

Dynamic business processes for healthcare and life sciences: Enabling successful transformation with IBM BPM.

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Executive summary

In 2006, an IBM Institute for Business Value (IBV) study determined that "the current paths of many healthcare systems around the world will become unsustainable by 2015."¹ The study documented the critical importance of transformation in healthcare – transformation that will require new levels of accountability, action and collaboration among all stakeholders. The downturn in the global economy underscores the urgent need for this level of change. This white paper describes how healthcare and life sciences organizations can achieve transformation cost-effectively by implementing business process management (BPM) solutions from IBM, such as IBM BPM powered by Smart SOA™.

The healthcare challenge: Successful transformation in a down economy

According to the IBV study and its more recent derivative studies², successful transformation of healthcare requires action on the part of every stakeholder—especially healthcare providers, payers and health plans, and healthcare suppliers:

- Healthcare providers need to expand their focus, moving from episodic or acute care to
 predictive and preventive care with enhanced management of chronic diseases.
- Payers and health plans need to help consumers stay healthy and help healthcare providers
 deliver higher value service.
- Healthcare suppliers need to work more collaboratively with delivery organizations to lower costs and improve outcomes.

Delivering on this potential requires a holistic approach to transformation, targeting three core areas: focusing on value, developing more responsible consumers, and creating better options for promoting health and providing care, as shown in Figure 1.

Figure 1: Transforming into the era of action and accountability

Source: IBM Institute for Business Value.

During an economic downturn, a flexible and efficient framework for transformation becomes even more critical. As reflected in IBM's Smarter Planet "Smart Work" approach, healthcare systems all over the planet are facing imperatives to control costs and improve outcomes. The survival and success of these systems depends on their ability to enable innovation at every turn and to optimize every system component as reflected in the three essential strategies shown in Figure 2.

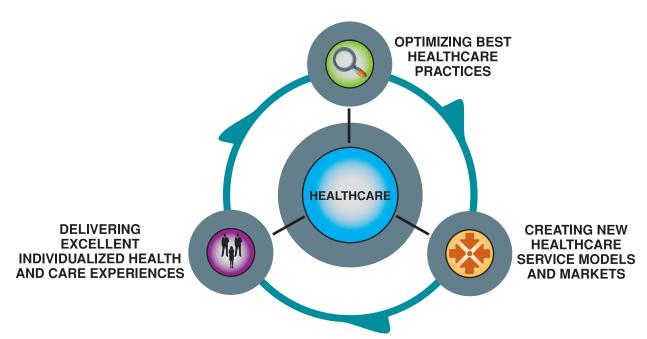


Figure 2: Building a smarter planet

The technology solution: IBM BPM powered by Smart SOA

IBM BPM powered by Smart SOA enables healthcare and life sciences enterprises to implement these three strategies even in the face of fragmented business processes and "siloed" information technology. IBM BPM provides an industry-leading solution suite of software technology, tools, methods and services that can help healthcare and life sciences organizations meet the demands for greater agility and integrated operation without extraordinary cost and complexity. BPM powered by Smart SOA enables the combination of new software capabilities, legacy IT assets, client line of business (LOB) and IT management collaboration, and IBM technical and business expertise that can help optimize processes and facilitate the innovation that today's healthcare organizations require.

BPM solutions can help organizations:

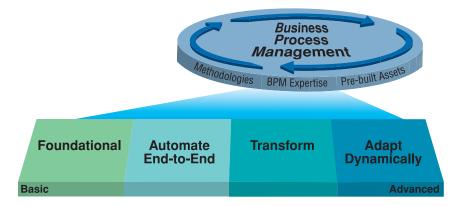
- Realize greater efficiency and cost savings through end-to-end process automation.
- Transform insight into action by providing real-time visibility into process operations.
- Adapt and respond dynamically to changing legislative and regulatory requirements.

Highlights

The IBM BPM powered by Smart SOA suite takes full advantage of the benefits of SOA.

Furthermore, BPM that conforms to the service-oriented architecture (SOA) style maximizes business agility and process optimization by enabling hard-coded legacy IT application modules or "services" to be discoverable, shareable and reusable. The IBM BPM powered by Smart SOA suite takes full advantage of the benefits of SOA, providing a comprehensive set of offerings to support every phase of the BPM journey—from small or "foundational" projects to the most mission-critical processes—transforming healthcare and life sciences organizations and positioning them to adapt dynamically, as shown in Figure 3.

Figure 3: The BPM powered by Smart SOA solution



Building the business case for BPM powered by Smart SOA

Healthcare systems must achieve a variety of objectives to attain the goal of transformation – objectives that are enabled by BPM powered by Smart SOA:

- Improve administrative and service-based processes, whether through optimization of existing processes or intelligent process (re)design
- Automate manual processes, which can be resource-intensive and prone to error
- · Accelerate the design, development and deployment of process changes
- Improve process visibility, providing users and administrators with actionable information
- Improve process documentation and support for legislative, regulatory and accreditation compliance efforts
- Foster innovation through process optimization using dynamic modeling and simulation

Highlights

An Industry Business Value Assessment from IBM provides a rapid assessment of the business value that a BPM powered by Smart SOA solution can provide.

To help healthcare organizations provide quantifiable answers to questions about return on investment and time to value for a given BPM initiative, IBM has developed the Industry Business Value Assessment (IBVA). The IBVA employs a consultative workshop approach that leverages IBM's expertise in healthcare and life sciences as well as IBM's leadership in BPM technology to determine the potential for success of a given BPM initiative. The IBVA provides a rapid assessment of the business value that a BPM powered by Smart SOA solution can provide, and it includes recommendations for attaining specific opportunities for business process improvement. A proven process analysis methodology, IBVA is an IBM "investment" for qualified customers whose LOB and IT executives value innovation and strategic partnerships.

An overview of IBM BPM offerings

IBM's offerings for BPM powered by Smart SOA bring together powerful capabilities from the IBM Software Group portfolio. The suite includes two foundational offerings that facilitate BPM powered by Smart SOA adoption:

- IBM WebSphere® Dynamic Process Edition provides a comprehensive foundation to deploy and continuously optimize dynamic business processes across the heterogeneous environments often found in healthcare and life sciences organizations.
- IBM FileNet® Active Content Edition supports process optimization where content is core to the
 process or where integrated compliance requirements exist, both of which also are typical of patient
 care and treatment processes.

These and the optional extended value offerings shown in Figure 4 can expand the benefits of the IBM BPM powered by Smart SOA suite by providing analytics, repositories, accelerators, adaptors and collaborative tools. ILOG®, an IBM company, brings significant enhancements to BPM rules, optimization and visualization features.

Figure 4: BPM powered by Smart SOA offerings

Foundational Offerings

IBM WebSphere Dynamic Process Edition

WebSphere Business Modeler WebSphere Business Services Fabric WebSphere Business Monitor

IBM FileNet Active Content Edition

FileNet Business Process Manager FileNet Business Activity Monitor FileNet eForms FileNet Business Process Framework



IBM BPM powered by Smart SOA in action: VSP

One healthcare organization that has realized the benefits of IBM BPM powered by Smart SOA is the vision care provider VSP. Using the IBM BPM suite including ILOG, VSP has realized new levels of business performance, including enabling the processing of one million claims per month, achieving a pass-through-rate of 80+ percent, reducing time to market by over 70 percent, and achieving better alignment between business strategies and IT objectives.

For more information

Many examples of progress toward transformation, enabled by IBM and BPM powered by Smart SOA, are observable in healthcare and life sciences organizations worldwide. To learn more about these initiatives and other BPM powered by Smart SOA solutions from IBM, visit **ibm.com**/software/innovate

To learn about the IBVA offering from IBM, visit www-935.**ibm.com**/services/us/gbs/bus/html/bcs_whatwethink.html



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- 1 "Healthcare 2015: Win-win or lose-lose?" IBM Institute for Business Value, October 2006.
- 2 "Healthcare 2015 and U.S. Health Plans," IBM Institute for Business Value, September 2007, and "Healthcare 2015 and Care Delivery," IBM Institute for Business Value, July 2008.