COMMITTEE ON TECHNOLOGY CITY COUNCIL CITY OF NEW YORK ----- Х TRANSCRIPT OF THE MINUTES Of the COMMITTEE ON TECHNOLOGY ----- Х June 10, 2024 Start: 10:08 a.m. Recess: 1:53 p.m. HELD AT: COUNCIL CHAMBERS - CITY HALL B E F O R E: Jennifer Gutiérrez, Chairperson COUNCIL MEMBERS: Erik D. Bottcher Robert F. Holden Vickie Paladino Julie Won OTHER COUNCIL MEMBERS ATTENDING: Shahana Hanif Joann Ariola World Wide Dictation 545 Saw Mill River Road - Suite 2C, Ardsley, NY 10502 Phone: 914-964-8500 * 800-442-5993 * Fax: 914-964-8470

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A P P E A R A N C E S

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Nina Loshkajian, Staff Attorney at the Surveillance Technology Oversight Project

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Adam Roberts, Policy Director for the Community Housing Improvement Program

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Jake Parker, Security Industry Association

Robert Tappan, Managing Director of the International Biometrics and Identity Association

Hally Thornton, Fight for the Future

Daniel Schwarz, New York Civil Liberties Union

2	SERGEANT-AT-ARMS: This is a microphone
3	check for the Committee on Technology, recorded on
4	June 10, 2024, located in Chambers by Nazly Paytuvi.
5	SERGEANT-AT-ARMS: Good morning. Welcome
6	to the hearing on the Committee on Technology.
7	At this time, please silence all
8	electronics. Silence all electronics.
9	If you wish to testify, fill out a slip
10	in the back of the room. If you wish to testify
11	online, you may do so at testimony@council.nyc.gov.
12	That is testimony@council.nyc.gov.
13	Please do not approach the dais. At this
14	time, do not approach the dais. If you need any
15	assistance, please contact the Sergeant.
16	Chair, you may begin.
17	CHAIRPERSON GUTIÉRREZ: Thank you. Good
18	morning, buenos días. Welcome to our oversight
19	hearing on Cybersecurity of New York City Agencies.
20	I'm Council Member Jennifer Gutiérrez, Chair of the
21	Committee on Technology. Today we'll be discussing
22	New York City's cybersecurity infrastructure, looking
23	at the past as well as into the future.
24	Cybersecurity is a complex and robust
25	field that requires significant investment and

unwavering commitment. The primary goal of this 2 3 hearing is to provide a thorough evaluation of our 4 current cybersecurity landscape, emphasizing the journey from past practices to the present 5 improvements under the current Administration, the 6 7 progress that has been made and to outline our 8 forward-looking strategies in response to the rapidly 9 evolving cyberthreats. Cybersecurity is multifaceted and vital. New York City receives threats of 10 11 violence, hacking our water supply, disruption of essential services, or compromising the information 12 of hundreds of thousands of vulnerable New Yorkers. 13 14 We must continuously address and adapt to these 15 challenges, ensuring our systems protect the people, not only from the threats of violence, but also from 16 17 those that jeopardize their identities and their livelihoods if such information falls into the wrong 18 19 hands. 20 Cyberattacks on City infrastructure, 21 leading to data breaches are not just issues of

technology. This is also an equity issue. The New Yorkers most likely to become victims of a cybersecurity attack on City agencies are the ones most reliant on our public institutions. If you

2	receive benefits from HRA, received care from a
3	Health and Hospitals facility, work for New York
4	City, or have children enrolled in our public
5	schools, that sensitive personal data is what's at
6	stake here. To ensure public trust in our systems and
7	operations, accountability and oversight of our
8	cybersecurity protocols is crucial. In 2023, the
9	Chief Information Security Officer of New York City
10	Cyber Command reported that the agency receives up to
11	90 billion warnings weekly from across all City
12	agencies, resulting in approximately 50
13	investigations each week. Yet the threats remain. New
14	York City agencies have faced notable cybersecurity
15	incidents stemming from internal system issues,
16	third-party vendor vulnerabilities, or improper
17	conduct by agency employees. Incidents involving the
18	NYPD, the Law Department, NYC Health and Hospitals,
19	the Department of Finance, the Department of Citywide
20	Administrative Services, DCAS, and New York City
21	Public Schools in just the past few years highlight
22	the ongoing risks and the need for sophisticated
23	protective measures. Our City agencies collect vast
24	amounts of data, including personal, biometric, and
25	geolocation information. It's crucial that the Office
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of Technology and Innovation, which Commissioner 2 3 Fraser has emphasized is the central authority for 4 all tech-related matters in New York City, takes full responsibility for both successes and failures within 5 our cybersecurity framework. In this hearing, we 6 7 expect full accountability and a clear outline of where further investments, staff, and improved 8 9 processes are necessary. Our focus remains on equity, understanding how all residents are being protected 10 from diverse threats. 11

12 To promote responsible data practices, 13 uphold individual privacy rights, and lay the 14 foundation for a more secure, inclusive, and 15 democratic digital future, we also will be considering the following bills in the Technology 16 17 Committee today, Intro. 217, sponsored by Council 18 Member Shahana Hanif, and Intro. 425, sponsored by 19 Council Member Rivera, both addressing the use of 20 biometric information and, additionally, Intro. 539, 21 sponsored by Council Member Justin Brannan, 2.2 addressing collection and sharing of geolocation 23 data. I'd like to thank the Technology 24

25 Committee Staff, Policy Analyst Charles Kim,

Legislative Counsel Irene Byhovsky, my Chief-of-Staff Anna Bessendorf, and Senior Advisor Anya Lehr for their tremendous work in putting this hearing together.

I'd also like to recognize from the Tech
Committee, Council Member Holden, and now I'll turn
it to Council Member Hanif for remarks.

9 COUNCIL MEMBER HANIF: Thank you, Chair 10 Gutiérrez, for holding today's important hearing and 11 for including my bill, Intro. 217, on today's agenda. 12 I am proud that 17 Members of the Council currently 13 sponsor this bill, including co-prime sponsors Chair 14 Gutiérrez, and Council Members Rivera, Williams, 15 Sanchez, Louis, and Marte.

Intro. 217 would prohibit businesses and 16 17 other places of public accommodation, this includes 18 music venues, theaters, supermarkets, from using 19 facial recognition and other forms of biometric 20 surveillance to verify or identify a customer. This 21 measure is critical to combating wrongful discrimination. Facial recognition tools have 2.2 23 consistently been shown to have significantly higher inaccuracy rates for people of color and women. This 24 has resulted in people in these populations being 25

falsely accused of wrongdoing and denied access to 2 public spaces. It is also a matter of basic privacy. 3 4 People have a right to access essential places, like grocery stores, without having their personal 5 biometric information, like the shape of their face 6 7 and the way that they walk collected, used, or sold 8 for targeted advertising or other purposes. Since 9 this bill was heard last session, there have been countless developments that have made the passage of 10 11 this bill more urgent than ever, including wrongful arrests and data leaks, but the event that stands out 12 the most to me is the Federal Trade Commission's 13 14 finding in December that the pharmacy chain Rite Aid 15 used facial recognition technology to falsely and 16 disproportionately identify thousands of people of 17 color and women as likely shoplifters, including 18 those right here in New York City. The FTC describes 19 the pattern as follows: Acting on false positive 20 facial recognition matches, employees followed 21 customers around at stores, searched them, ordered 2.2 them to leave, called the police to confront or 23 remove consumers, and publicly accused them, sometimes in front of friends or family, of 24 25 shoplifting or other wrongdoing. In one case, a false

2	match resulted in an 11-year-old being wrongly
3	stopped and searched. I urge those here today to
4	imagine how dehumanizing it would be to be one of
5	these customers. The FTC finding emphasizes that
6	discrimination and harm caused by biometric
7	surveillance is not a paranoid hypothetical or a one-
8	off incident. It is here, it is real, and we need to
9	act. While Rite Aid is now prohibited from using
10	biometric surveillance for the next five years, we
11	shouldn't need a federal investigation and lawsuit to
12	prohibit other businesses from replicating this
13	practice and victimizing more New Yorkers.

I want to stress that the bill takes a 14 15 measured approach. If passed, customers would still 16 be able to opt in to biometric uses such as pay-by-17 palm at a grocery store checkout or a biometric travel document verification at the airport. 18 19 Additionally, businesses that truly need to collect and use biometric technology to carry out core 20 functions, such as custom running shoe store that 21 uses gait analysis, would be permitted to do so. We 2.2 2.3 are pushing for basic consumer protections, not ideological absolutism. Additionally, I want to make 24 25 it clear that this bill does not impact normal

security tools like video monitoring. I share 2 3 concerns around retail theft and repeat offenders and 4 encourage the City to support our small businesses with funding for infrastructural security upgrades. 5 However, as evidenced by the Rite Aid case, biometric 6 7 surveillance is not an effective tool and, in many ways, can make New Yorkers less safe. I reject the 8 9 premise that facial recognition is an essential security measure. As a Muslim New Yorker who grew up 10 11 in the post 9/11 era, I'm all too familiar with the negative consequences of using fear to justify 12 excessive and biased surveillance. 13

I want to thank the incredible Ban the Scan Coalition, who we rallied outside with earlier today and who are here to testify in support of Intro. 217. This broad and diverse coalition of racial justice leaders, civil and human rights institutions, and technology experts are so important.

I also want to state my support for Council Member Rivera's Intro. 425, which I am proud to co-prime sponsor, and amplify the coalition's call for future legislation that would ban City government use of biometric surveillance as well.

1	COMMITTEE ON TECHNOLOGY 11
2	I'll now pass it back to the Chair.
3	CHAIRPERSON GUTIÉRREZ: Thank you, Council
4	Member.
5	Before moving on, I'd also like to just
6	read a statement on behalf of Council Member Carlina
7	Rivera regarding her bill, Residential Biometrics.
8	Good morning, and thank you for holding
9	this hearing, allowing me to deliver brief remarks
10	related to Introduction 425. More landlords are
11	implementing technological solutions to enhance
12	quality of life and security for residents but, when
13	it comes to facial recognition and biometric
14	identifier systems, there is a gap in the regulatory
15	framework that can lead to negative impacts. Many New
16	Yorkers share serious concerns when it comes to the
17	use of facial recognition, technology, and biometrics
18	in different settings, and these concerns are valid
19	and backed by data, from uncommon user
20	misidentification to the potential to increase the
21	presence and accuracy of surveillance. City
22	leadership must establish safeguards that protect
23	rights and increase transparency. My bill before the
24	Committee today would limit the use of facial
25	recognition technology in residential buildings to

2	ensure New Yorkers do not have their rights violated
3	and are not excluded or discriminated against. The
4	concerns New Yorkers have about the use of facial
5	recognition technology and biometric identifier
6	systems are real, as housing advocacy groups have
7	pointed out that this type of technology could
8	further fuel gentrification and displacement of
9	legacy communities. While technological upgrades can
10	certainly provide a benefit, it is our responsibility
11	to ensure that all New Yorkers are protected and
12	taken into account when it comes to the negative
13	effects on our civil rights.
14	I'd like to acknowledge Council Member
15	Joann Ariola who's joined us for this morning's
16	hearing.
17	Today, we will hear testimonies from New
18	York City Cyber Command followed by testimonies from
19	the public. Now, I want to welcome Chief Information
20	Security Officer Kelly Moan and Deputy Commissioner,
21	Office for Legal Matters, Chantal Senatus. We've been
22	here before, yes, thank you so much, and I'll pass it
23	back to Irene.
24	COMMITTEE COUNSEL BYHOVSKY: Good morning,

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everyone, and before we start with Administration

1 COMMITTEE ON TECHNOLOGY 13 2 testimony, I kindly ask you to raise your right hands. 3 4 Thank you. Do affirm to tell the truth and respond honestly to Council Member questions? 5 ADMINISTRATION: (INAUDIBLE) 6 7 COMMITTEE COUNSEL BYHOVSKY: Thank you. I heard I do from everyone. Thank you so much. 8 9 You may begin your testimony. CHIEF MOAN: Thank you so much. Good 10 11 morning, Chair Gutiérrez and Members of the City 12 Council Committee on Technology. Thank you for 13 inviting me here today and allowing me an opportunity to speak on the work of New York City Cyber Command. 14 15 My name is Kelly Moan, I am the Chief Information 16 Security Officer for the City of New York and the head of New York City Cyber Command under the Office 17 18 of Technology and Innovation. With me is Chantal 19 Senatus, OTI's Deputy Commissioner for Legal Matters. 20 Since its inception in July 2017, New 21 York City Cyber Command has played a vital role in protecting and defending the City and its residents 2.2 23 from the impacts of cyberattacks. Over the last seven years, we have built out security services and 24 increased the cyber maturity at over 100 City 25

2	agencies while we work collaboratively with agency
3	partners as well as state, federal, and private
4	entities to safeguard the essential services and data
5	that New Yorkers depend on daily. The City Council,
6	as I am sure you are aware, recognized the
7	significance of our duty when it voted unanimously to
8	add Cyber Command to the New York City Charter in
9	2020. Our mission, the one that inspires me and my
10	talented team, is to make New York City the most
11	cyber-resilient city in the world. This is no small
12	endeavor. New York City is America's financial,
13	cultural, and media capital, and the size and scale
14	of the City's ecosystem rivals that of most states or
15	federal agencies. New York City is also a target for
16	cyberattacks with a technology landscape that is
17	unparalleled among other cities and states. This
18	requires a unified, comprehensive defense against
19	constant cyberthreats and partnerships from public
20	and private sector as well as the support of the
21	Administration and the Members of this Council.
22	At the outset of his Administration,
23	Mayor Adams signed Executive Order 3 in January 2022
24	to consolidate the City's technology Agencies,
25	including New York City Cyber Command, into the newly

created Office of Technology and Innovation, OTI. One 2 3 month later, Mayor Adams signed Executive Order 10, which further established the roles and 4 5 responsibilities of Cyber Command, including setting information security policies and standards for the 6 7 city, directing the City's citywide cyber defense and 8 incident response, deploying defensive, technical, 9 and administrative controls, and providing guidance to City Hall and City Agencies on cyber defense. 10 11 Executive Order 10 also directed each agency appoint 12 a Cyber Command liaison to interface with us to 13 strengthen collaboration and expand incident response capabilities. As a result, we launched New York City 14 15 Cyber Academy, a specialized training program to bolster the City's cybersecurity workforce and 16 17 enhance agency cyber capability. To date, we have 18 graduated public servants from 50 City agencies in 19 three cohorts, with the fourth cohort currently 20 underway. In February 22, the same month that he signed Executive Order 10, Mayor Adams joined with 21 Governor Hochul to launch the first-of-its-kind Joint 2.2 23 Security Operations Center in Brooklyn. This 24-by-7, 365 cybersecurity hub situated inside of New York 24 City Cyber Command's Security Operations Center 25

2	allows us to coordinate real-time efforts with city,
3	state, and federal entities in ways that bolster the
4	defenses of both New York City and the broader New
5	York State. As part of New York City Cyber Command's
6	role, we provide a number of services to City
7	agencies and assist in implementation of key work
8	streams to bolster agency cyber maturity. These range
9	from technical controls, such as security tools, to
10	administrative controls, such as policies and
11	procedures.
12	Cyber Command also has consistently
13	worked with City agencies and elected offices to
14	develop cybersecurity roadmaps that prioritize the
15	critical cybersecurity work undertaken by these
16	offices. In October 2023, New York City launched our
17	Vulnerability Disclosure Program, VDP, the first-of-
18	its-kind for our city and the largest for a U.S.
19	municipality, broadening the scope of the City's
20	efforts to identify and address vulnerabilities
21	within its publicly accessible digital resources. The
22	VDP enables IT developers and security researchers to
23	identify vulnerabilities within City-owned websites
24	and systems and responsibly disclose them. It
25	provides rules of engagement and guidelines for

2 submission and the program complements existing New 3 York City Cyber Command initiatives that facilitate 4 timely remediation of identified risks.

I also want to underscore to the Council 5 that our collaboration extends beyond government 6 7 partners. Roughly 85 percent of U.S. critical 8 infrastructure is private, so here in New York, we 9 have focused on partnerships in the private sector as well. This means collaborating with banks, hospitals, 10 11 utilities, among many others, to maintain our collective cyber resilience through cyberthreat intel 12 13 sharing and joint tabletop exercises. As the City's 14 Chief Information Security Officer, I am honored to 15 serve alongside my dedicated team and our City 16 agencies in furtherance of this critical mission. New 17 York City Cyber Command's expanded organizational 18 structure and alignment within OTI have placed the 19 team in a strong position to monitor and respond to 20 wide-ranging cyber threats.

But as we are all keenly aware, there is no time for victory laps when it comes to cybersecurity. The work is never over. There are no absolutes. There are no assurances that security and operational control measures will be successful in

2 safeguarding against all cyberattacks. New 3 cyberthreats are discovered daily with increasing 4 sophistication and complexity. In cybersecurity, minutes matter. Having strong partnerships in place 5 prior to an incident across many different sectors 6 7 are essential, and cybersecurity is a team sport, and New York City Cyber Command is only one part of that 8 9 team.

10 Through continuous education to increase 11 awareness of social engineering tactics, our cyber-12 aware City workforce is also a key line of defense to 13 help prevent cyberattacks. They stand vigilant and 14 trained to report suspicious activity expeditiously. 15 As we look to the future, we will continue to 16 promulgate a holistic approach to strengthen New York 17 City's defenses and adapt to a constantly evolving 18 landscape.

I will now turn briefly to pieces of the legislation for today's hearing. Intro. 425 seeks to amend the Administrative Code of the City of New York in relation to limiting the use of biometric recognition technology in certain residential buildings. To the extent that this legislation

1 COMMITTEE ON TECHNOLOGY 19 2 concerns the use of technology on private property, 3 it is not within OTI's purview. Intro. 217 seeks to amend the 4 Administrative Code of the City of New York to 5 prohibit places or providers of public accommodation 6 7 from using biometric recognition technology and to protect any biometric identifier information 8 9 collected. To the extent that this legislation has specified that it does not apply to the use of 10 11 biometric identifier information by government 12 agencies, employees, or agents, it is not within OTI's purview. 13 14 While OTI is unable to take a position on 15 these bills, we want to underscore the 16 Administration's commitment to work with City Council 17 and ensure the proper balance of privacy and public 18 safety within emerging technology. 19 Intro. 539 seeks to prohibit 20 telecommunications carriers and mobile application developers from sharing a user's location data with 21 another person if the location is within New York 2.2 23 City. This bill would also impose monetary penalties for violation of the provision and proposes that the 24 Department of Information Technology and 25

Telecommunications enforce this measure. Although OTI 2 3 supports the Council's efforts to address privacy 4 concerns, implementation of this legislation as drafted would not be possible. OTI would welcome 5 discussion related to the intended framework for 6 7 enforcement under these provisions. Additionally, OTI regulates the rights-of-way for telecommunications 8 9 infrastructure and does not regulate mobile application developers. 10

20

I want to thank Chair Gutiérrez and the
Committee Members for your time and the opportunity
to testify. I'm happy to take any questions.

14 CHAIRPERSON GUTIÉRREZ: Thank you so much 15 for your testimony. I'm just going jump right in and 16 you all let me know, oh, I'd also like to recognize 17 Council Member Bottcher who sits on the Technology 18 Committee.

19 Thank you again for your testimony. I 20 wanted to start with just kind of the lay of the land 21 with the City's cybersecurity program. Commissioner 22 Fraser multiple times has stated that it lives with 23 OTI. Every single agency's cybersecurity safety plan 24 lives with OTI. Does every agency have someone

2 assigned to cybersecurity or a contact person, just 3 to kind of give us the visual?

4 CHIEF MOAN: Sure, absolutely. Thank you for that question, Council Member. Every single City 5 agency has security professionals embedded in that 6 7 agency and also, with the Executive Order 10, has 8 established a Cyber Command Liaison as well and, 9 within those agencies, we work collaboratively with those security teams and IT teams to roll out 10 11 enhancements to their security program to benefit the 12 community of New York City writ large across 100-plus 13 agencies.

14 CHAIRPERSON GUTIÉRREZ: Is there a team or 15 a person proportionate to the size of the agency? I'm 16 interested in PD and DOE, these are larger agencies. 17 Is there a cybersecurity team or a person in those 18 instances?

19 CHIEF MOAN: It's going to span and vary 20 depending on the agency. We have smaller agencies 21 with smaller teams and then we have larger agencies 22 with larger security teams as well.

CHAIRPERSON GUTIÉRREZ: Okay, and those agency teams or individuals, they communicate with OTI regularly, frequent?

2	CHIEF MOAN: Yes, so we have a
3	cybersecurity engagement program that incorporates
4	cybersecurity road-mapping iteratively with the
5	agency to prioritize critical work streams, and that
6	also is above and beyond just general, being able to
7	talk to the agencies more on a weekly or even a daily
8	basis, depending on what's going on within the City
9	domain.
10	CHAIRPERSON GUTIÉRREZ: I see, and is
11	there more frequency in conversations with agencies
12	that have experienced some kind of breach or
13	incidents in the past, particularly New York City
14	Public Schools?
15	CHIEF MOAN: As part of incident response
16	plan and procedures, we also take into consideration
17	any enhancements or additional security controls that
18	can be put in place at agencies upon suffering a
19	security incident, and that is not just routine that
20	takes place, but also something that we look to
21	always prioritize within any agency when we see that
22	there could be improvements to be made.
23	CHAIRPERSON GUTIÉRREZ: Okay, thank you. I
24	know that Health and Hospitals is not directly a City
25	agency. Do you all have kind of control or a sense of
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cybersecurity there in the same way that you do with 2 3 any other City agency or what are the dynamics there? 4 CHIEF MOAN: Thank you for that question. I think the reality of the world of cybersecurity 5 within the City's domain is that New Yorkers don't 6 7 entirely care which agency might be impacted by the 8 incident and they typically feel very deeply when 9 incidents impact them directly, and so our job as the Cyber Command is to work with that broad term of 10 11 agencies, including Health and Hospitals, to 12 understand what the cybersecurity posture is embedded 13 in that organization and how we can assist to further develop maturity across the cybersecurity journey of 14 15 all of the agencies, including those that might not 16 properly fit directly within the City's domain. 17 CHAIRPERSON GUTIÉRREZ: Would NYC Health 18 and Hospitals have their own cybersecurity program 19 and protocol and do they not have to be in 20 communication with OTI? 21 CHIEF MOAN: They are in routine 2.2 communication with us. It's a shared responsibility 23 across all agencies, and so we partner with them, not dissimilarly to any of our other agencies. They do 24 have an internal security team, just like other 25

2	agencies do as well, and that close partnership
3	continues to promulgate day-to-day on a weekly,
4	monthly basis, depending on the topic.
5	CHAIRPERSON GUTIÉRREZ: Got it, and what
6	are some other examples of agencies similar to H and
7	H that you all coordinate that are public, private?
8	Is EDC one of them? Do they fall under your portfolio
9	of cybersecurity program?
10	CHIEF MOAN: We've provided support to
11	agencies like EDC as well and, again, those key work
12	streams that I mentioned in my opening testimony
13	really span from some controls that agencies can put
14	in place due to enhanced configurations, all the way
15	to deployment of tools so it really can span
16	depending on the agency and what type of support and
17	help that they need.
18	CHAIRPERSON GUTIÉRREZ: Okay. Regarding
19	your particular unit, what's the headcount for your
20	particular?
21	CHIEF MOAN: We're sitting currently at
22	over 100 employees.
23	CHAIRPERSON GUTIÉRREZ: Okay, and is that
24	the full capacity?
25	

1 COMMITTEE ON TECHNOLOGY 25 2 CHIEF MOAN: We are actively recruiting 3 for vacancies. We have a handful of vacancies. 4 CHAIRPERSON GUTIÉRREZ: You've had, sorry, 5 say that again. CHIEF MOAN: We have a handful of 6 7 vacancies that we're actively recruiting for as well. CHAIRPERSON GUTIÉRREZ: How many vacancies 8 9 do you think? CHIEF MOAN: I can get back to you with 10 11 the exact number. It's not a very large number, but 12 we're actively recruiting for those vacancies, and 13 then we're also working with OMB to prioritize onboarding of new hires as well that we are in the 14 15 pipeline. CHAIRPERSON GUTIÉRREZ: Okay. Do you 16 17 experience any difficulties recruiting talent? 18 CHIEF MOAN: Thank you for that question. 19 The cybersecurity workforce globally, I think in the 20 public domain, it's very well-known that there is 21 absolutely a gap in the supply and demand of the 2.2 cybersecurity professionals just market-wide. I think 23 the last statistic I saw was 4 million professionals there's a gap of between supply and demand. I think 24 in the U.S. it's hitting around 450,000 open 25

positions that folks are recruiting for within cyber. 2 3 I think in the City, it's actually quite unique on 4 landscape in terms of recruitment for us. I'm really proud of the mission that we have within the City 5 domain. It's a value add and a value proposition that 6 7 we can provide to prospective employees. It is 8 uncommon that you are able to directly protect and 9 defend the size and scale of this City. Yes, we are a municipality, but we are on size and scale larger 10 11 than most federal agencies even combined. My 12 background is actually from the federal sector. I 13 lived in D.C. the majority of my life supporting the 14 federal government, most recently the Department of 15 Homeland Security, and I've got to say that the 16 apparatus that we have here in the City, in addition 17 to the team members that we have on Cyber Command 18 make this an incredibly compelling job and career to 19 have within the City, and we've prioritized not just 20 recruitment, but also prioritizing upskilling, 21 reskilling within this City employee domain. I have a non-traditional cybersecurity background, having not 2.2 23 gotten, I guess, a computer science degree for a bachelor's, which is a testament to folks that want 24 to get into this field can, right? Intellectual 25

1	COMMITTEE	ON	TECHNOLOGY

2	curiosity, desire to learn and hard work is what it
3	takes, and so we've launched New York City Cyber
4	Command Academy to particularly promote some of those
5	upskilling and reskilling within City agencies so we
6	continue to kind of solve for the growing supply and
7	demand issue that the industry is facing writ large.
8	CHAIRPERSON GUTIÉRREZ: Thank you. I know
9	you mentioned that you're obviously still constantly
10	onboarding. How long does that process take from
11	application to hiring?
12	CHIEF MOAN: Oh gosh, it could really
13	depend depending on the role and the timing of the
14	recruitment cycle. I don't have the exact specifics
15	of the duration of that time. That's certainly
16	something
17	CHAIRPERSON GUTIÉRREZ: Is it common that
18	it takes three months, six months?
19	CHIEF MOAN: We've seen all cases. We work
20	collaboratively and very closely with OMB to
21	socialize positions that we're actively recruiting
22	for that are critical hires so they are aware and are
23	able to expedite that onboarding process for us.
24	CHAIRPERSON GUTIÉRREZ: Okay, thank you.
25	The financial plan reflects funding for Cyber Command

1	COMMITTEE ON TECHNOLOGY 28
2	of 123 million in FY22 and 127 million in each of
3	Fiscal Year 2023 through 2026. As cybersecurity
4	threats continue to evolve, do you anticipate your
5	office will be required to expend significant
6	additional resources to mitigate security risks?
7	CHIEF MOAN: Thank you for that question,
8	Chair.
9	CHAIRPERSON GUTIÉRREZ: You can say yes.
10	CHIEF MOAN: In the cybersecurity realm,
11	we are always looking top of mind to the evolving
12	threat landscape and what tooling or fine-tuning, as
13	we call it, can be put in place to ensure protection
14	and defense of new and novel techniques, right? I
15	expect that to only continue with the growing
16	omnipresence of our interconnected digital ecosystem
17	and, so for those types of conversations, we continue
18	to socialize and collaborate with OMB on any new
19	needs that might be emerging that could come out,
20	again, as technology continues to expand and increase
21	in complexity as well.
22	CHAIRPERSON GUTIÉRREZ: So you anticipate,
23	generally, probably?
24	CHIEF MOAN: It will really depend on what
25	capabilities come to market. I can't predict the

2	market drivers, but we are seeing a continuing
3	expansion of technology vendors and services that
4	like to expand capabilities within its current
5	portfolio, and we always look for opportunities to be
6	more efficient as well and optimize our services with
7	a growing attack surface, essentially a technology
8	ecosystem within the City. It is paramount for us to
9	always reevaluate and fine-tune our ability to expand
10	with those threats as well.
11	CHAIRPERSON GUTIÉRREZ: Has the agency
12	applied to the Governor's New York State
13	Cybersecurity Grant Plan, which utilizes nearly 6
14	million from the federal grant program to expand
15	municipal access to state-of-the-art cybersecurity
16	resources?
17	CHIEF MOAN: If I could ask, what specific
18	grant program?
19	CHAIRPERSON GUTIÉRREZ: There's a federal
20	grant that was released in August of 2023. The
21	Cybersecurity and Infrastructure Security Agency and
22	FEMA announced the availability of millions of
23	dollars in grant funding for state and local
24	cybersecurity grant programs.
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2	CHIEF MOAN: Taking advantage of grant
3	funding is common for New York City in years past and
4	continuing in upcoming years. We will always take
5	advantage of any opportunity to solicit for grant
6	funds. We currently leverage a number of federal
7	grants to expand our operations.
8	CHAIRPERSON GUTIÉRREZ: You have applied?
9	CHIEF MOAN: Yes.
10	CHAIRPERSON GUTIÉRREZ: Okay, wonderful.
11	I'm going to dig into this deeper, but would love to
12	just kind of start how your office receives and
13	addresses tips from the public. Any kind of
14	cybersecurity or security issues from the public?
15	CHIEF MOAN: From the public. So it could
16	be a number of different cases. We've actually gotten
17	tips from the public or questions about cybersecurity
18	from the public in a number of different ways,
19	whether that be through downstream at each relevant
20	agency who might be receiving a question, or it could
21	be from elected offices, for example, who've reached
22	out and asked for tips.
23	CHAIRPERSON GUTIÉRREZ: Is it just an
24	email or what, how does that look like?
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2	CHIEF MOAN: It could be an email or Ask
3	the Commissioner page on nyc.gov, right? It could be
4	a number of different ways. It could also be a tip
5	from an ongoing investigation that might have a nexus
6	to the City domain and City assets as well.
7	CHAIRPERSON GUTIÉRREZ: Do you know if
8	there is an option if someone were to call 3-1-1 to
9	connect directly with OTI about a tip?
10	CHIEF MOAN: No, there is not.
11	CHAIRPERSON GUTIÉRREZ: Okay, and what is
12	the process thereafter after you receive a tip, let's
13	say from asking the Commissioner online, like you
14	mentioned?
15	CHIEF MOAN: If there's a nexus to City
16	assets or City data, City employee information,
17	right, we'll continue to investigate to determine
18	whether or not it is a valid, either vulnerability or
19	data disclosure, right, so a security incident can
20	come in a number of different forms so we have
21	procedures in place to essentially analyze,
22	investigate, and then provide response and
23	remediation actions should it be necessary.
24	CHAIRPERSON GUTIÉRREZ: Okay, and do you
25	know what the turnaround time is specifically on like
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1 COMMITTEE ON TECHNOLOGY 32 2 the agency's website for like drop a message for the 3 Commissioner? 4 CHIEF MOAN: I can't speak to that directly, but I do want to say the majority of New 5 York City Cyber Command's role is focused on New York 6 7 City agencies and potential cybersecurity incidents 8 that are impacting City employees and the nature of 9 that through City assets and City data so the large majority and predominantly our role consists of 10 11 engaging agencies to analyze and investigate cyber incidents should they come up. 12 CHAIRPERSON GUTIÉRREZ: Okay, so you're 13 saying that in those instances they would know how to 14 15 communicate more directly with OTI because it's 16 coming from City agencies and staff? 17 CHIEF MOAN: So what I'm trying to say is the public has a number of different methods to 18 19 notify should they feel or think that they've 20 encountered a security breach of their personal

information, right? Those avenues through the federal

different means than New York City Cyber Command. New

ensuring the protection and defense of City agencies'

government, through law enforcement partners is a

York City Cyber Command's role is predominantly

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infrastructure and data, including City employees. 2 3 The majority of our cases that we see are reflecting 4 that rather than public submission. In 2023, as I mentioned, we launched the Vulnerability Disclosure 5 Program, which is a little bit different than what 6 7 you're describing in that we provide an avenue for 8 security researchers to essentially disclose 9 vulnerabilities that they may have found on publicly facing digital infrastructure, which provides just 10 11 another intake method for us to analyze, assess if it's in fact a valid weakness or a false positive, 12 13 which could happen, and then disperse that to the 14 City agency for remediation or mitigation of that 15 risk. 16 CHAIRPERSON GUTIÉRREZ: Okay, okay, thank 17 you. I have a couple more questions before I pass it 18 to my Colleagues for questions. 19 My next series of questions are related 20 to data and personal information. We know that often 21 that information is shared between agencies through

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22 data sharing agreements. Can you describe the extent 23 to which agencies can share data and how the data is 24 shared from a technical standpoint?

2	CHIEF MOAN: It will really depend on the
3	use case. I think cybersecurity, our ethos and sort
4	of theme of cybersecurity is to be an enabler, not a
5	blocker and so, from a business perspective, when an
6	agency wants to endeavor to share information,
7	sometimes that is a relatively easy mechanism that's
8	already in place, such as a file transfer sharing
9	site or availability of that capability that already
10	has relevant security protections in place, and
11	sometimes that's an agency that endeavors to take
12	advantage of a new technology or system and wants to
13	deploy something new in their environment, and we
14	have relevant security review processes and
15	procedures to work collaboratively with that agency
16	to vet the solution and assist them in any
17	implementation of security controls that need to be
18	met prior to rollout.
19	CHAIRPERSON GUTIÉRREZ: And in any of
20	those agreements, do you know if the data is required
21	to be encrypted while it's being transferred?
22	CHIEF MOAN: We have encryption
23	requirements both in our policies but also in our
24	writers for contractual agreements as well,
25	attachment SEY, which is a security requirement

2	attachment, and then we also have a cloud services
3	agreement. I think largely as we continue to see the
4	use of cloud, a key theme with cloud is shared
5	responsibility or shared fate model, making sure that
6	we are, as the customer, making sure that the right
7	security protections are in place, but then we're
8	also holding the vendor accountable or the cloud
9	service provider accountable to also make sure that
10	they're meeting the measure of those requirements. We
11	have a really robust third-party risk management
12	program, which includes not just those technical
13	controls, but also procedurally in those contract
14	documentation and writers, which also even denote,
15	again, the reality, which is even if a provider puts
16	all the bells and whistles in place for
17	cybersecurity, the reality is they will likely in
18	their timeframe suffer a cyber incident and, for that
19	reason, it's also important for them to understand
20	and know who to contact us, right, if they suffer a
21	cybersecurity incident, so we can very quickly with
22	the agency assess whether or not there's been any
23	impact to New York City equities at play.
24	CHAIRPERSON GUTIÉRREZ: In those instances
25	where data or personal information is part of the

2 data that's being shared with other agencies, is the 3 person made aware or how would I know if I'm a client 4 of H and H that my information is being shared, 5 personal information is being shared?

CHIEF MOAN: While I can't speak to the 6 7 specifics of notification of the privacy or privacy-8 related matters related to data sharing, what I can 9 speak to is that data sharing is something that is typically routine depending on the use case and the 10 11 requirement and need to know, and our City agencies 12 in particular have a keen eye and collaboration with 13 not just their privacy teams, but also their security 14 teams in addition to my office and my counterpart, 15 CPO Fitzpatrick's office, Office of Information 16 Privacy, to ensure that that balance is met, not just 17 from a business perspective, but also from a security 18 and privacy perspective. 19 CHAIRPERSON GUTIÉRREZ: Do you know if 20 there is data sharing of personal information between 21 City and State agencies? CHIEF MOAN: I can't speak to that, no. 2.2

23 CHAIRPERSON GUTIÉRREZ: Okay. I wanted to 24 ask, do you know if any and what agencies currently 25 use facial recognition technologies?

2	CHIEF MOAN: I appreciate the question,
3	Chair. I'll have to get back to you. I,
4	unfortunately, don't have that right in front of me,
5	but I'm happy to get back to you with that.
6	CHAIRPERSON GUTIÉRREZ: Okay. Is that
7	something that would fall in any of agreements
8	between agency to agency? If an agency is utilizing
9	facial recognition technologies, that's something
10	that OTI should be made aware of?
11	CHIEF MOAN: We have processes in place
12	for security review of technology, right, so if an
13	agency was looking to leverage a provider that
14	leveraged facial recognition, it may come across our
15	desk because of the nature of the system, right, so
16	potentially it's a cloud system or a system that's
17	connected to cloud infrastructure or they're building
18	something on-premises, depending on what that system
19	makeup would look like, then it might be in front of
20	us for security review and, for that purpose, we
21	would run them through their typical processes and
22	procedures, depending on the nature of the data in
23	use, the classification of the system as well, and we
24	have policies citywide that instantiate that.
25	

CHAIRPERSON GUTIÉRREZ: Are you aware of 2 3 any plan for the MyCity app in particular to use biometric technology for the utilization of its 4 application? 5 CHIEF MOAN: Not that I'm aware. 6 7 CHAIRPERSON GUTIÉRREZ: Okay. Well, I have some more questions, but I'm going to pass it to my 8 9 Colleague, Council Member Hanif. Before that, I'd just like to recognize 10 11 Committee Member, Council Member Vickie Paladino, who's joined us. 12 Council Member Hanif. 13 14 COUNCIL MEMBER HANIF: Thank you so much. 15 I know you mentioned in your testimony that OTI does 16 not have jurisdiction over Intro. 217. Could you 17 speak a little bit more about why OTI doesn't have overview? 18 19 CHIEF MOAN: Thank you for that question. 20 As mentioned in my opening statement, the Administration and OTI continues to be committed with 21 2.2 City Council to ensure the appropriate balance 23 between privacy, especially in regard to emerging technology. In terms of Intro. 217, to the extent 24 that the legislation supports biometric identifying 25

1	COMMITTEE ON TECHNOLOGY 39
2	information but it does not apply to government
3	agencies, it wouldn't be within an OTI's purview.
4	COUNCIL MEMBER HANIF: So OTI's
5	jurisdiction is over government agencies
6	specifically, not what this bill is looking to have
7	protections over?
8	CHIEF MOAN: OTI supports government
9	operations, yes.
10	COUNCIL MEMBER HANIF: Understood, okay.
11	You know, this is the second time that this bill is
12	getting heard. This is a re-introduction from last
13	session, and last session as well, the Administration
14	did not send the adequate City agencies to really
15	speak on behalf of Intro. 217, well, what is now
16	Intro. 217, and it is the Council's interest, it's
17	within our interest to want to work with the
18	Administration, as you've mentioned, to have a
19	balanced approach on New Yorkers' privacy, and it's
20	imperative that New Yorkers understand what the
21	Administration's position is on this piece of
22	legislation, though I understand that OTI
23	specifically does not have oversight, but I just want
24	to put on the record that this City Council wants to
25	work with the Administration in the legislative

2	process for Intro. 217 and the other pieces of
3	legislation, which was mentioned that, again, OTI
4	does not have overview, but this process right now is
5	making it very difficult for us to really advance
6	what would be protections for everyday New Yorkers so
7	I'm just disappointed that, once again, for the
8	second time, the Administration did not send
9	representatives to this hearing who could provide
10	pertinent testimony to this bill and the others on
11	today's agenda.
12	Chair, I'm going to pass it back to you,
13	and then I'll probably.
14	CHAIRPERSON GUTIÉRREZ: Okay, thank you,
15	Council Member Hanif.
16	Council Member Holden has questions.
17	COUNCIL MEMBER HOLDEN: Yes, thank you,
18	Chair. Yeah, I'm kind of disappointed also that we
19	don't have an opinion on this because a bill that
20	would prevent, or bills that would prevent businesses
21	from using technology that they invested in to
22	protect their business from a number of things, from
23	theft and certainly from people who have caused
24	problems in the past are getting into the business,
25	and even a place like Madison Square Garden, that

1	COMMITTEE	ON	TECHNOLOGY

2	obviously somebody could target, and the use of		
3	facial recognition is important to protect 15,000,		
4	20,000 people so I think the Administration should		
5	have an opinion on this, but the fact that you said		
6	you don't on both bills, can you discuss how		
7	biometric identification tools are used to improve		
8	public safety right now in New York City?		
9	CHIEF MOAN: Well, thank you for the		
10	question. First off, I would be happy to take that		
11	back and provide a response through my partners		
12	within OTI.		
13	COUNCIL MEMBER HOLDEN: Wait a minute,		
14	you're in OTI. You have no idea how facial		
15	recognition is used to protect us? You're in that		
16	business.		
17	CHIEF MOAN: New York City Cyber Command		
18	protects and defends against cyberthreats. We have		
19	counterparts within OTI divisions that would be		
20	relevant in engaging in this matter with you		
21	directly, and I'm happy to shepherd that		
22	conversation.		
23	COUNCIL MEMBER HOLDEN: Again, I mean, you		
24	saw what the bills were. I think somebody could have		
25	been here to talk to us about this, what businesses		

1	COMMITTEE ON TECHNOLOGY 42
2	and residents have the right to do is to protect
3	themselves. If everyone in that building, let's say a
4	co-op, agrees that they should have facial
5	recognition technology to protect their homes,
6	shouldn't they have the right, but we can't get these
7	answers so it's really kind of a waste of time.
8	Could you talk about facial recognition,
9	how accurate it is? Do you know anything about that,
10	or is that another question that's not appropriate?
11	DEPUTY COMMISSIONER SENATUS: If I may,
12	Council Members, with respect to what our position is
13	on biometric technology and all emerging technology,
14	we are generally considering the dynamic technology
15	and how it winds up affecting the public with respect
16	to their public information and also public safety.
17	However, given the fact that our authority is over
18	City agencies, we can't opine directly with respect
19	to this. However, if you want to have a more robust
20	conversation about what we would recommend
21	considering as part of…
22	COUNCIL MEMBER HOLDEN: Wait a minute,
23	first of all, we're not asking… This is something
24	that's under your purview. Facial recognition is part
25	of your arsenal, right? No?
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2	DEPUTY COMMISSIONER SENATUS: The use of
3	biometric recognition technology is something that we
4	review but, in terms of regulating its use for
5	private entities
6	COUNCIL MEMBER HOLDEN: I'm not talking
7	about for private. My question didn't mention
8	private. I said, to improve public safety in New York
9	City, how is it used, and you said, we can't talk
10	about that. You guys. Tell me how that's… I just
11	don't understand. How is it used right now by the
12	Police Department, let's say?
13	DEPUTY COMMISSIONER SENATUS: That would
14	be within the purview of that agency.
15	COUNCIL MEMBER HOLDEN: That's the Police
16	Department, but OTI doesn't cover that. How is it
17	used in government to get an entry into a government
18	building, a New York City building?
19	CHIEF MOAN: So, if I may, again, thank
20	you for the consideration in our response. The
21	technology, regardless of its facial rec or another
22	emerging technology that's continued to be discussed
23	in the public domain, there's applicable security
24	review and processes that my office does undertake,
25	regardless of the use case of that technology and so,

1	COMMITTEE ON TECHNOLOGY 44
2	to D.C. Senatus' point, having and shepherding those
3	conversations with the business owners or the use
4	case of those agencies that are potentially
5	leveraging that type of technology would be
6	pertinent. I can certainly speak to our security
7	processes and review to ensure the protection of the
8	underlying data at all sensitivity levels, but that
9	is what we are able to discuss today.
10	COUNCIL MEMBER HOLDEN: Thank you, Chair.
11	CHAIRPERSON GUTIÉRREZ: Thank you, Council
12	Member.
13	Council Member Hanif, I think has a
14	followup question.
15	COUNCIL MEMBER HANIF: Thank you. I
16	totally agree with Council Member Holden. This is
17	quite egregious and very disappointing. I just want
18	to add on. Could you expand on just the position that
19	OTI has on facial recognition as a tool used by City
20	agencies?
21	CHIEF MOAN: While I can't speak in
22	particular to facial rec, emerging technology writ
23	large, right, the commitment to balancing both
24	privacy and security.
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2 COUNCIL MEMBER HANIF: What are emerging 3 tech?

CHIEF MOAN: Emerging technology could be 4 5 the use of cloud, it could be facial rec, it could be Internet of Things devices. 6

7 COUNCIL MEMBER HANIF: The Administration 8 doesn't have a parameter as to what you all think 9 about facial rec, what you think about cloud, what is there like pros and cons that you're considering as 10 11 you are all looking into utilizing these mechanisms?

CHIEF MOAN: Just like any new or emerging 13 technology comes into play, there are always considerations from both the business lens and the 14 15 security lens that we do take into consideration. 16 Obviously, my office is predominantly focused on 17 cybersecurity threats in the evolving landscape and 18 so, as technology continues to be used, even not just 19 for public sector but also private sector, those 20 cyberthreats continue to evolve, my office's 21 responsibility is to ensure we have adequate 2.2 protections and defense in place.

23 COUNCIL MEMBER HANIF: Who within the office leads on understanding what the consequences 24

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1 COMMITTEE ON TECHNOLOGY 46 2 and what the positive outcomes are of biometric 3 surveillance? CHIEF MOAN: It would be a collaborative 4 effort with a number of different offices, including 5 agencies. 6 7 COUNCIL MEMBER HANIF: Which are? 8 CHIEF MOAN: A few come to mind, including 9 OTI's participation from a technology perspective, but also agencies that are endeavoring to use that 10 11 technology as well. 12 COUNCIL MEMBER HANIF: That's 13 unacceptable. I think, given that we are heading into 14 using more and more emerging technology, whether it 15 be within AI or biometrics, for the Admin to be here and not give us any substance of what you think of 16 17 each of these or how you all are, even if it's just 18 sharing, these are the specific agencies that are 19 using it, or we work with the NYPD to understand this 20 set of technology or this mechanism of identifying 21 shoplifters or whatever it is. This is really 2.2 disappointing, given this should be a humongous focus 23 of our City right now and our City's operation. Chantel, did you want to add something to that? 24

2	DEPUTY COMMISSIONER SENATUS: Yes, if I			
3	may, Council Member. We do have AI guidelines on our			
4	website. We do have a unit that deals specifically			
5	with creating those guidelines and creating a space.			
6	COUNCIL MEMBER HANIF: So there is one?			
7	DEPUTY COMMISSIONER SENATUS: To develop			
8	that technology.			
9	COUNCIL MEMBER HANIF: Does that mean			
10	there is one for the biometrics as well?			
11	DEPUTY COMMISSIONER SENATUS: I mean,			
12	unfortunately, I'd have to come back to you with more			
13	information with respect to that because that is a			
14	particular unit.			
15	COUNCIL MEMBER HANIF: Do you know			
16	anything about the pilot program that Mayor Adams			
17	announced regarding the NYPD collaborating with			
18	FUSUS-Axon, which would allow businesses to feed			
19	security camera footage directly to the Police			
20	Department?			
21	CHIEF MOAN: Thank you for that question.			
22	I'll have to get back to you on the particulars of			
23	that.			
24	COUNCIL MEMBER HANIF: Okay.			
25				

2	CHAIRPERSON GUTIÉRREZ: Okay, so there's
3	going to be a number of followups, so we'll make sure
4	to get that to you from both Members.
5	Particularly with Council Member Hanif's
6	bill, Intro. 217. In your opinion, what agency would
7	this fall under? If it's not OTI?
8	CHIEF MOAN: With regard to the bill, as
9	it relates to not applicable to the use of biometric
10	identifying information within government agencies,
11	right, it wouldn't be within OTI's purview and, as we
12	understand it, it's not applicable to government
13	agencies writ large. We can certainly have a followup
14	and discuss with City Council about that balance that
15	we're trying to drive between privacy and public
16	safety, but I hope that answers your question.
17	CHAIRPERSON GUTIÉRREZ: Okay, Council
18	Member Hanif.
19	COUNCIL MEMBER HANIF: Thank you, Council
20	Member Gutiérrez. Given that this is technology that
21	is impacting New Yorkers, when they are experiencing
22	an incident that is discriminatory or biased as a
23	result of this technology, who do they report to?
24	Which is the City agency that would be involved in
25	troubleshooting with this constituent as to the City
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2 having played a part of impacting this constituent or 3 community?

CHIEF MOAN: If I'm understanding 4 correctly, if we're talking about a private sector 5 entity that is leveraging technology that then a New 6 7 Yorker feels they have been impacted by, there would be a number of different avenues that would be, 8 9 depending on the use case of impact, and those would largely depend, again, on that use case so it's 10 11 difficult to give you an answer directly without understanding the details behind it, but we can 12 certainly discuss in further detail the intent of the 13 14 bill and, again, the commitment that we have to 15 strike that balance that's, oh, so necessary in our 16 world of continuing evolving and emerging technology. 17 COUNCIL MEMBER HANIF: And what's the 18 balance that you're talking about? 19 CHIEF MOAN: The balance between privacy 20 and public safety. 21 COUNCIL MEMBER HANIF: Which is, how are 2.2 you all understanding that balance? 23 CHIEF MOAN: That there should be one, given the fact that emerging technology continues to 24 provide considerations for both benefits and 25

2 potential considerations that don't benefit the 3 individual that's taking advantage of that emerging 4 technology.

COUNCIL MEMBER HANIF: So in the example 5 of, I'll just provide an example to my previous 6 7 question. A supermarket is using biometric 8 technology, and I go in and first I get alerted. A 9 red alert comes up saying that I'm a shoplifter, and I refuse that allegation and I want to file a 10 11 complaint, and so the agency that would administer or support me as a constituent, which agency would be 12 involved in that incident? 13

14 CHIEF MOAN: Thank you for that question. 15 At this time I'm unable to give you an agency name, 16 but I am happy to take that back with my partners, 17 not just at OTI, but more broadly in the City agency 18 community and assist in finding a solution to that 19 question.

20 COUNCIL MEMBER HANIF: Got it, yeah, I 21 think it's imperative for the City to have a response 22 to this and for OTI to know very clearly which City 23 partner would be involved in a case like that one, 24 but there are countless cases and, in my testimony, I 25 described Rite Aid, which we are all familiar with,

and the abuse that is happening by facial recognition 2 3 technology, when it is totally incumbent on the City to be responsive to both when, let's say this person 4 decides to file a police complaint, is NYPD then 5 investigating and then what does that investigation 6 look like and does OTI have a purview and partnership 7 with NYPD, or for the City to have an analysis of its 8 9 businesses using this kind of technology that threatens the security and safety of our communities 10 11 before a crime has happened, right? This is someone 12 who is getting alleged to have done something without 13 there being any substantial proof so those are the 14 two pieces that I'd like some answers, some tangible 15 answers from the Administration because I do think this is an issue that concerns our City and the 16 17 Administration should have a response and a position 18 on biometric technology. Thank you. 19 CHAIRPERSON GUTIÉRREZ: Thank you, Council Member Hanif. 20 I believe Council Member Paladino has 21 2.2 questions. 23 COUNCIL MEMBER PALADINO: Good morning and thank you for coming. 24 25

About 20 years ago, I probably would have 2 3 said no to any kind of cyber anything, recognition, 4 facial recognition, anything because it's an invasion of one's privacy to a point. However, living in the 5 days that we're living in right now, I believe it's 6 7 absolutely and should be required for, as my 8 Colleague brought up, there's several different 9 layers of it. If you live in a co-op and just simply ringing the bell and buzzing somebody in or they talk 10 11 to you and you're still not quite sure who it is and 12 that co-op board decides that they want to use facial 13 recognition, then they should be allowed to use 14 facial recognition. I believe facial recognition 15 should be in every government building that we have 16 today if that's required. I believe our police force 17 should be allowed to use facial recognition for the 18 simple reason being it's a more accurate way of 19 asking somebody for just a description of someone. It 20 led to a lot of wrong arrests and undue prosecution. 21 I mean, there was prosecution that was done to people that were innocent. Facial recognition is 100 percent 2.2 23 or 99 percent accurate. I'm curious though, I do have a concern. When we go to the bill that's being 24 introduced by, it's 539, as a parent, they're using 25

2 technology to track their kids, that's a must. Are 3 there warnings on the apps that will let the people 4 know that their location data can possibly be shared with a third party? That I have a problem with. Also, 5 what is an example of a third party that data would 6 7 be shared with and, just to be clear, I don't agree 8 with any of it. I find it kind of creepy. I want to 9 know what my child is doing, but I don't want anybody else to know what my child is doing or where my child 10 11 is. That's my business. There's also a financial 12 question. Who is going to be responsible for the 13 financial burden put on businesses and landlords that have already invested in biometric identification 14 15 data technology as they would be asked to remove or 16 to replace or to adjust their current BID 17 technologies. Privately owned anything should be 18 allowed to do whatever they want. If they want to 19 have facial recognition, they should be allowed to 20 have it. I voiced my opinion already, and it's a must 21 have tool for our Police Department and, anybody 2.2 who's got a problem with that, that's really too bad. 23 Thank you. CHAIRPERSON GUTIÉRREZ: Okay. Thank you. 24

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Do you want to respond to any of that?

2	COUNCIL MEMBER PALADINO: Well, I asked
3	about financial. You want to go to that? Who's going
4	to be responsible for the financial burden put upon
5	businesses and landlords? Who are the third parties
6	in sharing data? That's question two. And I know
7	there was a third. Okay, we'll start with those two.
8	CHIEF MOAN: While I can't speak to the
9	financial burden that you referenced, as far as
10	Intro. 539 in particular, OTI and the Administration
11	would welcome any ongoing conversations related to
12	the proposed implementation framework as it relates
13	to this particular bill, in particular, having a
14	greater understanding of what that framework, the
15	intent of the Council's proposal would be in terms of
16	a framework. As I mentioned, OTI does regulate the
17	right-of-way for telecommunications infrastructure
18	through our franchise group but does not regulate
19	mobile application developers so that would be a
20	conversation we would love to have.
21	COUNCIL MEMBER PALADINO: Okay. Concerns
22	for cyberattacks on our infrastructure by terrorists.
23	Is our country equipped to handle an infrastructure
24	cyberattack? I don't think so.
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CHAIRPERSON GUTIÉRREZ: You can respond to whether or not the City in our capacity, OTI is equipped to respond.

CHIEF MOAN: Thank you for the question 5 and, again, I want to reiterate, thank you for having 6 7 me here. These types of conversations are absolutely 8 important and critical to, again, elevate the 9 conversation about cybersecurity within the public domain and public awareness. New York City ecosystem 10 11 is vast and complex. We have to protect everything 12 from the most basic technology, think your Windows device at home, your Windows workstation, all the way 13 14 to the more advanced, such as industrial control 15 systems. That mission is incredibly important to us. 16 We endeavor to make New York City the most resilient city in the world, and we do that in a number of 17 18 tangible ways. I do think it's important in this 19 particular space, what I can disclose, again, in the 20 public domain and in our world, the cybersecurity 21 industry writ large, we're continuing to see trends 2.2 of threat actors that attempt to trick users through 23 social engineering tactics to click on malicious links or documents. We have to contend with a number 24 25 of threat actors, three that come to mind in terms of

2 threat groups or hackers or threat actors that 3 endeavor to promulgate some of these attacks within 4 broadly, globally. One, we have to contend with 5 attackers like hacktivists who are promoted and are fueled by activists and activist causes. We have to 6 7 contend with cybercriminal groups, which continue as 8 an industry, continues to be omnipresent within the 9 domain. These are threat groups that actively are attempting to gain financially through cyberattacks. 10 11 And then the third, which again, I think it is 12 important to discuss openly, and again, this is 13 public information, but threat groups such as 14 advanced persistent threats, and those are highly 15 sophisticated threat actors, incredibly well-versed in cyberattacks and intrusion methodologies. In 16 17 particular, our City continues to be hyper-focused on 18 all threat groups that attack any public or private 19 sector entity but, in particular, there is continued 20 cybersecurity advisories from the federal sector and 21 international partners that have been released 2.2 related to a threat group known as Volt Typhoon, and 23 the reason I bring that particular threat group up is because we're continuing to see targets against 24 critical infrastructure being omnipresent in the 25

2 industry. This particular group, as one type of 3 advanced persistent threat, uses tactics that we call 4 living off the land. It's essentially where a threat actor attempts to hide in plain sight of devices 5 using tools on your computer that your system 6 7 administrators would normally use, right, known good 8 applications essentially behaving badly, and so this 9 particular threat actor and these living off the land techniques, camouflage techniques that threat actor 10 11 use are obviously more sophisticated types of techniques, but it's still those that we have to 12 contend with, and as the rise of critical threats 13 14 against critical infrastructure, in particular 15 utilities, waste and water systems, it is paramount 16 that we have partnerships and collaboration in place 17 to protect against those attacks and defend and then 18 recover from them as well to make sure that we're 19 focusing not just on defense and protection, but also 20 on our incident response capabilities, which includes tabletop exercises with private and public sector 21 2.2 partners to, again, continue to practice incident 23 response techniques and protocols should we suffer an attack at any size or scope of any magnitude. Those 24 are just a couple examples of what public and private 25

1	COMMITTEE	ON	TECHNOLOGY	

2	sector entities have to contend with from a threat
3	attack perspective. I'm incredibly proud of the team
4	that we had and the abilities that we've been able to
5	build over the last seven years with regard to
6	security services and the partnership quite frankly.
7	CHAIRPERSON GUTIÉRREZ: I'm just going to
8	ask a couple more questions and then pass it to
9	Council Member Ariola.
10	I'm glad you finished on the partnership
11	piece. What can you tell us about OTI's current stage
12	of partnerships with small businesses or other
13	companies that operate to digitally protect
14	infrastructure?
15	CHIEF MOAN: Thank you for the question.
16	Partnerships really span on the cyber realm, size and
17	scope from private sector entities of critical
18	infrastructure providers, like I mentioned,
19	utilities, hospitals, wastewater treatment
20	facilities, all the way to security researchers with
21	our VDP program and, at a high level, it is important
22	for us to maintain general awareness of their
23	cybersecurity posture, but also who they are, right,
24	a human behind the company, right, so that should
25	

1 COMMITTEE ON TECHNOLOGY 59 2 they suffer a cyber incident, they also know who we 3 are. CHAIRPERSON GUTIÉRREZ: Are there current 4 relationships or partnerships that you all have now 5 with some of these entities? 6 7 CHIEF MOAN: Yes, yes. CHAIRPERSON GUTIÉRREZ: Okay, can you name 8 9 some of them? CHIEF MOAN: In this particular public 10 11 domain, I'm happy to offer that up in private, but it 12 ranges really every sector and, again, that speaks to 13 the whole-of-society and whole-of-government approach 14 to cybersecurity because we are all facing the same 15 types of threats and threat groups, and we all are 16 endeavoring to protect and defend and so, when we see 17 something, we say something to our partners, right? 18 If we see an ongoing campaign that could be targeting 19 a partner, we share that information and give them 20 real insight to the extent we can and we have that 21 insight so they're able to better protect them. CHAIRPERSON GUTIÉRREZ: So there is an 2.2 23 existing footprint of a partnership with businesses with regards to both Council Member Hanif's bill and 24 even Council Member Rivera's bill, which is related 25

to tenants, primarily in private buildings, is there 2 a pathway there for these partnerships to achieve the 3 4 same mission, which is to protect New Yorkers? If you have existing relationships with, or partnerships 5 with small businesses now, is there not potential to 6 7 do that with a Rite Aid, for example, or some of 8 these businesses where New Yorkers are explicitly saying that their rights are being violated based on 9 biometric data collection? 10

11 CHIEF MOAN: In terms of partnerships, our 12 focus is cyberthreat intelligence sharing and making 13 sure that we're protecting against cyberattacks. I 14 think within the confines of that, that absolutely 15 makes sense within the confines of the cybersecurity 16 realm. As it relates to these particular bills, that 17 would definitely be something that I think a 18 discussion would be needed to understand the intent 19 of that particular framework.

20 CHAIRPERSON GUTIÉRREZ: Okay. Thank you 21 for clarifying that. The New York City Cyber Critical 22 Services and Infrastructure Project, or CCSI, was 23 announced in 2019 as a partnership between the 24 Manhattan DA's office, PD, and Cyber Command along 25 with a non-profit, Global Cyber Alliance, as a way to

2 coordinate cybersecurity efforts and responses
3 between the public and private sector. Can you share
4 a little bit about how this partnership has worked
5 thus far, and how OTI works as a part of this
6 initiative?

61

7 CHIEF MOAN: Absolutely, thank you for the question. CCSI really speaks to how much thought 8 9 leadership has been in the City for so long on matters like protecting critical infrastructure 10 11 against cyberattacks. The threats against 12 municipalities, state, local entities, even federal sector continues to be on the rise even since 2017, 13 14 since the inception of Cyber Command. The 15 announcement of the Joint Security Operations Center 16 is really just a doubling down of an expansion of the 17 CCSI initiative, bringing together all of those 18 partnerships that I mentioned earlier. In addition to 19 expanding our footprint of those partnerships to 20 ensure that we have the collective good in mind as it 21 relates to sharing cyberthreat intelligence 2.2 information, and we've even gone so far, especially 23 over the last couple of years, to continue to focus heavily on joint public-private sector tabletop 24

1 COMMITTEE ON TECHNOLOGY 62 2 exercises as well, making sure that we have a keen 3 eye towards that. CHAIRPERSON GUTIÉRREZ: Okay. I just want 4 to touch on one more question before passing it over 5 to Council Member Ariola. 6 7 You mentioned in your testimony the 8 City's first Vulnerability Disclosure Program. I know 9 it's fresh, but can you share a little bit more on this, kind of like on the idea, and has it worked, 10 11 have you had folks already disclose, and you have to educate me, is this like an annual disclosure or is 12 13 this just as soon as there's an issue, staff is able to disclose? 14 15 CHIEF MOAN: Thank you for that question. 16 We were really proud to launch the VDP program. 17 Obviously, New York City is very large, so 18 endeavoring to launch a VDP of this size was a 19 Herculean effort and making sure that we had the 20 appropriate processes and procedures in place. What's 21 really exciting from a practitioner perspective is that security researchers are out there in the 2.2 23 community testing independently the software you use at home. It's part of the reason you get the software 24 updates with security updates embedded in them on 25

your home computer, right, and so when they identify 2 3 that there could be a vulnerability that is located 4 within the City domain infrastructure, more specifically, public-facing infrastructures or 5 public-facing websites that New Yorkers interact with 6 7 on a daily basis, they are able to submit the 8 technical details of that exploitation that they 9 believe is valid to our team, and we are able to assess whether or not it is, in fact, valid, and 10 11 it's, in fact, an exploitable vulnerability or weakness in the system, and we follow best-in-class 12 13 industry practice for categorization of severity of vulnerability, and then we work closely with the 14 15 agency to either put a remediation in place or a 16 mitigation through technical controls and then, once 17 fixed, we also are able to give a head nod to that 18 security researcher on our public-facing portal that says they were able to find something. While we don't 19 20 reveal, obviously, the specific content of the 21 exploitation for obvious reasons, we don't want 2.2 threat actors to actually have insight into those 23 vulnerabilities in particular, they are able to get an accolade on the website that says they were able 24 to fix things, and we've done quite a bit to promote 25

2	the program, but it is still early on in its tenure
3	so our security researchers have identified a handful
4	of vulnerabilities that have been able to be
5	mitigated, which is a big success for us. Again, a
6	partnership with the industry writ large is paramount
7	because we are so big. It takes all of us as a team
8	to be working together to protect and defend, and I
9	anticipate that will continue to exponentially grow
10	as the program with engagement such as this continues
11	to be in the public domain.
12	CHAIRPERSON GUTIÉRREZ: Can you share how
13	security researchers are able to submit
14	vulnerabilities?
15	CHIEF MOAN: Yeah. As soon as a researcher
16	identifies what they believe is a vulnerability that
17	could be exploited, they're able to submit through
18	our online portal and, again, this is public-facing
19	portal, the details of that submission and engage
20	directly with the team to analyze whether or not it
21	is valid. For example, it's very routine for, there
22	might be some back and forth between the team through
23	the intake method to ask some followup questions to
24	make sure that we are able to correctly identify the

1 COMMITTEE ON TECHNOLOGY 65 2 means or the tactics being used to exploit to then 3 prove out if it's a valid vulnerability. CHAIRPERSON GUTIÉRREZ: Is the online 4 5 portal also an app, or are they only able to access it from their work computers? 6 7 CHIEF MOAN: It's just an online portal, 8 no. 9 CHAIRPERSON GUTIÉRREZ: Okay, and so the NYC Secure mobile app, is that still alive? 10 11 CHIEF MOAN: NYC Secure is absolutely our 12 mobile app. For those of you who might not be aware, 13 we offer a free mobile app for New Yorkers to protect themselves against mobile threats. It's called NYC 14 15 Secure, and it's still available. You can download it for free on the App Store or on the Android Store, 16 17 and it's just one of the methods to, again, assist 18 the average New Yorker from ongoing threats 19 potentially perpetrated on their mobile device. 20 CHAIRPERSON GUTIÉRREZ: Your eyes kind of 21 opened up a bit when I mentioned it. Do you know if 2.2 this app is updated frequently? 23 CHIEF MOAN: Yes, absolutely. CHAIRPERSON GUTIÉRREZ: Okay, I'm going to 24 25 check it out right now.

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CHIEF MOAN: Yeah.

CHAIRPERSON GUTIÉRREZ: Okay.

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4 CHIEF MOAN: Yep, it's on my phone as 5 well.

6 CHAIRPERSON GUTIÉRREZ: Great, all right, 7 I'm going to pass it to Council Member Ariola and 8 then Council Member Bottcher if he comes back for 9 guestions.

10 COUNCIL MEMBER ARIOLA: Thank you, Chair. 11 I want to go back to the cybersecurity protocols. You 12 talked about several protocols and measures that are 13 in place. Are they publicly available, or would that 14 be not available publicly because of security 15 reasons?

16 CHIEF MOAN: Typically, specific incident 17 response plans and procedures aren't made publicly 18 available. We also don't want to promote threat 19 actors having an understanding of what we would do 20 should an incident arise to a certain severity level, 21 but those are internally circulated, and agency teams 2.2 also maintain specific incident response procedures 23 for downstream with their agency in close collaboration with us as well. 24

2 COUNCIL MEMBER ARIOLA: Okay, and how 3 often are they reviewed and updated, where you have 4 an internal conversation about what's working, what 5 isn't, so how many times is that done? CHIEF MOAN: We have citywide policy for 6 7 incident response plans, and we update, and also in that policy, I believe it's no fewer than annually it 8 9 needs to be updated but, in reality, updates would come in the form of post-tabletop exercise, testing 10 11 the plan, realizing we need to tweak this playbook 12 line item versus a procedure because the nature of 13 agency engagement has changed or we've updated considerably since the realignment with OTI has taken 14 15 place as well. 16 COUNCIL MEMBER ARIOLA: Okay, and

17 according to the Citywide Cybersecurity Inventory 18 Policy, which is applicable to all systems that connect to a City-owned network, Cyber Command must 19 20 audit covered organizations for compliance and notify 21 the First Deputy Mayor if it finds noncompliance. The 2.2 policy further states that Command may conduct 23 periodic audits to review a system's cybersecurity and related information. How many times have you 24 carried out this audit, and how many times did you 25

2 report noncompliance in the last two years, if you 3 have that information?

4 CHIEF MOAN: While I can't go into particular specifics, given the public nature of this 5 hearing, I am also happy to offer a followup in 6 particular for that question. We routinely engage any 7 8 method, really, including audits and assessments, to 9 understand evolving cyber landscape and posture of our City agencies, including their journey in 10 11 maturation, right? As I mentioned before, our 12 agencies span from smaller to larger agencies and 13 also in complexity, and so making sure that we're 14 partnering with them to engage and promote cyber 15 maturity and enhancements at the agency is paramount, which is why we have a cyber road-mapping process 16 17 that actually takes into account any findings or 18 weaknesses that we've identified or third parties 19 have identified that can be improved, and we 20 implement those into our collaborative roadmaps that 21 we work with agencies to develop so then they 2.2 implement those remediations or mitigations as a 23 prioritized work stream.

24 COUNCIL MEMBER ARIOLA: Okay, and just, if 25 you could, anything that you cannot share here today

1 COMMITTEE ON TECHNOLOGY 69 publicly, you share with our Chair in private so she 2 3 can share with the rest of the Committee. Thank you. 4 Thank you, Chair. CHAIRPERSON GUTIÉRREZ: Thank you, Council 5 Member Ariola. 6 7 I will ask some questions until Council Member Bottcher gets back. 8 9 Can I just ask one more question regarding operations? I know the City has a variety 10 11 of legacy systems powering agency operations. Does 12 OTI have any mechanisms to track those legacy 13 systems? 14 CHIEF MOAN: As technology modernizes, 15 including specific software or hardware that becomes 16 end of life, per se, that is something that we 17 typically have visibility on and are able to track 18 remediation of. The modernization journey of a city 19 this large, but more broadly of any private sector 20 entity as well, those updates or modernization efforts are routine and continual and, as we look to 21 the future, we continue to promote secure and secure-2.2 23 enabling technologies that really meet the mission of what each agency is endeavoring to do and promoting 24 services to New Yorkers. 25

2	CHAIRPERSON GUTIÉRREZ: Great. Thank you.
3	Do you have staff that conduct exercises to practice
4	cyberattack response and recovery?
5	CHIEF MOAN: We do.
6	CHAIRPERSON GUTIÉRREZ: You do? Okay. I
7	won't ask anymore. I feel like that's enough.
8	I wanted to ask about just citywide
9	policies and protocols. In 2020, Local Law 89 passed
10	that requires New York City Cyber Command to ensure
11	compliance with policies established with Cyber
12	Command. How do you all ensure that agencies comply
13	with those policies and protocols?
14	CHIEF MOAN: Thank you for that question.
15	As part of any cybersecurity program, both compliance
16	and non-compliance are taken into consideration as
17	folks continue to promote and use new and emerging
18	technology. We have escalation procedures in place
19	and timeframes for remediation that are leveraged to
20	ensure that there is a balance of both security and
21	business operations. We do have an understanding that
22	no system is 100 percent secure because we have
23	users, right? We need to be able to operate on a
24	device, and so making sure that we're escalating,
25	leveraging those procedures, should we see a non-
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2 compliance matter or should we see, for example, 3 we've last year alone, we saw, we continue to see in 4 the industry a large omnipresence of zero-day 5 vulnerabilities and, for the public that might be listening, a zero-day is a vulnerability that's 6 7 disclosed without a fix, without a security update available, and so we have procedures in place with 8 9 timeframes for remediation for a reason. We want to build the muscle and the dexterity of agencies to be 10 11 able to fix things fast so that if we see an emerging 12 or an emergency vulnerability like a zero-day come 13 out, we're able to affect that change even faster 14 because we have appropriate processes in place and 15 the agency has that muscle to then go out and do the 16 things that we're asking them to do. 17 CHAIRPERSON GUTIÉRREZ: In the instance of a zero-day scenario, which as I understand, it's a

18 a zero-day scenario, which as I understand, it's a 19 little bit more specific than like a full-on or 20 different than like a full-on data breach, how do you 21 all adjust the policy or protocol with that agency 22 after that kind of an incident?

CHIEF MOAN: Let's first talk about the zero-day vulnerabilities. If a critical vulnerability, that severity level comes out with a

2 zero-day, we very rapidly engage our City agency 3 teams to determine what our potential exposure could 4 be as part of our Unified Vulnerability Management Program and, again, I'm speaking at a high level, but 5 I want to provide as much detail as I can because 6 7 this is an important core tenant of any cybersecurity 8 program and this is where it all starts, right, so 9 when a zero-day vulnerability is disclosed, we very rapidly engage. We also determine what fix could be 10 11 in place and large in part, most zero-days, the nature of the definition, they don't have a fix, so 12 13 sometimes we have to put in a compensating control, which is essentially a mitigation of the risk or we 14 15 have heightened monitoring to determine if we've been 16 impacted in any way, and that's close collaboration 17 with our agency partners, and then in the unfortunate 18 event that a zero-day vulnerability has ultimately 19 led to a security incident, which has ultimately 20 potentially led to a data breach, which is a breach of information that could come from a security 21 technical incident, then when we work together 2.2 23 collaboratively with our partners, with our agencies to determine what, if any, data elements were 24 impacted and then send out relevant notification as 25

2 it relates to whichever regulated data has been 3 impacted in that regard.

4 CHAIRPERSON GUTIÉRREZ: I quess as much as you can share about the regularity of updating the 5 policies, like I understand from your previous 6 7 response, it really just depends, but what can OTI 8 say to the public about ensuring that the policies 9 are being updated, that they're relevant, that they're audited, I don't know if you all do that as 10 11 well, but what can you all share with us about those particular protocols? 12

CHIEF MOAN: Absolutely, thank you for the 13 14 question and for the opportunity to share. We follow 15 best in class industry best practices for remediation 16 timelines for, let's say, vulnerabilities and our 17 associated Vulnerability Management Program. We've 18 also at times actually followed the federal 19 government with regard to advisories such as 20 directives for emergency and critical so these are 21 important and urgent ongoing exploitation of 2.2 vulnerabilities from threat actors, and so we have our routine timelines in place and associated 23 policies that are updated when they need to be 24 updated if the threat landscape changes, but we also 25

2	have heightened directives that we've pushed out in
3	particular when we see that there's an ongoing threat
4	of exploitation and we're seeing that the federal
5	government or our counterparts at the cybersecurity
6	and infrastructure security agency putting out a
7	directive that impacts federal civilian agencies. We
8	typically mimic that and actually push out one of our
9	own for our City agencies as well because, again,
10	it's industry best practice and we want to make sure
11	we're doing everything we can in furtherance of
12	protection of New Yorkers data.
13	CHAIRPERSON GUTIÉRREZ: Thank you. I'll
14	just have one more question before passing it off to
15	Council Member Bottcher.
16	According to Citywide Application
17	Security Policy, NYC Cyber Command can conduct
18	periodic audits to review the security posture of any
19	information system. Can you share how often your
20	office engages in this application audit?
21	CHIEF MOAN: The City has a number of
22	applications, a large number of applications. We
23	routinely engage our agency partners for periodic
24	reviews of those particular systems. And I think it's
25	important to note this, right, so we also engage for
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assessments or heightened reviews of systems should 2 3 we see that there could be an ongoing threat that 4 could potentially impact that system, right? We have a whole of defense, a defense-in-depth approach is 5 what we call it in the cybersecurity world to all 6 7 systems that are built within the City, and that's 8 not just us, that's also our agency partners, but 9 I'll give you an example. Over the last few years, again, given the geopolitical drivers and what has 10 11 been happening in the world with multiple protracted 12 conflicts in multiple areas of the world, the threat 13 landscape has continued to evolve. Tactics that 14 really have been used historically like denial of 15 service, where it's a threat actor's attempt to shut off access to a system that is used by, in this case, 16 17 the public. We're seeing and we saw for the last few 18 years that that changing threat as a tactic that was 19 being used more, right, and so when we saw that it 20 was being used more, we wanted to rapidly engage and 21 continue to engage our agency partners to say, okay, 2.2 do we have the appropriate protections in place, and 23 so that is an everyday conversation with us and our agencies and, again, that's just one example of 24 25 numerous examples about how the threats continue to

2	shift and shape in our job, and what we consistently
3	show up to do with a very immense passion to do so is
4	working with our agencies to understand the why
5	behind why we're asking them what they need to do,
6	them understanding it, and then ultimately, I'm a New
7	Yorker, my team are New Yorkers, we're protecting not
8	just our data, we're protecting our families' data,
9	our friends' data and so making, I think, that sense
10	of passion and commitment to service to the City of
11	New York is really what I believe best position us to
12	protect and defend against these threats.
13	CHAIRPERSON GUTIÉRREZ: Thank you. I'll
14	pass it to Council Member Bottcher for questions.
15	COUNCIL MEMBER BOTTCHER: Hi. I'd love to
16	hear your personal perspectives on the issue of
17	facial recognition technology as someone who's worked
18	in the cybersecurity space for many years, as someone

18 in the cybersecurity space for many years, as someone 19 who worked for federal security agencies. What are 20 your views about facial recognition technology, both 21 in the private sphere and the public sphere, and what 22 is the balance, in your view, between the benefits of 23 new technologies and the potential threats to civil 24 liberties?

CHIEF MOAN: Thank you for the question 2 3 again. I think, while I can't speak specifically to 4 facial recognition, what I can speak to is technology 5 writ large. We're continuing to see emerging technology promulgate through the industry. This 6 7 isn't something new or novel to the cybersecurity 8 realm. For example, artificial intelligence, as it 9 relates to cybersecurity, is a topic that was in consideration many moons ago, many years ago. In 10 11 addition to our interconnected city, the use of Internet of Things devices, IoT devices, so think 12 13 your smart fridges, your sensors that are being deployed, those all have access to the internet, and 14 15 that presents unique challenges from a protection and 16 defense perspective for cybersecurity because large 17 and part folks that may not realize they're 18 leveraging that technology and could be exposed from a cybersecurity perspective so I think the federal 19 20 government has done a really great job, in my 21 opinion, in particular the Cybersecurity and 2.2 Infrastructure Security Agency, of promoting 23 awareness campaigns such as Secure Our World to promote effective techniques to protect and defend 24 against cybersecurity attacks, the use of 25

2	passphrases, right, so remember your password better.
3	Just think the longer the password, the better, four
4	or five words strung together, a special character in
5	between, maybe an uppercase letter, lowercase letter.
6	Studies have shown that that provides more protection
7	than not, than even your most complex password. The
8	use of multi-factor authentication and also just
9	making sure your devices are updated. Those are three
10	core principles that every New Yorker should take
11	into consideration in their personal life, but we've
12	also heard and continue to see, and we promote in the
13	City, secure by design and secure by default
14	concepts, right? We know that no technology is 100
15	percent guaranteed to not suffer from a cyber
16	incident, nor is any organization, but we have seen
17	that there should be greater emphasis, and the
18	federal government has taken the pen to this, and
19	even the National Cybersecurity Strategy identifying
20	that there is a risk to contend with with
21	interconnected devices, in particular IoT, and the
22	use of secure by design and secure by default helps
23	protect and defend against those risks.
24	COUNCIL MEMBER BOTTCHER: Have you worked
25	with facial recognition technology in your

2 professional background, both in Washington and New 3 York? Has this issue come up much in your 4 professional career?

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CHIEF MOAN: Well, like most things, I 5 think the City of New York continues to be a leader 6 7 in a number of different spaces. I say that in the 8 cybersecurity realm given our size, scope, and 9 autonomy to impact change, but I would also say that in this particular regard, it continues to be a 10 11 leader in the municipal space, and conversations like this are important ones to have, and I think that 12 commitment to balancing privacy and public safety is 13 one that needs to be contended with and discussed. 14 15 COUNCIL MEMBER BOTTCHER: Writ large, 16 what's your view about legislating on this 17 technology? Do you think that government should be 18 playing an active role in legislating in the space of 19 facial recognition, or do you think there should be 20 more of a hands-off approach?

21 CHIEF MOAN: Well, I can't speak to 22 specifics on behalf of the Administration. I think 23 that the commitment is absolutely there to work with 24 you all to balance that approach.

CHAIRPERSON GUTIÉRREZ: Thank you, Council
 Member Bottcher.

I'd like to get into just a couple of
questions about vendors. Just based on previous
hearings or previous remarks, can you share what role
Cyber Command plays in negotiating tech contracts for
the City?

9 CHIEF MOAN: We don't play a direct role in terms of negotiation of tech contracts, but we 10 11 certainly support ongoing conversations with any 12 agency that is looking for advice or has questions 13 about entering into a relationship with a vendor, in 14 particular, that's from the security requirements 15 perspective, right? We have security requirements and 16 citywide policies and procedures related to those 17 requirements for vendors, depending on what the 18 vendor is providing to that particular agency. 19 CHAIRPERSON GUTIÉRREZ: And I'm sorry to 20 interrupt. Does the agency have to seek OTI, if

21 they're seeking specific support, are they seeking 22 OTI for their review or is this just in every single 23 tech contract, OTI is there to support?

24 CHIEF MOAN: So it could come in a number 25 of different forms, right? So a large majority of the

2	cases are through new systems or applications that
3	are being built within the City domain and, if those
4	are leveraging the cloud, for example, OTI has a
5	cloud review process. Security is just one component
6	of that, but not everything is built in the cloud,
7	and so we have obviously even application security,
8	but more broadly security requirements documents made
9	available for every agency, and we certainly offer up
10	conversations and questions and answers should
11	agencies have questions.
12	CHAIRPERSON GUTIÉRREZ: Is OTI looking at
13	every single tech contract from agencies?
14	CHIEF MOAN: From a technology contractual
15	perspective, OTI certainly has a large predominance
15 16	perspective, OTI certainly has a large predominance of engagement with agencies more broadly, and that
16	of engagement with agencies more broadly, and that
16 17	of engagement with agencies more broadly, and that can come in a number of different forms, right, so it
16 17 18	of engagement with agencies more broadly, and that can come in a number of different forms, right, so it could come from the cybersecurity lens, but it also
16 17 18 19	of engagement with agencies more broadly, and that can come in a number of different forms, right, so it could come from the cybersecurity lens, but it also could come from like counterparts at the relevant
16 17 18 19 20	of engagement with agencies more broadly, and that can come in a number of different forms, right, so it could come from the cybersecurity lens, but it also could come from like counterparts at the relevant divisions, whether that be research and
16 17 18 19 20 21	of engagement with agencies more broadly, and that can come in a number of different forms, right, so it could come from the cybersecurity lens, but it also could come from like counterparts at the relevant divisions, whether that be research and collaboration, right, with the AI action plan that
16 17 18 19 20 21 22	of engagement with agencies more broadly, and that can come in a number of different forms, right, so it could come from the cybersecurity lens, but it also could come from like counterparts at the relevant divisions, whether that be research and collaboration, right, with the AI action plan that the team has in close collaboration with my office
16 17 18 19 20 21 22 23	of engagement with agencies more broadly, and that can come in a number of different forms, right, so it could come from the cybersecurity lens, but it also could come from like counterparts at the relevant divisions, whether that be research and collaboration, right, with the AI action plan that the team has in close collaboration with my office has built all the way to infrastructure management

the way to the information privacy office as well so it really can span. I like to think that we're all one big team that are supporting our agencies and whatever questions that they have, if they're security, they come to me, if they're otherwise they go elsewhere.

8 CHAIRPERSON GUTIÉRREZ: Thank you. I'm 9 glad you brought up the cloud review process. Can you 10 share a little bit more about the role that OTI plays 11 in that procurement process for cloud-based services?

CHIEF MOAN: Yeah, so OTI cloud review 12 13 takes place within the broader community of OTI 14 divisions. As I mentioned, security is just one of 15 those, and so OTI has launched in 2022, actually 16 launched a strategic plan and has a technology 17 strategy related to the digital ecosystem of the 18 City, and so cloud review is one component of 19 assistance that provides insight into agencies who 20 are building systems that maybe don't realize that 21 they can take advantage of OTI in-house solutions or 2.2 an opportunity to offer economies of scale, for 23 example, to make sure that the City is getting the best capability out of a vendor community or it's a 24 new and novel technology that requires enhanced 25

2 security review regardless of it being built on 3 cloud, maybe it's on-premises and then they work with 4 my office to do so as well.

5 CHAIRPERSON GUTIÉRREZ: Thank you. Would 6 you be able to share what agencies are or have sought 7 or are utilizing cloud-based services? Excuse me.

8 CHIEF MOAN: Say that last part again. Are 9 you able to, I tripped over my words, I'm sorry. Are 10 you able to share which agencies do utilize cloud-11 based services?

CHIEF MOAN: Not off the top of my head, 12 13 but it's absolutely, the use of cloud continues to be, I like to say that the City is cloud smart, not 14 15 cloud first, right, so a lot of things make sense to 16 go into the cloud that aligns to our technology 17 strategy and, again, making sure that we're securely 18 developing the cloud is also paramount. Most agencies do leverage cloud services, and so our tech ecosystem 19 20 is quite vast and where there's opportunities to 21 enhance or optimize those services, especially from a 2.2 security perspective, we take full advantage of that. 23 CHAIRPERSON GUTIÉRREZ: Thank you. Does the City have an insurance policy against 24

25 cyberattacks?

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2 CHIEF MOAN: The city maintains self-3 insurance.

CHAIRPERSON GUTIÉRREZ: Okay, so no.

CHIEF MOAN: It's self-insured.

6 CHAIRPERSON GUTIÉRREZ: Okay, that's a no.
7 Okay. In the event of a cybersecurity incident
8 resulting in a data breach, who is responsible? The
9 City or the vendor?

CHIEF MOAN: It depends. I think that's a 10 11 great question to unpack for a minute. We've seen, 12 and again, the sector writ large, this is all public information, has seen a number of different types of 13 14 attacks. One could be an incident that has impacted 15 an agency directly, not through a third-party compromise like a cloud service provider, right, and 16 17 so relevant victim notification through our citywide 18 contract would, if the data impacted was regulated 19 data, right, those particular data elements, then 20 victim notification would be in effect and take 21 effect. Part of our third-party risk management 2.2 strategy is not just, as I mentioned, the technical 23 controls or the administrative controls, but also making sure we have a mechanism to understand and 24 have a relevant victim notification in place should a 25

2	third party be victim to a cybersecurity incident			
3	that then impacts New York City's data so what you'll			
4	see more broadly in the industry is that if a third-			
5	party private sector company has the data of New York			
6	City equities have been impacted, relevant victim			
7	notification will be sent out from that third party			
8	directly and, typically, depending on the provider,			
9	again, just industry trends, typically it's one to			
10	two years of identity services monitoring, for			
11	example.			
12	CHAIRPERSON GUTIÉRREZ: Thank you.			
13	Actually, let me skip these.			
14	I'll pass it to you, Council Member			
15	Hanif.			
16	COUNCIL MEMBER HANIF: Thank you, Chair.			
17	Can you talk about the agency's cooperation with NYPD			
18	or lack thereof when it comes to assessing the			
19	cybersecurity of City agencies and the data they			
20	hold?			
21	CHIEF MOAN: We have a collaborative			
22	relationship with NYPD. If you're speaking more			
23	broadly to cybersecurity threats, our partnerships			
24	with law enforcement doesn't stop at NYPD. It could			
25	also involve the federal sector to make sure that			

they have insight into potential technical indicators 2 3 that are available to make sure that other 4 municipalities, other government agencies, other private sector entities aren't impacted by those same 5 ongoing threats, and so when I reference cyber threat 6 7 intelligence sharing, that's specifically what I'm 8 referencing, and so that collaboration is omnipresent 9 and that's not just for law enforcement, that's for private sector, our federal entities. Again, if we're 10 11 seeing something, we're saying something about it to 12 help in furtherance of the protection of those other sector entities. 13 14 COUNCIL MEMBER HANIF: So the 15 collaborative relationship that you're talking about, what does that entail, or who is at the table for 16 17 that? 18 CHIEF MOAN: Typically, it's security team 19 to security team. 20 COUNCIL MEMBER HANIF: For agency? 21 CHIEF MOAN: For agency, but sometimes it 2.2 extends even beyond that to IT teams, right? It 23 depends on what we're seeing and who we need to loop in in furtherance of that protection and defense. 24 25

1 COMMITTEE ON TECHNOLOGY COUNCIL MEMBER HANIF: Who advises about 2 3 the legality of the cybersecurity measures the City 4 uses? CHIEF MOAN: Legality of the cybersecurity 5 6 measures? 7 COUNCIL MEMBER HANIF: In terms of determining what kind of technology, emerging 8 9 technology, should be used over another. CHIEF MOAN: So what I'm speaking about 10 11 specifically is the cybersecurity tooling that is in place to protect and defend against cyberattacks, 12 right, so that's best practices by industry. We have 13 a defense-in-depth strategy, which promotes effective 14 15 hygiene and cybersecurity tooling in addition to 16 processes and procedures and cybersecurity awareness 17 training to our City employees to make sure that we 18 can thwart and attack it at any stage of the defenses 19 that we do have. 20 COUNCIL MEMBER HANIF: And then are City 21 agencies, including the NYPD, required to notify your 2.2 agency about the tools they're using? 23 CHIEF MOAN: So like I mentioned before, we collaborate with agencies on both the 24 cybersecurity tooling that they are leveraging. We 25

2	also provide those services to a large majority of
3	them as well. We've unified in a number of different
4	cybersecurity tools within the City. I can say that
5	at a high level, because we immediately knew in the
6	inception of New York City Cyber Command that there
7	were tools that every City agency would benefit from,
8	and so it made sense for both economies of scale and
9	also autonomy to make sure that we have the
10	appropriate protections in place such as endpoint
11	security for every City agency to be able to take
12	advantage of.
13	COUNCIL MEMBER HANIF: But it comes down
14	to OTI in terms of sharing best practices and
15	recommendations to each City agency.
16	CHIEF MOAN: Yes, we absolutely provide

that advice, best practices and, in a handful of cases, we actually provide the tooling itself and, again, that benefits not just the agency, but us, and it's also been able to make us incredibly nimble and efficient in our services that we deliver, and it's also a method of a cost effectiveness as well to have that normalized baseline in place.

COUNCIL MEMBER HANIF: And then if a Cityagency has their own recommendations or they have a

1COMMITTEE ON TECHNOLOGY892tool that they want to use, does it have to be run by3OTI?

4 CHIEF MOAN: From the cybersecurity perspective, we have the conversations with agencies 5 who might be considering or thinking of something new 6 7 that they want to purchase from the cybersecurity 8 lens, and typically that conversation is a discussion 9 about what the use case is and, if we already have something maybe in our tooling that the agency might 10 11 not be aware of and, in some cases, it may not make 12 sense for the agency to go out and do something on 13 their own because we already provide that capability 14 to them. They might not just be aware.

15 COUNCIL MEMBER HANIF: Got it. So just to 16 get this straight, OTI works with City agencies to 17 help determine what kind of technology they should 18 use for their operations and, if they have a tool in 19 mind that they'd like to use, you all collaborate on 20 helping them understand if this is of good use, if this is the best tool for what they would like to use 21 it for. 2.2

CHIEF MOAN: In the cybersecurity realm,
for cybersecurity tooling is why in particular that
I'm speaking about, yes. And I think that's important

1	COMMITTEE	ON	TECHNOLOGY
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2	because again, we have an ever-evolving threat
3	landscape and, as those threats change, they might
4	not realize we're also thinking about where we want
5	to be in the next 5 to 10 years and what that
6	ultimate cyber strategy is, and we often pilot new
7	cybersecurity capabilities with our agency partners
8	as well in addition to bringing them into the fold
9	when we're looking at updating policies, procedures
10	and the like.

11 COUNCIL MEMBER HANIF: And then the 12 cybersecurity measures that these agencies use, is 13 this public information?

14 CHIEF MOAN: Large majority of it is not. 15 We also don't want to give threat actors a roadmap for what protections we do have in place. I will say 16 17 that with regard to our cybersecurity program citywide, it is expansive and has core capabilities 18 19 that you'd find in any well-managed and address cybersecurity program within even a private sector 20 21 entity, and I think that's really what makes us unique and gives us an ability to have a chance at 2.2 23 combating these threats that we're seeing on a daily basis. 24

COUNCIL MEMBER HANIF: Thank you.

CHAIRPERSON GUTIÉRREZ: Thank you, Council
 Member Hanif.

I just want to jump back to just a followup on the previous question regarding who bears responsibility in the event of a cybersecurity incident. Can you share if Cyber Command has activated any vendors insurance coverage policy following a data breach or credit monitoring?

CHIEF MOAN: Off the top of my head, I 10 11 can't speak with 100 percent assurance, but I do know 12 that in the past, in regards to victim notification 13 in particular, typically depending on the vendor, we 14 have seen victim notification be delivered through a 15 vendor or a private sector entity that hasn't bared a cost to the city, right, so that has been directly 16 17 from the private sector entity to the victim itself 18 via letter, the relevant victim notification process 19 that you find.

20 CHAIRPERSON GUTIÉRREZ: And in the example 21 of victim notification, are those pieces of like the 22 agreement or policy that OTI works through in every 23 specific agreement or contract, excuse me? I guess 24 how do we know in those instances when the vendor's

2 insurance policy is going to be utilized for 3 something as important as victim notification?

4 CHIEF MOAN: Great question. The cyber insurance landscape has also continued to evolve even 5 speaking more broadly in the private sector realm 6 7 over the last few years, especially with very well-8 known and high-profile attacks that have hit private 9 sector companies. Typically, again, just speaking from my experience and background, typically when a 10 11 private sector entity endeavors to get cyber 12 insurance, typically that policy does include provisions for victim notification and the relevant 13 14 costs to that. I'm not a 100 percent authority, I'm 15 not a cyber insurance lawyer nor a provider, but I do 16 know that large in part that is why we have the cyber 17 insurance requirements for our vendors as well, so 18 that they have that backstop too.

19 CHAIRPERSON GUTIÉRREZ: Thank you. Can you 20 share a little bit about cloud riders? I know in your 21 previous responses, it's not necessarily your unit 22 that works on reviewing cloud riders, but it is kind 23 of like a multi-unit process within OTI to review 24 every agency's cloud rider. It's my understanding 25 through the cloud rider that every vendor must submit

2 an annual audit of their privacy and security 3 programs to the City. Did your agency review this 4 audit before MOVEit was adopted into New York City 5 public schools?

CHIEF MOAN: MOVEit, in particular, was a 6 7 zero-day vulnerability that did not provide a fix upon disclosure, and so the nuance there, and for 8 9 folks, again, who might be listening in, MOVEit is a file transfer solution that was used at an impacted 10 11 agency and publicly disclosed, again, want to 12 reiterate that this is in the public domain so I am 13 able to speak about it a bit more broadly. In the 14 case of MOVEit, unfortunately, our City agency was 15 one of hundreds of victims that were impacted by a 16 zero-day vulnerability that was taken advantage of by 17 a threat actor prior to even disclosure, and so I 18 want to reiterate that because, again, we have a strong third-party risk management strategy, multiple 19 20 layers of not just our internal controls but also 21 managing those from outside of the City domain 2.2 perspective but, in particular, the case of MOVEit, 23 the software had a flaw that was not known to MOVEit or the agency and, ultimately, the threat actor was 24 able to take advantage and exploit that 25

2	vulnerability, leading to hundreds and hundreds of
3	victims, not just government entities but also
4	private sector entities as well, and so while we
5	have, for example, cloud services agreement, although
6	MOVEit was not a cloud services solution, that we
7	have provisions in there specifically to provide us
8	notification in case there's an incident that's being
9	suffered at a third party so that we're aware of the
10	incident and we're able to ask questions and attempt
11	to curtail any impact to New York City as that
12	incident transpires.
13	CHAIRPERSON GUTIÉRREZ: Okay, I have a few
14	more questions. I think we're almost there to public
15	testimony.
16	Regarding citywide cybersecurity
17	protocols, how often does OTI review and update those
18	policies?
19	CHIEF MOAN: Periodically. Just this year,
20	we updated our internal password policy, which was a
21	lot of hours and a lot of hard work to make sure that
22	we're balancing both the new and emerging landscape
23	of passwords but also our agencies as well so that's
24	just one example of many.
25	

1 COMMITTEE ON TECHNOLOGY 95 CHAIRPERSON GUTIÉRREZ: They're reviewed 2 3 periodically, but are they updated? CHIEF MOAN: They're updated periodically 4 5 as well. CHAIRPERSON GUTIÉRREZ: Okay. 6 7 CHIEF MOAN: We have a policy team that 8 reviews and updates where necessary for new tactics, 9 new processes that are in place or just, again, that the technology or the cybersecurity industry has 10 11 changed tactics or approach on a certain matter, making sure that we're building new policies to 12 13 impact. CHAIRPERSON GUTIÉRREZ: Do you know if the 14 15 updates are publicly available? 16 CHIEF MOAN: So a lot of our policies, 17 rightfully so, are only available internally. We also 18 have a subset of policies that are made available 19 publicly and typically updates as they're made 20 internally to the internal policies and standards and quidance, the relevant updates to the public-facing 21 site would be made as well. 2.2 23 CHAIRPERSON GUTIÉRREZ: Okay. What we looked at was at, we were not privy to any updates 24 since the last Administration, and it's probably 25

because it's not publicly available, and I know, pursuant to Local Law 89, Cyber Command must regularly update these policies. Is there a way that it can be made public or that it can be shared, or how can we, the public, know or trust that OTA is following this law?

8 CHIEF MOAN: Absolutely. You ask a great 9 question. I would endeavor to offer an opportunity to discuss with your office and this particular 10 11 Committee more broadly about what that might look like. We obviously want to strike the balance between 12 13 public awareness that, yes, it is absolutely normal 14 and routine for us to be periodically updating 15 policies and frameworks while also not wanting to 16 reveal too much internally sensitive security 17 documentation that would lead threat actors to be 18 able to perpetrate attacks against the City so I 19 think that that's definitely something that we would 20 be open for discussion.

21 CHAIRPERSON GUTIÉRREZ: Okay. Does Cyber
22 Command conduct regular audits of agency
23 cybersecurity readiness and responsiveness?
24 CHIEF MOAN: So we have a number of
25 different work streams that we engage with City

2 agencies, including on response and readiness, in 3 addition to assessments, and we also sometimes have, 4 in addition to that, third-party audits that are 5 taking place throughout the City as well that we're 6 closely partnered on.

7 CHAIRPERSON GUTIÉRREZ: Okay, let me fast forward. I want to ask more specific questions about 8 some events regarding DOE and MOVEit. Those affected 9 by the data breaches from MOVEit software and 10 11 Illuminate were apparently not notified until weeks after these incidents transpired. Could you detail 12 for the record the timeline there and why it took so 13 14 long for affected parties to be notified?

15 CHIEF MOAN: Sure, so MOVEit was a zeroday vulnerability that was exploited last summer very 16 17 quickly upon disclosure of the vulnerabilities 18 globally, and we partnered with DOE to ensure 19 relevant mitigations were put in place. 20 Unfortunately, very quickly after, we identified, again, in close collaboration with the DOE team that 21 there was a cyber incident that had taken place and 2.2 23 the threat actor was able to exploit information. Approximately 19,000 unique files were exposed and 24 so, upon identification that relevant files were 25

2	exposed, the process started to identify what, if
3	any, sensitive data elements were potentially exposed
4	as part of those files so that analysis, we partnered
5	closely with a leading e-discovery firm to do that
6	analysis of line by line by line to determine what
7	data elements were impacted, and that was in close
8	collaboration with the agency privacy team and the
9	Office of Information Privacy.
10	CHAIRPERSON GUTIÉRREZ: Thank you, and
11	what can you share about the timeline though? How
12	soon after was OTI notified and what was the lapse of
13	time between when you were made aware and then the
14	CHIEF MOAN: So if I'm remembering
15	correctly, it was, I want to say, roughly between 60
16	and 90 days from all
17	CHAIRPERSON GUTIÉRREZ: Six to eight days?
18	CHIEF MOAN: 60 to 90 days from the
19	determination that there was a disclosure of the
20	vulnerability, right? Not a fix, but the global
21	community identified and were made aware that there
22	was a vulnerability to a full accounting from the DOE
23	and e-discovery team of the relevant victims and
24	those notifications being shared with what data
25	elements were then impacted.
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2 CHAIRPERSON GUTIÉRREZ: Is there any way
3 looking back now that Cyber Command could have helped
4 in this process in at least notifying the affected
5 parties in less than 90 days, potentially?

CHIEF MOAN: So in the particular case of 6 7 MOVEit, we actually worked incredibly quickly more 8 broadly but also in comparison to others that were 9 impacted. If you take a look at what's in the public domain about other entities that were impacted and 10 11 associated timeframes, we are on the faster side and, 12 in particular, the investigation itself from initial 13 disclosure of vulnerability to identification of unauthorized access to 19,000 unique files was quite 14 15 quick from a cybersecurity perspective and that's 16 what we endeavor to do each and every time. A sense 17 of urgency is incredibly critical to making sure that 18 we can affect notification should it be relevant as 19 soon as possible. The actual act and, again, I'm not sure how much folks know about how the sauce is made 20 21 from a analysis perspective, but the analysis to 2.2 determine if a data element was impacted is quite 23 complex and making sure that we had the totality of data that was impacted and tying that back to 24 individuals was a paramount consideration for the 25

1	COMMITTEE	ON	TECHNOLOGY

2	City, making sure that we were full and all-
3	encompassing and that meant multiple layers of
4	reviews and assessment with our e-discovery firm and,
5	when I say we, I mean DOE and New York City Cyber
6	Command in addition to the privacy teams as well.
7	CHAIRPERSON GUTIÉRREZ: Thank you. Can you
8	discuss what you know about the incident involving
9	the New York City Law Department and how would you
10	classify it? I just want to be mindful of the proper
11	terminology.
12	CHIEF MOAN: So, as I understand it, the
13	New York City Law Department suffered an incident in
14	2020, I believe. Although I can't speak to specifics
15	of the particular incident details, I do know that we
16	work and continue to work collaboratively with Law
17	Department to enhance and continue to increase
18	cybersecurity maturity as they are just one of many
19	agencies that we do this with and that is routine and
20	commonplace in nature that we have these
21	conversations with our agencies.
22	CHAIRPERSON GUTIÉRREZ: Can you share
23	about anything specific that happened in that
24	compromise, in that incident?
25	

2 CHIEF MOAN: Unfortunately, I'm not able 3 to at this time given the public nature of this 4 session, but I am happy to offer up a discussion 5 offline.

CHAIRPERSON GUTIÉRREZ: Okay. I want to 6 7 wrap up with something that we've spoken with to OTI 8 directly about the NYCAPS Employee Self-Service 9 issue, and I just want to say that I think from the time that we were notified to the time that the site 10 11 was accessible outside of work computers, I think 12 that was very quick so I just want to acknowledge 13 that much, but there were a lot of questions and that brings us to kind of the protocol in notifying us as 14 15 the Council, yes, but as also people that utilize 16 this service like myself. This was during tax season. 17 I personally found out through the news that there 18 was no direct notification. I think the direct 19 notification from OTI came maybe 24 hours after it 20 was dropped in the news so I just want to ask if you 21 think there were aspects of OTI's response to that 2.2 cybersecurity incident that you believe were 23 important in areas that you think can be improved. CHIEF MOAN: Thank you for the question 24 and, again, thank you for allowing me an opportunity 25

2 to speak about this publicly. I think a couple things 3 are really important to just provide the public an 4 overview on.

First, as I mentioned in my opening and 5 continued thread, social engineering tactics, tactics 6 to lure individuals to disclose their sensitive 7 information or their credentials continue to be 8 9 omnipresent as a tactic being used by threat actors and so, in this particular case, we worked 10 11 expeditiously to identify, to close any threats that 12 were ongoing that users might have been susceptible to. In the particular case of ESS, we also identified 13 14 that there could be an opportunity to improve 15 cybersecurity hygiene in furtherance of protecting 16 users. As I mentioned, users are a line and our City 17 workforce is a significant line of defense against 18 cyberattacks, which is why we have a robust 19 cybersecurity awareness and training program, but the 20 reality is is that I think we all in this room and 21 online probably have either yourselves suffered from a cyber incident where you're disclosing your 2.2 23 username and password or somebody in your family, somebody that you know and so, it was really 24 important for us to work with FISA and DCAS to very 25

rapidly identify that there was an area of opportunity. We could take advantage of the timeframe of identification of a threat, and we worked quickly to implement enhanced security measures in the public facing portal, and we did so because we believed it was the right thing to do and we did so quickly with close partnership, obviously with FISA and DCAS.

9 In terms of communication, just like any incident or any routine business that Cyber Command 10 11 endeavors to enter into, we always are looking for 12 ways to improve and be more efficient and optimize. I 13 think my team hears that from me about 50 times a day. In that regard, I think communication for a 14 15 citywide base, right, we have relevant communication 16 procedures with our security teams with HR teams, IT 17 teams, and all of that is well-actioned and well-18 understood. In this particular case, we took an 19 above-and-beyond action for our public facing portal 20 to implement enhancements and, with that, coincided 21 with an engagement and awareness campaign that really 2.2 had never been done in totality across the City base. 23 CHAIRPERSON GUTIÉRREZ: Sorry. There was a public awareness campaign on this particular, on the 24 Employee Self-Service site? 25

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CHIEF MOAN: Within the City domain, yes. CHAIRPERSON GUTIÉRREZ: Okay.

4 CHIEF MOAN: And so that was new and novel for that to be done, and I think that's important to 5 mention because as we see more tactics being 6 7 perpetrated by threat actors but also an opportunity 8 to double down on the messaging that you as an 9 individual are a line of defense and essentially a human firewall, as we call it, against these attacks, 10 11 it's also important to socialize that citywide and 12 so, with partnership with DCAS, we were actually able 13 to send out a threat alert for agency employees, even 14 though that ongoing threat for that particular threat 15 actor was neutralized. We still thought it was to the 16 benefit of the population in the community that we 17 were able to send out that alert, and so, as part of 18 any incident, there's always an after action, areas 19 of opportunity that we can enhance and that we can 20 improve and, while it is never a good day when we 21 suffer an incident, it always provides an opportunity 2.2 of improvement and maturation, which continues our 23 cybersecurity journey and posture for the city.

2 CHAIRPERSON GUTIÉRREZ: Can you share how 3 many City employees were directly impacted by that 4 incident?

CHIEF MOAN: So what I can share is a 5 very, very small number from what we know, incredibly 6 7 small number, and that's in large part, and I have to 8 give a kudos to my team who's able to neutralize the 9 threat, the ongoing threat, very rapidly from identification that there was an ongoing campaign 10 11 targeting New York City to being able to neutralize that threat, although there were a handful of City 12 employees that did disclose their login information. 13 CHAIRPERSON GUTIÉRREZ: And we were made 14 15 aware that some City employees have received

16 mandatory cybersecurity training that was issued by a 17 third-party vendor. Is this standard practice and are 18 there any plans to create that cybersecurity training 19 in-house?

20 CHIEF MOAN: Oh, so our cybersecurity 21 awareness and training program, that might be what 22 you're referencing. It is very routine to leverage 23 platforms to actually push out content about the 24 training. It's also very normal for, and our team 25 does it, to create custom content to then push out to

our City workforce, especially contoured or developed 2 3 around certain initiatives that we're focusing on. So 4 typically, Cybersecurity Awareness Month, October is a huge month for us, right before the holiday time 5 where we know that folks are susceptible, even in 6 7 their personal lives, of being taken advantage of 8 from a social engineering perspective so we 9 oftentimes send out a ton of programming around how to protect yourself online. When we implement new 10 11 security capabilities or methods to, let's say, 12 report phishing, we are also able to, and we have, 13 create custom content that targets engagement of that specific capability or practice that we're trying to 14 15 train users about. 16 CHAIRPERSON GUTIÉRREZ: And did you share 17 the name of the vendor? 18 CHIEF MOAN: We typically don't share the 19 name of the vendor. I'm happy to offline but, again, 20 regardless of the vendor, it could be any vendor that 21 provides a platform to disperse the training. The 2.2 content and the key themes that we are focusing on, 23 like multi-factor authentication and how to report a phish is all pertinent to the city of New York. 24

106

CHAIRPERSON GUTIÉRREZ: I want to 2 3 acknowledge Council Member Julie Won, who's just 4 joined us. My last question is on Intro. 539, which 5 is prohibiting third-party sale of geolocation data. 6 7 I know you spoke to it in your testimony about enforcement, not really being an OTI's 8 9 responsibility. Would you be able to share which agency you think this bill would more accurately fit 10 11 under? 12 CHIEF MOAN: Off the top of my head, I'm not able to share in specifics at this moment. I do 13 think that conversation and discussion with the 14 15 Committee is something that we would absolutely like to have, we're happy to have, and it would 16 17 significantly assist in being able to answer some of 18 the questions that we've got. 19 CHAIRPERSON GUTIÉRREZ: Thank you, yeah, I 20 look forward to it. 21 Okay, well, thank you both. I feel like 2.2 that was a marathon. That's great. 23 I now want to open the hearing for public testimony. I encourage you all to stick around if you 24 25 can.

2	I remind members of the public that this
3	is a formal government proceeding and that decorum
4	shall be observed at all times. As such, members of
5	the public shall remain silent at all times.
6	The witness table is reserved for people
7	who wish to testify. No video recording or
8	photography is allowed from the witness table.
9	Further, members of the public may not present audio
10	or video recordings as testimony, but may submit
11	transcripts of such recordings to the Sergeant-at-
12	Arms for inclusion in the hearing record.
13	If you wish to speak at today's hearing,
14	please fill out an appearance card with the Sergeant-
15	at-Arms and wait to be recognized. When recognized,
16	you will have two minutes to speak on today's hearing
17	topics on Cybersecurity and Intro. 217, 425, and
18	Intro. 539.
19	If you have written statement or
20	additional written testimony you wish to submit for
21	the record, please provide a copy of that testimony
22	to the Sergeant-at-Arms. You may also email written
23	testimony to testimony@council.nyc.gov within 72
24	hours of this hearing. Audio and video recordings
25	will not be accepted.
I	

2	Our first panel, we have Albert Fox Cahn,
3	Shane Ferro, and Nina Loshkajian. I apologize, Nina.
4	Okay, thank you all, thank you for
5	waiting. You all can begin, whoever wants to start.
6	NINA LOSHKAJIAN: Hi, thank you. Good
7	afternoon, Chair Gutiérrez, Members of the Committee
8	on Technology. I appreciate the opportunity to
9	testify today on the harms of biometric surveillance.
10	My name is Nina Loshkajian, and I am a Staff Attorney
11	at the Surveillance Technology Oversight Project.
12	CHAIRPERSON GUTIÉRREZ: Nina, I'm
13	apologizing for mispronouncing your last name.
14	NINA LOSHKAJIAN: And I'm here to urge the
15	Council to pass Intros 217 and 425, banning public
16	accommodations and landlords, respectively, from
17	using facial recognition and other creepy biometric
18	tracking tools. Facial recognition is biased, error-
19	prone, and harmful to marginalized communities. In
20	our eyes, the legislation in consideration today is
21	largely a mirror of existing civil rights
22	protections. We don't allow stores and landlords to
23	discriminate on the basis of race, so why do we let
24	them use racist technology? Simply put, these systems
25	have no place in New York City homes and New York

2 City businesses. These measures are an indispensable 3 safeguard, but we also implore the Council to go 4 farther and introduce legislation banning law 5 enforcement and government use of biometric technology. Even if the algorithms could be improved, 6 7 biometric tracking would remain just as 8 discriminatory because of the ways the creepy 9 stalking tools are plugged into discriminatory policing, housing, and commercial practices. BIPOC 10 11 tenants and shoppers will not be given the same benefit of the doubt as white tenants and shoppers 12 13 when faced with a facial recognition error, and I 14 also wanted to flag, so I believe it was Council 15 Member Paladino who expressed concerns about co-ops, 16 it's important to flag that Intro. 425 only applies 17 to owners of multiple dwellings trying to identify 18 tenants, so I don't think actually this bill would 19 address co-op boards. This is about renters in 20 particular. But back to places of public accommodation, New Yorkers should not be forced to 21 accept constant tracking as part of simple activities 2.2 23 like buying groceries or taking their kids to a baseball game. Stores biased facial recognition 24 systems will exclude black and dark-skinned people 25

2 due to incredibly common mismatches. I think Council 3 Member Hanif was right earlier to flag the Rite Aid 4 example. The FTC saw how dangerous it is when stores use this technology, and that is why Rite Aid is now 5 banned from using it for five years. It is also 6 7 crucially important that these technologies stay out 8 of our homes. Without legal intervention, the 9 collection of biometric data will affect not just residents but quests they have over and, in 10 11 particular black, brown, Asian, and gender-non-12 conforming quests will be barred from visiting their 13 friends due to mismatches as well. In New York City 14 public housing, facial recognition use has already 15 led to residents being evicted for minor violations 16 of policy, and this will contribute to the city's 17 massive eviction crisis. Vendors of this technology 18 have been clear about their intentions. They have 19 stated that they would like to find loopholes to be 20 able to charge tenants more on rent using this 21 technology, and I'll wrap up shortly, apologies. We 2.2 do encourage the Council to consider one important 23 addition to the bill, banning this technology in residences which is a strong private right of action 24 to make sure that tenants have a way to hold their 25

2 landlords accountable and, as I mentioned, we also 3 encourage the Council to consider a ban on government 4 use and law enforcement use. Thank you so much for 5 your attention to these issues.

CHAIRPERSON GUTIÉRREZ: Thank you, Nina. I 6 7 have a question, but I'll wait for the panel here. ALBERT FOX CAHN: Good afternoon, Chair 8 9 Gutiérrez, Members of the Committee. Thank you for the opportunity to testify. My name's Albert Fox 10 11 Cahn, and I'm the Executive Director of the Surveillance Technology Oversight Project, and I am 12 13 offering written testimony in support of Intro. 539 14 today which would prohibit the commercialization of 15 our location data which is a routine part of how New 16 Yorkers are being tracked every single day, having 17 our devices turned against us as a way to market to 18 us, to sell products to us, sometimes even police us. 19 We see this data being used by law enforcement. We 20 see this data being used by even government agencies 21 like the IRS. In our testimony, we spell out why it 2.2 is so important that New York City fill the 23 regulatory gap that has been left by Albany, that has been left by Washington, that has left New Yorkers 24 exposed to having their most intimate moments 25

2 collected by an unregulated wild west of apps that 3 are constantly churning out new and horrifying ways 4 to turn our every single moment, the record of how we live our lives into a product for the highest bidder. 5 This is something that New York can take a leading 6 7 stance on where we can be on the cutting edge and, as we point out in our written testimony, there is one 8 9 change that would be helpful adding a clear carve-out for defense attorneys in criminal investigations to 10 11 make clear that criminal defense attorneys, like 12 police officers, operating with a warrant have the 13 ability to obtain this information from these 14 companies because no one should be denied a defense 15 in court because of this privacy protection. This 16 should be a way to protect us from this sort of 17 dragnet surveillance, but I think I want go back to 18 the City's kind of shocking testimony more broadly 19 because we heard from agencies that this City is on 20 the cutting edge of protecting New Yorkers and that 21 they are absent. They are completely absent from the issues that brought us here today. They're absent 2.2 23 from talking about biometric technology and they put forward a false question. This false debate about 24 privacy versus security because what I'm here to tell 25

you today is that this technology poses a threat to 2 3 the public and offers us nothing in return. This 4 technology is ripe for abuse and exploitation, and this isn't protecting us from acts of terrorism at 5 Madison Square Garden, it's protecting Dolan from 6 7 critics and litigants at Madison Square Garden. It's protecting his ability to control a public space as a 8 9 private fiefdom, and that's the sort of abuse we see with these sorts of technologies, the largest 10 11 companies abusing it every day to target New Yorkers, and that's the sort of power imbalance we shouldn't 12 13 allow to continue for one day longer. 14 CHAIRPERSON GUTIÉRREZ: Thank you, Albert.

15 SHANE FERRO: Good afternoon. Chair Gutiérrez, the rest of the Committee. My name is 16 17 Shane Ferro. I'm a Staff Attorney at the Legal Aid 18 Society in our Digital Forensics Unit. My job is to 19 fight for the civil liberties of our clients and, by 20 extension, all New Yorkers in the face of exponentially increasing uses of digital 21 surveillance. The use of biometric surveillance and 2.2 23 especially facial recognition in public places erodes any right to privacy we have as citizens, diminishes 24 our civil rights, and reduces our democratic values. 25

2 It's especially important in a city as large as ours that we protect the rights of people to move freely 3 4 without worry that every movement they make could be tracked. Every person has a right to privacy and 5 autonomy and whatever small amount of space they're 6 7 able to call home. Biometric surveillance, 8 particularly facial recognition technology, is built 9 on top of and perpetuates historical racial biases. That is why so often it doesn't work on black faces 10 11 and why almost every known cause of false arrest as a 12 result of facial recognition has been of a black 13 individual. It's unconscionable to allow private businesses to discriminate against community members 14 15 and customers using what we know to be biased and 16 racist technology. It's also, quite frankly, creepy 17 to know that every business that you walk into or 18 walk next to on the sidewalk might be able to know 19 who you are and track your movements just because you 20 walked inside or outside the door. Unfettered facial 21 recognition use doesn't just harm the people it 2.2 misidentifies, it also subjects every citizen to 23 massively increased surveillance. We must reckon with the significant harms the City has inflicted on its 24 poorest members through its housing system. We have a 25

published well-known list of the City's worst 2 3 landlords and regularly see stories of large private 4 landlords who refuse to do repairs and try to push out longstanding tenants to jack up the rent. Yet 5 vacancy rates are in the low single digits, and a 6 7 huge amount of our city's residents have very little 8 leverage over their landlords if they want to be able 9 to continue to live here. A huge swath of our city has little autonomy or control over their own private 10 11 residences. We should ban further eroding their 12 rights by subjecting them to any type of biometric 13 surveillance to get into their own homes. There is a 14 concept in American law, the reasonable expectation 15 of privacy. It's currently the core of our democratic 16 and civil rights under the Fourth Amendment. The more 17 that biometric surveillance is allowed to permeate 18 every space that our citizens exist in, the less 19 society can rely on any expectation of privacy being 20 reasonable. When there's no longer any place that a 21 person can expect to go, not their apartment, the 2.2 grocery store, the pharmacy, not a basketball game, 23 without their face being captured, indefinitely stored in a database, and constantly checked against 24 suspicions of having done something wrong, then we've 25

	1	COMMITTEE	ON	TECHNOLOGY
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2	hollowed out any shred of hope that a person can
3	expect, reasonably, privacy or democratic values
4	anywhere. I don't want to live in that world, I don't
5	want my clients to live in that world, I don't want
6	my community to live in that world, and I hope you
7	don't want to live in that world. Thank you.

8 CHAIRPERSON GUTIÉRREZ: Thank you, Shane.
9 We have some questions.

So it's hard for me, obviously, as a 10 sponsor to both bills, but it's really hard for me to 11 12 grapple with where a space for facial recognition technology can live safely in our city, let alone 13 City government. The Administration was obviously not 14 15 equipped, or, I don't know, was not prepared to answer questions. We know which agencies are using 16 17 biometric information. Unfortunately, we learn of this when it's far too late, oftentimes when these 18 19 folks are already in the criminal justice system, so I was disappointed, but are there any positive 20 examples of where the use of facial recognition 21 technology is beneficial? 2.2

ALBERT FOX CAHN: I would say there's a world of difference between the facial ID we use to unlock our devices and the facial profiling that

2 tracks New Yorkers in public spaces. It's about power, it's about consent. When we use this as a tool 3 4 to unlock our own device, that is a very different question than when these unaccountable companies and 5 institutions weaponize our own bodies against us and 6 use it as a way to track us in public spaces so 7 8 that's why these bills wouldn't impact your ability 9 to use this sort of biometric identifier on your own device as a way to unlock your own data, but that's 10 11 not the sort of thing that people have ever been 12 pushing back against.

13 CHAIRPERSON GUTIÉRREZ: Thank you. I'm 14 going to pass it to Council Member Hanif, but I just 15 wanted to ask questions on Intro. 539, which is the 16 first time that we're technically hearing this bill 17 on geolocation data. Can you share what types of 18 location data you all are most concerned about?

ALBERT FOX CAHN: I mean, when we think about location data, we think about nearly everything we do. If you go to a political protest, if you go to a house of worship, if you go to a reproductive healthcare facility, if you go to your kid's school, and any sensitive site we go to in our lives is up for grabs for the highest bidder, and it's not just

something that we see being routinely weaponized by 2 3 law enforcement, but it's also something that we see 4 being used by political extremists, that can be used by any number of groups. It's really cheap, right? It 5 would just take a few hundred dollars to get the 6 7 geolocation data of everyone in this room right now, 8 to get a data set that we could then use to track 9 where people go throughout the day, how they're living their lives, what other places they go to and, 10 11 to me, this really does go to the heart of what it 12 means to be a democracy. We need to be able to have 13 the capacity to go places without second-quessing how 14 that's going to be weaponized, and this is something 15 where we've seen regulators in Europe really taking 16 these privacy concerns more seriously but, right now, 17 we see this huge market in the U.S. for data brokers 18 that will sell this information seemingly to anyone 19 and, really, it's something that I'm glad to see the 20 City taking a leadership role in pushing back 21 against. CHAIRPERSON GUTIÉRREZ: Do law enforcement 2.2 23 agencies buy location data? ALBERT FOX CAHN: Oh, yeah. 24

119

2 CHAIRPERSON GUTIÉRREZ: Or get it handed 3 to them?

4 ALBERT FOX CAHN: At Surveillance Technology Oversight Project, we're currently suing 5 Thomson Reuters which sells the personal information 6 of nearly every single American to dozens, maybe 7 hundreds of different law enforcement agencies, 8 9 including immigration officials. Data brokers are fueling deportations. They are one of the major tools 10 11 used by those officials, but it's also being used by 12 cybercriminals and used by hackers. It's used by any 13 number of people to break the law as well as the 14 police departments that so often abuse it so, to me, it's kind of like we've left some of the most 15 16 valuable assets we have as a society just completely 17 unprotected on the market for whoever wants to take 18 them. 19 CHAIRPERSON GUTIÉRREZ: My last 20 comment/question is, I think oftentimes in these

21 spaces, for folks who support the use of biometric 22 data, particularly with law enforcement agencies and 23 PD, they'll kind of put the onus on the user, right? 24 Like, well, it's in the terms of service. Who, I 25 can't tell you the, I mean, you know what I mean,

2	like the reality of people reading through pages and
3	pages of terms of service. Is there something else? I
4	know, obviously, these bills are a reflection of
5	that, but is there something else that we can do
6	where the onus isn't on us? Is there something that
7	we should be requiring these individual companies,
8	agencies even, to require more consent, opting in,
9	knowledge? Oftentimes, I don't think that people
10	understand that the terms of their service agreement
11	is that, is allowing to share your information with
12	nobody you'll ever know, no third party you'll ever
13	understand. Is there anything else that other
14	localities are doing? Is there anything else that we
15	can do? Then I'll pass it to Council Member Hanif.
16	ALBERT FOX CAHN: I mean, look, as a
17	privacy lawyer, I think of terms of service as just a
18	shared lie that we buy into this façade that people
19	are going to actually go through and read these
20	terms, that they're going to understand these terms,
21	that they're going to consent to it. No one reads
22	them and, even if you do read them, even as a lawyer,
23	I rarely could actually understand them, and so I
24	think anytime we're putting the onus on people to
25	sort of make these truly, sometimes life-altering

0	decisions about what data is made assessible to other
2	decisions about what data is made accessible to other
3	people in the fine print of a menu that they download
4	in some free weather app or some free traffic app, to
5	me, that is a broken system, so I think we need
6	structural protections that ban the commercialization
7	of our most sensitive data, that shut down this
8	massive market in selling our location data to the
9	highest bidder, and that really just start to outlaw
10	some of the most abusive forms of facial recognition
11	and other biometric data collection, and say that we
12	should never be putting someone in the position that
13	they're one mouse click away from wiping away all of
14	their privacy protections.
15	NINA LOSHKAJIAN: Can I add briefly to
16	that? Because you talked about it in your question,
17	the PDU specifically. There's also a lot of
18	requirements that the NYPD is currently under that
19	
10	they're not complying with under the POST Act.
20	they're not complying with under the POST Act. They're failing to comply with the very…
20	They're failing to comply with the very
20 21	They're failing to comply with the very… CHAIRPERSON GUTIÉRREZ: They don't use
20 21 22	They're failing to comply with the very… CHAIRPERSON GUTIÉRREZ: They don't use facial recognition technology is what they say, is

their IUP on facial recognition is boilerplate 2 3 language so holding their feet to the fire in terms 4 of actually asking them to comply with the minimal requirements of things like the POST Act, that's 5 another thing you could do, we could explore, and 6 7 there is also different legislation on this, but we 8 could explore more requirements before deployment of 9 this technology because oftentimes we'll find that after this biometric tracking is already pervasive, 10 11 the harm has already been caused, and it's too much 12 to ask them to do anything after the fact so just to 13 address kind of PDU specifically, actually requiring 14 them to comply with the current law, to comply with 15 FOIL because we've also been litigating to get 16 information from them for years and years about how 17 they use facial recognition, so those types of things 18 are also avenues to explore.

19 CHAIRPERSON GUTIÉRREZ: Thank you. Council20 Member Hanif?

21 COUNCIL MEMBER HANIF: Thank you, Chair, 22 and thank you for your testimonies. Humans recognize 23 people by faces. That's one of the main jobs of a 24 door attendant. Why shouldn't a computer do the same 25 thing?

2	NINA LOSHKAJIAN: Because it's not as good
3	as it, and it's been trained only to recognize
4	certain types of faces. The algorithms that facial
5	recognition systems use and rely on, I think it was
6	Council Member Paladino again who said that they are
7	99 percent accurate. That is true only for white men
8	under ideal laboratory conditions. For women of
9	color, they can be like less than a third accurate,
10	so the discrepancy is between the pool of people that
11	these tools were trained on and real-world conditions
12	that they're being deployed in now are just night and
13	day, and I don't know if the other panelists want to
14	add.
15	SHANE FERRO: If I could also add, facial
16	recognition is something of a misnomer. Recognition
17	is like a human thing. As you got out in your
18	question, what these algorithms do is not actually
19	recognition in any real sense. It's mathematics and
20	algorithm. It's a matching system, and that match can
21	never be 100 percent accurate. A computer can never
22	recognize a person. It can only say that it maybe
23	matches a face that's within the database, and we
24	know that those matches are often inaccurate.

2	COUNCIL MEMBER HANIF: Can you respond to
3	just the climate of fear that we've seen both the
4	last time this was heard and now that there's a rise
5	in shoplifting, there's just a rise in crimes. How do
6	you respond to that when it comes to biometric
7	surveillance and just public safety in general as we
8	try to protect our city's businesses?
9	SHANE FERRO: Yeah, I mean, it's a really
10	frustrating situation to be in because we keep seeing
11	this pattern that a convincing story is far more
12	powerful than the truth in many cases because what we
13	saw over the last few years was bad data being put
14	out there by retail federations that were claiming
15	there was this massive surge in organized shoplifting
16	and it got all this coverage and we saw news reports
17	on it, front page stories, we saw all these evening
18	news clips, and then it turned out it was wrong, that
19	they had screwed up the data, that there wasn't an
20	increase, but you couldn't unbake that cake. You
21	couldn't make people unsee all of those stories they
22	had seen and, because of that bad data, we had this
23	just sense that there had been a just awful reality
24	unfolding, not one we saw personally, because it
25	didn't exist, but one around us, that maybe it was

2 impacting our neighbors, maybe it was a store down 3 the street, and so you have this fabricated sense of 4 fear built on bad crime stats, just creating this fertile ground for the surveillance salesmen to come 5 in and say, oh, if you have this tracking tool, if 6 you collect this data, you'll be safe. Do we have 7 8 data to prove it? No. Do we have evidence to support 9 it? No. Has it been disproven over and over again? Sure, but don't look at the facts. Just, you have 10 11 that sense of safety. And so for the people who are working at businesses, who own businesses, who are 12 13 afraid, who are trying to keep their staff safe, my 14 heart goes out to them, because I know that's not 15 easy. I know there are real things that you can do to 16 improve the safety of your store, but the truth is, they're getting sold a bill of goods. The cameras 17 18 don't work. The facial recognition doesn't work. They 19 don't reduce theft. They don't do the things that 20 we've heard over and over again they're helpful for 21 and, quite frankly, we have several decades of evidence that mass deployment of CCTV cameras is one 2.2 23 of the least effective ways of preventing crimes. This goes back to London's mass deployment of CCTV 24 during the '80s and '90s, but people feel safe, so 25

1	COMMITTEE ON TECHNOLOGY 127
2	they invest in it, and so what I just want to say is,
3	it feels good for some people to have that camera,
4	they have that illusion of safety, but the reality is
5	it's a threat to a lot of the people who walk into
6	that store, and the reality is it's very rarely, if
7	ever, going to keep anyone safe.
8	CHAIRPERSON GUTIÉRREZ: Thank you, Council
9	Member. I have some more followup questions. Is it
10	possible for someone to be removed when someone's
11	biometric information has been captured? You
12	referenced this very specific moment during the
13	pandemic, and I know I personally spoke with business
14	owners that were really relying on this technology
15	for the reasons that you've highlighted about how
16	this is an inaccurate system, would I be able to
17	remove my image from this cloud of data that exists
18	with my biometric information? In the same way that
19	if you were on PD's gang database, you're on it for
20	life, if you're associated with someone, you're on
21	it. What recourse does someone have here? Are they
22	even made aware that their information obviously is
23	being captured, but can someone be removed from, I
24	guess, data recognition collection? If it's possible,
25	I'm honestly asking.
I	

2 ALBERT FOX CAHN: The first problem is you usually don't know when you're in one of these 3 4 databases, the second problem is they don't actually have an opt-out or removal mechanism, and the third 5 problem is that all of this data is constantly being 6 7 proliferated from one database to the next so, even 8 to the extent that you somehow found out someone was 9 using this facial recognition system and you asked them to remove it, that's not a guarantee that your 10 11 data hasn't already migrated somewhere else, and it's 12 really alarming with biometric tracking that this 13 data is being collected because if your credit card gets stolen, you can change your credit card number. 14 15 If your identity is stolen, it's a pain, but you can 16 even change your Social Security Number. But if your 17 biometric data is compromised, if someone is 18 accessing your biometric data to impersonate you, 19 there's nothing you can do because that's going to be 20 your biometric data for the rest of your life. You 21 can't change your face. You can't change your 2.2 fingerprints, and so there's a real persistent harm, 23 and I just think that with all of these systems, it's kind of unnerving to me how, even though in New York 24 City it's been law for quite some time that any store 25

using biometric surveillance needs to publicly post 2 3 that, needs to tell people, needs to give them that 4 notice, we still hear lots of reports about large companies that are doing this, and we're currently in 5 court against Amazon and Starbucks amongst others for 6 7 allegedly taking New Yorkers' biometric data without 8 the sort of notice and consent that's required under 9 City law.

CHAIRPERSON GUTIÉRREZ: Regarding both 217 10 11 and 425 and a little bit with the POST Act, Mayor 12 Adams announced that PD is expanding an initiative allowing businesses to feed security camera footage 13 to PD. You referenced this as an effort to curb 14 15 shoplifting. We've heard at our POST Act hearing last 16 year that PD does not use live facial recognition. Do 17 you have any concerns about this new initiative? 18 Nina.

19 NINA LOSHKAJIAN: We have many concerns 20 because, I mean, like Albert mentioned, I mean, 21 there's so many... First of all, we have to take them 22 at their word that they don't use live facial 23 recognition. We don't know if that is actually true, 24 and this kind of live streaming from, for example, if 25 your grocery store starts using facial recognition,

2 under the current law, they would be required to post that they are but, if the new agreement, new state of 3 4 play becomes that your grocery store just has a surveillance camera and then that stream is being fed 5 to the NYPD and then the NYPD is performing facial 6 7 recognition, does that mean that customers don't need to be notified under the current law? There's all 8 9 sorts of concerns that we have about this new dynamic that would come into play, and also that means that 10 11 there's no opportunity for people on the ground. This 12 could mean that NYPD just automatically deploys 13 officers because of a mismatch that said, oh, there's a shoplifter in X store. That will unnecessarily lead 14 15 to a violent interaction. Whereas, obviously we 16 oppose this technology use in general, but with 17 stores just using surveillance cameras, they can be 18 monitoring those, and then they can go see what's actually going on, or they have kind of, a lot of 19 20 business owners say they know the repeat offenders, 21 who they actually are like human recognition, so 2.2 there's just a whole new dynamic that will come into 23 play if there's that kind of live stream to the police. 24

130

SHANE FERRO: I would also add that even 2 3 if they aren't using facial recognition, they may be using sophisticated video analytics such as object 4 5 recognition, which allows them to basically surveil thousands of video feeds live at one time and have 6 7 algorithms that identify suspicious objects, quote 8 unquote, that they then turn their attention to that, 9 and so the video analytics is basically doing the job of thousands of officers watching screens at one 10 11 time, meaning that they can search through and find 12 certain things even without it being a face in a way 13 that is, again, very creepy, and that has not been 14 explored as much as facial recognition. 15 ALBERT FOX CAHN: I mean, to me, this is 16 the latest example of a Mayor that prioritizes public 17 relations over public safety. He always wants to find 18 the high-tech gimmick that supposedly is going to 19 keep us safe, but how many cameras do we actually 20 need, all right? We see tens of thousands of cameras 21 that are owned and operated by the NYPD, tens of

thousands of cameras that they access through the domain awareness system on top of that. We see this new pilot product so how many cameras are going to supposedly keep us safe? To me, it's really just this

2 constant effort that whenever there's something about 3 crime in the news, the Mayor will say this expanded 4 program will somehow work without ever providing any evidence that the past camera systems have lived up 5 to the amount of investment we've made in them, and I 6 7 will say, looking at the disaster that Detroit has had and that several other cities have had with 8 9 similar public-private camera partnerships, it's really alarming because in Detroit, under their 10 11 Project Greenlight, there were allegations that 12 stores were being coerced to agree to this sort of 13 partnership, being told, hey, you're going to get 14 faster 9-1-1 response if you sign up to this thing 15 versus the other folks who don't and so, again, 16 there's a lot of potential for abuse and a very questionable premise that this is helpful at all. 17 18 CHAIRPERSON GUTIÉRREZ: Thank you. I have 19 one more question before I pass it to Council Member 20 Holden.

We came across that Maryland recently enacted their digital privacy law that prohibited the use of geofencing near mental health facilities and reproductive or sexual health facilities. What is your opinion of that more targeted approach here?

ALBERT FOX CAHN: We don't think that a 2 3 targeted ban on geolocation data collection actually can be effective at protecting people who go to those 4 facilities compared to a blanket ban on geo warrants 5 and those sorts of mass geolocation tracking or the 6 7 type of bill we see with 539 because when you simply 8 have those more narrow protected facilities versus 9 the broader ban, you'll just see gaps in people's location history which can be indicative of the fact 10 11 that they went to just such a facility, and there was 12 a lot of pushback against Google when they initially 13 responded to the Dobbs decision by limiting the 14 geolocation collection around those sensitive sites, 15 and it also turned out it was really hard to 16 implement and so Google eventually moved completely 17 to device side data storage as a way to respond to 18 that issue because they found that they couldn't 19 consistently operationalize those more targeted limitations. 20 CHAIRPERSON GUTIÉRREZ: Thank you so much. 21 I'll pass it to a Council Member Holden for 2.2 23 questions. COUNCIL MEMBER HOLDEN: Thank you, Chair, 24 and thank you all for your testimony. 25

2	I just have some questions on camera use.
3	Let's say this our legislation today prohibiting
4	facial recognition from businesses and let's say they
5	have the software. How do we enforce that law? I
6	mean, what do we do? Go into the, let me see your
7	software, what do we do with that?
8	ALBERT FOX CAHN: Well, I'm currently
9	litigating a case against Amazon for exactly that
10	issue where they were using biometric data collection
11	according to our complaint that violated New York's
12	law because they weren't disclosing it, and we
13	observed the camera placement. We observed the type
14	of software they were using, and we were able to file
15	a complaint in federal court, and I think that we
16	COUNCIL MEMBER HOLDEN: Well, no, just
17	one, how do you determine the software they're using?
18	That's what I, from Amazon. Did they disclose that?
19	ALBERT FOX CAHN: We were able to look at
20	the models of cameras that were installed, the layout
21	of it, public documents from the company.
22	COUNCIL MEMBER HOLDEN: But still, you
23	didn't know for a fact.
24	ALBERT FOX CAHN: No, we
25	

2 COUNCIL MEMBER HOLDEN: You're looking at3 the placement of everything.

ALBERT FOX CAHN: No, we had documents 4 from them as well. I would say when you look at 5 analogous laws, like the laws that enable you to sue 6 7 a store that has discriminatory construction for noncompliance with the Americans with Disabilities Act 8 9 or are suing a venue that has other discriminatory technology, there's always the pre-litigation fact-10 11 finding phase, but that's something we have a really strong model for and also we know that there are 12 employee whistleblowers, there's disclosures to law 13 enforcement if that information is used in an arrest 14 15 that can come out during discovery so I'd say there's 16 a lot of robust mechanisms.

17 COUNCIL MEMBER HOLDEN: All right, but18 you're, can I just finish?

You object to the facial recognition because it's an invasion or because it's not accurate. What's the main thrust against that facial recognition? Let's say they reached 99.9 percent accuracy for everyone. Would you still be against it? NINA LOSHKAJIAN: Yes. As I mentioned in my testimony, even if the tool itself is 99 percent

1	COMMITTEE ON TECHNOLOGY 136
2	accurate, it will be plugged in to systems that are
3	discriminatory in housing, in public accommodations
4	and, as Shane mentioned, that's just not the world we
5	want to live in that you are tracked every single
6	place you go. We just don't think it's effective,
7	even if it were to be able to accurately identify
8	every single person that walks into a store.
9	COUNCIL MEMBER HOLDEN: You're just
10	against the technology that observes us.
11	NINA LOSHKAJIAN: Yes and, if it could
12	actually make people safer, that's another
13	discussion, but people who want to commit theft, they
14	will put on a mask and I don't think we'll ever reach
15	a point where that kind of obstacle can be overcome.
16	COUNCIL MEMBER HOLDEN: Let's just talk
17	about cameras, because if I may, Chair, just one
18	more, because Albert and I had some discussions in
19	the past on this.
20	ALBERT FOX CAHN: A few, I always
21	COUNCIL MEMBER HOLDEN: We had a few, but
22	I respect your opinion. I do respect your advocacy.
23	But we talked about speed cameras. We talked about
24	red light cameras. You were kind of against that,
25	too, at one point. You just said we shouldn't, that's

1	COMMITTEE ON TECHNOLOGY 137
2	observing us. I have a camera system on my house
3	because I need protection. If somebody comes into my
4	yard or my driveway, I get an alert. That's a good
5	thing, I think.
6	ALBERT FOX CAHN: And I think there's a
7	world of difference between you operating that on
8	your own property versus someone else operating
9	COUNCIL MEMBER HOLDEN: Or a business
10	operating to protect their property. That's not the
11	same?
12	ALBERT FOX CAHN: I think there's a huge
13	difference between something you open up to the world
14	as a place where anyone can come and do business.
15	That is a fundamentally different dynamic than a
16	private home, and that's why, when we look at the
17	laws governing public accommodations for
18	nondiscrimination, for accessibility, it is a
19	complete world apart, and I think with the camera
20	systems we're talking about, the reality is they're
21	not, these are systems that are ripe for abuse, as
22	we've seen with Madison Square Garden, but also they
23	can be used for any number of things. Think about a
24	world where you're walking down the supermarket aisle
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1	COMMITTEE ON TECHNOLOGY 138
2	and every choice you make in the supermarket is being
3	sold to advertisers as a way to better understand
4	COUNCIL MEMBER HOLDEN: Well, some people
5	feel Google does that now. I mean, you use your
6	credit card, what happens? You buy something and you
7	get so many other ads.
8	ALBERT FOX CAHN: I'm talking about the
9	product you stop in front of, you think about, you
10	decide, no, I don't want it. There are vendors that
11	sell software out there to track just those
12	behaviors.
13	COUNCIL MEMBER HOLDEN: But that's being
14	done on everything, on your smartphone, it's done all
15	the time. I mean, that's the kind of world, whether
16	we like it or not, it's kind of evolved into that.
17	But one other question, in 1990, we had
18	122 burglaries. In 2024, we have 13,000. Because of
19	technology, I feel, that's because of cameras. There
20	are some good things. We talked about this at a
21	previous hearing, that the camera that catches the
22	serial killer that killed six people, and we caught
23	them before they could strike again, what's wrong
24	with surveillance in that regard on police matters?
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2 ALBERT FOX CAHN: But Council Member, we 3 have...

CHAIRPERSON GUTIÉRREZ: Council Member,
can we wrap up? We have another set of questions.

ALBERT FOX CAHN: I would just say we have 6 7 thousands and thousands of cities around the world which have deployed different types of technologies, 8 9 and we can look at those as an experiment to see whether the use of cameras correlates with the 10 reduction in crime, and the data is clear. It 11 12 doesn't, and I would say that if it was as simple as 13 that, with cameras just being the cure-all, we would 14 see very different crime rates in a lot of American 15 cities. We would see very different public safety 16 scenarios around the world and, to me, I would say 17 it's clear that there are very different factors that 18 are pushing those trends.

19 COUNCIL MEMBER HOLDEN: Thank you. Thank20 you, Chair.

CHAIRPERSON GUTIÉRREZ: Thank you, Council
Member. I wanted to just wrap up, and I apologize,
but I appreciate the discussion.

Would you agree, or would you suggestthat New York State should take a comprehensive

1 COMMITTEE ON TECHNOLOGY 140 approach to protecting personal data rather than 2 3 addressing different types of data in the way that 18 other states have done? 4 ALBERT FOX CAHN: I think it would depend 5 on the specifics of the law, but I'd say that New 6 7 York needs to be much more aggressive in protecting its residents' data, and I think that a more 8 9 comprehensive protection against biometric data collection in particular, and location data 10 collection, would be an incredible milestone for the 11 12 State. CHAIRPERSON GUTIÉRREZ: Thank you. 13 14 Regarding Intro. 539, Council Member Brannan's bill, 15 would private action be sufficient for the bill to be 16 effective or do you believe additional civil 17 penalties are necessary? 18 ALBERT FOX CAHN: I'm always a belt and 19 suspenders person when it comes to enforcement. If we 20 can have robust agency action, and have a way for private actors to have their day in court, I think 21 that has always been the most effective way to 2.2 23 implement any of these safeguards. 24 25

1 COMMITTEE ON TECHNOLOGY 141 CHAIRPERSON GUTIÉRREZ: Okay. Thank you 2 3 all so much. Thank you for your patience and for your 4 testimony. We will call up the next panel. We have 5 Fernando Brinn, Jake Parker, Robert Tappan, Adam 6 7 Roberts, and Sharon Brown. Thank you all for your patience and, once 8 9 you're all settled, anyone can start. Thank you. Yeah, just make sure your mics 10 11 are on. Go for it. ADAM ROBERTS: Thank you for holding this 12 13 hearing today. I am Adam Roberts, Policy Director for 14 the Community Housing Improvement Program, also known 15 as CHIP. We represent New York's housing providers, 16 including apartment building owners and managers. Our 17 members operate rent-stabilized housing, which 18 contains 1 million units of housing in New York City, 19 making up 40 percent of its rental housing and the 20 vast majority of its affordable housing. Intro. 425 is punitive to tenants who live in rent-stabilized 21 housing as well as workers, including our members, 2.2 23 who operate rent-stabilized housing. Rent-stabilized buildings generally do not have the financial 24 resources to hire full-time doormen. Even so, 25

affordable housing must also be safe housing. This is 2 3 particularly notable as rent-stabilized housing is in 4 the midst of a major financial crisis. Across the 5 city, net operating income is in a free fall, dropping as much as 20 percent in the Bronx year over 6 7 year. The largest lender to rent-stabilized housing, Signature Bank, collapsed last year, and the now 8 9 largest lender, New York Community Bank, has been saved by collapse by Trump's former Treasury 10 11 Secretary, Steve Mnuchin, who has threatened to foreclose on our members en masse. The affordability 12 rent-stabilized housing provides is entirely 13 14 unsubsidized by the government. This means rent-15 stabilized housing does not have the operating revenue to cover basic expenses, let alone hire full-16 17 time doormen. Even if the financial crisis were to 18 end, many buildings are too small to ever financially 19 support full-time doormen. Therefore, rent-stabilized 20 tenants and workers rely on more affordable security systems, such as virtual doormen and CCTV systems, to 21 ensure their buildings are secure. In the future, 2.2 23 they likely will use biometric identifiers, like fingers, voice, irises, and facial recognition. They, 24 too, are more affordable than full-time doormen. This 25

2 bill is so broadly written that it bans any 3 technology which can be used to establish individual 4 identity. Every security system, from virtual doorman systems to fingerprint scanners, will be illegal. 5 Technologies which establish individual identity have 6 7 been used for decades to ensure safety in buildings which lack full-time doormen. We cannot imagine how 8 9 tenants and workers will react to seeing CCTV and virtual doorman systems removed because of this bill. 10 11 If the Council passes this bill, it will be depriving rent-stabilized tenants and workers the safety which 12 wealthy New Yorkers enjoy in their homes. Again, 13 14 thank you for holding this hearing today.

143

15 CHAIRPERSON GUTIÉRREZ: Thank you. We have 16 questions, by the way, but we'll wait until the 17 panel. Whoever wants to go next can go next.

FERNANDO BRINN: Thank you for allowing us to speak with you, Chairman. I want to address an issue that's been, as I'm sitting here, I'm looking at how the City looks at cybersecurity from the perspective of agencies. I'd like to take a minute and talk about cybersecurity from the perspective of the underserved community. So...

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2 CHAIRPERSON GUTIÉRREZ: I'm sorry, can you 3 just say your name for the record?

FERNANDO BRINN: Fernando Brinn.

CHAIRPERSON GUTIÉRREZ: Oh, Fernando.

FERNANDO BRINN: I am the CEO of the Brinn 6 7 Group. We're a community-minded agency. We work with 8 not-for-profits and community organizations. During 9 the testimony that I heard, a couple of things came to mind. One was cyber insurance. Our community 10 11 doesn't have cyber insurance. If they do, it's very 12 high and very costly. Our not-for-profits that are 13 receiving contracts from City agencies don't have a 14 line budget for either cyber insurance. They don't 15 have it for testing, penetration testing, for cyber 16 and cloud security so what I'm saying is we need to 17 look at how we can address this issue through our 18 agencies because at the end of the day, Juanita 19 Lopez, who gets up in the morning and goes to her 20 health clinic or goes to her bank or goes to a 21 community program for assistance, is giving her 2.2 information to a system that's not protected so we 23 need to ensure that those programs that are funded by the City Council and funded by the City are cyber 24 secure, and I've put together a number of 25

1 COMMITTEE ON TECHNOLOGY 145 organizations that I work with that are cyber 2 3 security companies, and I would enjoy an opportunity 4 to speak further on it. Thank you. CHAIRPERSON GUTIÉRREZ: Thank you. Did you 5 submit written testimony by the way? 6 7 FERNANDO BRINN: Yes, absolutely. CHAIRPERSON GUTIÉRREZ: You did? Okay, all 8 9 right. 10 FERNANDO BRINN: Yeah, within 72 hours, 11 you'll have a whole written testimony from us. 12 CHAIRPERSON GUTIÉRREZ: Okay, perfect. 13 Thank you, Fernando. 14 Okay, whoever wants to go next. 15 SHARON BROWN: My name is Sharon Brown. CHAIRPERSON GUTIÉRREZ: Oh, Sharon, I'm 16 17 sorry. Can you turn your mic on? Thank you. 18 SHARON BROWN: My name is Sharon Brown. 19 How is everyone? Jesus loves you. 20 Okay, I think that it's very important 21 that it is posted clearly that they have active bio cameras. It should not be a surprise to them the 2.2 23 depth of how the camera can see them, their irises, the different things. If the camera can do certain 24 25 things like that, it should be posted, or there's

2 going to be an issue of entrapment with these 3 cameras. People viewing other people should have to 4 alert them that they are viewing them specifically, and there should be a system where, if someone is 5 being viewed on multiple cameras this way, that 6 7 alerts come back to them if they're in some kind of 8 system where they're being cyber-watched because 9 that's a form of some kind of stalking where people are just cyber-watched. It becomes kind of criminal 10 11 entrapment, different things like that. When the 12 police go somewhere to see the video, if someone has 13 been surveilling someone else, that's problematic 14 that they're in a surveillance mode, that it lends 15 against entrapment and also some kind of stalking, and the people who are going to be in the stores 16 17 should have some kind of system where it goes back 18 to, it can go back to the police, but they also need 19 to still have regular cameras and things to back up 20 because it's not a sure thing. I saw a person that 21 was this tall, they were this short, they had this 2.2 color hair, then they cut their hair or they take out 23 the hair or something like that and it wasn't the person, so there should be more sure things there 24

146

1 COMMITTEE ON TECHNOLOGY 147 2 like other backups. It shouldn't just be the cyber 3 security. CHAIRPERSON GUTIÉRREZ: Thank you, Sharon. 4 5 SHARON BROWN: Yes. CHAIRPERSON GUTIÉRREZ: And whoever wants 6 7 to go next. JAKE PARKER: Hi, Chair Gutiérrez, Members 8 9 of the Committee, I'm Jake Parker with the Security Industry Association representing more than 80 10 11 companies headquartered in New York and 1,500 nationwide. Our members provide safety and security 12 13 products, among them the leading providers of 14 biometric technologies including facial recognition 15 software. Today these technologies contribute to the 16 safety and security of our communities and bring 17 value to our daily lives across many different types 18 of applications. For example, uses by consumers for 19 verification are rapidly expanding and the popularity 20 is growing. From Mets fans using Entry Express for facial ticketing at Citi Field to speeding up TSA 21 security lines at LaGuardia and JFK to faster 2.2 23 debarkation at cruise ports in Manhattan and Brooklyn. Also, safety and security applications are 24 helping stem the tide of retail theft which also 25

2 helps prevent food and pharmacy deserts in 3 underserved communities by preserving access to 4 grocery stores and other establishments facing pressure to close their doors. In all this, it's 5 critical these technologies are used in a secure 6 7 manner in ways that are lawful, ethical, and non-8 discriminatory. We're concerned with the two 9 ordinances up for discussion on biometrics. These would simply outlaw most uses of biometric 10 11 technologies despite the fact that they were already 12 regulated under the City's existing Biometric Data 13 Privacy and Tenant Data Privacy Laws. 217 would 14 prevent the use by businesses and consumers 15 regardless of the purpose and whether agreed to by 16 the individual, robbing them of their choice to use 17 more secure methods to verify their identity and also 18 dictating limitations to New York businesses on how 19 they can protect themselves and their properties. On that, it would reduce the ability of businesses to 20 address organized retail crime which has risen 80 21 percent in recent years according to the City's 2.2 23 recent report in conflict with the Mayor's initiatives that call for businesses to analyze and 24 improve their security. It's important to remember 25

the human cost as well as the monetary cost. Retail
crime is often violent crime. In the last two years
more than 1,100 customers, employees and security
personnel have been killed by criminals in retail
settings across our country and the human cost is far
beyond these victims as organized retail theft fuels
drug smuggling, human trafficking and criminal
enterprises. These technology tools are used daily
across the city and the country to make stores safer.
And I'll stop there.
CHAIRPERSON GUTIÉRREZ: Thank you, and we
have the last panelist.
ROBERT TAPPAN: Yes. Hi. Committee Chair
Gutiérrez and the New York City Council Members,
thank you so much for inviting me. My name is Robert
Tappan. I'm the Managing Director of the
International Biometrics and Identity Association.
We're an industry association whose member companies
design and manufacture biometric products and
technologies that span a wide array of use cases and
different measurement types known as modalities which
include fingerprint, iris and retina, speech
recognition, DNA, and facial recognition among
others. IBIA is chartered to advance the adoption and

responsible use of these technologies for managing 2 3 human identity and to enhance security, privacy, 4 access management, productivity and convenience for individuals, organizations, and governments. We do 5 this through advocacy, engagement and education. I'm 6 7 pleased to be back here today. My colleague, Jake, 8 and I appeared before this Committee last year, and 9 I'm very happy to be here again. Facial recognition technology has become an integral tool for ensuring 10 11 public safety, preventing and deterring crime, 12 protecting citizens and visitors, and enhancing 13 security and convenience across many sectors. Prudent 14 regulation is required, not prohibition. In the 15 private sector, facial recognition enhances physical 16 security for offices, residential buildings and 17 facilities, not to mention access to secure method 18 for accurate employee timekeeping. Retailers rely on 19 it as part of their efforts to combat the rampant 20 shoplifting plaguing this city and also around the 21 country. This property crime threatens the viability of local stores and food access in underserved areas 2.2 23 where they're forced to close due to excessive losses. We should be enabling businesses and 24

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1 COMMITTEE ON TECHNOLOGY 151 communities to address this public safety challenge, 2 3 not tying their hands. Thank you for your time. CHAIRPERSON GUTIÉRREZ: Thank you so much. 4 5 I have a couple of questions. Let me just gather my notes, excuse me. 6 7 We'll go reverse order. Robert, you work with businesses particularly? 8 9 ROBERT TAPPAN: We have about two dozen member companies that provide a wide array of 10 11 biometric equipment and technology. 12 CHAIRPERSON GUTIÉRREZ: Got it. 13 ROBERT TAPPAN: For government and private 14 sector. 15 CHAIRPERSON GUTIÉRREZ: And private 16 sector, okay. Do you have a sense of how many arrests 17 were made after the facial recognition technology was 18 installed in some of these private businesses? 19 ROBERT TAPPAN: Well, that's a hard 20 statistic to come up with just a bold number because 21 there are both governmental and law enforcement uses 2.2 of it as well as private sector, and I don't think 23 there's any comprehensive numbers of that magnitude just because I don't think it's measured that way. 24 25

1 COMMITTEE ON TECHNOLOGY 152 CHAIRPERSON GUTIÉRREZ: But some of the 2 3 small businesses would have, some of the businesses 4 would have it, correct? 5 ROBERT TAPPAN: In certain jurisdictions, 6 sure. 7 CHAIRPERSON GUTIÉRREZ: Okay. ROBERT TAPPAN: I could provide that for 8 9 you. CHAIRPERSON GUTIÉRREZ: Okay. 10 ROBERT TAPPAN: Yeah. 11 12 CHAIRPERSON GUTIÉRREZ: In those instances 13 of private businesses, do you know if the stores have 14 signs informing people about the use of facial 15 recognition technology? 16 ROBERT TAPPAN: Well, they should. 17 CHAIRPERSON GUTIÉRREZ: They're supposed 18 to. 19 ROBERT TAPPAN: They should, yes. CHAIRPERSON GUTIÉRREZ: But you don't know 20 21 if every single business? ROBERT TAPPAN: Well, again, this varies 2.2 23 from jurisdiction to jurisdiction, which actually gets into a large. 24 25

1 COMMITTEE ON TECHNOLOGY 153 CHAIRPERSON GUTIÉRREZ: I'm talking about 2 3 just New York City though. ROBERT TAPPAN: Well, New York City, 4 again, there's laws in place or ordinances in place 5 that stipulate that the warning should be there and 6 7 available so that customers can see it. I am based in Washington, D.C. Do I know whether every 8 9 establishment has signs? I don't have that answer for 10 you. 11 CHAIRPERSON GUTIÉRREZ: Thank you. I just want to say hello to Council Member Marte's family. 12 Hello. Como está? 13 14 Thank you. I apologize. 15 ROBERT TAPPAN: No worries. CHAIRPERSON GUTIÉRREZ: A mom was in the 16 17 building. Okay. 18 Fernando, you brought up a very good 19 point about just equity in our communities and who 20 has access to cybersecurity insurance. What are some of those instances where a small business, and I 21 think sometimes we don't think of like a bodega 2.2 23 necessarily having a cybersecurity compromise, what are some of those like small businesses or businesses 24 that are having a lot of issues in communities of 25

2 color where they don't have access to cybersecurity 3 software? What does that mean? What is the impact of 4 that on a small business?

FERNANDO BRINN: Well, on a small 5 business, a mom-and-pop store usually would not have 6 7 internet capabilities. Where you're looking at a 8 community agency that deals with mom-and-pop stores, 9 deals with health centers, they would, and they would have to pay a cyber insurance fee every year. In 10 11 addition to that though, they would also have to be 12 able to prove that their cyber resilience, which is testing to make sure that their infrastructure is 13 14 sound, which is done through a number of ways. If 15 they're on the cloud, then it's done through WAF, 16 CHOMP, which monitors and makes sure as if there's 17 any intrusions that is dealt with immediately and 18 reported back to the customer. In terms of pen 19 testing, that's done in for-profit and non-for-profit 20 community programs that want to ensure that their infrastructure is sound. 21

22 CHAIRPERSON GUTIÉRREZ: Thank you, and are 23 you aware of businesses that potentially sell data 24 from facial recognition system for marketing or other 25 analytics outside of safety?

1	COMMITTEE	ON	TECHNOLOGY	
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FERNANDO BRINN: No.

3 CHAIRPERSON GUTIÉRREZ: No, so it's 4 primarily for?

FERNANDO BRINN: It's primarily for non-5 for-profits who engage and work with communities of 6 color that gather information, help them through 7 8 whatever issues they're having with the social 9 service of the city, have contracts with the City so imagine there's a non-for-profit who has a contract, 10 11 let's say, with the Department of Homeless Services 12 and they're delivering services. Well, they have to 13 maintain an infrastructure and, in that 14 infrastructure, they have to ensure that that 15 infrastructure is cyber resilient so there's pen 16 testing, penetration testing. There's also looking at 17 the dark web to make sure that that information isn't 18 being sold to suspicious characters. That's a costly 19 sum of money, and it's not a part of their operating 20 budget through funding from City agencies so I think the issue here is that we're not allowing our non-21 for-profit providers the ability to be cyber 2.2 23 resilient because it's not part of their funding so one thing we need to look at is how we can rectify 24 25 that.

2 CHAIRPERSON GUTIÉRREZ: Thank you so much,3 Fernando.

4 My last question is for primarily Jake, Adam, and Robert. Same question. Curious if you, in 5 both Robert and Jake instances, are you aware if 6 7 businesses or private entities that you work with collect and share and even sell biometric data for 8 9 other marketing or analytics or is it primarily for public safety? And Adam, curious on the private 10 11 dwellings and residential dwellings, if there's 12 signage obviously in the buildings and how long is this biometric information stored for? 13

14 ROBERT TAPPAN: Can I just jump in real 15 quick from my vantage point? Our members do not buy and sell biometric information. Number one, biometric 16 17 information is something that it can't be reverse 18 engineered, and it's usually proprietary to each of 19 the different technologies that these companies are 20 developing so that's the beauty of this biometric 21 information. It's unique to the individual, and it's 2.2 also unique to the technology.

23 Second of all, I don't know if you are 24 aware of this but, not too long ago, the State of New 25 York and other jurisdictions all around the country,

2	State governments were selling driver's license
3	information so I'm not saying that everybody is
4	guilty of this, but information brokering is
5	something that has been going on for years and years
6	and years. Whether it's right is not up to me, but
7	it's happening and it happens on the government side
8	as well as the corporate or enterprise side. That's
9	something also, there was a reason that that
10	information was being sold by the State. It was very,
11	very lucrative, and governments have to do what they
12	have to do to meet their budgets and so do
13	enterprises.
14	JAKE PARKER: Yeah, I'll just echo what
15	Robert was saying. The way the biometric technology
16	works, that information is useless outside of the
17	system that created it, and so that's why there isn't
18	a market for biometric data in that sense.
19	I wanted to go back to your other
20	question though, too, regarding arrests. I think when
21	you're looking at retail security and loss prevention
22	programs, arrest is not the right measurement. I
23	think it's definitely going to vary store to store
24	and business to business, but it's the reduction in

the overall incidents that they have, and so most

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often this involves de-escalation, not a call to 2 3 authorities, so repeat offenders entering stores are flagged for the goal of providing excellent customer 4 service versus apprehending them, which typically 5 results in fewer visits by these individuals. I've 6 7 heard anecdotally one company reported they saw a 90 percent reduction at their locations after following 8 9 a similar process to that.

Also, it's not just about theft. There's 10 11 also public welfare and life safety uses that are 12 appropriate. For example, one of our members told me 13 that for their customers reported recovering over a 14 dozen missing children after their customers were 15 able to leverage the same technologies in response to 16 Amber Alerts and something called Code Adam, which is a missing child safety system used in retail stores. 17

CHAIRPERSON GUTIÉRREZ: Thank you.

ADAM ROBERTS: Regarding apartment buildings, I mean, I think an important thing to emphasize about the bill as it's currently written is it would ban much more than just, I think what we're talking about is biometric technology or facial recognition. It would ban essentially any video system so CCTV, virtual doorman, that would all be

2	made illegal and have to actually be removed, again,
3	as the bill is currently written so, currently, I
4	don't think most buildings have signage saying you're
5	on camera or anything like that. I think it's just
6	generally socially assumed that if you walk into an
7	apartment building, there will be some sort of camera
8	monitoring who's entering and exiting. That being
9	said, I mean, if apartment buildings were to start
10	using facial recognition, I'm sure there would be
11	some signage put up. I mean, most of our members
12	aren't, at this point, storing biometric data so I
13	don't really have a good answer on that but, again, I
14	would hope that the Council would establish some
15	standards on how that is done.
16	JAKE PARKER: Can I add something to that?
17	CHAIRPERSON GUTIÉRREZ: Sure.
18	JAKE PARKER: Yeah, so some of our members
19	do provide these types of systems that you're
20	referring to, virtual doorman systems, so it's
21	important to point out that the current City Tenant
22	Data Privacy Law requires the uses of electronic
23	systems be voluntary and so, if it were to use
24	biometric functionality, which is available, for
25	those enrolled, they pre-enroll, they have automatic

1	COMMITTEE ON TECHNOLOGY 160
2	access through the camera at the door. For those that
3	are not enrolled, the system simply reverts back to a
4	manual process so this could be connected to an
5	operator who takes other steps to verify whether the
6	person is a tenant or a guest or a delivery person,
7	something like that.
8	SHARON BROWN: Can I say something?
9	CHAIRPERSON GUTIÉRREZ: Yeah, just turn
10	your mic on.
11	SHARON BROWN: It's on. Just like they
12	have a do not call list, I think with the information
13	that has already been gathered, if the bill is passed
14	and they outlaw these things, there should be a do
15	not sell that information that's already collected or
16	in the future, whatever they decide, it should be a
17	list out there to say, don't put any of this
18	information out there further, I'm not interested in
19	having my information sold, like don't pass on my
20	number, don't pass on my information. Maybe there
21	should be some kind of registry or something and it
22	can have some criteria.
23	CHAIRPERSON GUTIÉRREZ: In any of your
24	line of work or for your clients, do any of you have
25	any concerns about identity deepfakes or AI-

2 influenced images in the way that businesses, 3 partners, non-profits are capturing biometric 4 information?

JAKE PARKER: Yeah, sure. It was mentioned 5 earlier that a concern about using biometric data to 6 7 impersonate your identity. The way biometric information is created and used, that is just not 8 9 possible. There are concerns about using deepfakes perhaps to impersonate someone who's doing some kind 10 11 of authentication, using their face, and that's something that the industry is definitely on top of. 12 There's a technology called liveness detection and 13 14 authenticity detection in video that's often a layer 15 onto those systems.

16 SHARON BROWN: Can I say something? Is the 17 system smart enough to detect, what if I said, hey, 18 I'm going to look like you and I got eye color, the 19 eye...

20 CHAIRPERSON GUTIÉRREZ: Contacts?
21 SHARON BROWN: Contacts. I don't wear
22 them, sorry. The contacts, I've got a hair like yours
23 and I put on the makeup and I try to beat the system.
24 Would it be able to detect that? People are getting
25 plastic surgery to look like other people and so many

1 COMMITTEE ON TECHNOLOGY 162 2 different things so is that system smart enough to 3 detect that there's a fake, actual human AI that went 4 to a plastic surgeon to look like this person next to them so could it pick that up in that system? Is it 5 smart? 6 7 CHAIRPERSON GUTIÉRREZ: That's a good question. 8 9 SHARON BROWN: Well, I deal with technology myself. I let the other people build it, 10 11 but I deal with the technology so could someone beat 12 that system by just putting on contacts and hair and the same kind of dress that someone wears and put 13 14 makeup, contour their face with makeup? Could they 15 beat it and put on the same color eyes, change the shape, look with tape? 16 17 CHAIRPERSON GUTIÉRREZ: I'm not sure. 18 SHARON BROWN: With tape? 19 CHAIRPERSON GUTIÉRREZ: I hear you. I hear 20 what you're saying. 21 SHARON BROWN: Okay, let's just say I want 2.2 to look Asian today. 23 CHAIRPERSON GUTIÉRREZ: No, I got it, I got it, ma'am. I got it, I got the example. No, I got 24 25 you. I'm not sure. I don't know if I'm equipped to

1 COMMITTEE ON TECHNOLOGY 163 2 answer that question. I don't know if anyone here 3 wants to answer it. 4 ROBERT TAPPAN: I would just simply say the answer to your question is no. The technology is 5 such that it can detect all of the different types of 6 7 fakery that goes on when people try to disrupt the 8 system. 9 SHARON BROWN: And even surgery? ROBERT TAPPAN: Even surgery. The beauty 10 11 of the human body is that we are all unique. We all have a set of bones and genes and makeup and irises 12 13 and retinas that are all unique. You can't fool those 14 sorts of things. 15 CHAIRPERSON GUTIÉRREZ: I'm so sorry. I 16 just have to get them to answer their questions 17 because we do have other panelists. I apologize. 18 Does anyone else want to weigh in on my 19 original question about deep fakes or concern about 20 that? ROBERT TAPPAN: If I could? 21 CHAIRPERSON GUTIÉRREZ: Yeah, 2.2 23 ROBERT TAPPAN: I'm sorry. So to answer to that question is, is it ever going to be 100 percent 24 accurate? No. And that's what every hacker strives 25

2	for and that's what every company strives for. By
3	putting limits on biometrics, you are actually
4	hindering the progress and innovation that legitimate
5	corporate businesses are doing to make it more
6	accurate, to go beyond the deep fake, to be able to
7	tell what is accurate and what isn't, and so it's a
8	never-ending battle. It's like the Cold War, but now
9	it's in biometrics so overcoming those things is a
10	constant battle that needs to be won by the side that
11	is trying to do something that's right as opposed to
12	deceive.

13 SHARON BROWN: And just one last thing.14 CHAIRPERSON GUTIÉRREZ: Yes.

15 SHARON BROWN: Okay, so he said you can't 16 beat the system because we have different bones. 17 Well, I know specifically people, if they have a bump on their nose, they shave it so they're shaving bones 18 19 and doing different things in the surgeries so could something like that beat the system? So say for 20 instance, my nose is like this today. I can go into 21 surgery and get it shaved down and get it contoured, 2.2 23 make it smaller. I can get my bone in my chin shaved down to be pointier. Could that beat the system and 24 25 look like, appear like someone else? Would you be

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2	able to pick that up? That's something that you
3	really need to look into because people are going
4	that in depth in surgery. The nose is the oldest one.
5	They shave down the bone in the nose. Thank you.
6	CHAIRPERSON GUTIÉRREZ: Thank you. We're
7	going to have a Council Member Hanif ask questions
8	and then Council Member Holden.
9	COUNCIL MEMBER HANIF: Thank you. I just
10	wanted to point out that Intro. 217 isn't a full
11	blanket ban on biometric surveillance, and there are
12	exceptions, especially when it comes to pay by palm
13	at grocery stores or verification at the airport for
14	travel documents so I just want to be clear that
15	Intro. 217 is not saying no, and we recognize that
16	there are some industries that require biometric
17	surveillance for its functions so I just wanted to
18	point that out.
19	I want to ask, what is your response to
20	the FTC's finding about Rite Aid and what happened
21	there? I mean, I'm sure that created a bit of a
22	controversy. That case specifically running from

involving Rite Aid, and the vast egregious misuse of

2012, the investigation is from 2012 to 2020 $\,$

1 COMMITTEE ON TECHNOLOGY 166 this technology is very obvious and very clear. How 2 3 do you respond to that? JAKE PARKER: Well, I'm glad you asked 4

5 that question so first of all, we support FTC's calls for having reasonable safeguards and the elements 6 7 they lay out in that particular case. However, keep 8 in mind, this program started in 2012, which was 9 ancient times in respect to this technology. They were using a very outdated technology, first of all, 10 11 but it was also highly unusual in the way it was implemented, and we believe it's an outlier that's 12 13 not representative of how these programs are 14 implemented today, and also keep in mind that this 15 stemmed from a process from a 2010 order having to do 16 with other types of customer data that they're 17 supposed to be protecting and this decision came out 18 as a result of that. But, in any case, the elements 19 that the FTC said were needed to address the 20 shortfalls are reflective of many safeguards that are 21 already integrated in today's software and use 2.2 policies and recommended practices and so we fully 23 support those. I think going back to the earlier point about how effective is this, dozens of the top 24 100 retailers in the United States, in addition to 25

1 COMMITTEE ON TECHNOLOGY 167 the small businesses that we're talking about, use 2 3 this technology on a daily basis and are having success with it. 4 COUNCIL MEMBER HANIF: Then the businesses 5 that you represent, are they primarily New York City 6 7 based? 8 JAKE PARKER: No, so our members are the 9 providers of the technology that the retailers use. Some of them are. 10 11 COUNCIL MEMBER HANIF: The providers are providing this technology to New York City commercial 12 13 businesses. 14 ROBERT TAPPAN: As well as the TSA, DHS. 15 COUNCIL MEMBER HANIF: Right, right. ROBERT TAPPAN: Yes. 16 17 COUNCIL MEMBER HANIF: But I'm mostly 18 interested in the businesses in New York City. Is 19 that true for both of your corporations? ROBERT TAPPAN: I'm sure some of our 20 21 members provide biometric technology ... COUNCIL MEMBER HANIF: Yeah, how many of 2.2 23 your members that are New York City based? ROBERT TAPPAN: I don't know if they're, 24 I'd have to get back to you on that. I don't know. 25

1 COMMITTEE ON TECHNOLOGY 168 COUNCIL MEMBER HANIF: Oh, you don't have 2 3 that answer. And what about for you? 4 JAKE PARKER: Yeah, we have like 1,500 5 members. COUNCIL MEMBER HANIF: That are New York 6 City? 1,500 technology... 7 JAKE PARKER: We have several dozen that 8 9 are headquartered in New York City. COUNCIL MEMBER HANIF: Okay, I'd like to 10 11 get that response as soon as possible. 12 I also just wanted to understand, and 13 this is my final question because I know we've got 14 another hearing here. Given your point about how the 15 technology that was used in Rite Aid's instance is like from a different era and like there's been 16 17 parameters that have like made this technology more 18 efficient, what are the safeguards that the companies 19 are using to prevent misuses like in the instance of 20 Rite Aid, and what has been done to test for efficacy 21 and accuracy? ROBERT TAPPAN: Well, the National 2.2 23 Institute of Science and Technology, NIST, is the gold standard for the measurement of the accuracy of 24 biometrics writ large, especially when it comes to 25

1 COMMITTEE ON TECHNOLOGY 169 2 facial recognition so it's an (INAUDIBLE) subset of 3 the U.S. government. 4 COUNCIL MEMBER HANIF: So there's like a 5 laboratory. NIST is a laboratory where you're testing ... 6 7 ROBERT TAPPAN: That is correct, and companies are constantly testing the efficacy of 8 9 their algorithms, of their technologies, and the efficacy by race, by sex, by gender, etc. in order to 10 11 make it as accurate as possible. 12 One point of clarification, Councilwoman, 13 you had talked about biometric surveillance and 14 that's kind of, I'm sure that's one of those phrases 15 that it comes very easy, it trills off the tongue, 16 but biometrics is about verification and 17 authentication. When you go to the airport, you 18 submit your driver's license, you get your picture 19 taken at the kiosk, it verifies that the credential 20 that you presented is indeed the face that's on there is the same face that's in front of the kiosk camera 21 and also verifies that the credential itself is 2.2 23 valid. 24 COUNCIL MEMBER HANIF: Right. 25

2 ROBERT TAPPAN: But it's not surveillance.3 It's not following you around.

4 COUNCIL MEMBER HANIF: Intro. 217 isn't
5 that. But Intro. 217 isn't a ban on that because
6 TSA's core function requires that authentication.

7 ROBERT TAPPAN: But I'm saying just the use of this type of technology is not surveillance. 8 9 It is about authentication. If you're trying to catch the shoplifter who comes into a bodega day-in and 10 11 week-in and week-out and keeps on stealing the same 12 things and there's facial recognition in there, it is 13 to authenticate that the person is a repeat offender, 14 not to know where he goes or she goes after they 15 steal something. It's not geolocated like that. It's not about following people around or knowing where 16 17 they are. There are other technologies that do do 18 that, but that's another part of your hearing, but 19 biometric authentication and verification is about 20 the person who says they are is who they are.

21 COUNCIL MEMBER HANIF: Right, what Intro. 22 217's goal is is that there are many, many instances 23 of misuse of this technology that is surveilling 24 certain individuals and predominantly black and brown 25 people and primarily women of color so that's what

1	COMMITTEE ON TECHNOLOGY 171
2	it's getting at. That's what it's getting at, and
3	Rite Aid is a clear example if you want to talk about
4	a recent example.
5	SHARON BROWN: Can I say something?
6	CHAIRPERSON GUTIÉRREZ: You have to hurry
7	up. We have another Council Member who has questions.
8	Is it a question or a response?
9	SHARON BROWN: It's a response.
10	CHAIRPERSON GUTIÉRREZ: Okay.
11	SHARON BROWN: Okay, so I think it would
12	be a problem with authenticating someone. Say for
13	instance, the two of you have your hair pulled back
14	so if you take a picture of someone on an ID, you can
15	see the shape of their face based on having your hair
16	pulled back so if someone has their hair pulled
17	forward and they have a picture, someone else comes
18	in with the same kind of hairstyle, they could
19	authenticate that it's them, quote unquote, but it's
20	not really them because they can't see their features
21	to know if this is actually the person so the
22	accuracy is not there for them to use this solely to
23	catch someone. It can be in addition to something
24	else. It can't be solely because, say she has her
25	hair pulled over and one is back and if you take a
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1	COMMITTEE ON TECHNOLOGY 172
2	picture of her on her ID, you don't know she could
3	have a piece of her ear missing or some birthmark or
4	something like that that you don't know about, and
5	will the authentication process pick that up? Will it
6	pick up certain things that you can't see?
7	CHAIRPERSON GUTIÉRREZ: That's another
8	question and it's a similar question.
9	SHARON BROWN: It's rhetorical. I'm not
10	really asking the question.
11	CHAIRPERSON GUTIÉRREZ: No, I understand
12	and I'm so sorry. We just have to move on, but your
13	comments and your questions are recorded.
14	JAKE PARKER: Was the Council Member's
15	question also directed to me? I didn't know if you
16	CHAIRPERSON GUTIÉRREZ: Say that again?
17	JAKE PARKER: Was the Council Member's
18	question also directed at me, the previous one?
19	CHAIRPERSON GUTIÉRREZ: That was 90
20	seconds ago.
21	COUNCIL MEMBER HANIF: Sorry, I have
22	already forgotten what it was.
23	CHAIRPERSON GUTIÉRREZ: It's okay. Well,
24	we do have to move on because we do have another
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1 COMMITTEE ON TECHNOLOGY 173 2 hearing so I'm going to pass it to Council Member 3 Holden. 4 COUNCIL MEMBER HOLDEN: Well, Mr. Parker, I'm going to give you a chance to opine on this 5 because what we just heard is that the facial 6 7 recognition software is biased and, maybe that was the case, like you said, in 2012. In your testimony 8 9 here, a written testimony, you state numbers. Do you want to repeat what you wrote here? 10 11 JAKE PARKER: Yes. 12 COUNCIL MEMBER HOLDEN: Because I think we 13 need to hear this because there's a shoplifting 14 epidemic in New York City, and the timing of this 15 bill, 217, is curious. I just find it strange, but 16 give us the updated 2024 accuracy of facial 17 recognition. 18 JAKE PARKER: With that type of 19 application, there's two things that are key, is the 20 technology performance, but also the governance 21 structure that goes around it. On the technology 2.2 performance, today's facial recognition technology, 23 leading technologies as measured by the government's program under NIST, are all over 99 percent accurate 24 across the board and, across 70 different demographic 25

1	COMMITTEE ON TECHNOLOGY 174
2	factors they measure, it's 97.5 percent accurate so
3	that's a far cry from where we were just even
4	COUNCIL MEMBER HOLDEN: So we keep hearing
5	how it's not accurate, but you're saying, and you're
6	in the industry, it's accurate.
7	JAKE PARKER: Unfortunately, there's a lot
8	of old information out there that keeps circulating.
9	COUNCIL MEMBER HOLDEN: It keeps
10	resurfacing and, in my research, I found that out,
11	that it's very accurate, but what's the alternative?
12	If 217 did get through, what's the alternative? It's
13	really somebody saying, this person looks like the
14	guy I just saw, take this. How accurate is that?
15	JAKE PARKER: Exactly, without the
16	technology, you're back to a manual process where
17	you've got flipbooks of photos, posting photos on the
18	break room wall in the store or something like that.
19	People, humans, security guards, trying to do this
20	kind of recognition at scale was very difficult, and
21	I think that actually is one of the issues, I think,
22	with the language. It was mentioned that the language
23	is intended to preserve voluntary uses of the
24	technology. Well, the problem is, the way it's
25	written, it says that it's only an exception to the
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1	COMMITTEE ON TECHNOLOGY 175
2	ban if it must be used to perform that process, if
3	the technology is required and, in almost every
4	instance, it's not required, it's a way to improve a
5	pre-existing process. Stores had loss prevention
6	programs in place before, now they can do it better.
7	COUNCIL MEMBER HOLDEN: Thank you so much
8	for that.
9	CHAIRPERSON GUTIÉRREZ: Thanks, Council
10	Member.
11	Okay, my last question for this panel. Is
12	there a way or a process for a person to delete their
13	image in the same way that I had asked the panel
14	previously, and I think I read a little bit in your
15	testimony quickly.
16	JAKE PARKER: Yeah, so that's part of the
17	government's piece, I mentioned. In addition to
18	having good technology, you have the right policies
19	and procedures in place so certainly, best practice
20	here, and as far as I know, being carried out is
21	providing clear notice at customer entrances, which
22	is already the law in New York City but, also, people
23	do have to be given a means to contest their
24	enrollment in a kind of program. We certainly believe
25	that, and then there needs to be a quick response to

any complaints raised, and there's other things that 2 are key to a successful governance program, making 3 4 sure that there's strict conditions that govern the enrollment to begin with. Only authorized people have 5 access to that information, and then also that 6 7 there's adequate training of the staff that this 8 alert goes to as far as what to do in different 9 situations. Those are all things that failed in the example that was mentioned before, but I believe are 10 11 best practices out there today.

12 CHAIRPERSON GUTIÉRREZ: Thank you, and 13 then the last question is, Intro. 217, besides the limitation on identification by facial recognition 14 15 technology, requires a number of requirements, such as cybersecurity safeguards, a written retention 16 17 policy, and written consent in advance of any 18 biometric collection. Do you agree that all of those 19 requirements are reasonable and necessary? Could be a 20 quick yes or no.

JAKE PARKER: To the gentleman's point over here earlier, I think that is going to be an enormous burden on New York businesses because of how broadly that new definition would be scoped, what kinds of information would have to be subject to

1 COMMITTEE ON TECHNOLOGY 177 2 policies on retention, destruction, security, 3 control, monitoring, etc., because it has to do with 4 any data of any person, which is not just employees or consumers, but even people located outside the 5 city potentially. 6 CHAIRPERSON GUTIÉRREZ: Great. 7 ROBERT TAPPAN: I would also say, if 8 9 you're talking about places of business, the people who are not going to opt in or do that could, are 10 11 most likely shoplifters themselves. I mean the problem is that if there's a general policy that 12 13 everybody has to adhere to, then that's fine. That's 14 agreeable and reasonable but, in every situation 15 there, you can't make it onerous on small businesses 16 to have the same sort of policy that a department 17 store has. CHAIRPERSON GUTIÉRREZ: Okay. Thank you 18 19 all so much. Thank you for your patience and your 20 participation. 21 I'd like to call up our last panel, which is on Zoom, Daniel Schwarz and Hally Thornton. 2.2 23 SERGEANT-AT-ARMS: Starting time. CHAIRPERSON GUTIÉRREZ: I'll call on Hally 24 Thornton first. 25

2 HALLY THORNTON: Hello. Thank you so much 3 for allowing me to testify virtually today. Good 4 afternoon. My name is Hally Thornton, and I've been a resident of New York City for 14 years, and I'm 5 testifying today on behalf of Fight for the Future in 6 7 support of banning facial recognition in public places and residential buildings. Fight for the 8 9 Future is a digital rights organization with over 2.5 million members nationwide, including over 85,000 in 10 11 New York City. I'm a staff member at Fight focused on 12 administrative and campaign support. Our group is 13 strongly opposed to the use of technologies that 14 collect people's biometric data and store that data 15 en masse in the cloud. This includes the facial 16 recognition tools used in places of public 17 accommodation and residential buildings. Once 18 companies collect this data, we have virtually no way 19 of knowing how they'll use it. They can sell it to 20 data brokers or share it with abusive law enforcement 21 agencies. Facial recognition technology enables mass monitoring and tracking at a previously impossible 2.2 23 scale and, each time biometric data is shared or leaked, it brings us one step closer to a world in 24 which everyone is identified wherever they go and 25

privacy no longer exists. Databases of biometric 2 3 information, unchangeable bodily data, have also 4 already been hacked, posing unprecedented risks to people's privacy and safety. Industry groups will 5 claim that the data they're collecting isn't useful 6 7 to hackers or anyone else, but that's not the case. If companies create systems for identifying people 8 9 who are otherwise anonymous using facial recognition, then law enforcement, hackers, and others can abuse 10 11 and/or recreate those systems. As the New York 12 Department of Education concluded after studying the 13 use of this tech in schools, the harms of facial 14 recognition far outweigh any possible benefits. 15 Facial recognition has been banned in New York 16 schools and we urge the Council to ban it in places of public accommodation and residential buildings. 17 18 Thank you. 19 CHAIRPERSON GUTIÉRREZ: Thank you, Hally. 20 Our last panelist is Daniel Schwarz. 21 SERGEANT-AT-ARMS: Starting time. 2.2 DANIEL SCHWARZ: My name is Daniel 23 Schwarz, and I'm testifying on behalf of the New York Civil Liberties Union. We thank the Committee and 24 Council Members for holding this hearing and for the 25

opportunity to provide testimony today. Biometric 2 3 surveillance tools enable and amplify the invasive 4 tracking of who we are, where we go, and who we meet. They're also highly flawed and racially biased, and 5 I'm happy to go more in depth on that after my oral 6 7 testimony. The widespread use of these technologies 8 presents a clear danger to all New Yorkers' civil 9 liberties and threatens to erode our fundamental rights to privacy, protest, and equal treatment under 10 11 the law. The Council must ensure New Yorkers are not 12 surveilled, targeted, discriminated against, and criminalized on the basis of invasive, flawed, and 13 14 biased technology. To this end, we call for 15 prohibitions on biometric surveillance in areas of 16 severe and power imbalance, including its use by law 17 enforcement or other government agencies, in housing, 18 and in other areas where our fundamental rights are 19 at stake or where informed consent cannot be given. 20 The NYCLU supports Intro. 217 to prohibit places of 21 public accommodations from using biometric surveillance and require written consent for any 2.2 23 collection of biometric data. The face recognition deployment by MSG to target staff from law firms in 24 litigation with MSG points to Orwellian use cases 25

2 where it will be impossible to move and associate 3 freely, and the technology's racial as well as gender 4 bias risks disproportionately impacting women and people of color, such as in the misidentification of 5 a black teenager that barred her from entering an ice 6 skating rink or in that of a woman in the UK just 7 8 recently who was misidentified as a shoplifter and 9 subsequently bag-searched, asked to leave the store, and banned from all stores using the same vendor. 10 11 Raising related harms, the Federal Trade Commission, 12 as we heard, successfully brought charges against a large retailer, Rite Aid, which is now banned from 13 14 using facial recognition after similarly falsely 15 identifying consumers as shoplifters. For these 16 reasons, we support banning biometric surveillance in 17 places of public accommodation. To ensure that the 18 legislation fully meets its goals, we make detailed 19 recommendations in our written testimony. Intro. 425 20 would prohibit landlords from using biometric 21 recognition technology. 2.2 SERGEANT-AT-ARMS: Thank you. Your time 23 has expired. CHAIRPERSON GUTIÉRREZ: Oh, we have your 24

testimony, Daniel. Do you want to wrap up?

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2	DANIEL SCHWARZ: Yeah. Just in conclusion,
3	I say nobody wants to live in a world where pervasive
4	surveillance identifies them, tracks their movements
5	and associations, and impacts which places they can
6	visit, which services they can access, with whom they
7	meet, or how they exercise their free speech rights.
8	The NYCLU supports Intro. 217 and 425, and we urge
9	for this with passage. For similar reasons, we also
10	support Intro. 539 to prohibit the sharing of
11	location data with third parties. Thank you.
12	CHAIRPERSON GUTIÉRREZ: Thank you so much,
13	and we do have your full testimony. Thank you for
14	submitting that.
15	If we have inadvertently missed anyone
16	who has registered to testify today and has yet to
17	have been called, please use the Zoom hand function
18	and you will be called in the order that your hand
19	has been raised.
20	Okay, no one.
21	Thank you, everyone, for your testimonies
22	today. The hearing is adjourned. [GAVEL] Adios. Thank
23	you, everyone.
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CERTIFICATE

World Wide Dictation certifies that the foregoing transcript is a true and accurate record of the proceedings. We further certify that there is no relation to any of the parties to this action by blood or marriage, and that there is interest in the outcome of this matter.



Date July 6, 2024