



**INTEGRATING FINANCIAL  
AND CLAIMS DATA  
FOR BETTER  
ANALYTIC INSIGHT**

**TERADATA**

## TABLE OF CONTENTS

- 2 Executive Summary
- 2 In Search of Balance
- 3 The Heart of the Issue
- 4 The Corporate Balancing Project
- 4 The Benefits of Balance

## EXECUTIVE SUMMARY

For more than 80 years, Blue Cross and Blue Shield of North Carolina (BCBSNC) has provided customers with high quality health insurance at competitive prices. Headquartered in Chapel Hill, North Carolina, BCBSNC has more than 4,000 employees and serves more than 3.7 million customers.

BCBSNC is committed to making the health care system in North Carolina better, working with doctors, hospitals and others to bring its customers innovative solutions that simplify health care, improve efficiency and outcomes, and help rein in costs. The BCBSNC network includes more than 90 percent of the doctors and 98 percent of the hospitals in North Carolina, and its BlueCard® and BlueCard Worldwide® programs provide members coverage with doctors and hospitals in all 50 states and more than 200 countries and territories.

## IN SEARCH OF BALANCE

One pillar of BCBSNC's historical success at meeting its commitments has been its data management practices. In recent years however, financial data management has proven particularly challenging. Demands of the Sarbanes-Oxley Act and continuing waves of new regulatory reporting obligations began testing the insurer's ability to provide timely, accurate reporting according to evolving specifications. While BCBSNC could meet the reporting challenge each year, company financial reporting processes relied on significant amounts of manual effort.

According to Gary Stutts, BCBSNC's manager of information management and information analytics, balancing the data circulating between the insurer's general ledger, operational source systems and Oracle data warehouse had become a major drain on the time of key personnel in IT, finance and operations. More importantly, the situation jeopardized BCBSNC's ability to effectively manage its most valuable data asset: medical claims.

"The finance area determined that we needed to focus on claims because that's our basis," says Mr. Stutts. "There was a concern that our member claims information was

not tied to any financial balancing. We track member accounts. We balance member accounts. But the real crux of this problem was, how do we reconcile our claims expenses back to our financial statements?”

BCBSNC faced a challenge involving both data quality and balancing. As it faced new regulatory reporting obligations, management needed greater assurance that claims expense data was being matched and balanced across all systems. There was little margin for error—from system to system, BCBSNC needed to ensure consistent recording of a volume of records, member counts, claims counts and costs, and ultimately, revenue.

In the journey for balanced, reconciled data, Mr. Stutts laid out the scope of what was at stake. “We had an actuary estimate the impact of bad data to the bottom line. We found it cost significant money for every 1 percent of data quality issues that we had.”

## THE HEART OF THE ISSUE

The core of the data management challenge facing Mr. Stutts and his team was the lack of a cohesive technical architecture for reconciling BCBSNC’s various systems. He describes the pre-existing architecture as a “conglomerate” of systems that were “forced to fit together.”

In addition to the general ledger and the pre-existing data warehouse, BCBSNC needed to balance results across two operational source systems for claims and two more for members and providers. Extensive manual reconciliation efforts had been required at month-end because none of these systems balanced. Balancing needed to be automated so it could be performed throughout the month with little to no impact on the productivity of BCBSNC personnel, which led to creation of the Corporate Balancing Project (CBP).



Mr. Stutts says that while the CBP was intended to help address other imperatives, including regulatory reporting, the need to seamlessly and accurately balance all key systems was the real project driver. “We knew we needed to do it, because the manual effort was just huge. We wanted to eliminate the 40 to 100+ hours multiple people were spending each month.”

## THE CORPORATE BALANCING PROJECT

The CBP was ultimately implemented as a home-grown, self-built system that required three years to complete. In year one, nearly 100 different queries had to be developed and run manually prior to design of the automated solution. Running the queries allowed the team to eliminate those that did not add value to the project requirements and effectively identify the root cause of balancing issues. Before intelligence could be built into the software in years two and three, the team had to prepare a transitional “monster spreadsheet on steroids,” as Mr. Stutts describes it. The spreadsheet was used to tie out the general ledger and data from operational systems. The team built multiple business rules to translate data definitions and hierarchies between the relevant systems, along with a chart-of-accounts interface built for performing roll up and categorization.

The three years of work enabled construction of the necessary rules and logic in the CBP’s underlying Teradata® warehouse. BCBSNC determined the Teradata platform was best suited to handle the heavy data volumes associated with BCBSNC’s flow of transactional member, claims and provider data. An SAP BusinessObjects Business Intelligence platform provides data views to finance, actuarial and pricing business users.

The solution has not only provided the critical automated balancing and reconciliation of medical claims and associated accounts payable, but has since been extended to provide the same transparency around recording of premium revenue dollars and the associated accounts receivable transactions. The Teradata warehouse receives four daily feeds from operational systems that are loaded for reconciliation with general ledger data.

“The Corporate Balancing Project essentially built a bridge between our operations group, finance and data warehouse groups,” says Mr. Stutts. “We were previously dealing with problems independently and only getting together when we had to, but this has built a bridge to where we all have visibility into the problem. We all know our roles in fixing the problems and we take it from there.” According to Mr. Stutts, reconciliation challenges that once took as many as 100 hours of staff time per month can now be addressed within the same day.

While Mr. Stutts and his team take pride in building the CBP solution from scratch using all in-house tools with no incremental spend required on external applications, he admits that BCBSNC did consider the potential benefits associated with using an external solution. “We couldn’t find any prepackaged application that would do what we wanted to do. So we made a decision at that point to write our own.”

As far as key lessons learned while designing and implementing such a complicated project, Mr. Stutts credits the benefits of a carefully constructed and coordinated team. “I was the technical project manager and had a business project manager partner. Between the two of us, we had to manage resources in both the finance and operations areas, as well as technical resources on the data warehouse team, applications team and our various engineering teams. At different points in time, there were as many as 50 to 55 people involved in this project. It made for quite a large resource matrix to manage.”

## THE BENEFITS OF BALANCE

The success of the balancing project has generated the certainty and improved timeliness around claims expenses management and tracking that BCBSNC most needed, as well as helping drive additional benefits, including:

- ~ **Claim Assurance** – The BCBSNC Information Management group was able to insert programs at the right points in the data flow to ensure that every claim coming through for payment processing is fully transparent down to the transactional level. This better ensures that all claims are scrubbed for authenticity and accuracy before being paid.



- ~ **Actuarial Confidence** – Among many downstream effects of the CBP, Mr. Stutts points out one of the most crucial. “Our actuaries feel more confident with the data. This extends to our underwriters and our marketers as well.” He says that this foundational increase in data quality emboldens BCBSNC both in daily operations and as the company confronts the regulatory reporting impact of the federal Affordable Care Act.
- ~ **Labor Savings** – BCBSNC has realized significant opportunity cost savings associated with eliminating up to 100 hours of monthly manual reconciliation effort previously required by multiple employees.
- ~ **Provider Performance Insights** – Increased data timeliness is another proven benefit. Daily loads that now feed the Teradata warehouse have helped the provider network management team by providing fresher insight into provider performance and related analytics. Management also anticipates comparable benefits in the claims space.
- ~ **Enhanced Data Quality** – One of the deliverables of the CBP project is a dashboard of information fed from operational systems. The dashboard is used to help identify operational system errors, which the finance team evaluates daily and coordinates with operations for fast resolution.

- ~ **Repeatable Assets** – As part of developing the CBP, the insurer developed a new database called Interface Control Service, which has intelligence features to track balances in all applicable systems while being aware of the rules that apply to each system. “After we completed this project,” says Mr. Stutts, “there were other projects that were able to take advantage of this infrastructure. I received calls from other project teams on how to construct their projects so they could meet similar balancing requirements. We were able to help these teams take advantage of CBP components like the Interface Control Service.”

Perhaps most importantly of all, Mr. Stutts says that the Corporate Balancing Project is a solution that provides reliable claims and financial data today and will continue to do so well into the future. As regulatory reporting changes keep occurring, he says he is confident that the balancing system will continue to be agile down the stretch. “It’s generic enough to where it’s pretty independent of anything outside of a major revamp of the system; it’s pretty simply constructed.”

This reliable data management solution has delivered a single, integrated view of data that is bolstering BCBSNC’s confidence in the numbers it analyzes and in the reports to the many stakeholders counting on them.

