GOVERNMENT OF THE DISTRICT OF COLUMBIA

Office of the Chief Technology Officer

Fiscal Year 2021 & 2022 Performance Oversight Hearing

Testimony of
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Office of the Chief Technology Officer

Before the
Committee on Government Operations
The Honorable Robert White, Chairman
Council of the District of Columbia

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Good afternoon, Councilmember White, members of the Committee on Government Operations and staff – I hope you and your families are safe and healthy. I am Lindsey Parker, the Chief Technology Officer for DC Government. I am honored to testify today on behalf of Mayor Muriel Bowser and her Administration regarding the performance of the Office of the Chief Technology Officer (or OCTO) during Fiscal Years 2021 and 2022 to date.

This is my fourth performance oversight hearing as CTO, and, as I have done in each of my previous testimonies, I want to first thank the team I am honored to work with every day – a team that works around the clock, including overnight, weekends and during holidays, to keep DC Government connected. I remain proud and grateful to have the honor to work alongside some of the most talented professionals in government. From their makeshift home offices on kitchen tables to the front lines of the pandemic response, distributing laptops in DCPS classrooms to standing up online portals for over 90,000 students to submit rapid test results to safely return to schools, our team has and will continue to meet every challenge that comes our way.

To our team, I want to say thank you. Your continued sacrifices, resilience and 'can do' attitudes have not gone unnoticed. You have been an integral part of making sure Washington, DC continues to recover and thrive in this better, new normal.

COVID RESPONSE & RECOVERY

As you know, we are quickly approaching the two-year mark since DC Health confirmed the District's first COVID-19 case on March 7, 2020. In response to this unexpected event, Mayor Bowser directed all agencies to work together to launch a comprehensive and coordinated response. The team at OCTO worked alongside agencies heading up the pandemic response and recovery to leverage the technology we had in place and more to meet the challenge.

We built, managed, and advised on tools used to communicate with the public, empower testing and vaccination scheduling, and the safe return to in-person work and learning. We set up processes and tools to ensure government services continued virtually and then again once back to in-person services; and we created entirely new programs and initiatives that responded to the unique demands of the pandemic.

FY 2021 brought the promise of vaccinations and a window into a post pandemic world. We took the lessons learned from the mobile testing solution developed in partnership with DC Health and Microsoft in early 2020 to build out the vaccine solution.

Together, with OCTO serving in a tech broker capacity, we assisted DC Health with deploying the Vaccination Reporting and Scheduling platform. Multiple teams across OCTO contributed to this effort, from the Software Quality Assurance team testing every one of the 33 iterations developed – changes that involved improving language access, security, and functionality – to the Citywide Messaging team ensuring more than three million notifications and reminders were

sent to DC residents and qualified individuals. This was a substantial effort under intense deadlines. And can't say enough about every individual who worked around the clock to make this happen.

Given the initial scarcity of the vaccine and the immediate demand once eligibility expanded, there were some very quick - and some very public - lessons learned. But, as we continually made tweaks to improve the user experience, public sentiment dramatically improved. In short, the platform worked. And because of these efforts, we were able to get 360,000 shots in arms scheduled through the portal in FY21.

To ensure multi-channels of information resources were available for residents and businesses, OCTO, also in partnership with DC Health, rapidly stood-up the COVID-19 Information and Vaccination Call Center – one of six remote call centers that relied on Amazon Web Services (AWS) technology – as another channel to schedule vaccination appointments and provide general information. In FY2021 and thus far in FY2022, the call center has handled 256,364 calls – including more than 10,000 just last month.

Our Communications Team supported Mayor Bowser's team in recording and sending a total of 3.9 million recorded robocalls to ensure we reached all residents with the latest vaccine and testing information, reminders of COVID appointments, and other important notices. And our data and web services teams continued to work around the clock to provide data and critical messages via coronavirus.dc.gov.

As you can see, under Mayor Bowser's leadership, our goal was to communicate through multiple channels to ensure we reached residents in the way they expected.

From Remote back to In-Person

Another project, OCTO worked to support was return to in-person workplaces. Our remote portal resource stood up in 2020 was updated to serve as DC Government's hub for online collaboration tools and how to use them, two secure options to access the network, device support guidance as well as training videos and resources. Now two years later, government employees have grown more and more comfortable supporting a virtual posture. The site was visited 133,755 times by 36,097 unique users – nearly **90 percent** of DC.gov employees.

Throughout the pandemic, OCTO has continued to learn how to pivot and respond to immediate tech support needs throughout the public health response. When over half of DC Government returned to in person workplaces in July, we knew reconnecting devices, connecting printers, redirecting phones would be critical to avoid service interruptions. So, we added helpful return to work FAQs at start.dc.gov and created a simple form for people to submit feedback and ask other questions. In FY21, the site was visited 1,346,665 times. Already in FY22, the site has been visited 403,152 times as of January 31, 2022. By pivoting 30 staff from other teams within OCTO as support technicians for the anticipated increase in tech assistance requests, we were able to ease the transition and avoid many headaches along the way.

And to assist with return-to-work safety protocols, we developed a screening survey to allow employees to self-attest to their health status anytime they entered their office. The URL and QR codes were on signage installed at entrances of DC Government locations. The application makes it easier for agencies to contact trace in the event of a close contact or known positive case.

On May 28, 2021, our Human Resources Enterprise Resources Planning team deployed the COVID-19 Vaccination Tile reporting component and successfully recorded the vaccination status of 35,604 District Government employees, over 90% of the workforce complied and uploaded records. The team continued to update the application – in September 2021, launched an update allowing employees testing out weekly to upload results, and in January 2022, launched an update allowing employees to upload proof of boosters.

SUPPORTING DC PUBLIC SCHOOLS

As you know, OCTO also supports DC Public Schools and DCPS Headquarters – with an expanded 90 person in-school tech support team working alongside all the other teams at OCTO, we support internet and network connectivity, monitoring of 971 network devices throughout 496 server rooms, security monitoring, device support, network and email access for more than 40,000 devices. Our network provides robust connectivity with high speeds and data availability with bandwidth usage levels consistently below 50 percent utilization.

For the past two years, the team at OCTO has worked tirelessly to support DCPS as they adapted to the unique needs brought on by the pandemic. To get ready, DC-Net completed 43 outdoor wi-fi installations to support in-person learning in a safe environment. All 119 DCPS schools are now equipped with outdoor wi-fi capabilities.

We securely equipped DCPS devices with a suite of tools for border and endpoint protection, secure access, data loss prevention, and content filtering.

We stood up the DCPS Student and Family Call Center and built a self-help IT resource page on backtoschool.dc.gov which acts as the front line of IT and customer support, providing a 24/7 lifeline to DCPS staff and students for fast, efficient, and friendly phone and remote assistance. 91% of survey respondents have found the online and over the phone support helpful.

To assist DCPS teachers and staff we set up a tech support portal with self-help resources like automated email and Peoplesoft password resets, as well as an IT support form that asks straightforward questions to get the right teams engaged.

To ensure the DCPS staff in schools that handle asset management have the latest information on the trends OCTO techs are seeing, we also started a weekly virtual check in with them called Tech Tip Thursdays where the combined teams could learn, ask questions and coordinate efforts.

As omicron surprised us all, just as schools were preparing to return from winter break, our strong partnership with DC Health and Microsoft and our ability to pivot for rapid response was called upon again in January 2022. In what Mayor Bowser referred to as the city's "biggest data collection effort throughout COVID," DCPS was able to collect rapid tests results from more than 50,000 students and staff. A tool extended to the charter school community shortly thereafter. While we continue to collect weekly test results from DCPS and DC Charter School Pre-K and Kindergarten students, we are confident and fully prepared to meet the next massive data collection following mid-winter break later this month.

CLOSING THE DIGITAL DIVIDE

We know that being connected is no longer a luxury but a necessity, and through Tech Together DC, Mayor Bowser is delivering connectivity, expanding device access, and creating equitable opportunities to tech skills and education.

In 2021, more than 43 Tech Together DC partners – comprised of industry, non-profit, academia, and government -- held three working groups and completed a current state analysis of DC's digital divide, identified the barriers DC residents face, and set aspirations, targets and KPIs to track progress toward closing the divide.

But we didn't just define the problem, we tackled it head on, through major initiatives driving internet access, device access and IT Support, and digital literacy training for residents across DC.

In coordination with the Department of Aging and Community Living (DACL), the Tech Together team helped more than 500 seniors stay connected to their families and friends. OCTO facilitated trainings on essential tech tips to enhance their day-to-day life such as using their phone for face-to-face video calls with loved ones, how to order groceries for delivery right to their door, and where to find educational, tele-health and government resources online.

Internet for All currently supports over 5,500 households with children in P3K-12 DCPS and DC Public Charter Schools as well as adults enrolled in Public Charter Schools and students attending the University of the District of Columbia with at-home broadband paid for by the DC Government. Because internet speeds were the main reason for low enrollment, in 2021, OCTO reached an agreement with the ISPs Comcast and RCN, to increase the internet speed package from 50 Mbps to 100 Mbps.

In partnership with the Department of Human Services, OCTO and DC-Net worked with local internet provider ETTE to make available free internet for residents at 5 temporary housing and family homeless shelters across DC. The so-named DC HOPE network provides in-home internet for more than 150 family and individual units to ensure equitable access to the internet for work, education and government services.

Another partnership soon to start is a $1 million pilot project between OCTO and the DC Housing Authority which will provide in-home high-speed internet and digital literacy training at

two low-income apartment locations in Ward 6. This pilot will reach 248 households in Potomac Gardens Family and Senior Housing and 125 households at Hopkins Apartments. Along with in-home internet, OCTO's digital inclusion team will also provide tech skills training in privacy and security 101, social media 101, among others. The goal is to discover how removing the barrier of internet and device access can give more residents a fair shot to greater opportunities.

The team has already began planning and piloting programming eligible for federal funding in FY21 and FY22. In 2022, Tech Together DC looks forward to growing the pledge partner network, executing the roadmap of initiatives, and building sustainable solutions toward closing the digital divide.

OCTO TODAY

Most of the time it's not high-profile projects and innovations that make the most impactful difference. Transformations in process, performance and features in the systems we rely on every day have helped our government employees continue to deliver services digitally, learn new skills and enable a safe return to in-person work.

IT OPERATIONS

Deputy Chief Technology Officer for IT Operations Henry Lofton and his team support the backbone of city operations. The teams under IT Operations have spent the last two years reengineering underlying government operations, processes, and systems to successfully manage a new and complex hybrid environment.

In the fall, we successfully tied up the $40 million Data Center migration on time and on budget. To ensure a highly available environment supporting mission critical services during this project we upgraded and modernized data center technologies to improve operations, sustainability, and security of data assets.

Given the challenges of both the pandemic and global supply chain issues, this was no small feat. First, we began to dismantle the 10,000-square-foot legacy data center which included roughly 723 pieces of hardware that removed, relocated, or surplus. More than 5,000 hard drives had to be degaussed – which is tech speak for erased – and then shredded after being pulled from more than 50 large server cabinets and racks.

Simultaneously, we were receiving 573 pieces of new hardware including more than 260 servers, 156 network switches, 78 cabinets, and make over 3,600 connections to build-out the 3,500sqft space. The build-out also included a state-of-the-art cooling and air handling system to protect our investment along with biometric security to maintain the highest levels of security.

Our next focus is to institute annual updates of our core infrastructure. Supply chain challenges have became even front of mind. We have ordered critical replacements in August, and while typical turn around time is 45-90 days, we've learned that a March delivery date is more realistic. We are continuing to unpack what supply chain challenges might mean for our services.

IT DIGITAL SERVICES

Under the leadership of **Deputy Chief Technology Officer for Digital Services Stephen Miller**, OCTO launched new digital products and services from ideation to production throughout 2021, often against tight timelines. Agile product development proved to be more crucial than ever, and is the foundation for the new Digital Services division, a team of product managers and technologists to apply these lessons and effectively build products and services that improve the user experience.

The first project under the Digital Services team is a modernized, streamlined business portal to ease the time and resources businesses have to spend on city processes – for permitting, licensing, taxes, and other regulatory requirements. After establishing the DCRA/OCTO Steering Committee, the team conducted a city-wide business survey on licensing challenges and interviewed 12 subject matter experts which have advised the first iteration of the portal for development. A beta version of the portal will be launched in the summer of 2022, and we look forward to the feedback and reaction of our business community.

Other notable accomplishments the teams under Digital Services supported:

- Made infrastructure improvements to our Human Resources Enterprise Resource Planning application that will save DC millions of dollars by cutting processing times from 2-8 hours down to 4-5 minutes.

- Helped DC offices digitize 1,336 online forms and 7,842 documents, made possible by our one-man digitization team.

- Enabled 178 new low-code Quickbase applications in FY21 (and 168 new apps were added in FY20) automating workflow processes and data collection for programs across DC government.

- Ranked among the top 9 states in the nation for our Geospatial Information Systems (GIS) team' use of GIS data, tools, and governance.

- Launched 24 new or redesigned websites in FY2021 and thus far in FY2022 – including stay.dc.gov, does.dc.gov, ddot.dc.gov, disb.dc.gov – and continued to manage coronavirus.dc.gov. DC.gov sites were visited 46.8 million times by 21.8 million visitors

- Named among the top 4 in country by Resolve to Save Lives, an initiative run by former CDC Director Tom Frieden - the coronavirus.dc.gov data dashboard continued providing critical updates – a partnership between OCTO and DC Health

- Supported a 90 percent increase in the use of Microsoft Teams, and a 156 percent increase in the use of Microsoft Exchange Online, between February 2020 to April 2021.

The Digital Services team will look to enable a simpler, fairer, and faster digital experience for DC residents, businesses, and visitors. In the past year, we have transformed the way we work and built confidence in our services by being responsive, knowledgeable, and effective problem solvers. We look forward to being the preferred option for agencies seeking digital first solutions, improving the user-experience, and delivering services equitably and efficiently.

IT SECURITY

In 2021, OCTO evaluated our systems and improved processes and strategy across the DC Government network. The security team, led by our **Chief Information Security Officer Suneel Cherukuri**, is dedicated to securing data and systems by providing governance, solutions, and developing a culture of vigilance.

Accomplishments include:

- Updating and publishing policies that align with industry standards

- Implementing a Risk Management Framework strategy for DC government agencies, defining what and how agencies can document their IT security risks, evaluate their systems and thereby enhancing overall security for DC Government

- Provided the annual cyber security awareness training including adding two components: phishing and remote work. At 83.5 percent overall complete, DC Government achieved a 10 percent increase in completion rates compared to 2020.

- Implemented next-gen endpoint protection solution for DC Government agencies. This single agent solution enhances our ability to stop breaches, ransomware, and cyberattacks—powered by world-class security expertise.

- Transitioning from a traditional remote access solution to a zero-trust based solution which provides seamless connectivity to approved applications and improves the remote worker experience.

TAKING WHAT WE'VE LEARNED AND LOOKING FORWARD

Just prior to the beginning of the pandemic, we unveiled the draft "Technology Strategic Plan for DC: Unleashing the Possible." But over the past two years, we've learned so much more about our customers, but even more about ourselves.

- **Attracting and Retaining Talent:** Given the current great resignation, enlisting the needed tech talent at OCTO and across agencies to help us scale and innovate as we approach this next normal will be critical. Under our new citywide IT contingent workforce management contract, which we've named the STaR contract for Strategic Teaming and Resourcing, agencies will be able to select contractors for deliverable-based engagements, as opposed to just time and laor, which will give the District an innovative and cost-effective option when planning and executing new projects and products.

- **Tech Enablement:** Technologists are notorious for launching new products and just assuming that people will just simply understand how to use a new product and why they should be using it. We want to be that never happens again. We are launching the Enablement Team later this fiscal year to serve as ambassadors for OCTO products and services by providing trainings, creating DC-specific how-to videos, showcasing agency success stories, and capturing and analyzing feedback to help to make continuous improvements to our products and services.

- **Service Management & Knowledge Center:** Building on the work we have done on building out a financial model, we are expanding to an enterprise IT Service Management system to help automate service requests and fulfillment. As a part of the system, we will populate a new self-help knowledge base. The new analytics-driven portal will make it easier for staff to get answers to the most frequently asked questions and redirect and reduce routine questions and answers away from help desk staff.

- **Performance Management:** We have released our new performance plan, tracking key metrics that coincide with the Tech Plan performance indices – reliability, value, customer satisfaction, cyber security, and organizational health. Going forward, we will integrate a performance tracking tool and recurring performance dialogues into our week-to-week activities.

As we emerge into a post-pandemic world, it is reassuring that much of the Tech Strategic Plan still holds today and I'm proud we've made strides in many areas. In many ways, the pandemic forced us to move in new directions much faster than anticipated. But as we revamp our performance practices, we are reviewing the strategic plan and expect to launch a revised version later this year. And we'll be excited to share that with this committee when ready.

In closing, we appreciate the opportunity to share our accomplishments and plans for continuous improvement and look forward to continuing to work with the Committee. This concludes my presentation. I'm happy to address your questions at this time.