

# Highmark develops a strategy and governance approach to achieve the business benefits of SOA

## Overview

**Business Challenge** Highmark, Pennsylvania's largest health insurance plan, needed to define actionable steps to achieve value from its investments in SOA. Recognizing that many of its systems were designed for employer-sponsored benefits, Highmark wants to position itself to differentiate based on personalized insurance offerings, as the market shifts toward consumerism and leverages new channels such as retail health.

## Solution

Highmark worked with IBM to establish a roadmap of initiatives to realize additional value from its investments in SOA. Additionally, IBM worked with Highmark to develop a governance structure for managing its SOA environment. Finally, IBM assisted Highmark in developing a communications strategy to articulate the benefits of SOA and to effectively involve Highmark stakeholders in increasing adoption of SOA.



Based in Pittsburgh, PA, Highmark is a leading health insurer in the 49 counties of western and central Pennsylvania, providing healthcare coverage to 4.6 million people. Highmark and its subsidiaries also offer a wide range of employee benefit programs to customers in Pennsylvania and across the United States, including vision programs, dental coverage and other health insurance-related products. The company employs 18,500.

# Key Benefits

- Identify near-term initiatives and strategic steps to realize value from SOA investments
- Identify the organizational change implications of deploying SOA more broadly throughout the enterprise
- Create a Center of Excellence structure that fosters new ideas and accelerates adoption of SOA

"We need to adapt not only to the growing cost pressures on the healthcare market, but also to the fundamental shift in the nature of the health insurance business. With IBM's technology and expertise, we are positioning ourselves for success."

 Pat Hale, Director of Technology Implementation and Consulting, Highmark

## **Business Benefits**

- Lower IT costs by reducing application integration complexity
- Lower application development costs and shorter development cycles
- Faster time to market with consumeroriented service offerings
- Improved ability to differentiate based on personalized insurance offerings as the market shifts to a more "retail mode"
- Faster and lower-cost integration of acquired or merged companies

"There's a lot of change going on in the [health insurance] industry, driven by competitive forces as well as government healthcare policies. This requires the systems that we run our business on to be very dynamic and adaptable."

– Pat Hale

Fueled by competition and the broad push to stem the growth of healthcare costs, the U.S. health insurance industry is in the midst of a long-term consolidation. There's no mystery why. For the most part, health insurance companies provide essentially the same set of core services-anchored by claims processing-to companies, members and healthcare providers. That makes the health insurance industry a nearly perfect candidate to achieve the scale-related benefits of consolidation, especially across geographically contiguous areas. Like any industry, the successful integration of people, processes and systems is the key to making health insurance mergers and acquisitions work. However, experience has shown that successful integration is extremely hard to achieve. True, health insurance companies follow the same basic business model, serve the same kinds of customers and have the same kinds of products. But the technology systems they rely on to run their business-often old and almost always proprietary-by their nature defy consolidation. That's why many health insurance companies continue to operate multiple claims processing and other administrative systems years after they merge, making it impossible for them to fully capture the benefits of integrated operations. Given the essentially transactional nature of health insurance company processes, cost reduction has traditionally been viewed as the dominant measure-indeed the Holy Grail-of successful integration. But as times have changed in the healthcare industry, a new set of measures and priorities has emerged.

#### Setting the stage for retail healthcare

The health insurance business is no longer a monolithic operation focused almost exclusively on serving the businesses that—acting as a virtual "wholesaler" of benefits—provide a menu of options to their employees. Today, the waning influence of employers in the benefits equation has ushered in a new era in which consumers deal directly with health insurers and assume more control over the course of their health insurance decisions. While the move to a "retail" benefits model opens up a new potential source of differentiation for health insurance companies, it also demands a new set of capabilities that include, but go beyond, low-cost processing. They need an ability to develop and package services that are tailored to customers' individual insurance requirements, a major departure from their traditional standardized offerings. But that requires a level of IT dexterity that—because of system inflexibility—few large insurance companies have. Highmark (www.highmark.com), Pennsylvania's largest health insurance plan and one of the largest in the nation, was no exception. While a series of acquisitions over several years had made its growing portfolio of systems harder and more expensive to manage, it saw a pending merger with another large Pennsylvania insurer—and the addition of still more IT systems to its portfolio—as a critical juncture for the company. It was time for Highmark to address the growing problem of system complexity in order to gain the flexibility and efficiency it needed to compete in a changing market. It looked to IBM, with whom it had a long and successful relationship, as the best place to start.

By way of background, Highmark had already begun a five-year strategic Legacy Modernization Project. One of the key purposes of the project was to enable more flexibility in the way these applications shared information. An essential part of Highmark's strategy was to replace the rigid point-to-point integration that had served the purpose with a more flexible SOA framework, which would not only simplify the integration between various platforms, but would also speed up and lower the cost of developing the new consumer services that were becoming increasingly important. To this end, Highmark deployed a number of IBM's SOA enabling products. The first was IBM WebSphere® Process Server, through which IBM and Highmark began to model its business processes using Business Process Choreographer (a component of WebSphere Process Server) running on IBM System x® servers. The company also deployed IBM WebSphere Message Broker on its core IBM System z® server, using it to create an enterprise service bus between various applications as part of the number of pilot SOA implementations.

#### Weaving SOA into the fabric

While these investments put Highmark on the road toward SOA, the company realized it had a long way to go to drive the kind of business benefits it hoped to achieve—and time was of the essence. Getting to these benefits, notes Pat Hale, Director of Technology Implementation and Consulting, requires not only technology, but also the organizational and process changes needed to embed SOA into the fiber of the organization. "For SOA to deliver its maximum value, we needed to develop common processes for how we're going to introduce SOA into the

## **Solution Components**

#### Software

- IBM WebSphere Message Broker
- IBM WebSphere Process Server
- IBM WebSphere Application Server

#### Servers

- IBM System z
- IBM System x

## Services

• IBM Global Business Services

#### Timeframe

- SOA Strategy/Roadmap engagement – 5 months
- SOA Governance engagement 5 months

## **Smarter Healthcare**

Replacing the rigid, point-to-point integration within its core business systems with SOA-based integration will enable Highmark to modernize its legacy applications and reassemble them into the more customized, consumer-facing services the market will increasingly demand. Working with IBM to build a governance framework to guide its SOA efforts helps ensure that Highmark's SOA investments will deliver the maximum business benefit. environment, how we're going to manage it and how we're going to use it across the organization," says Hale. To create this, Highmark engaged IBM Global Business Services to help it create a governance framework that will help it derive maximum value from its SOA investments.

In addition to establishing practices, procedures and protocols, SOA governance is also an important mechanism to promote and encourage SOA adoption by providing a structured analysis of "vitality," the degree to which SOA initiatives will help achieve specific business goals. In performing its vitality analysis, the IBM Global Business Services team demonstrated how SOA would enable Highmark to, in effect, disaggregate key functionality within its backend systems—whether it's Claims, Membership and Enrollment or any other platform—and make it available through standardized interfaces. In this respect, IBM showed how SOA can help Highmark address its most fundamental problem, finding a flexible way to mesh these systems together to provide unified, real-time access to all of its information. These same benefits apply to future acquisitions and mergers, in which case systems can be integrated far more rapidly and cost-effectively through SOA.

As the health insurance industry continues to shift toward more consumer control, Highmark's SOA investments will also help it adapt by providing a flexible environment through which generic functions—once bound within proprietary platforms can be reassembled rapidly and cost-effectively into new services. Down the road, this mass customization capability will eventually enable health insurance providers like Hallmark to create plans that meet the specific medical needs of individual family members. While Hale sees the ability to deliver these services at a low cost as remaining critically important, he expects differentiation will be based more and more on the agility and flexibility of health insurance providers in meeting the needs of a dynamic marketplace. "We need to adapt not only to the growing cost pressures on the healthcare market, but also to the fundamental shift in the nature of the health insurance business," says Hale. "With IBM's technology and expertise, we are positioning ourselves for success."

#### For more information

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