

21st CENTURY SBA: AN ANALYSIS OF SBA'S TECHNOLOGY SYSTEMS

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WEDNESDAY, JULY 22, 2020

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SMALL BUSINESS,
SUBCOMMITTEE ON INVESTIGATIONS, OVERSIGHT AND
REGULATIONS,
Washington, DC.

The Subcommittee met, pursuant to call, at 1:02 p.m., in Room 2360, Rayburn House Office Building, Hon. Judy Chu [chairwoman of the Subcommittee] presiding.

Present: Representatives Chu, Evans, Craig, Chabot, Burchett, and Spano.

Chairwoman CHU. I call the meeting to order.

Without objection, the Chair is authorized to declare a recess at any time.

I want to thank everyone, especially our witnesses, for joining us today for our Committee's hybrid hearing.

I want to make sure to list some important requirements. Let me begin by saying that standing House and Committee rules and practice will continue to apply during hybrid proceedings. All members are reminded that they are expected to adhere to the standing rules, including decorum.

During the covered period as designated by the Speaker, the Committee will operate in accordance with House Resolution 965 and the subsequent guidance from the Rules Committee in a manner that respects the rights of all members to participate.

House regulations require members to be visible through a video connection throughout the proceedings, so please keep your cameras on. Also, if you have to participate in another proceeding, please exit this one and log in later.

In the event a member encounters technical issues that prevent them from being recognized for their questioning, I will move to the next available member of the same party, and I will recognize that member at the next appropriate time slot, provided they return to the proceedings.

And, finally, remember to remain muted until you are recognized to minimize background noise. In accordance with the rules established under House Resolution 965, staff have been advised to mute participants only in the event there is inadvertent background noise.

For those members physically present in the committee room today, we will also be following the health and safety guidelines issued by the Attending Physician, which includes social distancing

and especially the use of masks. I urge members and staff to wear masks at all times while in the hearing room, and thank you in advance for your commitment to a safe environment here today.

I am pleased to be holding this important hearing today to learn more about the Small Business Administration's information technology systems, IT modernization efforts, and cybersecurity strategy. SBA has counted on its technology systems to implement the programs to help entrepreneurs launch and grow their small businesses, and millions of small businesses have relied on them over the past few months to access the assistance they need to survive the coronavirus pandemic.

I would like to thank Mr. Guy Cavallo, the Deputy Chief Information Officer for SBA, for being here today to discuss SBA's efforts to modernize its systems and address some of the technical issues that have hampered the rollout of economic relief programs.

Ineffective IT systems have been a persistent problem at SBA. While significant progress has been made to upgrade the system in recent years, the magnitude of the pandemic has demonstrated the need for more modern systems that are safer, faster, and more efficient at delivering services to America's small businesses.

Six months after the first confirmed case in the U.S., our country remains in the grips of the coronavirus pandemic. Small businesses have relied on Congress and SBA to help them survive the necessary State-ordered public health lockdowns, restrictions and operating capacity, and significant revenue losses resulting from our fight to contain this virus.

This crisis has made it necessary for unprecedented numbers of small businesses to rely on your agency's technology to access loan applications, connect to their local resource partners, find translated resources, and answer their urgent questions in a timely manner. However, several technical issues have arisen during the pandemic, making it both frustrating and difficult for small businesses to receive the relief they need in a timely manner.

This Committee acknowledges the toll that this unprecedented level of activity has taken on SBA systems, and we commend you and your staff for working around the clock to fix several of the issues. The coronavirus has placed a historic burden on SBA, and we in Congress must ensure that you have the resources you need to assist the American people. But many of these system weaknesses have been known for years and should have been addressed and modernized long before this pandemic. In fact, some of the issues were brought to SBA's attention as early as 2014 by the Government Accountability Office and, in fact, there was a 2011 report from the GAO before that.

According to the Committee on Oversight and Reform's IT scorecard, SBA has made improvements to its IT infrastructure overall, but is still scoring a D on cybersecurity. This is particularly concerning given the cybersecurity breach that occurred with the EIDL application.

In late March, SBA detected a vulnerability in the EIDL application, which allowed applicants' personally identifiable information to be viewed by other applicants. Even more troubling, the individuals that were potentially affected were not notified until mid-

April, nearly 20 days after the data breach, and the notification was simply a paper letter.

The Committee heard from several recipients who were inquiring whether it was a scam or a verifiable document. At the time, SBA had failed to make any public announcement about the breach, again, showing a lack of transparency that had been a consistent concern for the committee throughout the COVID-19 pandemic. Affected businesses lost their place in the queue, were forced to re-apply, and then were shut out of the program when SBA inexplicably limited applications to only agricultural businesses.

We recognize that your office was not directly involved in those decisions, but they demonstrate the tremendous downstream impacts faced by small businesses that were affected by the initial IT systems failure.

Other problems that arose during the pandemic were related to SBA's loan processing system, E-Tran, which is a legacy system that SBA had planned to replace in an effort to modernize its IT infrastructure. The issues concerning E-Tran are not new. In 2014, the GAO reported that SBA may be unprepared for a large volume of applications to be submitted quickly following future disasters which could result in delays in loan funds for disaster victims. And in this report, SBA actually stated that E-Tran would be replaced by 2015. However, in 2020, SBA is still relying on the same system.

Shortly after the launch of the Paycheck Protection Program portal, the system was inundated by applicants, causing it to go offline for 4 hours. The system then crashed again a second time when the PPP portal reopened in late April.

While we recognize that SBA quickly increased bandwidth to increase the system—to address the system crash both times, the agency cannot rely on a system that is incapable of meeting high demand in a crisis.

The Committee plans to explore what steps must be taken to improve SBA's IT systems moving forward in order to prevent these issues from reoccurring should Congress reauthorize or authorize further small business assistance as we continue to fight the virus or if a natural disaster should strike and compound the stress on SBA's systems. It is imperative that SBA's technology systems be modernized to meet the demands of the 21st century.

With that, I look forward to hearing from Mr. Cavallo on the changes SBA plans to implement to its technology systems and what he needs from Congress in order to address these technical failures to ensure the SBA IT infrastructure is fully prepared in the future.

I now yield to the Ranking Member, Mr. Ross Spano, for his opening statement.

Mr. SPANO. Thank you, Madam Chairwoman.

While all of the oversight hearings we hold in this Committee are important, examining the state of the SBA's information technology is truly one of the most vital. We live in an era dominated by modern technology and the internet, so there is little else that has changed the way we live our lives so dramatically.

This pandemic has underscored our reliance on modern technology to do almost anything and everything, from running a successful business and allowing employees to telework, to socializing

while maintaining social distancing. Technology has been and will continue to be critical in allowing the private sector and public government to respond to and recover from this pandemic. The SBA is no exception.

As technology continues to improve, implementing innovative technological solutions to streamline manual processes or upgrade legacy systems are actions that any responsible Federal agency should consider. Once these new technologies are deployed, it is imperative that the agency ensure they are secure, operational, and meet mission objectives.

For instance, the SBA's decision to move from mail-in, paper-based application processes to online loan and contracting applications certainly has advantages for both the agency and the participant. Unfortunately, it also comes with a host of other challenges, for instance; vulnerability to computer bugs, data breaches, and cyber attacks.

As has been widely reported in the news, the technological system supporting the Paycheck Protection Program suffered from a number of these mishaps. Reports regarding the Economic Injury Disaster Loan Program have not fared well. While the EIDL advanced program intended to provide emergency grants to small businesses within 3 days of their application being filed, the SBA took nearly 6 weeks to approve less than 1 percent of the total application backlog.

Even though I appreciate the SBA's recent efforts to meet the surging demand, reports show that little more than a third of the amount Congress authorized to support the EIDL program has been approved. Adding insult to injury, a glitch in the EIDL portal led to nearly 8,000 EIDL applicants' personal information being compromised, including Social Security numbers, birth dates, and addresses.

I cannot overstate just how dire the situation is for small businesses everywhere in this country, including in my own district. They need these funds now. And if technology is the solution or the problem, we need to take appropriate action immediately.

Addressing the issues with SBA's loan programs is not the only reason why I am interested in hearing from you today, Mr. Cavallo. As the SBA continues to invest in new technologies, it is imperative that the agency ensures that the investment was worth it, that the outcome achieves the intended goals.

The SBA has made some questionable IT investments into its contracting and business development programs, making various attempts to streamline application processes and enhance staff oversight and management of these programs. Unfortunately, we have seen some of these investments fail in the past. And I understand the SBA is now investing in a new technological initiative called certify.sba.gov, to which over \$27 million has already been spent, but the system has not yet fully realized its intended purpose.

Indeed, according to the Committee on Oversight and Reform's December 2019 Federal Information Technology Acquisition Reform, or FITARA, report, the SBA received a C grade for its IT portfolio management, indicating that the Office of Management and Budget found the SBA demonstrated poor management of com-

modity IT spending in alignment with agency mission and business functions. Also deeply troubling is the D grade that the SBA received in the FITARA report for cybersecurity, indicating severe deficiencies in cybersecurity measures taken by the SBA.

I understand that we live in unprecedented times and the wheels of government often move slower than the pace of technology. However, we have to strive to do better and be better. Small businesses across the country depend on the SBA to get it right, and we must do all we can to ensure the agency's success.

Thank you, Madam Chairwoman. I yield back.

Chairwoman CHU. Thank you, Ranking Member Spano.

I need to explain how this hearing will proceed. Each witness will have 5 minutes to provide a statement and each committee member will have 5 minutes for questions. Please ensure that your microphone is on when you begin speaking and that you return to mute when finished.

With that, I would like to introduce Mr. Guy Cavallo, the Deputy Chief Information Officer at SBA. In this capacity, Mr. Cavallo provides leadership and direction in the creation, development, and execution of the agency's information technology management programs. He was previously the executive director of IT operations at Transportation Security Administration. He has also had an impressive career in the private sector implementing innovative technologies in governmental organizations.

We welcome you to the committee, and you are now recognized for 5 minutes.

STATEMENT OF MR. GUY CAVALLO, DEPUTY CHIEF INFORMATION OFFICER, U.S. SMALL BUSINESS ADMINISTRATION, WASHINGTON, DC

Mr. CAVALLO. Chairwoman Chu, Ranking Member Spano, and members of the Subcommittee, Thank you for the opportunity to discuss how the Small Business Administration has modernized and transformed—

Mr. SPANO. Excuse me, sir. Could you make sure your microphone is on?

Mr. CAVALLO. The button is on. How is that?

Mr. SPANO. That is perfect.

Mr. CAVALLO. There we go. Thank you.

Again, thank you for the opportunity to talk about how SBA has modernized and transformed its IT and cybersecurity capabilities, which we know are critical to enhancing our service delivery to citizens and small businesses.

In July of 2017, SBA Chief Information Officer Maria Roat testified before the House Small Business Committee describing her vision for a 21st century SBA. Today, SBA has turned much of her vision into reality.

With the strong executive leadership and support of Administrators Carranza and McMahon, SBA is now viewed as a technology leader in the Federal Government.

Over the past 3-1/2 years, we have implemented the necessary building blocks to deliver and accelerate our IT modernization. That foundation includes a reliable network infrastructure and leveraging the power of the cloud. In early 2017, I served as the

executive sponsor of SBA's cloud journey. Within 82 days, we built SBA's first cloud, an accomplishment that may take others a year-plus to achieve. With that network and cloud platform in place, SBA could now leverage those foundations to meet our critical role in the upcoming CARES Act.

Having SBA's cloud operational and leveraging commercial cloud services to support our modernization efforts were critical in our overnight move to nearly 100 percent telework status for the SBA staff and for the thousands of surge workers who may never work in an actual SBA office.

I also want to highlight that one of the most significant benefits of moving to the cloud has been the tremendous improvement in our cybersecurity protections. For example, since April of 2018, our security team has partnered with DHS to take down 1,380 malicious websites that we uncovered by stopping phishing attempts into SBA.

Now, based upon our enhanced cybersecurity capabilities, we conducted two pilots with DHS to validate the cloud protections. Our pilots on the Trusted Internet Connection and the continual diagnostic and mitigation programs allowed us to successfully demonstrate alternative ways of meeting the goals of those programs, and our results led DHS to modify the Federal security policies for those programs.

In addition to those cybersecurity capabilities, we leveraged the cloud to build new CARES Act solutions, including a new portal for the \$10,000 EIDL advances, a front end to the lender gateway for banks to access the E-Tran system, an updated find a lender tool to display eligible lenders of the PPP program by ZIP Code, and a new customer service hub for better tracking all the millions of citizen requests we receive.

All of these new solutions were implemented within 8 days or less. My team worked round the clock to make sure that we had these in place as fast as possible.

We also accelerated implementing GSA's login.gov common identity management solution, which allows a small business to use one set of credentials when accessing any SBA system or any other government portals that adopted login.gov. However, I do want to acknowledge that until these new systems were in place, several of the legacy systems did experience outages and slow response times from the overwhelming demand.

For example, the disaster loan access portal began suffering outages due to the demand exceeding its capacity. Within a day, we implemented a replacement interim cloud solution to intake loan applications until the final replacement EIDL rapid intake portal was ready. However, while making multiple system changes in the middle of the night in such a short time, a mistake was made in one of the system's configuration which accidentally exposed PII data for some individuals. Within 3 hours, we discovered that exposure and quickly fixed the problem. And to support the potential exposure of those individuals that may have been exposed, we have offered free credit monitoring services.

There is still much to do, but the positive steps taken over the last 3-1/2 years have positioned SBA to be able to continue modernizing our legacy systems.

And I want to thank you for the opportunity to speak to that today, and I look forward to the Committee's questions.

Chairwoman CHU. Thank you, Mr. Cavallo.

I will begin by recognizing myself for 5 minutes for questions.

Mr. Cavallo, it wasn't just a few persons who had their data exposed; it was 8,000 individuals. There were so many egregious things that happened in that situation where EIDL data was exposed, the data of small business owners who were trying to get relief from COVID-19, and it caused SBA to tell the applicants to reapply, they lost their place in line, and the applications were subsequently closed to anyone who wasn't in the agricultural industry.

So, Mr. Cavallo, how did this breach happen, and what specific steps did SBA take to fix the issue that caused the data breach? Also, the breach occurred on March 25. Why did it take until April 13 for SBA to notify these small businesses who may have been affected?

Mr. CAVALLO. I want to thank you for asking that question. First of all, I want to clarify that we did not suffer a data breach; we suffered a data exposure. The big difference is that there was no data break-in, any download of data. They are both serious, but a potential data exposure is quite different, and as I said, we were not breached.

I can tell you how it happened. My staff was working around the clock, pulling all-nighters, trying to get the new loan portal set up as fast as possible. A human error was made at 6 a.m., which caused the potential for that exposure to occur, and within 3 hours, we implemented taking the portal down and limiting the exposure.

But we followed our standard procedures for dealing with a PII exposure, which means we reported it immediately to US-Cert within an hour. We convened our executive response team on March 29. That team decided to make sure that everybody that was potentially a user during those 3 hours would receive credit monitoring services.

And then, ma'am, we don't have in place a contract to pay for credit monitoring services, so we had to go to GSA to compete the credit monitoring services, which we did on March 29 and 30. Once that was awarded, we brought the vendor on board. They reviewed the logs and found that there were some logs that we didn't have valid addresses and information, and then they were able to issue the letter on April 13 to those individuals offering credit monitoring and free call center to use toll free and provide support.

I would have liked that to be faster, but that was how long it took to get there.

Chairwoman CHU. Well, what it shows is that there clearly needs to be improvement in SBA's IT. And I noted that there have been GAO reports since 2011 expressing concern about this. And then GAO did another report in 2014, which said that SBA was not prepared for large volumes of applications that could come in after a disaster.

Now, I acknowledge that SBA has made some improvements to its technology system in the IT scorecard, but in the most recent scorecard, the SBA received a D on cybersecurity, which was its lowest mark in any category. So what has been the holdup to im-

provements in this area, and what specific steps has SBA taken to improve particularly on cybersecurity?

Mr. CAVALLO. Yes. One thing I do want to point out that we—the way the cybersecurity score is calculated, there are two different criteria. One is an assessment from our Inspector General, and our Inspector General uses the OMB maturity model that measures eight different domains. To receive a higher score in that, you must have no KPMG findings in the domain. It is one of the toughest scores to be able to obtain. My understanding is only one Federal agency has been able to achieve the top score.

The other component of that is how you are performing on your cross-agency CAP Goals. In the last 2 years, we have moved from a 30 percent CAP goal implementation to 80 percent implemented.

So, ma'am, we are taking it very seriously, and we are working hard to get that score up. We think the combination of those scores do not accurately reflect where we are today; otherwise, DHS would not have selected us to pilot two critical cybersecurity pilots with them that have changed Federal policy. And, in fact, they have asked us now to help them implement the CDM Program in a new cloud-based solution.

So, we realize how the scores were obtained. We have taken many steps to improve our cybersecurity. I highlighted the number of websites we are taking down. We have full visibility of all attempts to get into SBA. We also—with the PPP and EIDL loans, implemented geofencing so that a foreign adversary applying from a foreign country could not even get to the loan system.

So, we are radically different from where we were in 2012 or 2014. Still work to be done, but we would like to see that score increase. I mean, over the last 3 years, we have gone from a D-minus to a B-plus, and right now, we have the third highest FITARA score in government.

Chairwoman CHU. Thank you. My time has now expired.

The Ranking Member, Mr. Spano from Florida, is now recognized for 5 minutes.

Mr. SPANO. Thank you, Madam Chairwoman.

Mr. Cavallo, I assume that the SBA must have anticipated that a wave of applications were going to be incoming through the E-Tran system once the PPP and EIDL launched. However, we all know there were concerns about that early on, portal crashing, other technical difficulties that occurred right there at the start.

Were any actions taken or undertaken or any efforts made to prepare for what, it would seem to me, would have been an anticipated load on the E-Tran system?

Mr. CAVALLO. Yes. Thank you. Thank you for that question. Yeah, the E-Tran system is not managed by the Office of the Chief Information Officer. We partner with our business offices to do that. It is definitely on our list of systems that need to be modernized, and we are following the CIO Council's Application Rationalization Playbook to determine how to modernize. That is going to be a long-term project, sir, and that is something that we could not do between March 1 and when this all hit.

The steps that my office specifically took was that we doubled the network connectivity speed because we knew there was this influx of people coming. That took a week or two to happen, but we

were able to get ahead of the surge exceeding the demand. We also built that front-end lender gateway as a cloud-based application to basically take the load off on some of the front of E-Tran to allow our small banks to apply easier. And then we worked with our partner at the Office of Capital Access to spread out their workday. So instead of getting hit with all the applications coming in at 9 a.m. from certain banks, they spread out the schedule to be able to take applications throughout the day.

Those are all things that we could do now to lessen the demand on E-Tran. The last thing we did is we approved a significant hardware investment to up the horsepower of the E-Tran system, but it is going to take time to modernize that system. It is a very complex financial system.

So those were the things we could take to support it. Definitely there were issues and there was trouble along the way, but each of these steps helped lessen the impact or reduce them from happening in the future.

Mr. SPANO. Does the continued challenges apparently that you still have with the E-Tran system, are those impacting the pace, the slow pace at which the EIDL loans are being processed?

Mr. CAVALLO. I don't think I can answer that. It is more of a program office answer on how they are handling the processing. As I said, the system is up and running, that is—

Mr. SPANO. I guess my question is, you mentioned that problems with PPP and the EIDL were a function of or based on the fact that the E-Tran was not built to sustain that level of demand. What I am asking you is, is the EIDL demand still such that E-Tran cannot handle the load?

Mr. CAVALLO. From everything I have seen, we seem to be handling the load now.

Mr. SPANO. Okay. So that is not—E-Tran is not the reason for apparently the slowdown, the slow process of EIDL, as far as you are concerned?

Mr. CAVALLO. Yes. From the technology side, I am seeing that it is up and that the connectivity is there.

Mr. SPANO. Gotcha.

So the SBA received an additional \$2.1 billion for SBA salaries and expenses intended to help the agency staff up in order to meet the need generated by the pandemic. Can you tell us how this money has been spent so far?

Mr. CAVALLO. I can address how we have spent it in the OCIO office.

Mr. SPANO. With respect to your area.

Mr. CAVALLO. Yes. With us increasing the size of SBA by about 500 percent, I knew immediately that our IT help desk, our network operations center, monitoring and making sure that our networks are working fine, and our security operations center providing cybersecurity, those were all designed for 3,000 to 4,000 users, not well over 12,000. So, we have used the funds to help supplement that, and my staff working in those areas, to make sure that the connectivity is there, that the cybersecurity protections are there, that we are not being overwhelmed by it. It has been a slow process to ramp that up. We are using both temporary Federal employees and contractors to do that.

So, in our office, yes, we are all well on the way of staffing up to deal with this increase of size.

Mr. SPANO. Okay. I only have 20 seconds left. But you talk about in your testimony that—you discuss in your testimony using webcasts to connect with small businesses that save thousands of dollars over the SBA's previous teleconferencing solution.

My question is, are there any other uses of existing technology in your arsenal that can be deployed to find other cost-savings benefits?

Mr. CAVALLO. One of the things we did is we stood up a virtual command center, which saved us the cost of setting up a command center for our senior leadership to get together. Definitely the web conferencing, we can host 10,000 businesses at once now at no extra cost, when before, that would have cost us thousands of dollars. Leveraging the cloud is keeping us from buying more hardware. So that has also been a significant impact.

Mr. SPANO. Thank you.

I yield back, Chair.

Chairwoman CHU. Thank you. The gentleman's time has expired. The gentleman yields back.

And now, the gentleman from Pennsylvania, Mr. Evans, is now recognized for 5 minutes.

Mr. EVANS. Thank you, Madam Chairperson and Ranking Member.

The IRS announced yesterday that they are establishing a new office to spearhead the efforts to modernize the management of taxpayer cases. The new office will be responsible for updating its outdated IT systems and making several of its processing paper documents digital.

Would the SBA consider a similar strategy to bring the IT system, infrastructure, and management documents into the 21st century? And would the office of the CIO be well suited to implement the strategy?

Mr. CAVALLO. Thank you for that question. As an agency, we have adopted the Federal CIO Council's Application Rationalization Playbook. To put that in non-CIO terms, you basically have a methodology to look at each information system and decide are you going to modernize it where it is, are you going to move it to the cloud, do you need to rewrite it, or do you need to shut the system down. So, we are going through our major applications looking at that first before we start spending money just heading down a modernization path without having a clear direction.

What IRS has done is what I see a lot of the other Federal agencies doing, and we have been doing that from day one. Over the last 3-1/2 years, we have modernized major parts of SBA. The financial systems are by far the biggest and most complex ones, so we are taking that on next. But we will work closely with the CFO and Capital Access and ODA on heading down that modernization path.

I think until we do that analysis, we won't be able to provide our CFO, our Administrator what the cost would be to do this so that they can come, present that to you, but we are doing that homework now.

Mr. EVANS. How could Congress support the SBA in establishing a new office to spearhead IT becoming modern and digital across the entire agency?

Mr. CAVALLO. Again, we appreciate all offers of help. Today, we have a Chief Technology Office that leads our modernization efforts. I am not sure that we would ask for anything additional to that. As I said, we have the methodology in place that we intend to use to make the decisions about modernizing systems, and then through our budget process and through the Administrator, we will come back to Congress and make those requests for funds when we are ready.

Mr. EVANS. In mid-April, the SBA announced that on March 25, it discovered that the application system for the EIDL may have disregarded personal information to other applicants of the program. What personal information was divulged?

Mr. CAVALLO. Let me check for that, sir. I don't want to give you a wrong answer.

Looks like I don't have that information with me. There was a formal report that we filed with US-Cert, so I can supply that information with you as a follow-up.

Mr. EVANS. Okay. No problem.

Since I am talking about it, for EIDL application status, the only updates provided are processing and then accepted or rejected. This has caused severe stress for small business owners in my district who have great difficulty checking the status of the application. Is the SBA working on improving the status checking on these loan applications? And let me give you a followup real quick. What is the timeline for improving loan application status checking?

Mr. CAVALLO. The Office of the Chief Information Officer does the enterprise networking and connectivity and infrastructure. What you are asking about is a program office decision that is run by the Office of Disaster Assistance.

Mr. EVANS. Right.

Mr. CAVALLO. So, I can't answer that for them.

Mr. EVANS. Okay. Real quick, I think I—

I yield back to the Chair my remaining time.

Chairwoman CHU. Thank you. The gentleman yields back.

And now, the gentleman from Tennessee, Mr. Burchett, is now recognized for 5 minutes.

Mr. BURCHETT. Thank you, Chairlady, Ranking Member.

Eighty-six percent of the PPP loans in Tennessee in the Second District where I represent are under \$150,000. Do you know how many of those are nationwide and the amount, total amount that would be?

Mr. CAVALLO. No, sir. That is not something that I would have in the Chief Information Office.

Mr. BURCHETT. How would I go about getting that?

Mr. CAVALLO. We can provide that from our business offices that would have that up to date daily.

Mr. BURCHETT. Great. If you all could send that to me, that would be great.

And I have been hearing some complaints the E-Tran system is too complicated, especially for those who are new to SBA lending.

What can the SBA do to make its public-facing technology systems more user friendly?

Mr. CAVALLO. Again, a very good question. It is something that my team is dedicated to do. A lot of the new programs that I highlighted that we implemented, especially for the CARES Act, are much easier to use than the legacy systems. And whenever we can, for something like E-Tran that we can't modernize overnight, what we are trying to do is put a new front end in front of it so that the small business owner or the citizen is able to more easily interact with the system. We were able to do that successfully for a number of these programs.

Mr. BURCHETT. Right.

Mr. CAVALLO. Overall, it is a major initiative to improve the customer experience for any SBA user. I mentioned earlier that we have moved to login.gov, which is a common way that GSA provides the Federal agencies, where before, if you logged in to separate SBA systems, you might have to fill out your company's information over and over again. Again, we are taking steps to eliminate that and use more of these common platforms, so you have one identity.

Mr. BURCHETT. Okay. Do you feel that the SBA has the capacity to manage all these new lenders moving forward?

Mr. CAVALLO. Again, from the CIO's office, we have been able to absorb the 500 percent increase in staff and support the systems. The program offices that actually work with those lenders, they would be better able to answer that question, sir.

Mr. BURCHETT. Okay. All righty. Thank you very much.

Chairwoman CHU. Okay. At this point, the gentleman yields back.

And at this point, all the members present have asked a question. So we actually have time for a second round of questions, so please be present if you would like to go a second round. I will start by recognizing myself for 5 minutes.

Mr. Cavallo, when we arranged this committee hearing, we discovered that your Office of the Chief Information Office only oversees 37 percent of SBA's IT program. And this raises several new concerns, including why SBA would take such a disjointed approach to IT and cybersecurity, and why it did not entrust its chief information officer with managing IT for the PPP and EIDL, and to what extent the deputy CIO was brought in to help when PPP and EIDL both encountered significant technology system failures.

So why is the SBA's IT staff decentralized? Who controls the remaining 63 percent, and how has it helped or hindered SBA's ability to respond to the coronavirus pandemic?

Mr. CAVALLO. Thank you for that question, ma'am. You know, SBA has long had a history of being decentralized, and one thing in a decentralized world is that you get some of the IT staff closer to the program operations than staying in a central location. What we have done is partner with those offices. Most of those staff members are in the Office of Disaster Assistance and the other program offices. We partnered with them throughout this process.

Going back to your question, how involved were we in all of this, we were very involved. None of the program offices went off and worked on their own on this. We put teams together and, like I

said, sometimes pulling all-nighters to get these new programs in place so that lenders could apply.

There are different models for IT. Like I said, right now at SBA, we are more decentralized, so what we have done over the years is make sure that we have a strong partnership with those offices. The CIO Office does have FITARA approval of every IT procurement of \$50,000 or more. So, if an office tried to do something without having us involved, there is a hard stop that they can't proceed without the CIO.

So, we have worked very well together. We spend time at each other's conferences and work together as a team. So right now, the model is working for us.

Chairwoman CHU. But would there be greater improvement if this operation was centralized?

Mr. CAVALLO. That is a great political science debate over time. We can find as many people arguing that centralizing everything is better than decentralizing, and we can find just as many people arguing with that.

I think, Madam Chairwoman, the important part is that we partner together. If we ran independently, I would absolutely give you a different story. But we work so well together that it doesn't matter who we report to, that we are all pulling together in the same path of making sure that we have these systems up and operational as much as possible. So, I really can't give you a better answer than that.

Chairwoman CHU. Well, were you aware of the deficiencies with the portals used to implement the Paycheck Protection Program prior to its launch, and did the Office of Capital Access request assistance?

Mr. CAVALLO. As far as deficiencies, I am not sure which part you are talking about. As far as just the recommendation that they be expanded, yes, we were working with them on those expansions before that point. Just in the last year, we have added our cybersecurity coverage across their systems, which previously were done independently. So, yeah, we have worked well together, and they have asked for our help and we have jumped in and helped them throughout this process. For example, putting a front end to E-Tran was something we did together. We did not force that on them. They recognized that we had the expertise in our office to do the new cloud-based systems. They had the expertise in E-Tran. And we used both teams together to get that new front end put in as quickly as possible.

Chairwoman CHU. And I know you have—the CIO has an annual budget of \$28 million. What percentage of this is towards improving cybersecurity?

Mr. CAVALLO. Off the top of my head, I would say that—again, our move to the cloud was our biggest eye opener on cloud cybersecurity capabilities, so we got a benefit from that right away. We are probably spending \$13 million of that on cyber, and everything that we are doing is based on cyber.

One thing that my development teams do is we have security built into it so that it is not an afterthought. So, I can't give you a number for all of that because they are part of the team, but we take our cyber very seriously. And, in fact, as I mentioned earlier,

DHS relies on us as being one of their prime agencies that they go to on how best to do cyber.

Chairwoman CHU. Okay. My time has expired.

Now, I would like to recognize the Ranking Member from Florida, Mr. Spano, for 5 minutes.

Mr. SPANO. Thank you, Madam Chairwoman.

Mr. Cavallo, you referenced a couple of times now putting a front end onto the system. Can you explain to those of us who are computer illiterates what that means?

Mr. CAVALLO. Yes. It is great to have IT talk. You can have, even back to the old green screen days, a very difficult and complex screen to fill out that the data goes into in an old legacy system, or we can put a new web page that has dropdowns and colors and you can see exactly where you are, and the data still goes into the legacy system. So that is—

Mr. SPANO. It is the way that the user interfaces with the system, more user-friendly essentially.

Mr. CAVALLO. Yeah. We have simplified the user interface, made it easier for them to access the system than the old—

Mr. SPANO. But you can't conduct substantive kind of fundamental changes to the system with these front-end patches, I guess?

Mr. CAVALLO. No. That is where you need to do the full modernization and look at the right path.

Mr. SPANO. Got it. Okay.

It is our understanding that the SBA has spent approximately \$27 million on its new certify.sba.gov system. Do you have an updated figure on that?

Mr. CAVALLO. Yes, I do. If I brought it with me.

I will say we are in the process of re-platforming Certify. Last year, the CIO and the CFO stopped the current development, which was the number that you are referencing. It was custom coded, so it meant that everything had to be written from scratch, and the decision was made that that was not a path to continue down. And what we have done since November, we have spent \$3.5 million to rewrite the WOSB Program and HUBZone Program as the first two out on software as a service, which simply means instead of writing every line of code to be a database or to be that screen, we leverage the power of preexisting software.

So, we just launched the new WOSB version last week, using that software as a service. It is a platform that we are using across SBA to do our citizen reporting. The ODA team is using it for their disaster portal.

So instead of being a standalone, custom-built application, we are moving Certify to a common platform that will give us a 360-degree view of all of our interactions with customers. So, we are in the middle of that rewrite.

Mr. SPANO. Okay. Prior to the Certify system, there was another system that kind of went south, from what I have heard.

Mr. CAVALLO. Yeah.

Mr. SPANO. And now, it seems like this one, we were using it for a while, and now we are doing main wholesale changes to it, it seems, based on your explanation there. Is that usual to have changes and move to different programs and for them not to be ef-

fective and just to move from one to the next? Help me understand because, you know, I am not a techie, but it just seems like that is very inefficient.

Mr. CAVALLO. That is a great question. It is all a factor of time. Today, my opinion is if you can have a vendor supply the platform so that they are responsible for doing updates, they are doing the code things, like with Office 365, Microsoft is updating Word and Outlook and all of those programs, and then you just write your code on top of that, then you have the power of a major vendor providing your cybersecurity, making sure everything is patched, that any potential breaches or attacks from foreign adversaries are covered. Moving away from custom code to that is absolutely something I would do a hundred times out of a hundred times.

Mr. SPANO. But that is not what we are operating under currently. We are doing it in-house?

Mr. CAVALLO. Yeah. The new Certify program that we just launched last week—

Mr. SPANO. Okay. It is moving?

Mr. CAVALLO. That is on this new platform.

Mr. SPANO. I see.

Mr. CAVALLO. Like I said, we have WOSB as the first one out of the gate, HUBZone will be next. But, yeah, the rest of the program has a long legacy.

Mr. SPANO. Okay. So let me get your assurances, as much as you can give it to me sitting here, based on the fact that we have kind of failed here a couple of times now at this. Do you feel confident that this new way forward is actually going to work like we intend it to work? It is going to be an appropriate, responsible investment for the American taxpayer?

Mr. CAVALLO. Like I said, from a technology standpoint, getting out of custom code, whether you put it in the cloud or whether you kept it on premise, absolutely is the right direction to go today. You know, the legacy systems that are all custom code are what is keeping agencies up at night. So, I think we have made the right choice and we are headed in the right direction.

The Office of Disaster Assistance has 2,500 users already in the new system, so I think what we are seeing differently, instead of being its own standalone system run by just the GCBD office, we are seeing more buy-in to a platform across the SBA offices, which helps us break out of silos of dataware. If you asked our offices can you give me data for my district, we actually have to go to different systems to give you that data. Where we are headed to is that will all be very simple common, so that one office knows what your citizen did versus another visiting another office.

Mr. SPANO. I see. Thank you.

Madam Chair, I yield back.

Chairwoman CHU. Okay. The gentleman's time has expired.

And now, the gentleman from Pennsylvania, Mr. Evans, is recognized for 5 minutes.

Mr. EVANS. Thank you, Madam Chair.

My understanding, this is the first year that the SBA has had the ability to transfer funds to its working capital to upgrade IT equipment?

Mr. CAVALLO. Yes.

Mr. EVANS. Okay. What are the priorities moving forward then?

Mr. CAVALLO. Yes, thank you for asking that. Yes, last year, was the first year that SBA was able to implement a working capital fund. So, we have had less than a year of having that fund available. And at the end of last fiscal year, we were able to seed that with \$6 million.

We have set up a governance model at SBA where the CIO and the CFO manage that working capital fund. The offices may propose—

Mr. EVANS. While you are at it then, can you tell me, in addition, what has SBA done with the \$6 million then?

Mr. CAVALLO. Yes. We have made priorities to—most of it is going towards modernizing systems. Part of it went to modify the Certify system. We have also put part of it into updating and modernizing the EDMIS system. So, there are about four or five different areas.

Sir, we did not use it to buy any hardware. Everything that was put into that fund we have dedicated to modernizing new systems.

I don't know how the end of the fiscal year will end up, if we get to supplement that with another influx of money, but right now, that is 2-year money. So, the programs that we started this year, if they need to go past the fiscal year, we were counting spending some of that \$6 million to keep them going until they are finished, like the EDMIS program. But, as I said, this was the first year of the agency having that fund.

Mr. EVANS. My understanding when the paycheck protection portal was launched, the E-Transfer system where lenders submitted borrower applications went offline for as long as 4 hours. On April 27, upon reopening, the PP portal crashed again. I heard from many lenders, you can imagine, in my home city of Philadelphia about the frustration in using this system, which caused them much stress.

How did the office of the CIO work with the Office of Capital Access to recidivise the issues and relaunch the system?

Mr. CAVALLO. Sure, yeah. What I mentioned earlier is that one thing that we saw was that the amount of users hitting the traffic from outside was growing tremendously, so we increased the bandwidth connectivity to it so that that would not be a limiting factor. And we put in a new front end to make it easier to access the system, like the Lender Gateway. There were hiccups along the way because you have a very legacy system and you have a brand-new system. I believe we figured it out through this time, and it should be much easier and better now. But there definitely were hiccups in the early days with the tremendous volume that we were facing.

Mr. EVANS. So how successful do you think you have been, if you had to kind of rate it in terms as a result of you revisiting it?

Mr. CAVALLO. I think for an agency the size of SBA to respond to all that we have responded to, that I can't commend higher my staff and the other program offices' staffs for stepping in. We know that—we have talked about it throughout this meeting—in the early days, the first week or two or three, there were significant problems, but everybody jumped into it. So I would give us a pretty high rating today.

Mr. EVANS. Okay. I thank you.

Thank you, Madam Chair. And I yield back the balance of my time.

Chairwoman CHU. Well, thank you.

[Inaudible] now all of the members have asked their questions, so I would now like to close.

And I thank you, Mr. Cavallo, for your testimony today on SBA's technology systems, IT modernization efforts, and help addressing its cybersecurity issues.

While I understand that the demands on these technology systems is unprecedented, several of these issues were preventable. SBA needs to have an IT infrastructure in place moving forward that can scale and respond to the high volume of applicants in need of support during COVID-19.

Several of the technical issues that arose affected the ability of small businesses to access loans, and the complicated and difficult process of applying placed another unnecessary burden on small businesses that were already struggling to stay open.

The Committee looks forward to working with you in the coming months to address these technical issues and make sure they are working effectively so SBA can implement its programs effectively and meet the needs of millions of small businesses that are relying on you to help them stay afloat.

I ask unanimous consent that members have 5 legislative days to submit statements and supporting materials for the record.

Without objection, so ordered.

And if there is no further business before the committee, we are adjourned.

[Whereupon, at 1:58 p.m., the Subcommittee was adjourned.]

A P P E N D I X



**Statement of Guy Cavallo
Deputy Chief Information Officer
U.S. Small Business Administration**

**before the
House Subcommittee on Investigations, Oversight, and Regulations**

**Hearing on “21st Century SBA: An Analysis of SBA’s Technology Systems”
July 22, 2020**

**Statement of Guy Cavallo
Deputy Chief Information Officer
U.S. Small Business Administration**

Chairwoman Chu, Ranking Member Spano, and members of the committee, thank you for the opportunity to discuss how the Small Business Administration (SBA) has modernized and transformed its Information Technology (IT) and cybersecurity capabilities to enhance our service delivery to small businesses and citizens.

In July of 2017, SBA Chief Information Officer (CIO) Maria Roat testified before the House Small Business Committee to highlight her first nine months of observations and to describe her vision for a 21st century SBA. She also highlighted the information technology (IT) challenges that SBA faced back then, including the history of the CIO position. Before she joined SBA, the agency had gone through eight different CIOs in the previous 10 years. When Ms. Roat recently left SBA to become the Federal Deputy CIO, she left as the longest serving CIO in SBA history, and together we were the longest serving CIO and Deputy CIO leadership team in SBA history. That consistency in IT leadership was critical for the major enterprise wide technology transformations that we have enacted to be successful.

The SBA continues to make progress towards its 21st century technology vision. Over the past 3+ years, the Office of the Chief Information Officer (OCIO) has completed the necessary building blocks to deliver and accelerate IT modernization at SBA. Before you can modernize an enterprise, you must ensure that you have a solid foundation. That started with the network infrastructure connecting all SBA offices, which was upgraded to current technologies, allowing us to double the bandwidth to those locations. The Agency staff was also transitioned to laptops and tablets to reduce the dependence upon immovable desktop computers. All SBA users were upgraded to the latest version of Windows 10 and leveraged the cloud-based Office 365 productivity suite.

Another key building block was to establish SBA's cloud presence. Supporting the Cloud First mandate, SBA embarked on its cloud journey in early 2017 as a key foundational building block of IT modernization. In Spring 2017, together with the CIO, I led this initiative as the Executive Sponsor. My private sector experience had prepared me to think outside the box and leverage innovative approaches to the challenges that SBA was facing. I came up with a proposed self-funding approach to pay for the cloud effort by a combination of right-sizing existing services contracts, leveraging benefits available under existing contracts, while also making some tough choices. Within 82 days, we completed the design, architecture, implementation, and the Authority to Operate (ATO) for SBA's cloud initiative.

The reason I am sharing this example is that we were determined to modernize SBA's IT environment and we set ourselves an ambitious modernization goal by beginning with these foundational elements. We demonstrated that we could deploy resources efficiently and accomplish a lot in a short timeframe. This approach continues today in how we are modernizing SBA. In this process, we were not only able to modernize SBA's IT, but also share the lessons learned with other federal agencies.

Each of these foundational elements provided the necessary modern and agile infrastructure to innovate and develop solutions to address the business needs of the SBA Program Offices. As an example, SBA's cloud adoption in early 2017 accelerated SBA's response to the hurricanes Harvey, Irma, and Maria by quickly enabling loan officers to access internal systems.

Today SBA is in a much different place than it was in 2017. With the strong executive leadership support of Administrator Carranza and former Administrator McMahon, SBA has become a technology leader in the federal government. The 21st century SBA focuses on putting customers first and improving the customer experience for small businesses, entrepreneurs and citizens that interact with the SBA. Customers experience digital workflows, increased self-service capabilities, and the ability to access these capabilities using mobile devices, while remaining assured that the information they share with the SBA is secure. This is accomplished by using modern, cloud-based IT solutions that are innovative, simple to use and are flexible to adapt to the changing requirements of SBA's mission. These capabilities have been delivered using cost effective techniques while maintaining the needed cybersecurity protections.

Telework Ready

Our staff and contractors moved quickly when SBA had to shut down our physical offices and move to a maximum telework status due to the COVID-19 global pandemic. For telework to be successful you need three key elements. First, the staff member must have a mobile device to be able to take to his or her home. Second, you need to have an internet connection available at your home. Lastly, you need a secure connection to the SBA network over the internet to access the various SBA applications.

Since the SBA staff had already transitioned to laptops and tablets, virtually every staff member was able to take his/her office computer home and be able to perform his/her work with no interruption. With their home internet connection covering the second requirement, the last component was to provide a secure connection to the SBA network over the internet. By leveraging a secure cloud-based connectivity solution that replaces the older VPN solution, we simplified connecting to the SBA environment for our remote users, while also providing a faster and more secure connection. In the last 100 days we accelerated migration of SBA users to the new solution, with over 7,000 users now using this new cloud-based solution.

As part of the enterprise modernization, we are replacing over 50 separate older technology phone systems with contemporary Voice over IP (VoIP) phones tied to our Office 365 PBX in the cloud. This capability means that our staff are able to use their office phone numbers while teleworking, being able to respond to phone calls from wherever they are. We also were able to assign new phone numbers to the new staff members where their laptop or tablet became their phone just by plugging in a headset.

With most of the CARES Act surge staff working remotely at home, SBA's emphasis on being "telework ready" not only worked for the existing staff, it allowed us to add thousands of remote workers who may never set foot in an SBA office from the very first day.

Collaboration Solutions

Implementation of the Office 365 productivity suite also provided collaboration and communications tools like Teams. As the COVID-19 global pandemic national emergency was declared in March 2020, my staff established a Virtual Command Center for the SBA executives using Teams. This enabled collaboration in real-time, while also providing a central place for storing and accessing all COVID-19 related information.

The Virtual Command Center also served as the central hub for relevant data and reports. Using data analytics tools, my team created interactive dashboards that provided up-to-date insights into the various activities that SBA was undertaking in response to COVID-19. Because we had implemented the cloud-based office productivity suite and were already using Teams it took us only a day to implement this Virtual Command Center.

Another new collaboration technology that we deployed in the last 100 days was the ability to host external citizen facing webcasts for up to 10,000 users at a time. With many small businesses having questions about the Economic Injury Disaster Loan (EIDL) program and Paycheck Protection Program (PPP), this live event capability allowed SBA District offices across the country to engage and communicate with large numbers of citizens and small businesses at a time. With this functionality being part of Office 365, we also avoided hundreds of thousands of dollars by implementing this capability over SBA's previous teleconferencing solution.

Cloud

As I mentioned earlier, implementing and utilizing commercial clouds has been a cornerstone of our modernization efforts. Initially we leveraged the SBA cloud in the traditional ways – to migrate and close physical data centers and to migrate on-premises applications. In our transformation journey we have already closed 9 data centers as part of our Cloud Smart strategy implementation.

Within the past year, we moved the SBA.gov website from a hosted service provider to the cloud. SBA.gov normally has 600-700 concurrent users. However, when the President tweeted SBA's URL, within seconds the number of users hit 93,000. SBA's cloud infrastructure auto scaled in real time to meet the increase, and in fact, user response time decreased due to the capabilities of the cloud. It was vital for SBA's primary website to be not only available but performing well so that the nation's small business community could access the most up-to-date information on the economic recovery programs.

Another benefit of the cloud during SBA's COVID-19 response, was our ability to implement virtual desktops for our remote users. With SBA's workforce rapidly increasing, to accommodate the surge in staffing, we implemented virtual desktops to allow new users to begin working even before they received an SBA computer. For some of our expanded staff, instead of SBA needing to purchase a laptop or tablet for each user they were able to use their agency's or company's computers while running the SBA applications in our cloud, while still being managed by our cybersecurity protections. Today we have almost as many virtual desktops available in the cloud as SBA had staff onboard at the beginning of March.

Cybersecurity

While the benefits of our modernization journey that I have highlighted already have been great achievements, one of our most significant benefits of moving to the cloud has been the tremendous improvement of our cybersecurity protections. Leveraging the cloud native cybersecurity capabilities, we have much better visibility into protecting SBA from attacks and utilizing artificial intelligence to assist our security team separate the real threats from the background noise. As an example, we implemented geo-fencing on the SBA portals, so that network traffic originating from outside the country was blocked.

These capabilities have allowed us to be proactive in the handling of phishing emails that contain links to malicious websites – emails that SBA and every federal agency receive by the hundreds every week. Instead of just blocking these emails, our security team has worked closely with DHS to take down 1,380 of these sites since April 2018. By taking these sites down, SBA is not only protecting our own agency, but anyone else in the world who received such phishing emails. Prior to our cloud cybersecurity protections, we would take down fewer than 30 malicious websites a year.

Based upon these vastly improved cloud native cybersecurity capabilities, over the past two years we have conducted two pilots with the Department of Homeland Security (DHS) to demonstrate those capabilities compared to current on-premises cybersecurity protections. Our pilot on the Trusted Internet Connection (TIC) highlighted the greatly enhanced visibility into SBA's network traffic, and our ability to better protect all SBA assets.

The second pilot was to leverage our same cloud native cybersecurity capabilities to meet the goals of the Continual Diagnostic and Mitigation program (CDM). By aligning the pilot to the purpose and goals of the CDM program instead of the physical architecture, we were able to demonstrate that SBA had met those goals. The result from both pilots was that SBA's efforts led to DHS updating and changing both program's recommendations and requirements for all federal agencies.

Application Support Specifically for the CARES Act

With all of the modernization capabilities in place that I highlighted earlier, when it came time to implement the requirements of the CARES Act we were able to build on that solid foundation to support the tremendous demand on SBA's systems. We specifically launched six new cloud-based systems to support the unprecedented heavy demand of our small businesses and participating lenders.

To enable submission of EIDL applications, including the EIDL advance, the Rapid Intake Portal was implemented in 7 days and this was done in collaboration with SBA Program Offices. It was designed to be simple, to the point, and to facilitate the input of information quickly and seamlessly.

The Disaster Loan Access Portal (DLAP) was an on-premises system when the CARES Act became effective. The overwhelming demand on DLAP was causing performance issues, and the system underwent multiple maintenance changes including Content Delivery Network

(CDN) caching, additional memory for database, file system changes to add resiliency to the webpage and additional resources. On March 25th, potential breach of system information was detected that morning when the system came back online. The CIO directed that legacy DLAP would not come on-line in its current state, and the team implemented a quick interim solution to intake loan applications until the new EIDL Rapid Intake Portal came on-line on March 29th. This agility to implement two different loan application portals within four days was possible because of the previous modernization steps.

The Lender Gateway for banks to access the Office of Capital Access's (OCA) systems also needed upgrading to support the significant increase in demand. Utilizing a combination of existing enterprise solutions to augment the OCA legacy portal, this functionality, with a new external facing intake portal, was delivered in just 8 days.

A key component in supporting the PPP was SBA's Find a Lender tool. Find a Lender is a simple search interface leveraging Google Maps to display eligible lenders in the PPP program by zip code, so that small businesses can easily locate lenders in their local community. This cloud-based solution was built in just 4 days.

I also want to highlight SBA's new Customer Service Hub. With our Office of Disaster Assistance (ODA) being overwhelmed by over 10,000 citizen emails a day, that volume of requests exceeded the capacity of Office 365's email system. Even if the volume of emails was not a technical problem, managing the pending requests and assignments was very difficult. The OCIO and ODA offices agreed that we needed a case management solution, not an email solution to best handle these requests. In just 7 days our team implemented our Customer Service Hub using a cloud based software as a service solution, which provided SBA with an application to manage, track, assign, and analyze the large volume of emails that we are receiving. The ODA managers now have the ability to manage queues and determine workloads, while also providing status updates to applicants.

The final new solution has been SBA's rapid implementation of the General Services Administration's (GSA) Login.gov identity management application. GSA built Login.gov as a multiagency solution to allow citizens to create and manage one identity that can also be used for their accounts across government. Prior to our implementing Login.gov, SBA had its own identity management solution that was based upon legacy code and was difficult to maintain. Additionally, not all SBA programs used the legacy solution so small businesses might need multiple different system accounts when utilizing SBA's services.

As part of our transformation, we wanted to leverage this government wide identity application and get SBA out of the identity management business. Before COVID-19, we were actively moving all new systems to Login.gov. When COVID-19 struck, we continued to implement it in as many of the systems that I just highlighted as possible, positively changing the way a small business interacts with SBA.

Conclusion

I have covered a lot of ground about SBA's transformation, yet my summary does not include everything that has been accomplished. I have focused upon several of the major changes, particularly the OCIO's support for the CARES Act. SBA's transformation was not accomplished overnight; it took the last 3 1/2 years of modernization investments and projects to move SBA to where it is today. Significant progress has been made in SBA's IT modernization journey and there is still more to be done in modernizing some of the key mission support systems. I want to emphasize that IT modernization is a journey that needs perseverance, consistent leadership support, and the efficient use of resources.

The successes of our modernization effort have been validated when SBA surged in size by over 500% of our normal size to support the EIDL and the PPP loan programs. We have been able to demonstrate in real time, the importance of leveraging the scalability and elasticity of the cloud over on-premises hardware. SBA has shared our cloud journey and lessons learned with several hundred federal employees across more than 30 federal agencies – in part to show that the art of the possible can be delivered with a small team and strong will.

