

## Case Study

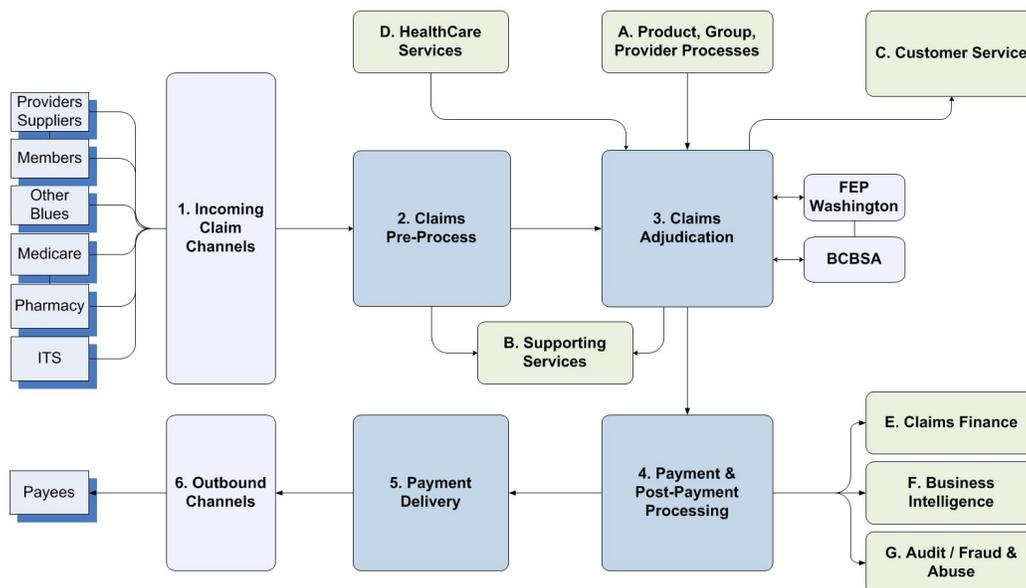
### Thinking Differently Jumpstarts Herculean Health Care Recoding Program.

**An innovative Enterprise Architecture approach drove all phases of the project lifecycle by creating cross-team understanding and consistency for a successful implementation.**

A federally mandated replacement of the 14,000+ ICD-9 diagnosis codes used for processing health care claims had stalled at a regional health insurance provider and supplier of administrative services nationwide. Scoping the effort to implement the restructured 70,000+ coding system was a massive challenge for the new program manager and project teams.

Leveraging Technology's Solution Architect proposed a fresh approach, which included a program-specific restructuring of the client's System Development Lifecycle (SDLC). At the core, the Solution Architect created a [Systems Landscape Diagram](#) that laid out the complexity involved across systems, bridging all roles and levels of the project teams and stakeholders and enabling a shared vision of what was involved. In addition, more detailed [Conceptual Systems Architecture](#) documents inventoried all elements impacted within each system. The Diagram and Architecture ultimately drove the work across all phases of the SDLC from scoping to requirements to testing and implementation.

**Claims Systems Landscape – Process Framework**



### The Situation

The International Classification of Diseases and Related Health Problems 10th Revision (ICD-10) defines uniform codes used to identify diagnosis and procedures. Their use is required for all HIPAA-compliant entities. In effect, ICD codes are the fuel that powers the health care claims processing business engine. In addition to a complete restructuring of the diagnosis codes from 14,000 to more than 70,000, the changeover from ICD-9 to ICD-10 was further impacted at this client by a partial implementation of HIPAA Policy 5010 data exchange regulations, which presented many un-surfaced dependencies over the course of the program.

When the Leveraging Technology Architect got involved the program was on hold, waiting for a new Program Manager. Meanwhile, the SDLC had stalled as an approach to work through the challenges of defining and communicating all places where diagnosis codes existed, analyzing the impact of the replacement coding structure, and planning for development and testing.

## The Solution

The new Program Manager created a Program Strategy Document and established a structure for the various project teams, and laid out the scope, mission and expectations of the steering committee that had oversight responsibilities. At this point, the Leveraging Technology Architect had a key insight: the client's established project lifecycle approach was a poor match to the ICD-10 project. Using business requirements to start the project (typical of an SDLC) would not be sufficient to address the complexity of ICD-10 conversion. Starting with an understanding of the architecture and using that to drive the program proved to be a critical innovation and decision.

The Architect developed the approach and became its advocate. The System Landscape Diagram and Conceptual Systems Architecture were created and adopted to guide the teams.

This methodology set out a logical progression aligned to the specific projects and enabled scoping that was more meaningful (right):

This new project lifecycle represented a cultural shift for the client organization away from "how we always do it."

### Modified SDLC (Project Lifecycle) Methodology:

1. Set project goals
2. Identify changes driven by recoding
3. Evaluate how recoding would impact the systems involved
4. Perform reality checks on the project's business impact and match to business requirements
5. Design and specify the necessary actions to be taken
6. Develop the solution
7. Test and implement the solution

The Program Manager and Leveraging Architect attribute acceptance and successful completion to the architecture approach and documentation. In particular the:

- [System Landscape Diagram](#) of the high level architecture that defined the scope of work to be done provided a visual overview of interplay of the elements involved in the Enterprise Architecture, showing the end-to-end process, related processes, flows/relationships and the systems within processes.
- [Conceptual Systems Architecture](#) documented detailed assessments for the hundreds of programs and data files that would be included in business requirements and technical specifications for the development work.

These artifacts were used throughout the program and critical to success because they provided a common framework and gave the team a tool for understanding where ICD-10 coding impacted the Business Architecture beyond the obvious points, helping them judge compliance and map out remedial actions and matching responsibilities.

"Thinking differently" had a huge impact on the program. The inclusion of the Architect on the Program Management Team and his perspectives on Enterprise and Business Architecture helped break the logjam. By following this Approach, Methodology and Documentation, the program team was able to move forward through the different phases in a logical progression (from scoping, assessments, requirements, specifications, planning, development and tracking to testing) that led to operational readiness for a successful implementation.

## About Leveraging Technology

We are a business consulting firm founded in 1998 that fully understands how all aspects of the information technology lifecycle can impact business results. We employ a practical, partnering approach to transforming the design and architecture of your information technology environment to drive business performance. We provide consulting services to a mix of industries across the entire IT lifecycle, while maintaining a perspective of the business strategy.

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