

Transforming the US capital markets for over 28 years

A firsthand account of a large transformation program for one of the largest global custodians



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While the world was dealing with Y2K and the markets were reeling due to the dotcom bubble burst, two organizations with strong roots and a long-term vision, tuned out the ambient noise to chart a course for the future. They wanted to create the best-in-class corporate actions solution that would

not only be real-time and scalable but also could co-exist in a technology landscape that relied on 1970s technology. Little did they know that as soon as they would begin, planes would crash into the buildings next door throwing the financial markets into turmoil, bringing unimaginable pain and agony. However, they remained determined and carried on building their dream.

This is the story of the two firms' determination, triumph, and partnership.

Today, TCS BaNCS for Corporate Actions processes nearly 4 MN events a month, sends out nearly 10 MN notifications, and processes corporate actions impacted by more than 250 million trades every month for the world's largest custodian (with USD 41.9 trillion assets under custody globally). The scale is only matched by the ability of the solution to support several hundred users spread across multiple time zones, providing real-time impact on cash and security positions on portfolios, and delivering it all with zero unplanned downtime.



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This spectacular scale was enabled by some key design decisions.

The product:

TCS BaNCS was architected to be a real-time, event driven solution. Any event that impacted a corporate action, such as an event announcement would immediately trigger real-time requests for positions, compute the entitlement and send the notifications via SWIFT, email, or any other preferred means of communication. Thus, the data was never waiting to be processed but it was always in motion and constantly being enriched. This was made possible due to the modular design of the product. Each lifecycle of the corporate action was broken down into self-contained, logical modules which could independently scale and were fault tolerant, such that failure in one module would not impact any other part of the application. The modular design also relied on services to exchange data-- much before APIs were defined as the gold standard for communication and integration--- and allowed for continuous delivery, again much before the concepts of DevOps became popular in the software industry.

The people:

Besides technology, people undoubtedly played a significant role in the success of this program. A strong governance team was put into place to not only monitor the progress but to ensure that any roadblocks are promptly removed. TCS setup a global delivery model with teams co-located with

the customer in the US and state-of-the-art, secure development centers in India, maximizing collaboration and productivity. The teams from both sides were aligned according to the modules and each team was responsible and held accountable for delivering a fully functional and ready unit of work that could be integrated with the right module. Deliveries were made on a continuous basis throughout the day and integrated at the end of the day. The teams would meet daily for project planning, progress reports, and agreeing on the priorities.

We were all putting in long hours but not only were we building a great product, but also learning and building strong and lasting friendships. The time we spend in the trenches together, during the all-nighters, rooting for each other's success, remain memorable.

This was once again demonstrated during the financial crisis.

On 13th September 2008, we were enjoying a celebratory evening in our customer's homes, bidding adieu to summer amidst food, drinks, and laughter. Suddenly, we

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were summoned to the basement to join a conference call, where it was announced that Lehman Brothers would file for bankruptcy when markets open on Monday.

This demanded that no payments were made unless counterparty risk had been assessed. In addition, we needed to ensure that valid payments would not be delayed either. Once again, teams on both sides got working, trying to determine account-by-account, and trade-by-trade what would be a valid corporate action payment and what would expose the customer to a financial risk. Little did we realize that this would go on for months as the failing of Lehman Brothers opened the floodgates. TCS ensured that the right controls were put in place both from technology and the business to mitigate risks.

Building on this success, the customer selected TCS BaNCS for Corporate Actions for its middle-office corporate actions processing as well. While it was a smaller business, it was growing and had unique needs. They were not the ultimate custodians of the assets but were required to provide the complete corporate actions service. Given the size of the book and the securities, it required that we create newer capabilities which would ensure that the operations teams would only focus on the corporate actions that impacted their holdings. We provided dashboards, workflows, and online reporting to better manage the workloads. **Today, this middle office services some of the largest funds in the US and is delivering accurate and timely corporate actions globally for their portfolios.**

Enriching the partnership during the pandemic

Continuing our partnership further, and just before the COVID pandemic, we embarked on transforming announcement scrubbing. The goal was to create a modern, efficient announcement scrubbing utility that would service not just one line of business but act as a central hub for all scrubbing functions. It would feed golden copy announcement information to any subscriber in the company. **Working through the challenges of COVID, and of unwinding a solution that had been in place for couple of decades, we delivered on the promise in 2022, setting up the industry's biggest announcement scrubbing utility in-house.** It was yet another example of partnership, long-term vision, and determination in execution from both teams.

TCS BaNCS products proudly powers some of the finest financial institutions in America and globally. We have been trusted not only by the world's largest custodian for transforming corporate actions, but also by asset managers, broker-dealers, and wealth managers to provide solutions for everything related to trade, right from initiation, to settlement, to servicing. We have helped our customers navigate through market turmoil, shortening of settlement cycles, new product launches and, the ever changing regulatory and business environment. Our steadfast commitment to our customer's success is enabled by our strong design principles, our constant innovation culture, and 8000 agile-trained associates who wake up every day determined to contribute to a more resilient, real-time, and efficient capital

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market infrastructure. We are a constant work in progress. While we are proud of everything we have achieved so far, we firmly believe that our best is yet to come. So, bring your toughest challenges and we will work together to create a better financial future for all.

