

Trend Topic: **Modernization**

By



**Tyler Derr**

Chief Technology  
Officer, Broadridge

Tyler Derr leads the enterprise technology and development organizations at Broadridge. He serves as the senior-most technology officer, which includes overseeing Broadridge's global technology teams including: enterprise-wide software engineering, product delivery, architecture, infrastructure, cybersecurity, and technology operations. Tyler joined Broadridge in 2012 as the CTO for the Global Technology and Operations business, and also as its Chief Administrative Officer. Prior to joining Broadridge, he worked at OppenheimerFunds, was the CTO for the global tax business of H&R Block and in private equity.

Explore more from  
The Kyndryl Institute  
[kyndryl.com/institute](https://kyndryl.com/institute)

# Going fast by going small: modernization as transformation

It's easy to believe that the scale of a transformation project should reflect the size and ambition of the organization undertaking it.

**G**lobal imprint, global transformation. Over the past four years, Broadridge has transformed from a services provider into a platform company. Our work suggests that the relationship between the scale of transformation and the goals of the organization attempting it are commonly misunderstood. In actuality, the larger the stakes, the smaller each move should be.

**B**roadridge serves the world's largest banks, broker-dealers, and asset managers. Our technology and operations platforms underpin the daily average trading of over \$18 trillion in tokenized and traditional securities globally. We also manage proxy voting and investor communications for public companies, mutual funds, banks, broker-dealers and investors, distributing more than 8 billion investor communications each year.

**G**iven the scope and scale of the changes in our industry, it's a requirement for large organizations like Broadridge to still be nimble. Agility looks different than "change for change's sake," and it looks different than a wholesale pivot of an organization. We have found that the largest changes sometimes require very small responses — made repeatedly and iteratively. Strategically, this allows an organization to

adapt if their market, management, or technological abilities suddenly change. It fosters course-correction while mistakes are still small, and perhaps most important, it helps ensure that customers and employees don't get left behind.

**We** believe our approach — small steps, repeated many times — positions the organization well for the future and we're expecting three major trends to affect our industry, our markets, and our customers over the next decade.

**The** first trend is the tokenization of assets — the conversion of rights to an asset into digital tokens that are recorded on a blockchain. For us, that means tokenized assets could allow trading outside of traditional trading windows, and allow investors to see all their holdings, across asset classes, in one digital wallet. Tokenization could also open so-called alternative investments, such as real estate, commodities, and private equity, to a wider range of investors. We anticipate that our clients will want to do business with a firm that can work both in the traditional world of finance and in this new digital world; it's our job to support them.

**The** next trend is the desire for direct access to information. Historically, our customers have accessed database information through a user interface, but as customers become more comfortable with AI agents and integrate them into their business, we anticipate that they will want to access data directly. Generally, that means offering access via APIs or allowing AI agents access through a model context protocol (MCP) server, which standardizes the way large language models connect with other tools.

**Last**, we see a profound desire to build future-proof solutions. That may sound familiar, but AI brings new urgency. Agentic AI makes it difficult to justify multi-year contracts with vendors that provide out-of-the-box software solutions. Customers want to be able to access the data themselves and build their own agents to support custom use cases. The "build versus buy" decision is going away: It's build and buy.

**Taken** together, these changes mean that our firm — and many others — need to build solutions for a real-time environment. Traditionally, transactions

have been run in batches, and if a process falls behind, it can catch up when the batch is run. That's no longer the case. The entire operating environment needs to be viewed and operated as a 24/7 network.

**Think** about what this means for workflows: In many cases, workflows are moving into software, changing the processes that humans are familiar with. Not too long ago, if you forgot to check a box when you applied to open a brokerage account, someone would call you and ask you to check that box and resubmit the form. Now, there are far fewer errors and exceptions to handle, because the software makes sure the form is complete.

**As** we're moving more of our workflows into software, we're also able to build that software much differently. We can use AI to develop requirements, write code, and build a test harness, with validation, quality assurance, and production deployment performed by humans. All this automation — especially the testing — leads to code that is of higher quality and can be shipped more quickly.

## Going fast by going small

**As** early as 2023, we knew that we would become a platform company and planned to bring our solutions together in a way that was easier for customers to manage. This was a big pivot, but we didn't embark on a single transformational project (which would have been unnecessarily risky, expensive, and unpredictable). If market trends had suddenly changed direction, it would have been hard to adapt, and we needed to make sure our customers and employees could come along with us. So instead of one big change, we implemented a series of small and deliberate changes.

**We** relied on two pillars to support this approach. First, our leadership was aligned toward a common goal. Second, we focused our success on quick wins that we could measure. Those measurable small successes were critical to getting real change in the organization. Leaders need a way to know, early on, if things aren't working, while there is still time to adjust. It's far better for someone to raise their hand

and say, “This isn’t going well” three months into a sprint cycle than two years into a program.

**A**nd while we provide services to a highly regulated customer base, we’ve still been able to set our own pace. In fact, earlier this year the U.S. Securities and Exchange Commission invited representatives from systemically important financial services firms, including Broadridge, to talk about their agentic AI initiatives. From that convocation, two things became abundantly clear to me. One, the SEC is extremely interested in industry perspective, in hearing war stories, and in understanding how we’ve learned and changed as a result of our successes and failures. Second, most of the conversation revolved around humans in the loop, and agents are much easier to monitor than humans. No one knows the error rate of their human in the loop.

## **It all starts with the data**

**A**s with so many organizations, we recognized that our transformation would be dependent on the state of our data. We needed to commence the challenging task of normalizing our data and building a data ontology. Luckily, much of the data we needed to normalize is fairly consistent: name, address, positions. We started small, staking out some ground where we could build a critical mass. Then we had to be strict — militant, really — about keeping it small. It’s too easy to keep adding data, thinking that makes a stronger solution. But more is not better. Too often, the result is something that is unwieldy and difficult to manage. After deciding what to include, the discipline lies in explaining why everything else must be excluded.

In looking at clearance and settlement as a category, for example, we wanted to capture only the information required for regulatory reporting. If someone wanted to include an additional attribute, we had to ask why. Often, the team ended up excluding the extra attribute. The creation of APIs became another test. When we started building APIs to read the ontology, we found that some data wasn’t being accessed by APIs. If there was no reason to build an API for the data, why was the data being included in the first place?

Our work suggests that the relationship between the scale of transformation and the goals of the organization attempting it are commonly misunderstood. In actuality, the larger the stakes, the smaller each move should be.

By 2027, we will have normalized the data associated with 70% of our revenue. Customers are already accessing the normalized data through an MCP server and getting production-quality data.

## **The benefits of incremental modernization**

To allow customers more flexible access, we needed to move from tightly integrated products toward reusable modules connected through a common data and API layer. Updating too much, too soon, carried all kinds of uncertainty — including technology, change management, budget and time frames. Our customers might not want, need, or be able to accommodate the new capabilities we wanted to build. Even if they did want these new capabilities, their timeframe might not have matched ours.

The answer was to build one capability at a time, and to modernize through architecture rather than re-platforming. We would select a capability from an existing application and build the architecture necessary to connect it to the new platform. The older capability would be deprecated over time, allowing clients to coexist with us in both the old and the new world. This allows us to maintain the benefits of our deep intellectual property without starting from scratch.

Over the past four years, we have modernized almost 30 capabilities from our existing applications, connected them to the platform, and deprecated the old technology. Those capabilities include a distributed ledger for repo transactions, client onboarding, and support for global money movement transactions. All of our modules are now global, so a client doing business internationally only needs a single capability.

## Fostering AI skills development

As we've adopted AI in new ways, our associates have had to develop new skills. While we didn't initially have small steps for ensuring AI adoption by its workforce, we knew that a top-down mandate wouldn't work either.

One of our first steps was simply to become an AI-friendly organization, balanced with our obligations to our clients. It's hard to tell your team that a technology is wildly beneficial if you're not using it yourself. We created a container where staff could work with LLMs in a secure, instrumented, and observable environment. Over time, our leadership all started using AI.

We also measured token use from the start, which lets leaders see which teams are using AI and helps keep costs manageable. Now, 70% of our organization is using AI on a daily basis. When measured over a monthly basis, the percentage of our organization that uses AI increases to almost 100%. Some employees who may not appear to be using tokens are probably using other AI tools within our enterprise.

We were rewarded with heaps of innovation early on. Within the first six months of enablement, employees had built nearly 1,000 AI agents, including an agent to generate transcripts from meetings (before this became a common functionality), and another that helped find the root causes of incidents by looking at previous

post-mortems. These started as small, isolated projects, but we've built a library so that these agents are easy to find and accessible, creating critical mass. We've also made agents available to our customers, such as one that matches buyers and sellers of bonds based on the types of bonds they've traded previously.

We understand that technology and organizational changes have a lot in common with natural phenomena such as evolution: over time, small changes can lead to metamorphosis.

Our step-by-step approach has yielded substantial dividends. A significant portion of our commercial pipeline now includes platform sales. A customer might once have had three solutions for clearing and settlement: one for equities, mutual funds, and exchange-traded funds; another for bonds and treasuries; and a third for global securities. Thanks to our platform, that's now available as a single solution. One of our solutions, facilitating Treasury repurchase agreements on a digital ledger, does more than \$350 billion in volume each day. Compared to other on-chain trading efforts, that's significant; in the scope of the overall financial markets, it may seem small. For us, it's simply progress. We understand that technology and organizational changes have a lot in common with natural phenomena such as evolution: over time, small changes can lead to metamorphosis. —

