidly meet your requirements for HIEs today and is adaptable for future requirements such as innovations in care delivery models and National Health Information Network (NHIN) expansion.

**Supports secondary use of information for population health and improved care.** While electronic data message exchange is an improvement over paper or faxing, it falls short of supporting transformative efforts. Aggregating, analyzing and presenting health data for the purpose of identifying trends and influencing patient care is one of the most promising ways to improve health outcomes and costs.<sup>2</sup>

**Facilitates the sharing of data between all participants in the health community.** The Microsoft HIE Solution provides the capability to go beyond simple point-to-point data exchange, enabling the entire community -- hospitals, providers, patients, payers, employers and state government – to participate and benefit from the HIE with a solution provided by a trusted long-term partner. Delivers an agile infrastructure that meets today’s requirements while providing a foundation that can continually evolve to meet future needs.

**Is supported by Microsoft’s worldwide technology assets, including dedication to research and development.** Microsoft continues to invest in ongoing research and development at an impressive rate to support our vision of improving health around the world.

<sup>1</sup> The Joint Commission. (2008) *Health Care at the Crossroads: Guiding Principles for the Development of the Hospital of the Future.*

<sup>2</sup> PriceWaterhouseCooper. (2009). *Transforming healthcare through secondary use of health data.*

### The Wisconsin Health Information Exchange (WHIE)

#### *Access to Patient Historical Data from Exchange Impacts Care and Efficiency*

Preliminary results of a survey of physicians, responding on the use of WHIE on an encounter basis, indicate that this access:

- Decreased time spent acquiring data for **47%** of cases.
- Altered the workup or treatment of a patient in **42%** of cases. Of those:
  - **48%** decreased lab orders
  - **53%** decreased medication orders
  - **58%** decreased imaging orders

The overall impact of the regional data access decreased time to disposition decision in **51%** of cases.

The Microsoft Health Information Exchange (HIE) Solution includes a number of core components that can be employed as a first step for successful health information exchange, and then enhanced by the addition of Microsoft Amalga™ Unified Intelligence System (UIS) for advanced aggregation and analytics and a connection to Microsoft HealthVault® for patient engagement. This combination creates a seamless platform for information exchange across the continuum of care, and allows secondary use of that data, thus supporting health transformation.

## Microsoft® HIE Core Components

The Core Components include:

- **HIE Data Parsing Engine** allows HIEs to ingest a wide variety of data types and formats based on the distinctive data capture capabilities of Amalga UIS.
- **HIE Master Person Index** delivers configurable patient and record matching, workflow tools for de-duplication and investigation of near matches, and compliance with PIX/PDQ standards based messaging
- **HIE Portal Manager** supports the creation of custom patient and clinician portals, based on the widely acclaimed capabilities of Microsoft Sharepoint®.
- **HIE Document Exchange Manager** includes a set of tools for managing record locator services and CCD exchange including xds.b compliant registry and repository functions.

The Microsoft HIE Core Components also provide the capability for edge-based services and connection to the National Health Information Network (NHIN Connect).

## Microsoft® Amalga™ Unified Intelligence System (UIS)

Amalga UIS supports aggregation and exploration of diverse data types, bringing together both structured and non-structured health data, as well as clinical, administrative and images into a comprehensive patient view. Amalga UIS provides high levels of data control and flexibility, allowing end users to answer questions and create new customized views of data without the intervention of IT or the need for an analyst. The solution combines the benefits of federated data ownership with the ability to analyze and access data across patient populations -- an advanced capability typically only available from traditional centralized data store.

## Microsoft HealthVault™

HealthVault is a Web-based consumer-controlled data storage and sharing platform that serves as a central place for patients to collect, manage and share their health information. The HealthVault ecosystem of connected applications enables a wide variety of patient engagement functions, from remote device monitoring to customized personal health record maintenance.

## A Foundation for Long-Term Success

Microsoft is actively engaged in applying technologies to a variety of healthcare challenges such as chronic disease management, discharge management, medication reconciliation, advanced data analytics and much more. Microsoft is dedicated to providing solutions that help transform healthcare delivery by connecting people to systems and data, enabling information access, improving collaboration, and informing decisions.

To discuss this further please contact the Microsoft Health Information Exchange business development team at [hiebd@microsoft.com](mailto:hiebd@microsoft.com). For more about the Microsoft Health Information Exchange solution, visit

<http://www.microsoft.com/amalga/hie>