Solution: **IT Infrastructure** Industry: **Healthcare**

A large American insurance provider

How can insurers digitally transform to better care for their customers?

Furthering its digital transformation for a superior customer experience, a large American insurance provider upgraded to COBOL 6. Working with IBM to leverage the latest features from COBOL and IBM Z® hardware, this insurer is delivering increased throughput to their claims processing, maximizing CPU savings and future-proofing their suite of COBOL applications.

Business challenge

To gain the latest features of IBM Z hardware for superior customer experience, a large American insurance provider migrated to the latest COBOL release. Learn how they achieved a successful adoption.

Transformation

Using IBM Enterprise COBOL to further their digital transformation, a large American insurance provider increased claims processing throughput, maximized CPU savings, and modernized COBOL processes.

Results

97% successful recompilation

of targeted programs to COBOL 6.2, with over 90% within the first year.

Modernized software & hardware

features like JSON, COBOL-Java interoperability and the latest IBM Z hardware capabilities.

Increased CPU savings

with COBOL 6 and delivered increased throughput to their claims processing system.

Business challenge story

Treating the system, not the symptoms

A large American insurance provider has so many mission-critical systems underlying their customer experience and sensitive data that a transformation of any kind is a major risk. But doing nothing brings an even higher health risk.

In order for this insurer to take advantage of the latest COBOL releases, they would need to develop a migration strategy that could help them navigate the complex needs and priorities of their many teams and business segments.

“The only way you can feasibly make progress on something rather big like our application stack, is to make changes incrementally. That’s why interoperability is so critical because you can work on one piece at a time and not have to try to redo some monumental work all at one time,” explained the technical lead.

As early adopters of COBOL 5 and COBOL 6, the technical lead explains how his company’s development teams experienced some challenges along the way: “We’re not a monolith—there’s a lot of different history of these various applications that have come together with the way our company grew. Because we had such a variety, we hit some roadblocks before other people did.”

Since they had a variety of different applications that they wanted to migrate to COBOL 5 or COBOL 6, the challenges the technical lead and his team experienced were due to a variety of different causes. One challenge was invalid data and violations of standard linkage rules.

Another had to do with an IMS DB/DC application developed in the 1980s. This application did not maintain the save area chain, and as a result, it did not conform to the standard linkage rules of COBOL 5 and later. They needed to come up with a migration strategy that would accommodate the possibility of potential challenges.

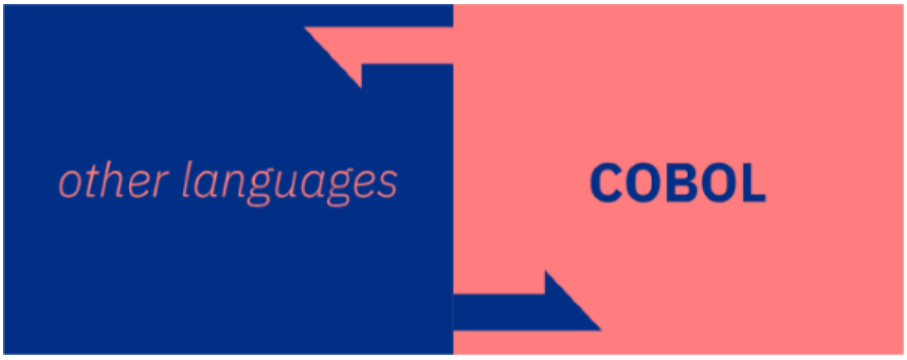
“We approached our migration from the beginning as, ‘Okay, you’re in a piece of code. You’re making a change, use the new compiler.’ It almost certainly will work just fine and if you have trouble, have a safety net where you can go back and use the old compiler if you have to.”

The migration strategy that the technical lead came up with is what he calls “convert-on-change.” His team used this gradual approach because migrating their company’s programs all at once would have been too difficult.

“There was no way that we, as an infrastructure or organization, could tell all of the developers in our company to recompile. There are too many different teams spread across too many different business areas, with too many different sets of priorities.”

Transformation story

Overcoming migration challenges with the right treatment



To effectively execute their migration strategy, the insurance provider started small and scaled out. Using Endevor® to manage the program's progression from the initial unit test phase to production, they were able to make COBOL 5 or COBOL 6 available on a team by team basis, the technical lead explained.

"We started with one small team because their upgrade to COBOL 5 or 6 would be less troublesome. This is because their programs are newer and more likely to have followed the language rules of COBOL, thereby yielding less invalid data. We turned COBOL 5 or 6 on for their applications and helped them for a few weeks. And then, we turned some more applications on. And eventually, we turned every application on using that control that we built in our own Endeavor processes. That's how we were able to manage switching from one team to another—adding, enabling, or activating them on."

In addition to the convert-on-change strategy described, other tactics they followed to make the migration process easier were to dedicate a specialized team for support and keep COBOL 4 as a backup option in the event that their developers were unable to compile and run with COBOL 6. The technical lead explained that using these tactics has been particularly helpful in scaling their transformation strategy globally.

"We have hundreds of developers who write COBOL, and these teams are scattered around the globe in different

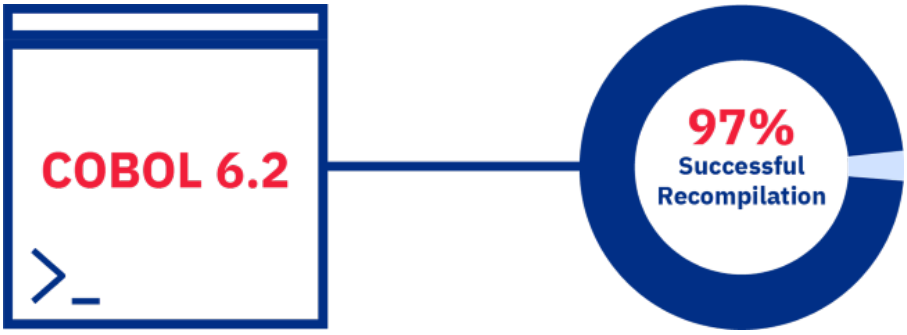
geographies. So, keeping COBOL 4 as a backup option was a self-service kind of a safety net. Having self-help was important, giving them the immediate ability to take action to continue to make progress on what they're trying to accomplish."

"We're leveraging all sorts of new language elements; for example, in tens or hundreds of programs, we now have JSON PARSE, JSON GENERATE, and XML support and we're definitely exploiting those."

— Technical Lead, A large American insurance provider

Results story

Planning their future digital transformation checkups



To become a leader in its industry for digital transformation, this large American insurance provider found a flexible way to upgrade to the latest COBOL releases for a superior customer service experience. Using IBM Enterprise COBOL, they were able to deliver increased throughput to their claims processing by maximizing CPU savings while future-proofing their COBOL application suite. They achieved this by

leveraging new COBOL 6 features like JSON and improved COBOL-Java interoperability.

By upgrading to the new generation of COBOL compilers, they have furthered their digital transformation and created a sustainable migration strategy: Migrating from COBOL 4 to COBOL 5 in 2014, then moving to COBOL 6 in 2016, and continuing today with COBOL 6.2. As part of their strategy, they plan to keep current with IBM Enterprise COBOL as new releases are made which includes adopting COBOL 6.3 in 2020.

“We successfully recompiled 97% of our target programs, and we reached over 90% within the first year of adopting COBOL 5,” said the technical lead. “The COBOL compiler product is a solid, high-quality product and we continue to have great success with COBOL 6.”

Now that they’ve migrated to COBOL 6, they’re able to leverage modernization features shipped in the new releases. These modernization features allow them to enjoy further CPU savings as they adopt new IBM Z hardware.

“We’re leveraging all sorts of new language elements; for example, in tens or hundreds of programs, we now have JSON PARSE, JSON GENERATE, and XML support and we’re definitely exploiting those. We’re actively exploiting interoperability: COBOL calling Java, and Java calling COBOL,” explained the technical lead.

When asked what advice he would give to others about to start their COBOL migration, the technical lead said, “my advice would be to familiarize yourself with the migration guide. The migration guide is very detailed, very comprehensive, and describes the various changes in behavior that have been encountered by customers.”

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>
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Their goal is to meet their clients’ health needs by offering affordable choices and personalized recommendations.

Solution Components

Enterprise COBOL for z/OS

Take the Next Step

To learn more about how clients are experiencing success with IBM Enterprise COBOL, please contact your IBM representative or IBM Business Partner, or visit the Enterprise COBOL Migration Portal.