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White Paper

How Tectonic Financial is Transforming its Business with Low-Code

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Starting in 2020, the covid pandemic rapidly transformed both daily life as well as business operations across the globe. The sudden move to work-from-home upended office life as governments sought to mitigate the impact on both consumers and businesses.

In the US, Congress took unprecedented steps to address the economic impact of the pandemic with the CARES act, and in particular, the Paycheck Protection Program (PPP) for small businesses.

To participate in the PPP, banks across the country had to implement end-to-end commercial lending apps in an unheard of two weeks.

Traditional software development approaches simply weren't up to the task. Low-code was the only technology with any hope of supporting such accelerated timeframes.

Here's the story of how one community bank rose to this challenge.



The Paycheck Protection Program Challenge

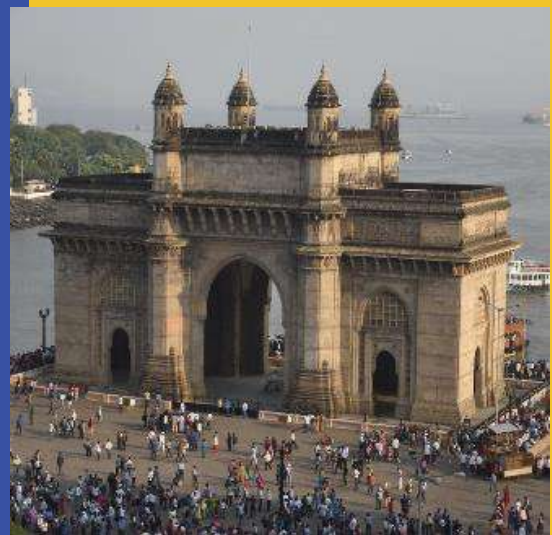
The Coronavirus Aid, Relief, and Economic Security (CARES) Act became law in the US on March 27th, 2020, creating the Paycheck Protection Program (PPP), a novel lending program targeting small businesses in the US.

By any metric, the PPP was unprecedented – the number of businesses who applied, the amount of money lenders disbursed, and perhaps most striking: how little time lenders had to implement the program.

Typically, new commercial loan products can take up to two years to roll out. For the PPP, lenders had two weeks.

Applications for PPP loans quickly besieged lenders upon passage of the CARES Act – in many cases, thousands within the first 24 hours. Clearly, manual approaches for processing such loans would be a draconian effort. For most lenders, a digital approach was mandatory.

Implementing the PPP program required entirely new approaches to scale, speed, and agility. Not only did lenders have no more than two weeks to implement a working app, but the SBA changed its rules three times in the first month. Furthermore, there was really no way that lenders could have prepared ahead of time for the onslaught – pandemic or no.



The Inherent Complexity of the PPP Application

Digital PPP apps consist of three parts: the user interface where applicants can complete the application form and submit necessary documentation; back-office processing, including reviews, underwriting, and approvals; and a mechanism for



submitting applications to the Small Business Administration (SBA), which the law tasked with guaranteeing the loans and providing the funds for most applicants.

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The sheer scale of the operation broke all records and set the bar for future lending programs.

Given these constraints, the only way a company could build such an app so quickly was by leveraging a low-code development platform. Fortunately, by leveraging modern low-code and process automation technologies, banks and other lenders could roll out new products and services in days, where before it would have taken months.

Introduction to Tectonic and T Bank

One bank that tackled this challenge was T Bank, a division of Tectonic Financial, Inc. Tectonic is a Houston, Texas-based financial holding company whose subsidiaries provide banking and financial products and services to both business and consumer customers.

Through its T Bank division, Tectonic offers a range of commercial and consumer banking services. Tectonic also provides trust, investment advisory, securities brokerage, factoring, and additional services via other subsidiaries.

Even though T Bank has clients in all fifty states, it considers itself a community bank.

When Congress passed the CARES Act, T Bank leadership knew they had to offer PPP loans – and quickly. As Congress was drafting the legislation, Haag Sherman, the CEO of Tectonic Financial, directed Chief Strategy Officer David Clifford to build a custom portal where T Bank could process PPP applications.



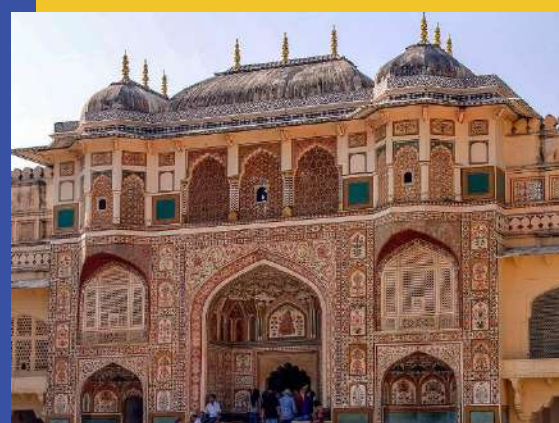
How T Bank Delivered its PPP Application

T Bank had worked previously with Trailguide Digital, a professional services firm that had helped build applications for Tectonic using the Zoho Creator low-code platform.

T Bank and Trailguide worked together to scope out the first phase of the PPP – enabling customers to apply for PPP loans and for the bank to process and approve them.

The team broke up the application into three parts. First was the customer portal – the web-based front end that customers could use to apply for loans, submit their paperwork, and then check on the progress of their applications.

Given the fact that part of the development work focused on the user interface, part on internal workflow, and the rest on document processing, using a low-code tool that could handle all three challenges was the obvious – and really, the only choice.



The second part: workflow capabilities for different bank employees. The bank would dedicate a team to processing applications, requesting additional information or documentation from customers as necessary. Bank underwriters would also get into the act, reviewing completed applications and making the decision whether to grant the loans.

The third part was the back end: preparing the documentation to submit to the SBA. The SBA would eventually implement a modern API-based approach for document submission later in the PPP, but at this early stage, all they offered was an antiquated XML file upload or the option of inputting data manually. T Bank chose the latter.



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Implementing the PPP Application with Low-Code

The application development team consisted of Clifford himself as well as Matt Gallegly, owner and consultant from Trailguide. Given the small team size and accelerated timeframe for delivering the PPP application, T Bank made the decision to use Zoho Creator.

Time constraints also required them to work on all the parts of the application at once. “We started building a portal and then a workflow tool on the back end where we could collect the necessary information from borrowers,” Clifford explained. “And then review and approve or reject the applications – but that required the collection of a lot of different files and completion of forms.”

Dealing with the rapid, ongoing change in requirements was essential to the success of the initiative. “The requirements for the PPP Portal were complex and evolving,” Clifford added. “Having a platform like Creator allowed us to quickly build, revise and iterate as we went in a very intuitive way to stay one step ahead of the needs of both customer and internal staff users.”

T Bank also had to implement the underlying underwriting process that bankers would use to review and approve the loans, as well as a way to submit the applications to the SBA for funding.

Zoho Creator was an essential part of this delivery process. “Creator enabled us to construct an end-to-end solution for PPP loan origination in two weeks,” Clifford continued. “And Zoho allowed us to move at a pace that the big banks couldn’t move at.”

Complementing Creator with other Applications from the Zoho One Suite

While Zoho Creator is a stand-alone low-code development tool, it is also one of dozens of complementary, well-integrated applications in the Zoho One suite.



For T Bank, Creator was the central platform for its PPP efforts. However, other applications in the Zoho One suite proved essential for the project as well.

In particular, the Zoho Sign digital signing application was instrumental in the cost-effective functioning of the PPP portal. T Bank had tried to work with a leading digital signature vendor, but that company failed to offer a cost-effective solution that worked within the context of the relatively small PPP loans that T bank was offering.

The cost savings using Zoho Sign were dramatic. “We did over 11,000 electronic signatures through the PPP process,” Clifford said. “When you include the internal approvals that were required, in addition to the stuff that the clients had to sign.”

Given that supporting electronic document signing cost about 50 cents per signature with Zoho Sign vs. the \$5 per signature the competing digital signature company was charging, the cost savings added up quickly.

T Bank used a few other applications that Zoho included with Zoho One. The team used the Zoho Flow workflow design and API connectivity application to connect Zoho Sign to Zoho Creator, as well as to third-party services like Box. In addition, T Bank stored documents in Zoho WorkDrive, Zoho’s shared document workspace.

Results and Lessons Learned

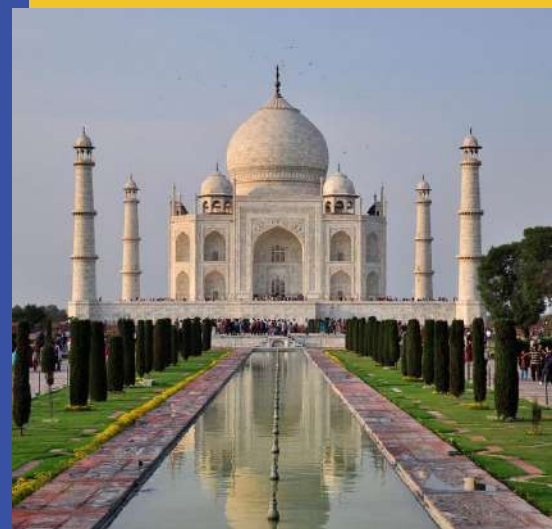
The big win for T Bank was simply the ability to offer PPP loans within two weeks of starting the project. “Ultimately we processed 1,600 loans for over a hundred million dollars,” Clifford said. “Given that our average borrower had about 10 employees, we estimate that the funding we provided via the portal supported 12,000 to 15,000 jobs. It was a big impact on small businesses.”

As a community bank, the fact that T Bank’s PPP offering supported so many jobs was even more important than the program’s profitability – although it was certainly profitable, given the low cost of building the application. “I can’t provide an exact ROI for the PPP portal - such an analysis would need to take into account other factors like the countless hours worked by the T Bank’s SBA team, opportunity costs, etc. – but the project certainly had an extremely high return on investment.”



The benefits to T Bank continue to this day. “We’ve built a wide variety of successful applications on Zoho Creator over the past few years,” Clifford added. “With the extensive set of tools available in Zoho Creator and the broader Zoho One suite we knew we could pull together an application that exceeded expectations in a very short amount of time.”

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Driving Additional Business Value with Low-Code

The PPP project dates from mid-2020 – but Tectonic and T Bank haven’t been idle in the time since.

In fact, the bank has been leveraging their relationship with Trailguide Digital to build more applications using Zoho Creator. One example: an application for Integra Funding, Tectonic’s factoring business.

Factoring is a type of short-term loan that uses receivables as collateral. Integra purchases receivables from trucking companies so that they can pay their bills without waiting the 60 to 90 days it normally takes to get paid.

Clifford described the application. “We use Creator as an onboarding tool for new trucking clients,” he explained. “So you have a trucker traveling down the road and



they need to sign up for our services. We built an application where they can get signed up.”

This onboarding application uses a handful of Zoho applications, including Zoho Sign as well as Zoho Flow for leveraging an API connection to the Federal Motor Carrier Safety Administration (FMCSA), an agency of the US Department of Transportation that provides data on trucking companies.

Account onboarding is a general capability that Tectonic is bringing to other product lines as well. For example, for T Bank’s retirement business, the bank and Trailguide implemented a customer enrollment application using Zoho Creator, Zoho Flow, and Zoho Sign. These examples are among the 20 or so applications the bank has built using Zoho Creator overall.

Leveraging the Full Power of the Creator Low-Code Platform

The PPP was a wakeup call for Tectonic, just as it was for thousands of other lenders across the country (not to mention similar programs in other countries). Where before, new commercial lending products would take years to roll out, banks were now able to move from plan to full deployment in as little as two weeks.

Even for conservative institutions like banks, this level of success was an eye-opener. What other sorts of digital initiatives might a bank conduct, now that it knows it can be successful in a matter of weeks?

Furthermore, T Bank soon realized that experimentation was now practical – even within the context of its regulated environment. “Just start building and launching usable software. The PPP process was great for that,” Clifford explained. “The best parts of Creator are that you can build an actual product quicker than you could build a prototype for that product.”

In other words, the first version of an application like PPP was essentially its own prototype – a way to test whether an application would work to meet business needs, only now in full production in front of customers.

At the heart of this newly accelerated approach, of course, was the power of the Creator low-code platform. “The, the key is to get an MVP [minimum viable product]



pushed out and then enhance, and add to that over time,” Clifford concluded. “And those rapid development cycles are accommodated by Creator very well.”

The Intellyx Take

Perhaps the most important lesson from T Bank’s PPP experience is that a low-code platform like Zoho Creator is for more than simply building applications – it is also a platform for digital transformation.

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Digital transformation efforts had been historically expensive, risky, and time-consuming. Covid entirely changed the equation.

Transformative business requirements like the PPP – as well as the broader work-from-home transition – pushed organizations of all sizes to rethink the timeframes for their transformation initiatives.

The result was a massive increase in interest in low-code as a way to support the rapidly changing digital requirements of any business.

Companies are realizing that applications are part of an extensive fabric of digital capabilities that any single tool cannot deliver. As the central platform of the powerful Zoho One suite, Zoho Creator stands alone among low-code tools as being able to support the full range of digital transformation needs.



About the Author: Jason Bloomberg



Jason Bloomberg is a leading IT industry analyst, author, keynote speaker, and globally recognized expert on multiple disruptive trends in enterprise technology and digital transformation.

He is founder and president of Digital Transformation analyst firm Intellyx. He is a leading social amplifier in Onalytica's [Who's Who in Cloud?](#) For 2022, and he is ranked among the top nine low-code analysts on the [Influencer50 Low-Code50 Study](#) for 2019, #5 on Onalytica's [list of top Digital Transformation influencers for 2018](#), and #15 on Jax's [list of top DevOps influencers](#) for 2017.

Mr. Bloomberg is the author or coauthor of five books, including [Low-Code for Dummies](#), published in October 2019.

About Zoho

With 55+ apps in nearly every major business category, Zoho Corporation is one of the world's most prolific technology companies. Headquartered in Austin, Texas, with international headquarters in Chennai, India, Zoho is privately held and profitable with nearly 11,000 employees. For more information, please visit: www.zoho.com/.

About Tectonic Financial

Tectonic Financial is a technology-focused financial holding company providing small businesses and individuals with banking, trust, retirement, insurance, brokerage and wealth management services through its subsidiaries, T Bank, N.A., Tectonic Advisors, Sanders Morris Harris and HWG Insurance Agency, and with factoring services through T Bank, N.A.'s Integra Funding Solution division. Through its high tech, high touch philosophy, it endeavors to deliver a best-in-class customer experience and maintain a relatively high return on equity and return on assets. Tectonic Financial's non-cumulative perpetual preferred stock is publicly traded on NasdaqGS under the symbol "TECTP." To learn more, visit tectonicfinancial.com.

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