When the Small Business Administration rolled out its Paycheck Protection Program, it set off a fire drill of sorts among bank technology executives, who had to quickly figure out how to accept applications from borrowers and load them into the SBA’s system before the money ran out.

Like other banks, the $1.4 billion-asset Sunrise Bank in St. Paul, Minn., had two weeks to decide whether to buy or build a solution, set it up, test it and take it live.

“It was quite a journey,” said Brett Cooksey, who joined the bank in January as chief information officer. “We called it the Race to E-Tran.” (E-Tran is the name of the SBA system that accepts and authorizes PPP loan applications.)

As of June 5, Sunrise had made $216 of million paycheck protection loans. What follows is a look at how and why the bank made the technology choices it made and how it plans to use this technology for other purposes when the program ends.

Evaluating the vendors

Cooksey’s team evaluated the PPP offerings of the major core-banking software providers and of several startups. All told, it looked at about 20 solutions.

“In working with technology, my general principle is, keep as many options open until you find a path that makes sense,” Cooksey said.

Knowing that the PPP was moving quickly and changing often, Cooksey thought it would be hard for the larger vendors to keep up. His team tested several fintech products, including secure-file portals.

Then Cooksey researched the SBA’s E-Tran infrastructure and realized it’s dated, using old web services technology. Knowing that the agency planned to push a lot of money to 30 million small businesses, he predicted that heavy volume would present a challenge.

“When we looked at our business process and what these other solutions were providing, we felt they were suboptimal,” Cooksey said. “We know this is taxpayer money, questions will be asked, and we are very sensitive to doing due diligence. That comes from our CEO all the way down — it’s a commitment to quality over volume.”

But while Cooksey felt none of the vendors had all the right technology, he also knew his team couldn’t build the technology from scratch fast enough. Some other banks had SBA technology they’ve used over time and were able to move faster, he acknowledged.

So for the first round of PPP, the bank processed loan applications manually. “That’s where we learned,” Cooksey said.
**Adoption of “low code” software**

But it also started working with a startup called Anvil that offers “low code” workflow software.

“Low code” means that workflows can be created in the software using prebuilt components and a drag-and-drop editor, and that users don't need to understand software development to build them, according to Mang-Git Ng, CEO and founder of Anvil.

Anvil’s founders refer to their software as a “paperwork automation platform.” They raised $5 million in a Series A funding round last week led by Gradient Ventures (Google’s artificial-intelligence-focused investment fund), with participation from Citi Ventures, Menlo Ventures, Financial Venture Studio and 122 West.

Anvil’s software “eliminates tedious and mundane paperwork tasks, replacing them with simplified, digital forms and automated workflows,” Ng said.

The software is used to collect client information and share it with relevant parties in order to provide a service, he said. In financial institutions, where information is gathered using paper and PDF forms, then submitted to various departments for processing, Anvil creates electronic forms, requests e-signatures and shares the information electronically with departments and computer programs. TD Ameritrade, E-Trade and LPL Financial are among its financial customers.

Cooksey’s team used the Anvil software to help turn the SBA application, a complicated PDF, into a question and answer process.

“It was very intuitive and descriptive, and that helped us take the data quality that we were getting in the door up several percentage points,” he said.

Subject-matter experts made sure that the outputs from Anvil matched everything the PDF required.

Sunrise's technology situation was complicated by its conversion to Microsoft Teams in March to help workers stay connected during the pandemic. Bank employees began using Microsoft Office 365 (basic Office applications provided online), Microsoft Teams collaboration software and Microsoft’s Power business analytics software exclusively.

“That was a shock to the system,” Cooksey said. “But thankfully, we were able to transition our business quickly. It gave our users an immersive experience. We called it the Power Up. People are communicating in their different channels, and they’re able to hotlink straight into all the documentation that they need to review.”

His team integrated the Anvil software to the Microsoft tools. They built application programming interfaces that reach into Anvil, pull out the raw loan data and loan files and store them in Microsoft SharePoint.

“With Anvil, we had an immediate digital experience and all of the information that these borrowers were entering was made available to us digitally,” Cooksey said. “We were able to put it in a database and pull those documents together and put them in a linked data store to the small application we built in two weeks.”

Anvil co-founders Ng and Ben Ogle worked with Cooksey directly for several late nights to set up the system.

When the system went live, Sunrise Bank’s lenders conducted due diligence on the incoming digital loan applications, reviewing payroll files, federal tax returns and other documentation. A compliance team validated the work, and the tech team posted the applications to E-Tran as XML files.

Many large banks used robotic process automation to enter loan applications into the E-Tran system instead of uploading XML files.

“These large institutions were slamming the E-Tran website and bringing it to its knees,” Cooksey said. A few days later, the SBA unplugged RPA, and Cooksey was glad he'd made the decision to use the XML file upload process instead.

“It wasn't perfect,” he said. “The SBA turned off some of its validation checks and that allowed some data quality issues to occur that we had to clean up.”

But by and large the process was efficient, Cooksey said. Whereas in round one of the PPP the highest number of loans the bank processed in a day was 85, it handled 485 in one day using the new system. Some loans were authorized by E-Tran in 30 seconds; others took several minutes.

One advantage to using low code software, Cooksey found, was that it was easy to make changes midstream. For instance, the SBA form had a confusing compound question about whether a business was a franchise and on the agency’s franchise list that was tripping up potential borrowers. Cooksey’s team was able to reword it into two questions — Is your business a franchise, yes or no? And is it on the SBA’s list, yes or no? — with simple check boxes.

“That's one example of how we were able to adjust the user experience and language to answer those questions, to get the data quality to the acceptable level,” Cooksey said.

He plans to use the new system for other loan programs.

“We'd absolutely either retrofit what we have set up for the PPP or very easily create a new workflow,” he said. “And we're using it for loan forgiveness right now.”