

## HIGHMARK IMPLEMENTS CENTRALIZED BILLING SYSTEM WITH HELP FROM SUMMA

### COMPANY PROFILE

- Largest health insurer in Pennsylvania; one of the largest in the United States
- Non-profit with total operating revenues of \$8.9 billion in 2004
- Products include health, dental, vision, life and casualty insurance
- Provides fully insured and self-funded health products to more than 4.1 million members in Pennsylvania, which are supplied through more than 40,000 customers
- Formed in 1996 by the consolidation of two Pennsylvania licensees of the Blue Cross and Blue Shield Association

### ABOUT HIGHMARK

Highmark, Inc. is the largest health insurer in Pennsylvania and one of the largest health insurers in the United States. It was created in 1996 by the consolidation of two Pennsylvania licensees of the Blue Cross and Blue Shield Association – Pennsylvania Blue Shield (now Highmark Blue Shield) and Blue Cross of Western Pennsylvania (now Highmark Blue Cross Blue Shield).

Highmark operates as a Pennsylvania nonprofit hospital plan and a nonprofit professional health service plan. As an independent licensee of the Blue Cross and Blue Shield Association (BCBSA), the company underwrites various indemnity and managed care health insurance products, as well as Medicare supplemental products, in the Pennsylvania service areas. Products include health, dental, vision, and life and casualty insurance. Highmark had total operating revenues of \$8.9 billion in 2004.

The organization has nearly a 70-year history serving health insurance needs, and currently provides fully insured and self-funded health products to more than 4.1 million members in Pennsylvania, which are supplied through more than 40,000 customers who provide Highmark's products to their members.

This long history also created IT-related challenges when Highmark was formed through the merger in 1996. For one, it now had multiple billing systems.

### THE OPPORTUNITY

The merger allowed Highmark to offer more health service products to its customers, but only through several billing systems. This meant that Highmark's customers – those organizations providing access to Highmark's services to their members – would receive multiple bills every month. This caused tremendous frustration – a typical customer could receive anywhere from two to six bills.

In addition, there was no way to tie these billing systems into the organization's accounting system, so the organization could not get a good estimate of revenue; and Highmark could only provide balance-forward billing for their customers through a manual effort.

"The cost of producing an invoice was astronomical," states Chuck Klein, an IT Director at Highmark. "The effort was very labor intensive and prone to error."

The organization knew that the right answer was to build one billing system for Highmark and its subsidiaries, based upon a distributed n-tier architecture that would consolidate several legacy billing systems and integrate with its existing membership, marketing/sales and accounts receivable systems.

## THE SOLUTION

The project was initially outsourced to a "Big 5" consulting firm, but it was suspended two years later due to budget and resource constraints that prevented the successful completion of the project. In addition, several third-party assessments recommended that the application be re-architected following an Object Oriented Analysis / Design process, such as the Rational Unified Process.

"Summa provided a great deal of value. In my opinion, we would have not gotten this done without them. They hit the ground running."

Based on these assessments, Highmark decided to bring the project management and development in house, and look for an IT organization to support their efforts in building this centralized billing system. A Highmark employee recommended Summa, and the company was brought in to perform four roles:

- Evaluate current project code to see if it had any value
- Become project mentors and direct a staff of Highmark and Summa employees to create the right billing system
- Act as project leads for the Highmark development staff
- Ensure that the architecture was done the right way, with an eye on performance

"Summa provided the expertise, leadership and experience we didn't have. Without them, we would not have gotten this done in this timeframe."

Chuck Klein  
Highmark IT Director

Summa began working with Highmark in Q3 of 2001. Highmark immediately saw an impact. "Summa brought a lot of value because of their knowledge of Java development and web services that we didn't have," said Klein.

Summa assumed the key technical leadership roles on Highmark's development team, including the architect position and technical team leads. The company helped establish processes for application development, including peer reviews, source control, build / release management, unit testing, performance and load testing.

Summa led the re-architecture of the application, ensuring that it was reliable, scalable, maintainable and fit within the corporate architecture. Summa also mentored the development team members on best practices for developing complex, distributed, enterprise class applications using J2EE. Summa "helped to teach Highmark about the iterative development process. They really brought commercial, high-technology software development discipline to the organization," remarks Klein.

Summa brought value in other areas as well. Because of the failed first attempt, closer scrutiny was paid to this project by Highmark's senior management. Because of this, a quarterly release schedule was established to start migrating business early in the project. States Klein, "We needed to establish credibility because of the first failure." Klein also came to rely upon Summa to help drive the project so that he could ensure that proper time was spent managing senior expectations.

## THE RESULT

Today, the centralized billing system, called HighBAR, provides invoices to approximately 30,000 customers, with the rest scheduled for migration throughout 2005. More than 18,000 invoices are issued, accounting for \$171 million in revenue. Most importantly, 99% of invoices go out on time. The system also incorporated a web-front end to give customers a consolidated view of their products.

#### **SOLUTION BENEFITS**

- Consolidated billing for over 40,000 customers
- Customer online access to billing information
- Dramatically reduced labor costs and billing errors
- 99% of invoices go out on time

#### **SUMMA EXPERTISE**

- IBM Premier Level Partner
- Certifications in 17 different areas, including IBM WebSphere Application Server, IBM WebSphere Portal, IBM Certified Enterprise Developer and Enterprise Application Development with WebSphere Studio

Six versions of HighBAR were released, and “we never missed a release date. The code was very high quality. We were able to turn the project around and gain credibility within Highmark,” says Klein.

The technologies used to develop HighBAR include IBM WebSphere Application Server 3.5/4.0/5.0, IBM WebSphere Application Developer, IBM MQSeries, Oracle 8i/9i, Java, XML and Rational Rose. As this application is the first and largest J2EE-based project at Highmark, Summa helped shape the J2EE best practices and standards that can now be applied throughout the organization.

Concludes Klein, “Summa provided a great deal of value. In my opinion, we would have not gotten this done without them. They hit the ground running providing the expertise, leadership and the experience we didn’t have.

#### **ABOUT SUMMA**

Since 1996, Summa has been providing high-impact IT consulting services and customized, commercial-grade software development for companies ranging from regional businesses to Global 2000 firms. Summa specializes in helping companies evaluate and implement IT modernization strategies to better meet their business objectives.

Whether a business needs a web accessible interface to a mission-critical application, to renovate legacy systems, or to connect existing applications, Summa can help.

Summa is an IBM Premier Business Partner, a Microsoft Certified Partner and a member of the Oracle Partner network. For more information, visit [www.summa-tech.com](http://www.summa-tech.com).

**SUMMA**  
925 LIBERTY AVENUE  
6<sup>th</sup> FLOOR  
PITTSBURGH, PA 15222

(p) 412.258.3300  
(f) 412.258.3299

[www.summa-tech.com](http://www.summa-tech.com)  
[sales@summa-tech.com](mailto:sales@summa-tech.com)