

IBM Uses Chameleon™ to Implement Healthcare Collaborative Network (HCN)

CORPORATE OVERVIEW

The Healthcare Collaborative Network (HCN) is a response to converging environmental pressures in the healthcare industry from the pure economics of cost control to the need for improvement in the area of disease management. For the United States to improve homeland security, response time to health risks, and operating efficiencies across the healthcare industry, it must immediately enhance its ability to gather, analyze, and process critical health data.

The goals of the HCN are to:

- Create an interconnected, electronic, internet-based information network that enables private and secure transmission of healthcare data
- Provide a foundation for detection and rapid response to biosurveillance, adverse healthcare events, and inappropriate care
- Revolutionize the way in which the healthcare system collects, analyzes, and processes healthcare data

The initial launch of the project took place on June 5, 2003, involving three health care providers – New York Presbyterian Hospital, Vanderbilt University Medical Center, and Wishard Memorial Hospital – and three Federal agencies – the CDC, CMS, and FDA.

IBM corporation, as the project's technology provider, was responsible for facilitating the definition of an overall architecture for the HCN and implementing a system that would enable secure data transmission between providers and subscribers. 'Subscribers' being those organizations receiving information, and 'providers' being those that provide information.

THE PROBLEM

IBM chose to use an in-house developed development kit in order to implement intermediaries – computational entities positioned along a data stream that allow for the manipulation of data – as required by the HCN. Their problem was that support for the HL7 protocol was non-existent in their development kit, yet HL7 systems were highly prevalent throughout the HCN's organizations.



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CASE SUMMARY

On June 5, 2003, the initial launch of the Healthcare Collaborative Network (HCN) took place. As the leading technology provider for the HCN, IBM was in charge of constructing an interconnected information network between three health care providers – New York Presbyterian Hospital, Vanderbilt University Medical Center, and Wishard Memorial Hospital – and three Federal agencies – the CDC, CMS, and FDA.

PROBLEM

In order to successfully implement the project architecture, numerous HL7 interfaces had to be constructed, but IBM did not have the necessary software tools to build them. Moreover, since time-to-market was a serious issue, they did not have the time or resources to develop a quality in-house HL7 toolkit.

SOLUTION

IBM decided to use iNTERFACEWARE's Chameleon™ software to do the job, because it was both cost effective and easy to use. Chameleon™ provided IBM with the flexibility and functionality that they needed to build numerous HL7 intermediaries within a short time frame.

RESULT

As a direct result of choosing to use Chameleon™, IBM saved countless hours of development time that would have been required to build each interface from scratch and the massive overhead that would be associated with hiring a team of developers to perform the task. In less than a few months, Chameleon™ more than paid for itself. Today, IBM continues to enjoy their partnership with iNTERFACEWARE and the benefits they get from using Chameleon™.

iNTERFACEWARE
integration made easy



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The HCN uses existing data that, at many provider settings, is only available through HL7 messages. Similarly, some data subscribers deal with systems that only accept HL7 data. Furthermore, the information broker facilitates data transfer between participants in the form of encrypted HL7 messages.

Thus, IBM's development kit needed to learn the language of HL7 in order to support intermediaries along the HCN.

THE SOLUTION

IBM chose iINTERFACEWARE's Chameleon™ as their HL7 toolkit for four main reasons:

Superior HL7 functionality

Chameleon™'s simple mapping tools and content filtering capabilities were essential for deploying intermediaries.

Time to Market

Deadlines for the HCN's launch meant that IBM did not have the time and resources to develop their own HL7 functionality. Furthermore, using Chameleon™ led to a shortened development time for each HL7 intermediary.

API's for All Major Programming Languages

Chameleon™'s native support for Java, IBM's language of choice, was also a key factor in their decision.

Cost Effectiveness

Chameleon™ boasts a comprehensive array of HL7 features at a very competitive price. Moreover, Chameleon™ is easy to maintain and contributed significantly to a shortened development time. By using Chameleon™, IBM effectively reduced the total cost-of-ownership of an HL7 integration solution.

With Chameleon™, IBM's developers were able to develop mapping schemes to extract the necessary data from HL7 messages into customized tables. The tables were constructed using Chameleon™'s unique table grammar feature and content filtering was achieved using Chameleon™'s segment grammar feature. Small java applications could then be built to transfer the tabled data into an integration broker, or

THE RESULT

IBM's decision to use the Chameleon™ toolkit as their HL7 solution resulted in a highly successful initial launch of the HCN. Chameleon™ provided IBM with flexibility in dealing with HL7 that was needed to successfully implement their HCN architecture. When asked about IBM's decision to work with iINTERFACEWARE, Richard Frank, Advisory Software Engineer with the IBM Software Group did not hesitate to give a positive response:

"iINTERFACEWARE has been a terrific integration partner for IBM. Their reliable technology is backed up by their knowledgeable and responsive customer service team. Their technical approach to medical messaging has proven to be right on the money -- its power and flexibility have solved many problems for us."

The developers at IBM are happy with Chameleon™ and look forward to using it in future business endeavors.

Richard Frank
Advisory Software Engineer
IBM Software Group, Public Sector Solutions

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