

CITY COUNCIL
CITY OF NEW YORK

----- X

TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE OF TECHNOLOGY

----- X

JANUARY 19, 2021
Start: 1:03 P.M.
Recess: 3:24 P.M.

HELD AT: REMOTE HEARING (VIRTUAL ROOM 2)

B E F O R E: ROBERT F. HOLDEN, CHAIRPERSON

COUNCIL MEMBERS: COSTA G. CONSTANTINIDES
BRAD S. LANDER
ERIC A. ULRICH
PAUL A. VALLONE
KALMAN YEGER

A P P E A R A N C E S (CONTINUED)

JOHN PAUL FARMER, Chief Technology
Officer for City of New York

KAMAL BHERWANI, Chief Executive Officer
of GCOM

STEFAN VERHULST, Co-founder of GovLab or
Governance Laboratory

JEANINE BOTTA, affiliated with Noise and
Health Committee

NOEL HIDALGO, BetaNYC

ALBERT FOX CAHN, Founder and Executive
Director of Surveillance Technology
Oversight Project (S.T.O.P.)

DANIEL SCHWARZ, NYC Liberties Union

CLAYTON BANKS, Chief Executive Officer
Silicom Harlem

2 SGT. KOTOWSKI: The PC recording is
3 started. Could you please start the cloud?

4 SGT. BIONDO: Cloud is started.

5 SGT. PEREZ: Backup is rolling.

6 SGT. KOTOWSKI: Sergeant Jones could you
7 give us the opening please?

8 SGT. JONES: Yes, good afternoon everyone
9 and welcome to today's remote New York City Council
10 Hearing of the Committee on Technology. At this
11 time, would all panelists please turn on their
12 videos? And to minimize disruption, please place
13 electronic devices to vibrate or silent and if you
14 wish to submit a testimony a testimony you may do so
15 at testimony@council.nyc.gov and again that is
16 testimony@council.nyc.gov and thank you for your
17 cooperation and chair, we are ready to begin.

18 CHAIRPERSON ROBERT HOLDEN: Great, thank
19 you so much. (Gavel pounding). Good afternoon, I am
20 Council Member Holden, Chair of the Committee on
21 Technology. I want to welcome you all to our hearing
22 today. Um, we will focus on Smart City's Technology.
23 We live in a rapidly changing world where Smart
24 Cities are becoming a new normal connecting our
25 physical world and the digital world. People often

2 ask "What is a Smart City?" well, um while the answer
3 is not always clear cut Smart City technology could
4 affect many aspects of the City Operation including
5 Mass Transit, Sanitation, Waste Management and Public
6 Safety. It could be everything from big data, mobile
7 applications from government services to the internet
8 of things or IOT such as sensors, cameras, smart
9 meters, trashcans and even self-driving cars. The
10 concept of Smart City Technology provides innovative
11 solutions to old problems such as congestions,
12 parking, waste and energy management as well as
13 efficient distribution of government services.
14 Whether we like it or not, the sudden emergence of
15 the Coronavirus Pandemic has created a need for all
16 industries and especially cities to pivot toward
17 digital transformation. With the growing innovative
18 technology there will be a day when we will see a
19 more digital New York. A New York where residents
20 will be able to pay their parking ticket, make a
21 complaint about garbage collection, improving booking
22 of appointments for City Services like SNAP and tax
23 exemptions, find out about tax exemptions and most
24 pressing today, find and book the nearest appointment
25 for the COVID-19 vaccine, all at your finger..., your

2 fingertips. On that note, I recently participated in
3 a joint press conference with the City's Public
4 Advocate, Jumaane Williams, Manhattan Borough
5 President, Gail Brewer and Data NYC criticizing the
6 vaccines rollout in the City. We highlighted the
7 issues with vaccinefinder.nyc and the fact that the
8 website was time-consuming, not entirely efficient
9 and basically just a glorified store located. We also
10 learned that several tech talents in the City and
11 City Government were not asked to contribute to the
12 rollouts back-end portion. If we are to declare war
13 on the COVID-19, we must embark on wartime efforts.
14 These efforts should have involved using the bright
15 minds that we already have in technology in and out
16 of government to create a portal in which those who
17 qualified for vaccines could locate a vaccine center
18 and booking requirement all within three steps or
19 less. The City continues to lag and this is
20 unacceptable. Smart City Technologies collect and
21 analyze a massive amount of data on city residents.
22 That of course, comes with privacy and security
23 concerns. Privacy and security risks, privacy and
24 security risks are essential but might not be
25 eliminated entirely. Um, however, we should make sure

2 that those issues are mitigated by implementing the
3 proper technology, um, to protect the sensitive
4 information. We should ensure that the benefits
5 provided by Smart City Technology outweigh the costs.
6 This technology is being implemented today and will
7 be used in the future. Understanding what this
8 entails, including what technologies exist, um, the
9 benefits of their use and the utilization risks are
10 critical for New York City. I wish to work together
11 with the Administration on this important issue and
12 look forward to hearing the valuable testimonies from
13 the industry experts, Academia and community
14 advocates. Um, we are joined by Council Member Yeger
15 and Council Member Eric Ulrich. Um, I wish to thank
16 our Technology Committee Staff, Counsel Irene
17 Bahoskie (SP?), Policy Analyst, Charles Kim and
18 Finance Analyst, Florentine Kabore, um, for their
19 hard work in preparing for this hearing. Also my
20 Chief of Staff, Daniel Kurzyna and Communications
21 Director, Kevin Ryan. Now, I will turn it over to the
22 Committee Counsel, Irene Bahoskie (SP?) who will go
23 over procedural items for this hearing.

24 IRENE BAHOSKIE, COMMITTEE COUNSEL: Thank
25 you Chair Holden, I am Irene Bahoskie the Counsel to

2 the Committee on Technology and I will be monitoring
3 this hearing. Before we begin, I would like to
4 remind everyone that you will be on mute until you
5 are called on to testify, at which point you will be
6 unmuted by the host. Please be aware that there
7 could be a delay in muting and unmuting, so please be
8 patient. I will be calling on panelists to testify.
9 Please listen for your name to be called as I
10 announce the panelists. We will be first hearing
11 testimony from the Administration, followed by
12 testimony from members of the public. During the
13 hearing, if Council Members would like to ask
14 questions of the Administration or a specific
15 panelist please use the Zoom Raise Hand Function and
16 I will call on you. You will, we will be limiting
17 Council Member questions to five minutes which
18 includes the time to take the answer the question.
19 Also, please note that all panelists aside from those
20 from the Administration will be limited to a five-
21 minute timer so that we might accommodate all who
22 have registered to testify. When you are called to
23 testify, please state your name and the organization
24 you represent for the record. We will now call the
25 representative from the Administration to testify.

2 We will be hearing today testimony from John Paul
3 Farmer, Chief Technology Officer of New York City. At
4 this time, I will administer the affirmation. Do you
5 affirm to tell the truth, the whole truth and nothing
6 but the truth before this Committee and to respond
7 honestly to Council Member question, questions? Mr.
8 Farmer?

9 JOHN PAUL FARMER: I do.

10 IRENE BAHOSKI, COMMITTEE COUNSEL: Thank
11 you. You may begin when ready.

12 JOHN PAUL FARMER: Thank you Irene. Good
13 afternoon, Chair Holden and Committee Members. I am
14 John Paul Farmer the Chief Technology Officer for the
15 City of New York. I am pleased to be back to discuss
16 the topic of Smart Cities and New York City's leading
17 role in shaping the use of emerging technologies to
18 benefit residents. "Smart Cities" is a term used
19 differently by various cities and organizations
20 engaged in the field. In terms of New York City's
21 efforts in this field, my focus today will be on the
22 City's work in the area of the Internet of Things or
23 IOT. Where New York City leads nationally and
24 internationally, further opportunities and challenges
25 for the City are expected as this new set of

2 technologies continues to develop and grow in use.

3 In addition to encompassing different priorities for
4 different cities, the term "Smart Cities" also

5 evolving as technology develops further, so does what

6 it means to be a "Smart City." That's why a City

7 must continually be evaluating, modifying and

8 improving its infrastructure, initiatives and

9 approaches in order to carry the banner of a Smart

10 City. The Mayor's office of the CTO has focused on

11 building and improving the connectivity

12 infrastructure that is needed, that is absolutely

13 necessary to operate as a Smart City. We have

14 developed the framework for how the City can use this

15 connectivity to employ and deploy the emerging group

16 of technologies known as the Internet of Things. At

17 the beginning of Mayor de Blasio's Administration, he

18 set forth the goal of bringing universal broadband to

19 New York City which led to the development of the

20 first ever comprehensive municipal broadband planning

21 roadmap, the New York City Internet Master Plan which

22 was issued in 2020. In the Internet Master Plan the

23 City identifies the neighborhoods in which

24 infrastructure of the City needs to build and attract

25 broadband development in order to averse the digital

2 red lining that has existed for far too long across
3 the five boroughs. Equitable connectivity is a
4 foundational component to being a Smart City. Now,
5 why is it critical? It is critical because wide
6 spread availability of broadband is necessary to
7 connect the devices, sensors and systems that make up
8 the Internet of Things. Without widespread
9 connectivity, communities are unable to fully use
10 these new IOT technologies, unable to receive new
11 services and may be underrepresented in key datasets
12 that the City uses to inform its actions. The City
13 is about to issue its first comprehensive Smart City
14 Plan, the New York City IOT Strategy which will
15 provide the framework for the use of IOT in the City.
16 The IOT strategy builds on a multi-year body of work
17 from the Mayor's Office of the City including the IOT
18 guidelines that were issued in 2018 and a series of
19 engagements of the Tech Industry including challenges
20 and pilots with other City agencies as well as
21 policies developed as part of a multi-City, um,
22 multi-agency IOT working group. The Mayor's Office
23 of the CTO has taken these actions because we
24 recognized that IOT represents a constantly evolving
25 set of technologies that the City can and should use

2 to create more accurate, localized and real-time data
3 which will help the City increase operational
4 efficiencies, make more impact and more
5 representative policy decisions. Often IOT devices
6 are deployed to monitor a set of environmental
7 conditions that when compiled into a dataset will
8 provide never before collected perspectives. One
9 example of these technologies is the deployment of
10 sensors on City vehicles to monitor air quality in
11 neighborhoods in order to provide information on the
12 impact of traffic flow, times of day or weather
13 conditions. Another example, is the use of sensors
14 to measure tides and water flow to help the City
15 improve its flood mitigation planning and better
16 target its resiliency efforts. In addition to
17 providing new information, it insights a key feature
18 of these IOT device systems is that they can provide
19 real-time data which allows users to understand
20 changes in conditions, on a day to day or a week to
21 week basis. In the New York City IOT Strategy, the
22 City recognizes the significant opportunity that it
23 has to ensure data produced from IOT are
24 interoperable with other datasets creating systems
25 for sharing data, ensuring the compatibility will

2 exponentially increases the ability of the City to
3 understand up to the minute conditions and take the
4 appropriate actions. Not only will that allow
5 agencies to target operations to the most critical
6 and influential actions, it will increase efficiency
7 and ultimately lower costs. One way that IOT device
8 deployment help New York become a Smarter City is by
9 making possible greater understanding of conditions
10 at this hyperlocal, neighborhood level. For instance,
11 devices may be deployed to understand the impacts of,
12 of traffic patterns on temperatures in the
13 neighborhood, how that is distinct relative to its
14 geographic conditions and communities too may benefit
15 from understanding this type of hyperlocal
16 environmental data generated by these devices because
17 they can often be shared with the public. As, with
18 all new technologies, it is critical for the City to
19 have a framework that builds a coordinated system,
20 maximizes benefit for New Yorkers, protects the
21 digital rights of residents and ensures continued
22 relevance as technology develops. As the market
23 produces new IOT devices that can assist in the
24 City's work, agencies need a framework that can
25 accommodate new categories of devices, functions,

2 applications, matching their areas of work. The NYC
3 IOT strategy balances these priorities and provides
4 the City with a vision that will help and serve its
5 people ever better and continue to evolve as a Smart
6 City. I would be happy to take your questions on
7 submerging body of work in New York City's ongoing
8 leadership in the field. Thank you.

9 CHAIRPERSON ROBERT HOLDEN: Okay, thank
10 you Mr. Farmer and um, I got a few questions and then
11 I'll turn it to some of um to some of my colleagues.
12 Oh, by the way we've been joined by Council Member,
13 one of my Queens colleague, Paul Vallone. Um, Mr.
14 Farmer, one of your initiatives you mentioned and you
15 touched upon the Universal Broadband. We had a
16 separate hearing on Broadband in October. Can you
17 update us on the progress, like the million dollar
18 question, when can we expect to get it?

19 JOHN PAUL FARMER: Of course, um, thank
20 you Chair Holden for that question. As you know, as
21 I made clear in my testimony, as from all of our
22 conversations previously, you know how much I care
23 about and how focused my office is on Universal
24 Broadband. It is a problem that has been created over
25 decades and it takes, um, an all hands on deck

2 approach to solving it. Um, we are, we are doing
3 that, the Intern Master Plan is the framework. We
4 made progress with the RFDI and we've worked with
5 NYCHA and EDC on 2020, results from that are coming
6 very shortly. Um, and then we will be releasing in
7 February the RFP. The Universal Solicitation for
8 Broadband that we committed to when we released the
9 Master Plan that the Mayor has double down on and
10 that will come in February and that is going to
11 invite in everyone. Um, companies big and small,
12 community organizations. It is going to put the
13 assets of 17 different City agencies on the table so
14 that we can leverage these assets to ensure that we
15 get the equipment in place and the infrastructure in
16 place to serve particularly underserved neighborhoods
17 but also make everyone with more low cost affordable.

18 CHAIRPERSON ROBERT HOLDEN: So, your best
19 guess on when you could say that we will have
20 University Broadband in the City, do you have a
21 month? Do you have a number?

22 JOHN PAUL FARMER: Um, I don't have a
23 month as of yet. Yeah, the simple answer is I don't
24 have a month. I know the Mayor has previously said
25 2025 is a target. This is going to happen step by

2 step. This is going to happen step by steps where
3 you are taking chunks out of the problem at a time
4 and we will start with our um announcement on the
5 RFEI results which will take out a chunk specifically
6 of NYCHA households, um, that will suddenly be
7 connected to affordable broadband they did not have
8 before. And then throughout 2021 we will be taking
9 out more and more chunks from, um, the two large size
10 of a population that is current unconnected and then
11 that will continue in the New Year ahead.

12 CHAIRPERSON ROBERT HOLDEN: So, it will
13 be rolled out in certain areas of the City little by
14 little, that's how it's going to be.

15 JOHN PAUL FARMER: That's right, and we
16 are prioritizing and working with the Task Force on
17 Racial Inclusion and Equity. We are prioritizing the
18 neighborhoods that the Administration has identified
19 as particularly in need. Obviously, during COVID we
20 have seen just how absolutely essential having a
21 connection is. It is necessary to get healthcare. It
22 is necessary to continue doing your job in many cases
23 and it is going to be necessary as people reskill and
24 retrain and enter the workforce perhaps in different
25 lines of work and that's why, why we are so, so

2 focused on the issue and prioritizing the communities
3 that need it the most.

4 CHAIRPERSON ROBERT HOLDEN: Okay, you
5 mentioned in your testimony, yet you have an IOT
6 working group. Um, who is on this? Who leads it?
7 What agencies are involved in this group?

8 JOHN PAUL FARMER: Um, so, my office, the
9 Mayor's Office and the CTO has convened this IOT
10 working group and there are, I want to say over a
11 dozen different agencies involved, Department of
12 Transportation, Department of Sanitation, Mayor's
13 Office of Resiliency. It is a list that I would be
14 happy to share with you.

15 CHAIRPERSON ROBERT HOLDEN: Okay, yeah, I
16 would like to see that because I didn't know that you
17 had one, you know, at least got a, at least we are
18 getting, we are you know getting somewhere now. What,
19 by the way, what's that, to modernize the City's
20 Technology, the infrastructure considering the
21 pandemic? Have we done anything differently since
22 the pandemic?

23 JOHN PAUL FARMER: Are you specifically
24 asking about IOT?

2 CHAIRPERSON ROBERT HOLDEN: Yeah, like
3 the technology to keep up, you know, to serve, to
4 actually gain a foothold against the pandemic, like
5 you know we talk about in my testimony, I talk about
6 we have to get into a wartime mentality against the
7 COVID. Have you done that? Have you done like, have
8 you sped up things that would have taken a while to
9 do?

10 JOHN PAUL FARMER: It's a good question
11 and ultimately when you think about Internet Things
12 Technology you think about what a Smart City is all
13 about, at the core of this data. Um, when we talk
14 about devices, the devices exist in order to provide
15 data in a real time nature, granular, hyperlocal that
16 can be actionable for the City and sometimes that
17 action takes place automatically, sometimes it just
18 conforms City decision making. Um, that's the place
19 where we focus during the pandemic is on being more
20 data informed, data informed, everything from PPE
21 stock on a real time basis to understand back in the
22 springtime where we were low, where we were doing
23 okay, what procurements were underway? Deliveries
24 that were expected in the coming days as well as
25 estimating demand. So, that kind of data awareness

was something that was really essential during the peak of New York City's experience with the pandemic in the spring of 2020. We also worked with private companies and universities on the data they had. Some of that was produced by Internet Things Devices by connecting devices. An example of that is um, mobility data, so, Facebook for example has mobility data that they shared with certain academic researches. We then worked with the academic researches to understand, again, in close to real time where we were seeing more movement, in aggregate sense, this is not personal identifiable information, this is aggregated data to understand where in the City, um, during the initial phases of stay at home orders, etc. we were seeing more activity or less activity and that helped us direct our interventions, our messaging to understand whether we needed to get messaging out in different languages for example, to reach certain communities, shows an example of leveraging the data that comes out of Internet of Things Devices to make the City more responsive more quickly and target our resources where it has the greatest impact.

2 CHAIRPERSON ROBERT HOLDEN: Regarding
3 going back to the IOT work group or task force, what
4 is the goal of the group? What's your, you set up a
5 series of goals and um, can we get, can we see the
6 meeting agenda for, for how it is being placed and so
7 forth?

8 JOHN PAUL FARMER: Sure, I, I don't have
9 that information with me right now, Chair Holden but
10 I am happy to get that to you in terms of the
11 frequency of meeting and again the full list of, um,
12 who has been involved. Um, in terms of the goal, the
13 goals are pretty straight forward and that is to
14 encourage the healthy use of IOT. We recognize that
15 these are technologies that would be incredibly
16 beneficial to health agencies, meeting their missions
17 and serve New Yorkers better. We also recognize that
18 it needs to be done in the right way. It needs to be
19 done in a way that protects people's privacy,
20 certainly, um, focus on cyber security, ultimately
21 the full range of digital rights that we care about
22 making sure those are looked after and protected, so,
23 we view our role as a, a convener, a coach in some
24 ways, helping to coach agencies with the expertise
25 that the Mayor's Office and the CTO has, to share

2 that with them and make sure that they understand the
3 best practices and then ultimately, this is a network
4 of people and organizations that have, have equity,
5 have interest in this issue and are going to get
6 tabled as new policies get developed and as I
7 mentioned in my testimony, this is an evolving space,
8 the technology is evolving, the field is evolving,
9 and as new best practices come about or new
10 technologies come to the forefront we need to make
11 sure that we have the right policies in place and the
12 IOT working group is a, is a key part of informing
13 that.

14 CHAIRPERSON ROBERT HOLDEN: Um, just in
15 looking at the City Agencies, um, adapting to the
16 remote work environment you have seen during the
17 pandemic. Um, which agencies that you looked at are
18 doing the best job with that? For the remote
19 environment, would you say?

20 JOHN PAUL FARMER: I am actually very
21 proud of the work that the City of Rolla has done to
22 adapt to remote, um, if you guys as most of you know
23 this was not the standard way that a New York City
24 Government operated. Most work was done in person in
25 offices, um, a lot of offices really didn't have

2 policies in place or, um, assistance in place to
3 support real work and, um, it's something that my
4 office, um, I think we may have been the first office
5 to go, to go all remote during the very beginning of
6 the pandemic in New York. Um, and then we spent a
7 lot of time supporting other agencies and making sure
8 that, um, they were learning whatever best practices
9 we knew about and we were bringing in resources from
10 outside from various companies that could help
11 support agencies as they, as they made that
12 transition. In terms of a specific agency, I don't
13 know that it is that clear that some are doing so
14 well and some are doing not so well, I think overall,
15 um, it's, it's worked quite well and we've seen that.
16 There may have been varying speeds of how fast
17 agencies got to a place of comfort with remote work
18 but at this point my understanding and what I am
19 hearing is that it is working, it is working well for
20 a lot of agencies, um, but obviously if there is any
21 need for us to be a support, we are always here and
22 do our best to make sure that our policies are met.

23 CHAIRPERSON ROBERT HOLDEN: Yeah, but I, I
24 would think that you would say some agencies have
25 adapted better than others, um, because of just who

2 they are sometimes what they have going for them or,
3 or their staff and you know just evaluating staff to
4 how they perform remotely or should they you know, is
5 there somebody looking at this thing, well, this
6 agency shouldn't be working remotely, this agency
7 could work, um, in a central location with a social
8 distance, I mean who is deciding that? Is the Agency
9 deciding it or are you deciding it? Um, who is
10 overseeing it?

11 JOHN PAUL FARMER: It's, it's a good
12 question, I do agree with that you said in that some
13 functions are simply easier to do remotely than
14 others and we recognize that inspections for example,
15 some do retro-inspections, maybe there are certain
16 aspects of the job that you can do remotely but some
17 you have to be in person, you got to do the
18 inspection in person. Um, our job, we don't view our
19 role as the Mayor's Office and CTO as oversight or
20 auditing in most cases, it's generally that we
21 provide expertise and support when, when requested,
22 so we've, we've done that, we've got framework for
23 how we are going to think about the technologies and
24 understand and best practices for how to use them but
25 I don't view our role as checking up on a regular

2 basis with the dozens and dozens of offices and
3 agencies to see what their, their current status is.

4 CHAIRPERSON ROBERT HOLDEN: Whose role
5 then would, would that be in government?

6 JOHN PAUL FARMER: Well, ultimately, it's
7 the job of each agency and the commissioners and lead
8 those agencies to make sure that things are working
9 and if they need help they make that known, um,
10 whether that relationship would meet and they reach
11 out directly to me or maybe they reach out to City
12 Hall and their Deputy Mayor and, and make that known
13 in which case that, the folks in City Hall will pull
14 in the right part of the Administration, whether
15 that's my office or another, um, to, to help provide
16 that service but ultimately we have to place some
17 trust in the personnel and the leadership that we've
18 got in the agencies.

19 CHAIRPERSON ROBERT HOLDEN: Are there any
20 particular new technologist, um, that the City
21 invested in to make government more accessible in
22 this new environment, um, because you know, just,
23 just a roll out of the, I mean I was critical of the
24 website on the vaccine website because I think, um,
25 you know that we got a lot of complaint, so every

2 Council Office got complaints, especially from
3 seniors but anybody trying to find a vaccine um. So,
4 have we invested in new technology since the pandemic
5 to really, have a better working City?

6 JOHN PAUL FARMER: Well, I think part of
7 what we are talking about here today with IOT is,
8 some of these are new investments, looking at air
9 quality sensors, looking at flood monitoring, um, we
10 have also done that we just talked about, remote work
11 requires a whole new set of technologies that hasn't
12 been used before, so you look at, we are using Zoom
13 right now, um, we use Microsoft Teams every single
14 day to connect with our colleagues and hold meetings
15 in ways that we couldn't, we couldn't do before. Um
16 in terms of the moment right now where we look at,
17 um, the vaccine and the vaccination process, at the
18 root of this we need to recognize that as the Mayor
19 has pointed out, we as a City need to receive more
20 doses of the vaccine from the Federal Government.
21 Um, that is ultimately what is needed. In terms of
22 the technology, the role of technology in supporting
23 this, we need to make sure that we got a user center
24 experience and that is true of everything that we do.
25 Got to make things as easy as possible for New

2 Yorkers. Sometimes there are rules that are given,
3 that are given to us that make that tough that
4 require some amount of, um, intonation, neglect and
5 some verification and when you look at what is going
6 on right now with the, the, um, the way people need
7 to, um, attest that they are in the group that is
8 qualified to receive vaccination right now. That
9 requires a certain amount of, um, of red tape if you
10 want to call it that and the best solution to this is
11 for us to receive more doses of vaccine because
12 ultimately this is not getting in arms, it is about
13 making sure that New Yorkers are protected. We are
14 fortunate that we've got a lot of expertise around
15 New York City Government in this space. I appreciate
16 the letter where you pointed out a number of those
17 different groups that have expertise and when we look
18 at all of the work that the City needs to be doing,
19 um, from the kind of tippy front to Universal
20 Broadband to resiliency and climate change to how we
21 deliver healthcare, all of those are important and we
22 need to make sure that we are dividing and conquering
23 if you will, but also that we are available, that our
24 skills and knowledge is available to our colleagues
25 and I am confident that they know it is and that the

2 right people are being pulled in to conversations to
3 make sure that we deliver a user-centered experience
4 which is what New Yorkers deserve.

5 CHAIRPERSON ROBERT HOLDEN: But you
6 understand the frustration? Have you used that
7 vaccine finder? I, I guess you have or your staff
8 has? Have you pointed out some problems with it
9 because I have? I've used it and I've asked a lot of
10 people and most, across the board people are
11 frustrated.

12 JOHN PAUL FARMER: I hear you and I have,
13 I have gone to it, I am not eligible for the vaccine
14 so I have not had a need to sign up anywhere, um, but
15 I looked at how it works and, um, I think this is
16 always going to be a challenge when you are dealing
17 with a distributed network of providers and so
18 there's, there's that balance of how do you do
19 something quickly that allows people to use it, you
20 know as soon as the vaccine is re-available with the
21 question of depth and sophistication and complexity
22 and, um, I'm sure the people that worked on it took
23 in to account the various options and went with what
24 they thought was best but they are also hearing the
25 feedback. You know, they are hearing the feedback

2 from you and from others and, um, and I'm confident
3 that they are making the appropriate adjustments.

4 CHAIRPERSON ROBERT HOLDEN: Yeah, but was
5 the CTOs office, your office involved in the user
6 sender experience? Um, because you can see the
7 problems with it. Um, have you identified user
8 problems as I have, where you go up and you go to a
9 third-party and you fill out pages and pages of
10 information only to find that you are at a dead end,
11 but you've wasted sometimes a half hour on each
12 location, a half hour and you know you, you, in a
13 world we shouldn't, in the technology world we have
14 the technology to make it easier, not harder. We are
15 making it harder with this site. Um, so if you went
16 through it, you know was your office involved in the
17 creation of it or at least helping out with that?

18 JOHN PAUL FARMER: No, we were not
19 involved and..

20 CHAIRPERSON ROBERT HOLDEN: Bingo.

21 JOHN PAUL FARMER: This is something that
22 other agencies have been leading.

23 CHAIRPERSON ROBERT HOLDEN: Right, see,
24 see, that's, that's my problem here that we could
25 make it easier. You are obviously the CTO, a wealth

2 of the experience, you could, um, you could critique
3 this site, say you know this is not working or even,
4 I think that the Administration should have said
5 look, we are going to get the vaccine in two months,
6 we've got to prepare for this, come up with how to
7 administer it, how to, you know what technology we
8 can use to help out and get it, you know get it to as
9 many people as possible and let's plan this. I
10 looked at that and I described it and had, um, design
11 professionals look at it, it is nothing more than a
12 glorified store locator which is what I said and it
13 often left you high and dry, like I filled out, I
14 went to a third-party site, I guess it was, um, and I
15 filled out all of my information and in the end they
16 said you are not eligible for the Moderna vaccine, I
17 didn't ask for the Moderna vaccine. I just asked for
18 a vaccine because I am over 65 and if I am having
19 problems and I know somewhat about technology. If I
20 am having problems, what about somebody who has no
21 experience in doing this, I mean are you hitting your
22 head against the wall.

23 JOHN PAUL FARMER: I, I absolutely hear
24 you loud and clear.

2 CHAIRPERSON ROBERT HOLDEN: I don't want
3 to beat a dead horse here but, but this important
4 that we get this right. We still have to vaccinate a
5 heck of a lot of people here, we should have the
6 technology, like eventually I am talking about a
7 portal that will do all of you, your one stop
8 shopping in New York City you know, like I mentioned
9 in my testimony, I don't want to repeat myself but
10 this is something that, that is basic stuff and,
11 somebody to you, somebody that is in technology so
12 you must be frustrated. I, I don't want to get you in
13 trouble but you must be frustrated with this?

14 JOHN PAUL FARMER: Well, let me just say
15 I, I agree that this is an important issue and it is
16 one that we all care about. We care about it for
17 ourselves, for our communities, for our City, for our
18 families, um, and we want to make sure that it is
19 done right. Ultimately, this is something that I am
20 happy to bring back, um, your concerns and make, make
21 sure that my colleagues are aware, ultimately and
22 when you look at how the City operations we are one
23 team, one office among many and we do our best to
24 support the good work of others, um, if there is a
25 role, a larger role for us to play we are certainly

2 open to it but ultimately I think that the best I can
3 do is to bring us back, um, and make clear to my
4 colleagues your point of view.

5 CHAIRPERSON ROBERT HOLDEN: So, if you
6 are not involved with it, that, um, site and if you
7 didn't have anything to do with it, who, who is
8 responsible for receipt of that? Is it just health
9 and hospitals? Um, who is doing it? Who is
10 overseeing it?

11 JOHN PAUL FARMER: I, I can check and I
12 can get back to you. I, um, I don't have the.

13 CHAIRPERSON ROBERT HOLDEN: See, well
14 that's, that's alarming when CTO doesn't know who is
15 overseeing this.

16 JOHN PAUL FARMER: Well, I, well I don't
17 want to misspeak and I don't want to leave someone
18 out that is important to mention or vice versa, but
19 ultimately as I pointed out we are an organization
20 that exists to support agencies so they can do their
21 jobs better, so they can un... have access to expertise
22 and frameworks that allows them to, um, achieve their
23 mission. So, in terms of monitoring and oversight,
24 there may be cases where that is something that we

2 are asked to do but our day to day, that is not the
3 relationship that we have with most other agencies.

4 CHAIRPERSON ROBERT HOLDEN: Yeah, um, are
5 we measuring dissatisfaction with services that
6 agencies are delivering? Just not only on this
7 site, but do we measure that? Do we have
8 questionnaires that somebody is looking at, um, to
9 critique? I critique that site obviously, publicly
10 and I think the Public Advocate did and the, um, and
11 the Manhattan Borough President did, um, and I think
12 others have but do we measure, just broadly, how are
13 we measuring New Yorker's satisfaction with services
14 and agencies are delivering.

15 JOHN PAUL FARMER: Well some agencies,
16 for some of their services have questionnaires that
17 are online that are part of the process and it is
18 important not to gum up the works with too much of
19 that because you want people to get a service
20 quickly. I want to get enough feedback but not
21 overdo it, not force everyone to provide feedback all
22 the time where you are creating a burden for it.
23 Um, some agencies have that in place and use it
24 pretty well there might be opportunities to do more
25 of that. We are also thinking about analytics so how

2 can we actually infer feedback, infer how well
3 something is working without having someone spent 30
4 or 60 or 90 seconds of their time doing a survey.
5 And so looking at analytics on our websites, and
6 being to follow the user experience, re-create the
7 user experience, identify any areas for improvement
8 that's something that we are prioritizing. Okay,
9 you've spoke about ensuring trust with the community.
10 One of the projects that we heard about is labeling
11 IOT, Internet of Things devices that are installed on
12 street furniture. Are you labeling any, um, are you
13 labeling, how many devices did you label in the,
14 street furniture?

15 JOHN PAUL FARMER: Yeah it's a good
16 question, it is a good point that you are bringing up
17 which is that trust is so important, that we got a
18 new technology that is being deployed. A lot of
19 times, you know New Yorkers see something and they
20 understand the value that it brings to them and
21 sometimes there can actually be two conspiracy
22 theories and other distrust of technology or distrust
23 of government. We want to make sure that we are as
24 upfront as possible, as pure as possible with why
25 something new is in someone's community, so that they

2 can quickly and concisely understand the method it
3 has or maybe start looking at something, show them
4 somewhere online where they can go to learn more.
5 So, 1) this can spur interest from high school kids
6 who might then get interested in this technology and
7 go and delve in it a little more, which is great.
8 But 2) it just makes clear to people why it is there
9 and we are, we are currently looking, um, to start
10 this quarter, a pilot with, um, the Mayor's Office of
11 Resiliency on flood monitoring and that is moving
12 into the first example or at least the first example
13 of scale where we are labeling, um, the devices and
14 assessing the response from people in the community
15 in terms of how useful you find that.

16 CHAIRPERSON ROBERT HOLDEN: So, you
17 haven't labeled anything yet?

18 JOHN PAUL FARMER: Um, so some things
19 have been labeled in the past but doing it half scale
20 and standardizing the process, this is the beginning
21 of that process.

22 CHAIRPERSON ROBERT HOLDEN: I get calls
23 from constituents all the time. There is a box on
24 the pole out in front of my house, I'm afraid of it,
25 some people say, "oh its 5g it is going to give me

2 cancer." You know you hear all of these things but I
3 think if we had some kind of just a little small sign
4 or some label or whatever, so people can know what
5 the heck this is outside the home.

6 JOHN PAUL FARMER: Yeah.

7 CHAIRPERSON ROBERT HOLDEN: Or what is
8 that on the pole, um, you know all sorts of rumors go
9 around um, as you know with social media. So this
10 is, so this is, um, at least we should do this and
11 um, I just, um, could you please speak about pilot
12 program with MIT called City Scanner, can you give us
13 an update on that?

14 JOHN PAUL FARMER: So, City Scanner has
15 gone well. That's a pilot program that we launched in
16 early 2020 with the Bronx Citywide Metric Services
17 managing the fleet vehicles for dozens of agencies
18 and MIT, so the Massachusetts Institute of Technology
19 and we used MIT that they built to put that on to
20 fleet vehicles that are operated by, by DCAS and,
21 and, um, and to check and see how useful this really
22 was. And the initial, um, the initial data that we
23 got showed where it looked like roughly 100,000 data
24 points in the course of a couple, in the course of a
25 month and those 100,000 data points should compare to

2 the traditional way of measuring air quality which is
3 I believe is a dozen static sensors in 12, in 12
4 places in the City. They don't move. They are in
5 the same place and you get a very limited number of
6 data points obviously there. We got 100,000 that
7 were block by block, um, timestamped so we can create
8 much more granular understanding of the air quality
9 in communities and that is really important because
10 it allows us to understand, um, that not every block
11 in the Bronx is experiencing the same thing at the
12 same time and the more we understand where the
13 challenges are in air quality the more we can then
14 address it. We can zero in on what may be causing
15 it, whether it be traffic, pollution or some kind of
16 factory of sorts. Whatever the cause is, the hyper-
17 granular data that the City Scanner pilot has given
18 us is, is really, really useful and the second phase
19 of that is now underway because we saw the success in
20 the first phase in the pilot experience and now we
21 are doing more of it, um, with the same partners of
22 DCAS and MIT.

23 CHAIRPERSON ROBERT HOLDEN: If you have
24 environmental sensors on city vehicles that you are
25 using, um, that can measure not only the air quality

2 or just efficiency, is that being done? I think you
3 mentioned that once before?

4 JOHN PAUL FARMER: Well, yeah so that's
5 what I'm describing now, is the City Scanner.

6 CHAIRPERSON ROBERT HOLDEN: Okay, so, I
7 is on City vehicles. So, they are on vehicle they are
8 not on street furniture.

9 JOHN PAUL FARMER: That's right, they are
10 on vehicles and that is actually how we can get such
11 good coverage is that they are driving down just
12 doing their jobs, this isn't even sending it
13 somewhere, just by the nature of these vehicles doing
14 their jobs, people driving around the City you can
15 collect data on so many different blocks of the City
16 at different times of day and then those datasets are
17 just incredibly rich in a way that never happened
18 before.

19 CHAIRPERSON ROBERT HOLDEN: Are we going
20 to see like the release of data on this project?
21 From this project?

22 JOHN PAUL FARMER: Yeah, I would expect
23 that. I would expect that. So, um I don't know if we
24 will release the entire raw dataset, we need to clean
25 it and so for example if you've got different

2 vehicles in different places, we need to sort it out
3 and make sure the, that we can create a longitudinal
4 dataset that makes more sense, um, to the user and
5 um, we will expect that we will be releasing, um, the
6 right parts of it as open data. That's, that's
7 certainly part of what we believe in, the City of New
8 York believes in and we intend to do that.

9 CHAIRPERSON ROBERT HOLDEN: So, the data
10 will be available on the open data portal?

11 JOHN PAUL FARMER: Yes, I can commit to
12 it that a form of it will be available. Yes.

13 CHAIRPERSON ROBERT HOLDEN: Okay, because
14 that would be something that I am interested in,
15 everybody is about the, um, certainly the environment
16 and we are able to consult. So, you know one of the
17 strategies that you mentioned was join the Cities
18 Coalition for Digital Rights, what is your
19 involvement in the City's Coalition for Digital
20 Rights Organization?

21 JOHN PAUL FARMER: I'm glad you brought
22 that up, it's, and it's an important organization.
23 It is one that New York City co-founded along with
24 Amsterdam and Barcelona and for the last, um, two
25 years the cities who have been growing it, have been

2 signing on additional member agencies from around the
3 world, we now have over 50 cities worldwide, um, from
4 a bunch of different continents that have signed on
5 because they care about digital rights and these are
6 human rights in the internet age, the one that gets
7 talked about the most, well, the two that gets talked
8 about the most would be privacy and cybersecurity.

9 Um, those are absolutely important ones, there are
10 also principals there around transparency and
11 accountability, so a bunch of openness, a bunch of
12 other things that, that are really important too and
13 we have to recognize that sometimes these principals
14 can be intention with one another. That, to
15 maximize the privacy for example, might mean not
16 doing open data. Um, to maximize cybersecurity might
17 mean you actually lose some of the effectiveness or ,
18 or the equity and so balancing these digital rights,
19 making sure that you are protecting the needs and
20 interests of, of New Yorkers is something that we
21 care a lot about and really happy to see that so many
22 other cities around the world are thinking about the
23 same issue and really other than share best
24 practices, share ideas, share approaches with them
25 and return looking at experiments that are being done

2 in, um, in these different cities to understand how
3 they are approaching these issues that we care about
4 here too.

5 CHAIRPERSON ROBERT HOLDEN: Um, so I want
6 to follow up with ES issue, your office works with
7 the Outdoor Risk Management and Policy Officer, um,
8 we still do not have an answer, what agencies are
9 using the ADS sys..., um, software? Um, when do you
10 think your office could supply us that list?

11 JOHN PAUL FARMER: That's a good question
12 and, um, I appreciate the interest in the work that
13 the AGS task force and I think it is an important
14 step, a number of steps that the city has taken on
15 this front. Ultimately, the Mayor's Office of
16 Operations is where the info is seated and they are
17 the ones who are issuing reports, have issued reports
18 in the past and will be issuing additional reports
19 and they are also the ones who, who bear that
20 responsibility.

21 CHAIRPERSON ROBERT HOLDEN: Um, I just
22 have a few more questions and then I will pass it
23 over to my colleagues. The City invested in a
24 project together with T-Mobile that provided 10,000
25 NYCHA seniors with free internet connected tablets to

2 connect digitally with family and friends. We
3 understand that your office conducted trainings and
4 workshops this summer. Um, how many people attended
5 these trainings and, and workshops?

6 JOHN PAUL FARMER: Well, thank you for
7 asking about the project, because this is one that is
8 near and dear to my heart, making sure that some of
9 the most vulnerable people in our communities, older
10 adults living in NYCHA, particularly that is living
11 alone or living only with other older adults. That
12 they have access to technology too and that they can,
13 especially during 2020 and I mean we continue to
14 fight this pandemic the nation will stay safe in the
15 process that they, um, have the ability to access
16 healthcare, to get groceries delivered and to speak
17 with friends and family and maintain the social bonds
18 that are so important, um, to everyone's health. Um,
19 so that was what the project was about, has been
20 about and as part of this, it is not just about the,
21 the connected device which is foundational, it's then
22 helping ensure that people know how to use it. Um, so
23 what we did is we worked with Older Adult Technology
24 Services, a local nonprofit that has got a lot of
25 expertise and experience in the space of working with

2 the seniors and they reached out to all 10,000 and,
3 um, every single person got outreached, direct
4 outreach, most of them multiple conversations and
5 they were invited to various kinds of trainings.
6 And you can imagine, people are starting from
7 different places, so some folks needed help, um, just
8 simply turning it on and identifying how to find the
9 email in there, how to set up their email account,
10 others were already you know good with that and they
11 just wanted maybe some more sophisticated abilities
12 for how to do video chatting or how to search for
13 something of their particular interests. I know one
14 of the, in addition to finding a cardiologist or
15 connected with your kids and grandkids, one of the
16 stories we got was someone that was really, really in
17 to parrots and really wanted to like deep dives into
18 parrots and, um, and OATS was able to help them do
19 that, now it was something that was meaningful to
20 that, to that gentleman. So, they were used in a lot
21 of different ways, the, the work that OATS in
22 particular did I think deserves congregation in that
23 they reached every single, um, recipient, um, and
24 those recipients then chose to engage in various
25 ways.

2 CHAIRPERSON ROBERT HOLDEN: So, these
3 trainings or workshops are continuing the, right?

4 JOHN PAUL FARMER: They are, yep.

5 CHAIRPERSON ROBERT HOLDEN: Oh good,
6 good, okay, I have one other question then I'm going
7 to turn it over to, um, my colleagues, by the way
8 we've been joined by Council Member Constantinides,
9 um, alright just one other question, um, we have an
10 individual, um, registered for public testimony later
11 today who will discuss combatting quality of life
12 issues like noise, um, like and this is a near and
13 dear amid, because I looked at it and I was very
14 interested in this. Um, she sent the Committee
15 information on Smart Sensors, using cities like,
16 Regina or Calgary in Canada, Beijing, Paris and
17 London which, um, these devices record decibel
18 levels, um, take photographs and then allows for
19 police to track down and issue a summons to the
20 culprit which, if any City needs it, it's New York
21 City. Do we, does this City have technology like
22 this, or are we looking at it if we don't?

23 JOHN PAUL FARMER: Um, thanks for the
24 question, Chair Holden, that's a good example of a
25 sensor type. There are so many different sensor

2 types, there are environmental sensors that we were
3 talking about on fleet vehicles, vision sensors,
4 motion sensors, location sensors and there are sound,
5 acoustic sensors as well and an example from here in
6 New York, a couple of examples, one would be, um,
7 shots fired, which I think a lot of folks are
8 familiar with that the New York City Police
9 Department uses, uses acoustic sensors. Another
10 example would be the sonic program, sounds of New
11 York City and, um, and that is NSF, National Science
12 Foundation funded and NYU is, is leading the way on
13 that. The SONYC, S-O-N-Y-C, Sounds of New York City
14 Program. Um, I'm not aware that that is connected
15 back, um, for enforcement the way um, you described
16 in other cities but certainly there is a lot of
17 interest in understanding, much like we are trying to
18 understand air quality, understand, um, our acoustic
19 environment in a hyperlocal way as well and that is
20 something else where things, acoustic sensors can be
21 very helpful.

22 CHAIRPERSON ROBERT HOLDEN: Noise can
23 affect people obviously and affect their health.

24 JOHN PAUL FARMER: Absolutely.

2 CHAIRPERSON ROBERT HOLDEN: It's
3 documented. So, um, I would hope that this type of
4 technology, you know and enforcement is possible or
5 at least on the horizon of New York City, you know, I
6 don't know if you've noticed, I think you have, about
7 every New Yorkers have noticed these cars that
8 backfire, and they sound like gunshots but there are
9 very loud mufflers, it is sort of like the trend now,
10 all over our streets, when you've got a lot of these
11 cars passing your house at 2 in the morning, it will
12 wake you up.

13 JOHN PAUL FARMER: Yeah.

14 CHAIRPERSON ROBERT HOLDEN: And so we
15 have motorcycles, we have, we have a lot of illegal
16 vehicles on this on our streets in the City and this
17 kind of technology would go a long way and kind of
18 sort of corral that, that behavior that we see a lot
19 of people, especially it is been magnified during the
20 pandemic, um, but you know you have people speeding
21 but they are speeding with these noisy vehicles and
22 so forth and cars and trucks and backfire, some
23 purposely. So, that's why I think if you, if you
24 could look, your office could look into this
25 technology it would be a great enforcement tool, I

2 think to sort of get a handle on this kind of
3 behavior. Um, yeah, so I will go back to our
4 Council, are there questions from Council Members?

5 IRENE BAHOSKIE, COMMITTEE COUNSEL: Thank
6 you, thank you very much Chair Holden and Mr. Farmer.
7 I will now call on other Council Members to ask their
8 questions in order they have used their Zoom Raise
9 Hand Function. If you would like to ask a question
10 and have you have not used the Zoom Raise Hand
11 Function, please raise it now. Council Members
12 please keep your questions to five minutes. Sergeant
13 at Arms will keep a timer and we will let you know
14 when your time is up. You should begin once you are
15 called, once I have called on you and the Sergeant
16 has announced that you might begin before to ask your
17 questions. And I see that Council Member Vallone has
18 a question, Council Member Vallone you may begin.

19 SGT. BIONDO: Time starts now.

20 PAUL VALLONE: Thank you very much. Thank
21 you Chair Holden and John, Happy Healthy New Year to
22 you and your family. Thanks for your advice as
23 always. Um, as usual Chair Holden is having
24 questions right on point so I just want to follow on
25 (clearing throat) what he has already started with

2 forgive me I was a little bit late. John, as we
3 transition, right, I mean a lot of this, the
4 beginning of your testimony was the transitioning of
5 the City to 5G, the infrastructure challenges that
6 need to be made, can you, can you describe what the
7 difference in what we have now and what needs to be
8 done in order to prepare for the next level on 5G.

9 JOHN PAUL FARMER: Certainly, thank you
10 for the question, Council Member Vallone. Um, as you
11 pointed out just now, 5G, the Internet of Things,
12 Universal Broadband, um, ultimately all of these
13 often thought as different technologies, artificial
14 intelligence is another one, they ultimately come
15 together, interact with one another, in some places
16 the lines get blurry. Um, when you think about 4G
17 what we have today and 5G which is coming, um, one of
18 the things to understand is because of the type of
19 spectrum being used it simply requires more equipment
20 to spread the signal. Now, the signal when it does
21 get spread has real advantages in terms of very, very
22 high band width and very latency, so close to real
23 time feedback between device and person or device and
24 device and so in order to put in place the 5G network
25 that a number of people are excited about, the

2 potential of, that requires more equipment and in
3 more places and this is something that for example
4 the Internet Master Plan imagines as it thinks about,
5 um, not just poles but also rooftops and street
6 furniture, other types of spaces that we have here in
7 New York City.

8 PAUL VALLONE: John, who, who sets that
9 parameter? Who determines that infrastructure
10 balance on whether it is poles, places, buildings to
11 increase the bandwidth, how is that now figured out?
12 And how are we part of that process?

13 JOHN PAUL FARMER: So, I don't know if
14 there is one single answer. Um, I can, I can say what
15 our office is doing on that front. And what our
16 office is doing the implementation of the Internet
17 Master Plan which is putting, you may have joined
18 after I mentioned earlier, but some of the aspects of
19 17 different agencies for the first time ever, being
20 made available for people to compose how they would
21 use those, those assets.

22 PAUL VALLONE: Um, well, not to so much,
23 only because of the 5 minutes, I would like you, I
24 would like you to keep going on that but I'm looking
25 for, I started my political career when a cellphone

2 tower popped up in my son's grammar school without
3 notice of warning to the parents and that set me off
4 on a path of involvement. Let's just put it that way
5 and it was that decade in the mid-2000s when
6 cellphone towers started popping up, late 90s, 2000s
7 with a lot of confusion here for people as to what
8 the radiation concerns would be, what the proximity
9 to residential houses and places of worship and
10 schools. Um, because we've grown and in just how we
11 have evolved with the use of technology that cry is
12 there but not the same. It's the concern will never
13 go away, how have we determined now that there is
14 going to be a higher demand and a higher usage for
15 the 5G, on what those rules and safety practices will
16 be, because eventually we did come up with some rules
17 on where you could place them and then there was a
18 myriad of loss on enforcing the rules and who had,
19 whether it was Federal, State or local jurisdiction.
20 It was not easy but at least what happened was the
21 big companies were rising, they didn't want the
22 hassle so eventually they would move on to another
23 location. How, how are we determining the, those
24 parameters of safety and location on where these will
25 be?

2 JOHN PAUL FARMER: So, let me start with
3 safety. Safety is absolutely critical, making sure
4 that no critical is going in a place that could risk
5 someone's, someone's health or safety. Um, now that
6 said, we recognize that this will not simply be
7 replacing equipment that is already there. This will,
8 this will be equipment in new places and that is open
9 for discussion at this point, um, within the City but
10 also probably with, with the industry groups
11 themselves in terms of where they should be thinking
12 about, asking to deploy equipment. So they don't,
13 they don't simply get to decide, it's, it's an ask
14 but I don't think it is something that is just for us
15 to have conversations about in this setting. I think
16 it is my personal view here I think the broader
17 conversation needs to be had in society to make sure
18 that we are developing approaches...

19 SGT. BIONDO: Time expired.

20 JOHN PAUL FARMER: That, that deploy the
21 technology, um, in a way that it can create benefit
22 but do so in a way that protects people's health for
23 sure and safety for sure, um but also their interest
24 as, as residents in New York City.

2 PAUL VALLONE: So, Chair Holden, I would
3 happily join in with you on, I think there is an
4 opportunity there at the onset here where we have
5 come exploratory conversation or legislation on the
6 partnership of the location and we are part of that
7 conversation because we were not part of the initial
8 cellphone tower placement conversations that create
9 what am I and that's being condensationally done now,
10 now is the appropriate time to do that and then John
11 my last point because my time is up would be the
12 third-party aspect of this and the contracts to the
13 transformation. Council Member Holden and mine are
14 two jurisdictions that are working with old
15 technology especially where above line power grids.
16 Is, is there an opportunity here as we transition to
17 have the cost of that part of the contract when they
18 go to a site, upgrade that site technologically and
19 working so that we are doing two things at once to
20 upgrade essential services to communities instead of
21 continually going back and ripping up locations and
22 street assignments.

23 JOHN PAUL FARMER: Uh-huh, a really
24 interesting idea and one worth discussing. The place
25 to discuss I think both the question of where it is

2 appropriate in terms of equipment but also these
3 infrastructure questions and is this an opportunity,
4 um, to make a leap forward. The, in the wake of the
5 RFP that is coming out, I mentioned it is coming out
6 in February, um, as that comes out and we get
7 proposals back, that will then open a back and forth
8 a negotiation period. Um, and that's an opportunity
9 for us, um to make clear the interests of, of the
10 City, of the Council, um of the various communities
11 in the City that are being affected. Hopefully
12 affected very positively but that is the opportunity
13 for us to do that in that back and forth period, um,
14 and we will have a lot more information on, on um, on
15 what the companies large and small are thinking after
16 we've gotten those proposals back.

17 PAUL VALLONE: That would be, that would
18 be a wonderful opportunity. Again, Chair, Chair
19 Holden on, on maybe that's a requirement, um, you
20 never know until you ask. And you may not want to
21 take that initial cost but when you are tied to a
22 business that 8+ million customers I think they'll
23 think about it.

24 JOHN PAUL FARMER: Thank you so much
25 Chair Vallone, I appreciate that.

2 CHAIRPERSON ROBERT HOLDEN: Thank you
3 Council Member Vallone, um, any more questions from
4 Council Members?

5 IRENE BAHOSKIE, COMMITTEE COUNSEL: I do
6 not see any more questions from Council Members,
7 Chair Holden do you have any additional and final
8 questions for them?

9 CHAIRPERSON ROBERT HOLDEN: Yeah, just a
10 couple of more for the CTO. Um, at the Smart City
11 Summit in October you mentioned a COVID Data Task
12 Force, also known as Recovery Partnership, can you
13 please provide more details on this initiative?

14 JOHN PAUL FARMER: Certainly, so um,
15 there may be two different things that are being
16 referred to there. One being the, the task force of
17 really talented data scientists who volunteered their
18 efforts in the midst of the pandemic, the peak of the
19 pandemic in the springtime, spring of 2020. So, I
20 mentioned earlier the work that we did with Harvard
21 University using aggregated Facebook data in
22 different communities around the City to inform um,
23 where we need to prioritize our efforts. That was an
24 outcome of that, of that work, of that COVID Data
25 Task force we called the TIME, now after that point,

2 the Mayor's Office of Data Analytics, um, recognized
3 I think a lot of the same potential benefits here of
4 outside data being combined with city data or being
5 made available to city agencies so they are better
6 informed and they created the COVID Data Recovery
7 Partnership I believe is the, the formal name and
8 that's being led by the Mayor's Office of Data
9 Analytics. Early on, they had over a dozen different
10 companies that were providing, um, data to the city
11 under a specific agreement for a certain period of
12 time, um for the purpose of COVID response and
13 recovery and I would have to check back with MODA to
14 see the absolute latest in terms of numbers of
15 participants and the latest examples of how that data
16 is being used but it is something that we certainly
17 are supportive of as an approach. In some ways,
18 it's, its reversing open data, just like we open up
19 government data to make it useful to those outside of
20 government being able to take, um, government from
21 companies, and offer that back to the City when they
22 understand it. It could serve a real purpose and
23 really benefit the community. I think that is a
24 great example of distribution.

2 CHAIRPERSON ROBERT HOLDEN: So, so, the
3 task force is still meeting? Um, and are there any
4 results of the work aside from the PPE, the dashboard
5 that we see.

6 JOHN PAUL FARMER: So, the task force
7 that my office set up is no longer meeting. We
8 didn't view that as necessary and these were people
9 volunteering their time, um, which was a wonderful
10 gift of, to their fellow New Yorkers, um, the MODA
11 Data Recovery Partnership is very much active and
12 that's, that's where the current ongoing efforts are.

13 CHAIRPERSON ROBERT HOLDEN: One other
14 question and um, I would like to sort of, it's sort
15 of what I mentioned earlier on and in the questioning
16 about one central portal that residents of this City
17 can get on and see everything and like I mentioned
18 pay parking tickets, finding out where locations and
19 make appointments for the vaccine let's say or
20 others, something else that it's, it's one portal
21 that's user friendly that people can look at and
22 really maneuver and you know the idea of get the
23 information that they need, also like I mentioned
24 performed other City Services or at least look for

2 them. Do you see that portal coming in the future?
3 At any time soon, is it being worked on?

4 JOHN PAUL FARMER: Well, I appreciate
5 the, the question, the way that you are looking at,
6 the challenge, um the challenges that we got, this
7 information ecosystem in government that's, that's
8 large. We request so many services to so many
9 audiences, it is not all relevant to everybody so how
10 do you actually help people navigate that without
11 forcing them to understand the order chart of
12 government because that is not the right way to solve
13 a problem. Let's go back to the spring 2020 and look
14 at what we did in response to COVID. So, initially
15 the focus was very much on health and, um, defining
16 what the coronavirus was and what the potential risks
17 or risky activities were. Um, pretty quickly we
18 realized that there was a more holistic challenge
19 here, families had to figure out whether the schools
20 were open, what kind of support they could get as
21 renters, unemployment, there are just so many
22 different things that people suddenly had on their
23 plates and it was important, it did two things to
24 provide a front door but also to provide no wrong
25 door. And, um, my office helped inform the approach

2 that the City ultimately took pivoting from
3 NYC.gov/coronavirus as a healthcare, a health, a
4 Health Department website to one that was citywide
5 and really focused on the variety of different
6 questions, uh, or services that people might be
7 looking for from the City. So, I think that is a
8 good example of that kind of behavior being taken.
9 At the same time, the no wrong door was really,
10 really important so putting up, very simple, putting
11 up a simple banner at the top of government websites
12 so that even if somebody was at the Department of
13 Transportation website they could see, oh, I can
14 click here to go get more information about, in that
15 case, the pandemic, because that was the emergency at
16 the time. But even when you don't have an emergency.
17 Um, that's where you can look at, at what is often
18 done with people who are interested in this might
19 also be interested in that. Giving people the
20 ability to continue their, their information
21 gathering journey, um, in a way that again is user
22 censored, user friendly and this is where having
23 analytics in place is critical to make sure that we
24 understand what that journey looks like and that we
25

2 are not simply, um, guessing at will be, we are
3 really responding to demonstrating needs.

4 CHAIRPERSON ROBERT HOLDEN: So, the
5 simple answer is we don't know, because I really need
6 this uh, I really need something to be done. I'm
7 going back to this store locator website that tries
8 to find us a vaccine and can't without multiple,
9 multiple steps. So, uh, my vision is to get one stop
10 shopping on one City portal where we punch in our
11 number and it recognizes us and it tells us what we
12 are eligible for, how we can get some City services,
13 how we can get our SNAP and so forth and so on. The
14 simple answer may be from you is still we don't know,
15 um, but can we somehow look to a portal like that
16 sometime in the future? Do you think? Could you,
17 can I just get from you today that you are going to
18 look at this, our comments on this, at least my
19 comments, you know, how, where nightmare is and that
20 we can correct it in the future and try to get
21 something where people can actually use it and be
22 happy with it?

23 JOHN PAUL FARMER: I think we share the
24 same goals and when we think about any kind of web
25 experience, web-based experience, very few of them

2 are perfect when they start out. You might say none
3 of them are perfect when they start out, so the
4 question is how much do they improve and how fast do
5 they improve? And I think that's how we need to
6 measure success, um, in this case and I can commit to
7 you that I will do everything I can, I will take what
8 you've said to me back and I will discuss that with
9 my colleagues to ensure that whatever I can do or my
10 office can do to help, uh, we offer the help.

11 CHAIRPERSON ROBERT HOLDEN: Yeah, again,
12 what's the CTOs role in NYC.gov, uh, because I don't
13 know, I don't know if you have a big enough role that
14 you should have.

15 JOHN PAUL FARMER: I appreciate that and
16 ultimately I think that's um, that's a perspective
17 that I'll.

18 CHAIRPERSON ROBERT HOLDEN: No, but do you
19 have a, do you have a role at all? I mean in
20 NYC.gov? Because I need to ask a question because I
21 don't want to again pressure you on this but it seems
22 to me that we need all hands on deck here.

23 JOHN PAUL FARMER: Yeah, and I agree,
24 it's an all hands on deck moment, um, right now and
25 we are all dividing and conquering and tackling the

2 pieces where we think our skills are most needed or
3 where there is simply a gapping in time. You don't
4 want to have too many cooks in the kitchen, so I
5 think that's fair to say, so as long as we have the
6 right skill set at the table, we don't need to then
7 replicate that five or six times over, but we do need
8 to make sure that the right skillset is at the time.
9 We need to make sure.

10 CHAIRPERSON ROBERT HOLDEN: Yeah, I think
11 we have to, yeah I think we have to expand the role
12 of the CTO, not getting more work but we you know
13 have to update the description of the CTO especially
14 during the pandemic, um, you know, uh, I just think,
15 I just think, I would love your expertise on that. I
16 would love to have your critique and honest
17 assessment you know of our technology in the City
18 especially in NYC.gov. I would love to hear that.
19 And so, I just think that your description, obviously
20 of your job should be updated as I don't think it has
21 been updated in a while.

22 JOHN PAUL FARMER: And I appreciate that.
23 As of now, we, we do not play operational role, uh,
24 like the one that you are describing, but obviously
25 something, always happy to.

2 CHAIRPERSON ROBERT HOLDEN: But you would
3 welcome that, wouldn't you? Just knowing what I know
4 of you, I think you welcome a challenge and I think
5 this would. Again, an honest assessment.

6 JOHN PAUL FARMER: Yeah.

7 CHAIRPERSON ROBERT HOLDEN: Like,
8 sometimes when you are dealing with government, you
9 are banging your head against the wall like I
10 mentioned before. So, to hear somebody say, you know
11 what this could be improved. You know, this NYC.gov
12 could be improved and it should be improved to help
13 people other than to offer, you know, put up more
14 barriers in technology like we are seeing. So, I'm
15 sorry but I just go off a little bit on that because
16 it was very frustrating, I spent the whole day on it.

17 JOHN PAUL FARMER: I appreciate that Chair
18 Holden and ultimately we are all here to make things
19 better and that's why it's the same you wake up every
20 day and we do these jobs and we are ready to do that.

21 CHAIRPERSON ROBERT HOLDEN: Okay, I want
22 to thank you, um, Irene do we have any other
23 questions from the, um, from Council Members?

24 IRENE BAHOSKIE, COMMITTEE COUNSEL: Chair
25 Holden I do not see right now any more questions so I

2 would thank Mr. Farmer and we now turn to public
3 testimony. I will be calling groups of panelists.
4 Once your name is called to testify our staff will
5 unmute you and the Sergeant at Arms will set the time
6 and announce that you might begin. We ask each
7 panelist to limit their testimony to five minutes.
8 Council Members will have an opportunity to ask
9 questions after each panel of witnesses. I would
10 like now to welcome our first panelists to testify.

11 CHAIRPERSON ROBERT HOLDEN: Hold on one
12 second, I just want to thank, uh, CTO John Farmer for
13 your testimony, um, I think we got a lot of insight
14 today on the workings of, of the City and I want to
15 thank you for your honesty on this Zoom call. Thank
16 you.

17 JOHN PAUL FARMER: Thank you Chair Holden
18 and thank you Council Members as well.

19 CHAIRPERSON ROBERT HOLDEN: Thanks.

20 IRENE BAHOSKIE, COMMITTEE COUNSEL: I
21 want to thank you again and we now welcome our first
22 panel to testify and first panel will be Mr. Kamal
23 Bherwani, Stefaan Verhulst and Jeanine Botta. Before
24 you begin, please state your name and affirmation for
25 the record. Mr. Bherwani you may begin when ready.

2 SGT. BIONDO: Time starts now.

3 KAMAL BHERWANI: Good afternoon, uh,
4 Chair Holden and members on the Committee on
5 Technology. Thank you for inviting me to speak at
6 today's hearing on Smart Cities. My name is Kamal
7 Bherwani. I am the Chief Executive Officer of GCOM.
8 GCOM's mission is to help governments create
9 healthier, safer and more prosperous communities by
10 leveraging technology through our innovation and
11 experience. I am speaking to you as the CEO but I am
12 also speaking to you as someone who has held many
13 technology positions throughout my career in New
14 York, uh, in New York City Government. My last
15 position was that of overall Chief Information
16 Officer of all of the Health and Human Service
17 Agencies under the Bloomberg Administration. The
18 Smart City concept which has gained popularity within
19 the last decade has been about connecting the City's
20 infrastructure. Examples include connecting water
21 meters, connecting lines, connecting cameras,
22 connecting environmental sensors, this technology has
23 created tremendous value in understanding what is
24 happening in real time with the City and has also cut
25 down cost. There is no doubt that there is more to

2 be done to instrument the infrastructure of the City
3 of New York; however, the pandemic and this resulting
4 economic crisis has shined a harsh light on the
5 inequities that exist within the City and that is the
6 next problem to tackle as part of the evolution of
7 the Smart City. While the initial Smart City concept
8 focused on the Internet of Things, the next wave of
9 Smart City investment should focus on the Internet of
10 People. We need to focus now on giving signals
11 rather than machine signals. We know the
12 aspirations of any democracy is to get all of its
13 people in to a place of self-sufficiency and well-
14 being. It is well-known that if you are poor you are
15 more likely to be sick and if you are sick then you
16 are more likely to be poor. By using technology and
17 human signals, I believe New York City can drive
18 better outcomes for its people and also for its
19 businesses. This has to be done by taking a holistic
20 approach, not a transactional approach. City
21 agencies focus on transactions, many of them in
22 person, whether they are dealing with individuals or
23 with businesses. They don't deal with the end goal.
24 They deal with the problem of the day, even the
25 transactions that people and businesses do online are

2 focused on a program or part of an agency. People
3 and business don't have an online relationship with
4 the City of New York, they have an online
5 relationship with the Park of each agency that they
6 have to deal with. It wouldn't be great for all New
7 Yorkers to have one place to go, for all aspects of
8 their dealings with the City. The outcomes of self-
9 sufficiency and well-being will drive incomes. As
10 people are healthier and wealthier people will
11 benefit. The new incomes will also even drive better
12 outcomes as the City will have more Capital to invest
13 in new outcome based programs. It is a virtuous
14 cycle after all? Is this a pipe dream you may ask?
15 Is this even remotely realizable? My answer is yes.
16 Just follow the examples of big tech companies who
17 have invested in understanding the human signal very
18 well. They are able to use that signal to drive
19 outcomes. For them it is about driving a purchasing
20 decision at the very point in time in someone's
21 likelihood to buy something that they offer. They
22 understand that individual holistically. They know
23 that by investing and understanding human behavior
24 they are able to influence behavior and maximize
25 profits. Would it be wrong for the City to invest in

2 similar technology to drive better, superior, social
3 and business outcomes? Couldn't we drive better
4 educational outcomes? Reduce poverty? Reduce crime?
5 Increase Congress and increase resident engagement?
6 There are many issues to sort out in order to
7 orchestrate this, pricing, garments, cybersecurity,
8 budget and many others. No doubt, this is a
9 situation where you have to measure twice and cut
10 once. It just will be worth the space. When I was a
11 CIO in the City, many government officials from
12 around the world came to see New York to see what we
13 were doing and how we are doing things. It is time
14 for New York City to leap frog once again and show
15 the world how it has used technology to solve the big
16 problem as it builds from the pandemic. The window of
17 opportunity is now. Again, thank you for the
18 opportunity to provide my thoughts today, I am happy
19 to take any questions.

20 IRENE BAHOWSKIE, COMMITTEE COUNSEL:

21 Thank you, Mr. Bherwani. I will be calling on Mr.
22 Verhulst to testify, Mr. Verhulst before you begin
23 please state your name and affiliation for the
24 record.

25 SGT. BIONDO: Time starts now.

2 STEFAAN VERHULST: Thanks so much, Chair
3 Holden, Distinguished Committee Members. Thanks for
4 having me. Um, my name is Stefaan Verhulst and the
5 Co-Founder of The GovLab or Governance Laboratory,
6 which is an action research center based here at New
7 York University and our mission is to look into how
8 do we transform the way we make decision, how we
9 govern, using new technologies and new methods and
10 particularly one area that we have explored is the
11 area of how do we re-use data in order to inform
12 public decision-making. Data that was collected by
13 the private sector as Mr. Farmer has indicated. How
14 can we start using that data in order to perform
15 public decision making and as result improve people's
16 lives? I had the privilege two years ago to testify
17 in front of this Committee where I advocated for the
18 creation of Data Collaboratives, new kinds of public,
19 private partnerships where the private sector and the
20 public sector work together in order to re-use data
21 and generate insight that can be made actionable
22 within the City Context. Obviously, since then
23 COVID-19 has only emphasized the need to **INAUDIBLE**
24 and acceleration of data collaboratives and Smart
25 Cities such as the use of IOT and other connected

2 devices will make the need for data collaboratives
3 even more pronounced. Now, in order to have a
4 trustworthy environment for data collaboratives, we
5 also need an increased engagement with citizens and
6 resident in order to understand what is the
7 expectation with regard to the re-use **INAUDIBLE** of
8 data that they have disclosed with the private
9 sector. And so that is an area that we have explored
10 over the summer, because we believe in order for data
11 collaboratives and especially the re-use of private
12 sector data to be accelerated, you are going to have
13 to need a social license in order to start using that
14 data for other purposes than the purpose for which it
15 was collected. Now, what we setup over the summer
16 was what we called the first ever data assembly
17 within the City which was a Citizen's Assembly around
18 the re-useful data for COVID-19. We basically held
19 three mini-public deliberations, one with data
20 holders and government officials, one with civil
21 rights organizations and community representatives
22 and one with New York Residents itself. And what we
23 tried to do is really understand what are people's
24 expectations, their concerns with regard to
25 particular kind of exhibits, such as, the use of

2 mobile firm data or the use of bank data or even the
3 use of 3-1-1 in order to understand, for instance,
4 noise violations, what they felt was appropriate and
5 more importantly what would be framework as Mr.
6 Farmer has identified, framework for actually re-
7 using data in the public interest and so the result
8 of those three mini publics which we held over the
9 summer together with the Brooklyn Public Library and
10 New York City Public Library which is supported by
11 the Henry Luce Foundation. The result is a
12 responsible data reduced framework where we can
13 clearly understand A) why is data being reused? Who
14 is using it? For what purpose? When it is being
15 used? Are there limitations in the data and the
16 data retention? Where is it being used? How is it
17 being used? And more importantly what's the impact?
18 And being able to clarify there are simply W
19 questions. Um, you would establish a fly higher
20 trust in how the data is being reused. So that was
21 the first outcome. The second outcome was a set of
22 cross-centered recommendations. A key one here is
23 you want to engage with the public in a meaningful
24 way, you have to invest in data literacy. It is
25 great to have a conversation about aggregated and

2 minimized data, the public at large has no idea what
3 aggregate and a minimized data means. And so we need
4 to invest in actually data literacy to also have them
5 become agents in how the data is being reused, which
6 ultimately could have tremendous impact on how the
7 City is governed and how we ultimately deal for
8 instance with COVID-19. So, my suggestion to the
9 committee is to reconsider how we can provide for
10 more legitimacy in the data efforts by establishing
11 data assemblies in the long-term by having regular
12 check-in with residents in order to...

13 SGT. BIONDO: Time expired.

14 STEFAAN VERHULST: Expectation and then
15 subsequently also to then build frameworks that would
16 instill trust in how data is being reused and how
17 ultimately those insights can improve people's lives.
18 Thank you very much for this opportunity. Happy to
19 take questions.

20 IRENE BAHOSKIE, COMMITTEE COUNSEL: Thank
21 you Mr. Verhulst. We will, I will be calling on Ms.
22 Botta to testify.

23 SGT. BIONDO: Time starts now.

24 JEANINE BOTTA: Thank you Chair Holden
25 and Committee for giving me this opportunity to speak

2 about noise and quiet. Um, I am affiliated with the
3 Noise and Health Committee within the Environment
4 Section of the American Public Health Association but
5 I am also involved with a lot of other, um, noise
6 groups and sound scape groups. Um, I suggest that
7 any discussion of Smart Cities should involve a
8 component of, um, noise sensing or sound sensing and
9 monitoring and use of the information to reduce
10 excessive noise in residential areas and including
11 using direct ticketing as what happens with speed
12 cameras. Um, I propose ultimately a request for
13 proposals for private studies to test the use of
14 sound sensitive technologies to monitor and report
15 excessive and illegal vehicle noise including, but
16 not limited to, loud car engines, motorcycles and
17 drag racing noise, aggressive non-emergency horn use
18 including locations with chronic horn use, um,
19 vehicles that are broadcasting loud music on
20 residential streets, especially as entertainment for
21 social gatherings not just passing through. And I
22 also propose involving members of the public,
23 possibly school children, maybe by having contests in
24 which the winner or winners will get to have a pilot
25 study in their neighborhood. Um, I, I was only

2 planning to speak for a minute or two, so, and again
3 I thank you and I welcome questions either now or in
4 the future.

5 IRENE BAHOSKIE, COMMITTEE COUNSEL: Thank
6 you very much, Ms. Botta for your testimony. I will
7 now turn over to our Chair for questions.

8 CHAIRPERSON RICHARD HOLDEN: Well, thank
9 you Ms. Botta for that, for that testimony and for
10 the, um, certainly the submitted testimony that you
11 gave to the Committee. Again your, the subject of
12 noise is near and dear to me, as someone who has
13 lived in the City all his life. Um, I can tell you
14 the City has gotten noisier and it is unhealthy and
15 many neighborhoods had, you know, we had a sound
16 meter, by the way installed in, years ago, the
17 Congressman got somebody for. I think it was an NYU
18 student on, not only, not only air quality but noise
19 and we found out our ambient noise was over the
20 limit. Since I live near an expressway, um, we fought
21 and got sound barriers installed on the expressway
22 because of the sound meters. But there are many
23 locations around the City that experience a high
24 level of noise and that needs to be mitigated
25 obviously, and your ideas on other Cities, I would

2 like some additional information that you have on how
3 it is working in other Cities, these monitors, these
4 noise monitors. Um, could you, do you have any more
5 that you could add to your testimony?

6 JEANINE BOTTA: I don't have more that I
7 could add to my testimony now but I can provide that
8 in the near future.

9 CHAIRPERSON ROBERT HOLDEN: Because it's
10 a, I'd like to certainly, um, if we can look as a
11 City Council as a whole, could look in to this and
12 certainly find a study, um, do um, even create a task
13 force to look at this problem. Because New York, I
14 remember Mayor Bloomberg had a program called
15 Operation Silent Night. Do you remember that? And
16 it got no, it went nowhere, it actually, nothing
17 happened and I remember being part of, being excited
18 about that program. Do you remember that at all?

19 JEANINE BOTTA: I am familiar with it and
20 I remember it but I don't how it, how it sort of
21 ended.

22 CHAIRPERSON ROBERT HOLDEN: Yeah, it
23 really was calling for the enforcement of noise, um,
24 violations in certain neighborhoods that were
25 identified and I guess they had no way of. No

2 technology at the time to do that but again, the um,
3 it was a press release that the Mayors, that Mayor
4 Bloomberg issued. In fact, even my students at CUNY,
5 Design Students got to work on the poster that would
6 hopefully, you know spread the word and again they
7 never actually called us back. They never really
8 used any, any of the projects the students did
9 because they kind of dropped the program and I would
10 like to, I'd like the City to at least look at that
11 but your ideas are terrific, I thank you for your
12 testimony. Um, and certainly for your um, you know
13 great ideas and printed matter that you sent to us.

14 JEANINE BOTTA: Thank you.

15 CHAIRPERSON ROBERT HOLDEN: Just um, I
16 just want to ask, let me just get to, um, Mr.
17 Bherwani, it was great to see you again.

18 KAMAL BHERWANI: Thank you.

19 CHAIRPERSON ROBERT HOLDEN: And, um, I
20 love you, some of your ideas and, um, could you
21 detail the outcomes that you've mentioned and give
22 some more examples for the City?

23 KAMAL BHERWANI: Sure, as I was saying,
24 the goal of the City obviously is to get people out
25 of poverty, get them in to, um, self-sufficiency and

2 also in to better health and when you think about the
3 Human Signal. I was referencing something called the
4 Human Signal. Um, it's in other parts of your life
5 where the Human Signal can be picked up, so, for
6 example, no one wakes up one day and wants to
7 **INAUDIBLE**, they have done some other crime likely,
8 maybe a misdemeanor. The point of Richard Lynching
9 and prevention comes earlier than when it becomes a
10 problem for the Department of Corrections when they
11 become a prisoner. Um, when someone is having
12 learning issues, by the time they are dropping out of
13 high school there is a pattern of behavior, there are
14 signals that show up before. The Human Signals. So,
15 there is a whole variety of things. The same with
16 homelessness. Um, the same with job sharing. Um, I
17 think there are a lot of ways that the City interacts
18 with people, its residents and even businesses and
19 the signals are there. COMSTOCK was a good example,
20 um, many years ago where there was an increase in
21 violence and crime in certain. What's known as a
22 police force that was to prevent it? So, I think it
23 is a matter of understanding where those signals are
24 and then preventing the, the wrong outcomes and
25 encouraging the right ones.

2 CHAIRPERSON ROBERT HOLDEN: Right, um,
3 certainly THRIVENYC could use some of the data to
4 track some individuals that have been in and out of
5 the criminal justice system and are just, um, nobody
6 is monitoring them it seems and, um, obviously there
7 could be measures taken to prevent some of the, the,
8 possible violence that occurs later on, but, um, you
9 know, I understand you are doing some innovative
10 things in other Cities to modernize governments. Can
11 you share some examples, um, with the Committee here
12 today about best practices?

13 KAMAL BHERWANI: Sure, GCOM works with
14 about 22 states, not just some Cities like New York,
15 um, for example, Maryland we are one of two companies
16 that is helping build the one-stop portal, um, for
17 residents of Maryland so they can direct the
18 government at a central point, at a central place.
19 Um, I know that the City is complexed as, um, the CTO
20 mentioned earlier but, um, many companies are
21 complex, Apple is complexed and Amazon is complexed.
22 Um, when you would never do business with a company
23 that didn't give you one place to log in to and get
24 all of your needs serviced. You just wouldn't. You
25 wouldn't download 100 apps, log in 100 times, put in

2 your information over and over, you wouldn't tolerate
3 it. Residents in the City are forced to pay taxes
4 and they expect I think a person with experience.

5 Um, so, we have done that type of work. We have done
6 some of that work in the City of New York. We did
7 something called Air Dispute. We have an app that we
8 built for the City and from there to the Department
9 of Finance people can either pay or dispute a parking
10 ticket. Ironically, it is a highly rated app. You
11 would think that an app where you pay parking tickets
12 or the motor vehicle tickets would not be highly
13 rated, but it is because it is simple. You can
14 dispute it quickly. You can add a photo or you can
15 pay it on the spot so you can see, and it's a mobile
16 app, not just a website. So, those are two examples,
17 one in the City of New York, one in Maryland but we
18 have many others, um, including telehealth and other
19 things that we've built for the WIC program that you
20 that have made, you know a more professional
21 experience. You were describing the vaccine program.
22 It is ironic that even teachers that have signed up
23 and tell the City that they were teachers in order to
24 get the vaccine. The City knows who the teachers are,

2 so, these are examples where I am just having dealt
3 with the Human Signal.

4 CHAIRPERSON ROBERT HOLDEN: So, in the
5 state of Maryland, you are doing there, you did their
6 one-stop portal. Um, are they dealing with the
7 vaccine through this portal?

8 KAMAL BHERWANI: They are not, they are
9 not. This is a fairly recent initiative and we have,
10 they are layering on one program at a time. They have
11 done an umbrella contract and that umbrella contract
12 allows flexibility in the terms so they can later say
13 this agency wants to do this, or the Parenting and
14 Nutrition this. In general, most places, um, have
15 done the vaccines with a separate determinate because
16 of the urgency and speed. But these are, these are
17 not likely long-terms kind of projects. They are
18 short, quick-term, fix the problem now projects.
19 Which I think unfolded into a long-term mission.

20 CHAIRPERSON ROBERT HOLDEN: Yeah, so you
21 heard me, um, my comments on that portal in the City,
22 NYC.gov, and, um, has, has any City that I, I mean I
23 am maybe putting you on the spot here, because I
24 don't know if you are familiar of the portal of
25 NYC.gov. I guess you are and you note some of the

2 problems if you've tried it. And, um, are there any
3 Cities that have a portal that I can look at or that
4 the Committee can look at and say this is great, this
5 is working, um, this actually is user-friendly and
6 people can understand it and get around. Um, other
7 than the Maryland one that you mentioned.

8 KAMAL BHERWANI: There are very few in
9 the US. I think countries like Norway and Estonia,
10 um, are further along than the US when it comes to
11 these things, believe it or not.

12 CHAIRPERSON ROBERT HOLDEN: Wow, but so
13 you, your vision would be that we could have a portal
14 like that, it would be, um, that somebody could punch
15 in their number and get, you know, do what I had
16 mentioned and it should be, it shouldn't take years
17 to figure this out right? Um, because you've done it
18 already.

19 KAMAL BHERWANI: Yeah, we started a
20 program called **INAUDIBLE** when I was in the City of
21 New York, um, to be able to create a centralized
22 place for benefits, social service programs for the
23 City, about 35 Social Service programs. We started
24 with online school meals, um, for people to be able
25 to apply for online school meals rather than the

2 paper form which sometimes gets lost, um, and we
3 extended that to many other things, um, and that
4 project started in 2007 and by 2008, we had launched
5 online school meals. So this was not, back then was
6 more expensive and more difficult. Now, it is much
7 easier and much more streamline. The issue is not
8 technology, the issue is the coordination in
9 governance and location and budget and some of the
10 other issues, the strategy. Giving it the authority
11 and empowerment for one person to do this. Um, I
12 think that's more of the problem right now and it's
13 the orchestration it is not the tactic.

14 CHAIRPERSON ROBERT HOLDEN: Well, thanks
15 Mr. Bherwani. Um, I thank you for all of your great
16 work by the way.

17 KAMAL BHERWANI: Thank you.

18 CHAIRPERSON ROBERT HOLDEN: And hopefully
19 we can meet soon and talk about some other
20 initiatives, we had some ideas, um, that we could
21 implement as part of NYC.gov. Um, Mr. Verhulst, um,
22 just I want to thank you for your tremendous work in
23 the City on this, um, on the issue. We will examine
24 your presentation with the Committee staff, but in
25 your opinion, what is the best way, um, to create

2 trust with the general public? Um, and should the
3 City engage in public forums? I think you mentioned
4 something like that? Um, what's the best way that we
5 can start off and just um, gain the trust of the
6 general public?

7 STEFAAN VERHULST: Yeah, I think, thank
8 you so much Chair for the question. I think there
9 are a variety of ways to increase trust. One is
10 transparency, where you actually have a clear
11 understanding on how data is being re-used. What
12 data is being used? What's the purpose? And so
13 that's the framework that we have shared and as a
14 result of actually co-creation with the public that
15 can, um, advance trust if you have a better
16 understanding on what is actually being done with the
17 data but there are other mechanisms as well and as we
18 said, deliberation on a regular basis, in order to
19 understand the expectation is going to be very
20 important because it is not a binary position, right?
21 Citizens and residents are not for or against, it
22 depends, and it is very important to understand what
23 are they are more comfortable with? What are they
24 less comfortable with? And what made them more
25 comfortable and more trustworthy by actually having

2 that kind of engagement and by engaging also
3 explaining what is it that that one seeks to happen?
4 And then lastly I would say what is quite often
5 ignored is what do residents really care about with
6 regard to what kind of questions they would like to
7 see answered with data? Too often the questions that
8 one seeks to answer are not the questions that have
9 been sourced from the public or from critical
10 stakeholders and so one of the other initiatives that
11 we have advocated for and which we are developing at
12 the global scale is something called the 100
13 Questions Initiative, i.e., what are the 100
14 questions in New York City that citizens feel if
15 answered, their life would be better? And if you
16 would be able to actually have the demands from the
17 public as a push through and top down kind of demand
18 that these are the questions that will be answered
19 and will instigate more trust because it would be
20 citizen and people-led as opposed to quite often led
21 by those who have the data.

22 CHAIRPERSON ROBERT HOLDEN: There you go.
23 Um, talking about the, do you use the New York City's
24 Open Data Portal when you work on your projects?

2 STEFAAN VERHULST: Yes, Open Data is one
3 of the areas that any government is focused on as
4 well.

5 CHAIRPERSON ROBERT HOLDEN: Do you have
6 any comments or concerns with the Open Data Portal?

7 STEFAAN VERHULST: Well, again, I mean
8 Open Data in New York City is um, well developed and
9 which I congratulate the Legislators that were
10 visionary to also develop an Open Data Law which is
11 unique as it relates to Open Data and I would say
12 that, that is definitely a plus. But again, I come
13 back to my 100 questions, what we see in open data
14 worldwide including in New York City is that it is
15 very supply-driven, i.e. you push that data, you
16 don't really have a clear vision with regard to what
17 are the priority questions for which we would like to
18 share data. And so, if we were to combine the supply
19 of data, we would actually have better understanding
20 of the demand that can be sourced by either the
21 public at large or you would have a dedicated kind of
22 what we call Committee of Bilinguals, i.e. people
23 that are domain experts in the City and also data
24 experts that they can say these are the 100 questions
25 that we would really, that we really need to make

2 advance for, here's the data so we can eventually
3 start answering them, that would be a more demand-
4 driven open data project than ultimately looking at
5 what data can be shared without having a clear
6 understanding to what end and what kind of question
7 do you want to answer.

8 CHAIRPERSON ROBERT HOLDEN: Um, thank
9 you. Could you elaborate more on the Social License
10 Proposal?

11 STEFAAN VERHULST: Yeah, by Social
12 License we mean, um, having the **INAUDIBLE** that are
13 included in the data sets, have them agree on how the
14 data is being used. And Social Licenses are well-
15 established, um, concept, quite often in the Natural
16 Resources Phase but it also in the space as it
17 relates to statistics. Being the Statistic of
18 agencies worldwide are active because you have a
19 Social Licensing in using data about citizens to
20 inform society and I think we need to have, um, that
21 Social License also within data collaboratives. We
22 can see for instance in Cities such as Toronto where
23 they failed to acquire the Social License before they
24 started, um, for instance the, um, the Smart City
25 Initiative that ultimately was stopped recently and

2 so **INAUDIBLE** that kind of Social License is very hard
3 to gain the trust. So, that's why we feel, um, to
4 really invest in that, understand, what are the
5 expectations? And also be clear on what is being done
6 so that you acquire that Social License.

7 CHAIRPERSON ROBERT HOLDEN: Um, thank
8 you, thank you all, thanks for your tremendous
9 testimony, very enlightening and a very, very good
10 panel. Um, we've been joined by Council Member
11 Lander and I want to thank this panel. Thanks so much
12 for your testimony again.

13 STEFAAN VERHULST: Thank you.

14 KAMAL BHERWANI: Thank you.

15 IRENE BAHOSKIE, COMMITTEE COUNSEL: And
16 that this point, I do not see any questions from
17 other Council Members and I would like to turn to our
18 next and final panel and on that panel will be Noel
19 Hidalgo, Albert Fox Cahn, Daniel Schwarz and Clayton
20 Banks. Mr. Hidalgo, you may begin when ready.

21 SGT. BIONDO: Time starts now.

22 NOEL HIDALGO: Hello, hi. Thanks for
23 having this really appropriate and open conversation
24 about the future of, of Smart Cities. Um, first
25 BetaNYC would like to acknowledge the Administrations

2 involvement in the Cities for Digital Rights
3 Coalition. As a member, New York City has made a
4 global commitment to promoting and defending digital
5 rights and that is great. We love it. Um, to ensure
6 that we retain our rights into the 21st Century. We
7 need consistent technology, leadership, insight at
8 the Mayor's Office, Across Agencies and in Council
9 with the ebb and flow of insistent leadership prior
10 to John's arrival. We ask that the Council and
11 Public Advocate, via the Chair of Commission on
12 Public Information and Communication can be a study
13 group and identify concrete strategies to ensure that
14 New York City Government has consistent technology
15 leadership through the next Administration and
16 beyond. Um, this will include auditing and
17 inventorying the existing systems which is something
18 that has been very difficult to do through DOIT. Um,
19 reforming Mayoral Offices and Agencies which is
20 something when you are dealing with such a large
21 system, like New York, it's been nearly impossible.
22 Explicitly improving procurement policies and Civil
23 Servant Hiring Practices, and then where needed,
24 introduce new Legislation. The pandemic has made the
25 digital divide wider than ever. To bridge this, we

2 need consistent and well informed and properly
3 resourced leadership. We need to openly investigate
4 the harms that technology causes. Um, ensures that
5 Community input is integrated into the services, that
6 our privacy is protected and that government can all
7 be systems accountable. A truly Smart City can
8 balance all of these things. For the last decade or
9 so, we have been told that the Smart City is just
10 around the corner. We've been told that Smart Trash
11 Cans will minimize overflowing trash cans, Smart
12 Traffic Lights will eliminate congestion, cameras
13 will keep our kids safe, microphones will tell us
14 where guns are being fired, and artificial
15 intelligence will tell us what the next problem is to
16 solve. And let's be clear, these are marketing
17 campaigns that digitally wash over the complexities
18 of government, logistics and infrastructure. None of
19 these Smart City Tools address the root issues of
20 service delivery, infrastructure investment and
21 intra-agency coordination. Rebecca Williams and old
22 friend and a Technology Public Purpose Fellow at
23 Harvard School at Belford Center for Science and
24 International Affairs has submitted written
25 testimony. And for the record, I would like to echo

2 several of her well-researched points. First and
3 foremost, every new piece of Smart City Technology
4 introduces potential harms. Many times, these tools
5 are deployed without Community input. Many of these
6 tools are sophisticated surveillance devices that are
7 Rhode privacy and Fourth Amendment protections. They
8 have a chilling effect on First Amendment Rights and
9 the tools have led to Digital Redlining and further
10 causes discrimination and oppression of communities
11 of color. Lastly, they lead to the loss of an
12 accountable government as we have seen with the
13 conversation around Tools for Law Enforcement and
14 Predictive Analytics. A truly Smart City can ensure
15 that our legal rights are protected, money is not
16 wasted and our Civil Servants work smarter not harder
17 and we hope that the Council can help us get there.
18 Thank you.

19 IRENE BAHOSKIE, COMMITTEE COUNSEL: Thank
20 you very much for your tes-, your testimony and our
21 next panelist is Albert Fox Cahn.

22 SGT. BIONDO: Time starts now.

23 ALBERT FOX CAHN: Thank you so much Chair
24 Holden and to the Committee and the Committee Counsel
25 for the opportunity to testify today about really the

2 immense impact that the transition to Smart Cities
3 Programs will have in the coming years for New
4 Yorkers. I, I will be submitting, um, written
5 testimony that details a number of our privacy
6 concerns, ethics concerns, concerns about physical
7 responsibility with these programs but I want to
8 respond to some of the proposals that we have heard
9 here today. Because I think this is highlighted in
10 microcaza a lot of the broader problems with Smart
11 Cities development. I want to turn to the proposal
12 of Acoustic Monitoring of New York City. This is
13 something that has actually been proposed in other
14 Cities and has become a point of controversy and
15 actually in the case of Toronto where we saw a
16 massive investment in Smart Cities and attempt at
17 doing one of the largest Smart Cities development
18 projects in the world. It was one of the factors
19 that led to that proposal being eliminated. In
20 there, people were quick to point out what is true
21 here, that if you install microphones around New York
22 City for the purpose of collecting noise levels,
23 those microphones are just one software update away
24 from becoming warrantless wire taps, tracking New
25 Yorkers as they go about their lives. Data that will

2 be going in to the hands of NYPD, going in to the
3 hands of other agencies, and, you know even if you
4 don't look at the potential for abuse by Law
5 Enforcement and the potential for abuse by ICE, if
6 they obtain the data through information sharing
7 agreements with the City and other federal agencies.
8 There is still the problem that we are creating a
9 giant point of vulnerability. We saw in the Solar
10 Winds a hack earlier this year, a massive exploit, a
11 coordinated effort that undermining the Cyber
12 Security Protections of some of our most secure
13 Federal Agencies. New York City will continue to be a
14 primary target for those sorts of hacks, as we are
15 creating these massive repositories of personally
16 identifiable information. If we are creating this
17 entire web of surveillance tools, even if they are
18 being deployed for alotable purposes, they are just
19 one hack away from being used by people we don't want
20 controlling the information, on thousands or millions
21 of New Yorkers. You know, I really want to echo
22 something that Mr. Hidalgo dried up in his testimony.
23 There is a really problematic track record here. We
24 keep hearing how Smart Cities will loathe the divide,
25 that they will provide more equity and inequality.

2 That they will help remedy systemic injustice. We
3 don't see that in practice. In practice, we've seen
4 automated fraud programs in Michigan which were
5 designed to identify potential benefits fraud which
6 were wrong over 90% of the time. People being driven
7 to bankruptcy and in some cases driven to suicide
8 because of faulty algorithms, we've seen medical
9 algorithms constantly augmenting inequality,
10 depriving communities of color of vital medical care.
11 And you know when we talk about the potential for
12 broad based surveillance of measures that would use
13 expanded camera systems, expanded monitoring systems,
14 and expanded automated tracking. We have to not just
15 look at the way that these systems are supposed to
16 work in theory but how they are likely to be abused in
17 practice. Because as we spent quite a bit of time
18 detailing earlier in this session, the City's
19 response to COVID-19 and our faulty and really
20 frustrating platform for accessing vaccine, even at a
21 time when we are just asking for a relatively simple
22 platform to find out where people can sign up for
23 COVID-19 inoculations, we haven't been able to role
24 that out smoothly. So, the idea that we are going to
25 provide this incredibly expansive tracking system,

2 that is able to use all of these different data input
3 to track the public and not fall down into the same,
4 um, consistent problem of, of biased and invasion of
5 privacy. I just don't believe it and I really think
6 that the emphasis should not be on expanding the data
7 we are collecting but protecting the data that is
8 already being taken, by an already invasive array of
9 surveillance measures. You know, here and I would
10 lastly note that we cannot talk about Smart Cities
11 and the ramifications of these programs without
12 talking about the NYPD and Comprehensive Privacy
13 Protections and rolling back the surveillance powers
14 that have been abused by the NYPD for so many years.
15 Thank you.

16 SGT. BIONDO: Time expired.

17 IRENE BAHOSKIE, COMMITTEE COUNSEL: Thank
18 you Mr. Cahn for your testimony and our next panelist
19 is Daniel Schwarz.

20 SGT. BIONDO: Time starts now.

21 DANIEL SCHWARZ: Thank you, my name is
22 Daniel Schwarz and I am testifying on behalf of the
23 New York City Liberties Union. We thank the Chair and
24 the Council Members for holding this hearing and for
25 the opportunity to give my testimony today. At its

2 core, Smart City is an **INAUDIBLE** Urban Surveillance
3 Technologies. As sensors would increasingly emerge
4 our digital and physical environments and new forms
5 of data collection and unassisted and automated
6 decisions are deployed in our environments with
7 crossing big lines. Network devices throughout the
8 City allow for persistent invasive tracking of
9 practically every New Yorkers whereabouts and
10 associations. In some point it will make invisible
11 decisions impacting people's fundamental rights in
12 welfare, education, employment, housing, healthcare,
13 regulation system and the criminal and legal system.
14 Make NYCU the public Wi-Fi thrown by alphabet or a
15 subsidiary sidewalk lapse has offered years of
16 operations, still does not disclose a detailed list
17 of sensors included in the kiosks, know how NYCU uses
18 the personal information it collects in its business
19 model. The NYPD system integrates more than 20,000
20 public and private cameras, automatic license plate
21 readers, transport sensors and environmental sensors.
22 It includes holidays, previously signed up databases
23 and it offers a combination of analytics and
24 information technology including pattern recognition
25 and machine learning. The increased use of such a

2 creative system is worrisome given the NYPD's history
3 of unconstitutional and racially biased public
4 interest practices utilizing police data will
5 transpose politics and investigative recommendations
6 for connecting these practices. The COVID-19
7 pandemic has many aspects, increased urban
8 surveillance as we heard early on and tech providers
9 were quick to open mass locations trending data, so
10 antitiously corrected and shared without notice or
11 consent on various scales and levels of granularity
12 to national, state and local governments that include
13 New York City **INAUDIBLE** a partnership. Data program
14 experience not attracting **INAUDIBLE** people likely to
15 get hit hardest by COVID-19 and it is now used by de-
16 proofing on the website that Chair Holden mentioned
17 earlier. Police Departments with drones with imagery
18 senses and biometric recognition software such as
19 heart rate, sneezing, coughing and distant protection
20 and the crisis is raised, heightened and deepened
21 many inequities and laid data grade impact of letting
22 access to technology and broadband internet. In the
23 essence of meaningful transmitters at the state and
24 federal level, we will continue to see massive cri-,
25 privacy violations and we risk rolling on

2 technologies that do not meet people's needs. We urge
3 you're Council to create protections and regulations
4 to ensure all the civil rights and liberties are
5 protected. As we outline our written testimony, this
6 means increasing transparency and oversight as a
7 baseline requirement, severely limiting data
8 connection practices, banning discriminatory
9 technology such as the use of face surveillance by
10 City agencies and ADS that showed discriminatory
11 impact against any class protected under any New York
12 City Human's Right Law and providing equitable and
13 safe technology access to those in most need. New
14 Yorkers could see their lives enhance by 21st Century
15 technology now become victims of it. Thank you very
16 much.

17 IRENE BAHOSKIE, COMMITTEE COUNSEL: Thank
18 you very much, Mr. Schwarz for your testimony and our
19 next panelist is Clayton Banks.

20 SGT. BIONDO: Time starts now.

21 CLAYTON BANKS: Well, good aft-.

22 IRENE BAHOSKIE: I'm sorry. Mr. Banks I
23 think you are on mute.

24 CLAYTON BANKS: Hi. This is Clayton
25 Banks. I am, good afternoon to all, Chair Holden and

2 members. Um, I am the Chief Executive Officer of
3 Silicon Harlem and I thank you for this opportunity
4 to testify. It is always fun being the last person
5 because you feel like it maybe becoming a little bit
6 redundant. In this situation, I think that is a good
7 thing, that you are hearing a lot of aligned around
8 Smart Cities. So, if I'm wrong there is
9 telecommunications and infrastructure technology
10 team, our expertise is in fact Smart City strategies
11 and it spans from broadband and sensors to virtual
12 and autonomy, and when you look at that type of
13 infrastructure you really have to take and consider
14 some brand new strategies on how to manage that. Most
15 conceptions of Smart City revolve around data whereas
16 our concept revolves around people. We have a goal
17 to ensure that the plain Smart City initiatives do
18 not create another digital divide and since we all
19 know that it could happen, we have an opportunity to
20 really pre-empt it here in New York City that will
21 leave the entire country. Um, that being said, our
22 goal today is to offer some key strategies, key
23 strategies to really pre-empt the next digital divide
24 and ensure that a New York City, Smart City is
25 designed to serve all. Let me start with this, I

2 believe that our first strategy should think about
3 targeting the distribution of new emerging
4 technologies that often follows economic incentives
5 and results in inequitable distribution. The City
6 should examine the location and siting plans of Smart
7 City pilots and assign priorities to underserved
8 communities. Our other strategy that we would
9 recommend is to include advanced universal access and
10 disability justice. You know, when you are dealing
11 with a Smart City that has to be on the table. The
12 City should work with organizations that have
13 expertise in this area and co-design with a
14 disability committee to establish the equivalent of
15 an ADA compliant standard that guides, um,
16 accessibility in our Smart City. Another strategy is
17 to establish a Civic Tech Trust that has more
18 flexible contracting policies to hire under
19 represented technologist from our public schools and
20 support community workforce development programs. We
21 got City College sitting right in the middle of
22 Harlem, we would love to utilize that University more
23 often. We love MITs and the hardware and all of that
24 kind of stuff but you got great assets right here.
25 We would like to see the City create social

2 responsibility standards and key equity indicators,
3 integrated into the framework of any Smart City
4 project and investment. We asked the City to
5 consider and utilize crowd sourcing based
6 applications. We talked about noise today. That
7 would be a great crowd sourcing based application.
8 Incentive features to encourage every day New Yorkers
9 to engage in the City's expense, the Smart City open
10 data. It is important for the City to push for smart
11 city projects to have participatory budgeting and
12 auditing while we are co-creating processes with the
13 community and is plain and multi-lingual languages in
14 the terms and conditions across all projects. We
15 also encourage the City to integrate and.. I'm sorry,
16 we ask you to do an anti-discrimination impact
17 analysis into the contracting process of Smart City
18 Projects. The Impact Analysis and accompanying
19 statement would fact in the approval of Smart City
20 Projects to detect NYC vulnerable communities.
21 Example, racially biased facial recognition as an
22 example. Finally, we allocate for prioritized
23 bridging the connectivity gap. If you read anything
24 about Silicon Harlem that is our number one thing.
25 Um, you can't have, this is my line, and you can't

2 have a Smart City if even one person is not
3 connected. Right now, we are seeing a digital
4 divide, even with the vaccines. We heard Chair
5 Holden talk about going online and there are many
6 people that can go online and get an appointment to
7 get a vaccination, so, so, some of the places that
8 are offering it in Harlem, you don't see people that
9 would normally be in those lines because they don't
10 even know about it and they can't get to the
11 schedule. The City, the City could manage Smart City
12 Projects and contribute to the funding of internet
13 connectivity. Smart City Projects would contribute
14 to the basic needs of underserved communities to get
15 connected to the internet or access to Smart City
16 Applications, online learning, telehealth and remote
17 work and so forth. Thank you..

18 SGT. BIONDO: Time expired.

19 CLAYTON BANKS: For allowing me to
20 testify on the Oversight, Smart City hearing. I
21 would be happy to answer any questions.

22 IRENE BAHOSKIE, COMMITTEE COUNSEL: Thank
23 you very much, Mr. Banks for your testimony and I
24 will now turn it over to questions from the Chair.

2 CHAIRPERSON ROBERT HOLDEN: Well, thank
3 you all on the panel for your um, excellent testimony
4 again and, um, I have a couple of questions and I
5 just, I want to just um, direct my first set of
6 questions to Noel Hidalgo from BetaNYC, um, Noel, is
7 he unmuted?

8 NOEL HIDALGO: Yes.

9 CHAIRPERSON ROBERT HOLDEN: Great,
10 firstly, I would like to thank you for your hard
11 work, especially on harboring that brilliant tech
12 minds on the City payroll, left out of the vaccine
13 rollout and, um, do you have an update on whether
14 some of the agencies or offices have, finally they
15 ask us to assist in fine-tuning the vaccine, find
16 their website?

17 NOEL HIDALGO: Um, I will say that um, I
18 don't as of, what I today, Tuesday, so I think last
19 Thursday, Friday it, after our press conference there
20 hasn't been any immediate follow up. I know that,
21 um, people inside the Mayor's office have raised
22 their hands, they have once again expressed their
23 desire to address these issues, um, and you know they
24 are eager to solve the challenges. The informational
25 challenges that have been very present since March.

2 Um, they are ready, willing and able to tackle the
3 City's greatest challenge in 100 years and they are,
4 they are still waiting to be called back.

5 CHAIRPERSON ROBERT HOLDEN: Um, but it's
6 not, it's predictable I would say with the, with the
7 administration so far that I've seen, you would think
8 that they would reach out to some of their experts,
9 and design experts. I think I know the answer to
10 this, but has the City contacted BetaNYC for guidance
11 of advice?

12 NOEL HIDALGO: Um besides Council Members
13 asking who to call or who to, who to chat with or
14 what organizations inside of the Mayor's Office. No.

15 CHAIRPERSON ROBERT HOLDEN: So, how would
16 you rate the City's Digital Government Services, um,
17 specifically the implementation of the web design,
18 you know their web design?

19 NOEL HIDALGO: Um, I don't have a
20 scientific matrix to work with but what I can tell
21 you is that the digital divide even inside the New
22 York City Agency is vast. Um, we have some agencies
23 that have very sophisticated notification systems,
24 um, like I remember several years ago hearing from,
25 um, NotifyNYC works with um, OEM and the police

2 department at FD&Y and how there is a comprehensive
3 you know notification data screen up to a number of
4 different entities that need to know, you know the
5 most pressing security issues, um, in New York City
6 from the UN to our top tourist attractions, the
7 federal agencies, so there is comprehensive
8 understanding and information flow. We have one of
9 the smart cybersecurity inside of City Government
10 through Cyber command but then at the same time
11 period, we don't see the investment when it comes
12 down to kind of the public side of technology and so
13 the fact that NYC.gov has looked pretty much the same
14 way for the last 10 years. It is really troubling
15 that the infrastructure that powers NYC.gov is
16 running on Team Site which is a tool that we have to
17 pay hundreds of thousands of dollars for, just to
18 have the license and the privilege to host NYC.gov
19 versus using open for software where we can invest
20 that, those licensing fees into talented technologist
21 and designers who can help improve NYC.gov. So, you
22 know it's, it's, it's a shame that we have such a
23 wide digital divide inside of our City government and
24 I think that that really speaks to the fact that um,
25 we have an administration at the very top and I do

2 mean at the Mayor. It doesn't see us as the priority
3 to be investing in. Um, it's, it's just, and it's
4 like bike lanes. Um, why change something when you
5 don't use it?

6 CHAIRPERSON ROBERT HOLDEN: Yeah, you
7 tweeted out several times and have mentioned to me in
8 meetings that there is a City Commission on Public
9 Information and Communications or CCOPIC. Um, I know
10 it was established, um, in 1989 and your members to
11 the City Charter, and that the Council presides over
12 these meetings. I know that it is tasked with
13 publishing the public data, um, directory. Um, and
14 that is, it has responsibilities providing education
15 and outreach to assist the public in obtaining access
16 to City Information and among other things. Developed
17 strategies and so forth. Um, I believe the last time
18 that CCOPIC has met was in 2012, is that correct?

19 NOEL HIDALGO: Um, no, pretty much every
20 public advocate has had one CCOPIC hearing and I know
21 that Clayton was one of the CCOPIC members. The last
22 CCOPIC meeting that I was privileged to attend was
23 when Corey Johnson was the acting public advocate
24 and, and then speaking Johnson/acting public advocate
25 Johnson, had a really amazing multi-hour public

2 hearing inside the City, the City Council Chambers,
3 um, to really dig in to kind of the breadths of
4 issues that CCOPIC could be engaging in. Um, we are
5 activity, BetaNYC is actively working with the public
6 advocate Williams to reinvigorate CCOPIC. We know
7 that some of our elders inside of the good government
8 communities think that CCOPICs day has come and past,
9 um, a majority of the powers of CCOPIC now reside in,
10 in the City's Open Data Law, um, as well as within
11 DOIT. But as we can see time and time again with the
12 deficiencies and updating of our City's Municipal
13 Public Information websites, um, there needs to be a
14 public body that has the, the, legitimacy to make
15 some really clear demands on how to improve um, all
16 aspects of our digital information strings from now
17 from APIs, you know to websites to applications, um,
18 we really need to have some mechanism that the
19 public, um, can engage in and, and express its
20 viewpoint on how to ensure that the public is kept up
21 to date on government information that's one thing.
22 The second thing is, we are still struggling to get
23 that Open Data, excuse me, the, the data catalog that
24 was published in April of 1993. That is the last that
25 is the last physical version of an assessment of all

2 of the different technology systems inside of New
3 York City Government. In 2001, the Bloomberg
4 Administration updated that document which gives a
5 comprehensive view of, of a listing of all the
6 different computing systems, so it has been close to,
7 close to 20 years, since we've, we've had that
8 catalog and that catalog is fundamental for the
9 arguments that NYCLU stop and other good government
10 groups, um, as well as, um social justice
11 organizations are demanding when it comes down to the
12 accountability of these automated decision making
13 systems. We need to know what type of technology is
14 being bought, purchased and built inside of New York
15 City Government so that we can, we can have justice
16 and we can have proper accountability. CCOPICs role
17 is to help make sure that we have a public version of
18 that directory and so, you know for these two
19 reasons, I still feel that CCOPIC is valued in the
20 21st Century. Public information and accountability
21 for technology systems.

22 CHAIRPERSON ROBERT HOLDEN: Thank you
23 Noel. And by the way we got the information that a
24 CCOPIC didn't meet since 2012 from NYC.gov so, so you
25 can see that there is a need here. Okay. Um, thank

2 you, thank you Noel so much again for everything and
3 I just want to ask the three remaining panelists um,
4 who have some privacy concerns, um, and this could be
5 for any of you, the three that testified, what kind
6 of data should be most protected?

7 ALBERT FOX CAHN: Um, I am having go
8 first and then Daniel, um, please, um, you will have,
9 I know you will have contributions as well. So, we
10 are concerned about data that is both based off of
11 the type of data that is being collected and who has
12 access to it. So, on the one hand we think bi-metric
13 data, data which can be used to track individuals
14 such as facial recognition data, geo-location data
15 such as the um, data associated with our cellphones
16 from the cell tower and from the apps running on
17 Smart Phones. Those, that type of information when
18 held by police, in particular, we think is quite
19 alarming and um, you know I don't this is an issue, I
20 think that we have all seen ways in which, um, you
21 know that threat of having automated enforcement or
22 you know surveillance driven enforcement of criminal
23 laws really strikes at the heart of what we think of
24 as our you know our constitutional rights to privacy
25 and in the other hand, you know data related to

2 health, you know needs to be protected, um, quite
3 clearly. So here in New York, we recently enacted
4 the first ban in the country on, on transferring
5 contract tracing data to third parties including
6 police and immigration and part of the reason there
7 was because of the privacy threat but a big part of
8 the reason for that Legislation, this was up in
9 Albany was because we knew that people would not take
10 part in contact tracing if they thought there was any
11 risk that the information from that um, public health
12 campaign would then be used for, um, policing
13 purposes or immigration enforcement. So, you know
14 that is another, um, set of information that needs
15 very strong legal protections.

16 DANIEL SCHWARZ: We agree with everything
17 Albert has said. We will most **INAUDIBLE** of the
18 biometric data and I think that the Council has
19 recognized **INAUDIBLE** for businesses to end the sale
20 and sharing of biometric data and at least provide
21 notice and signs to **INAUDIBLE** is utilized. But as
22 mentioned, and as **INAUDIBLE** testimony, specifically
23 face surveillance has no place in government. Um,
24 its, it's an evasive system that allows trending
25 without noise or consent of anyone. It is

2 discriminatory and it is particularly in occurrence
3 for women and black people but perhaps shifting away
4 from was the, the data focus, it is perhaps even more
5 in for, not able to tell me what Smart Cities
6 technologies to look at the various implementations
7 of the systems. The various so contact specific of
8 what the right protections are and, um, the CTO has
9 mentioned earlier and also BetaNYC highlighted the
10 City's Coalition for Matrix of Rights and the five
11 key and core principles that are, that the City
12 commits to in 2018, um, are completely spot on. The
13 problem is really that in the 2-1/2 years since they
14 signed on that coalition, happens to actually points
15 the various technologies and systems to these
16 principals and implement the, the various policies
17 that are outlined there.

18 CLAYTON BANKS: And this is Clayton
19 Banks, if you don't mind, I will just say a quick
20 work that, um, data is important to some person and
21 then another person doesn't care. So, data is tough
22 to say you know, what, which one is important. I
23 would say that the City of New York ought to really
24 embrace how we treat data from the perspective of
25 log, logging and processing it and I believe that the

2 future will be distributed ledgers, what you have
3 heard with block chain and things of that nature
4 which can keep a lot of anenemity when it comes to
5 um, people and, and processes that we have going on
6 in a Smart City. So, more to talk about that but
7 that is only a distributed ledger will help us get
8 towards, a much more, not only transparent but very
9 much a protected bunch of databases.

10 CHAIRPERSON ROBERT HOLDEN: Thank you,
11 thank you all. Just one other last question for
12 anyone, um, this is a very broad, very general
13 question but maybe you might have some specific
14 recommendations. What can we do to protect privacy
15 and still benefit from data obtained by Smart City's
16 Technologies? That is very broad and I understand
17 that but does anybody have any, and I know getting in
18 to the hands of the wrong agency and so forth, but is
19 there anything else that you would recommend because
20 obviously this is your area?

21 NOEL HIDALGO: Yeah, I will, I will hop
22 in by saying, you know Stefaan from GovLab, one thing
23 that he said was right which is, um, we need to see
24 that data, that there is a set of, of literacy, um,
25 that needs to be banked into the conversations around

2 data, um, and through the work that NYC has been
3 doing from educating the public to educating
4 community board members to Council Members and staff,
5 um and to other government officials is that that
6 literacy level just like math or science or facts or
7 language, um, has many different strands and so, um,
8 in our outreach and in our conversation about the
9 Smart City, um, we need to be taking in those
10 conversations. You know, the, the NYCLU, S.T.O.P.
11 and other advocates um, in the conversations that
12 lead up to the publication of the automated decision
13 making task force report, had a massive event in, in,
14 um, on the upper Westside that did community
15 education work, we talked about ADS systems, we
16 talked about what privacy is being violated. We
17 talked about kind of like the access to these things,
18 and, and we worked in such a way that help to bring
19 the language of technology to people and so, you
20 know, Silicon Harlem does a great job of doing that
21 on a day to day basis up in Harlem you know through
22 meet ups but it has to be a concerted effort to make
23 sure that people understand what is at stake and what
24 rights might be given away when you hit the turn to
25 service. That's like one thing. The second thing

2 is, let's, let's use the literacy that we have
3 collectively as these, very smart passionate
4 individuals and let's create Legislation and policy
5 that really protects those things, so that way our
6 neighbors who are concerned about taking care of
7 their kids or their parents, you know they don't have
8 to necessarily be so concerned about their privacy in
9 the, the Smart City's era, right like we should be
10 privileged to take our, our understanding and to
11 protect our privacy. That's our role as advocates and
12 as academics and as legislators and so for me, it's
13 those two things, 1) push literacy and let's do our
14 job to protect people.

15 CHAIRPERSON ROBERT HOLDEN: Thank you.

16 ALBERT FOX CAHN: One thing that I would
17 like to add, um, I think, um, you know we believe as
18 Noel was saying, we have to have the small d,
19 democratic approach to engaging in this to date. So,
20 we've had an amazing track record in New York with
21 participatory budgeting for example which has brought
22 community members into the debate about how we spend
23 our dollars to invest in our communities and there is
24 no reason why we can't have that same level of
25 engagement in Smart City's Development where it is

2 driven by, um, you know people at the Community Board
3 level, at the, on the Council level and not being
4 just driven by the Mayor's office. I think we have
5 seen this being a process dominated by the
6 Administration in a way that really undermines that
7 um, democratic accountability because all too often,
8 they are asking for public insight as an
9 afterthought. They are asking for um, feedback once
10 they have already identified the problem, identified
11 the solution and then are moving forward with a
12 possible um, implementation but they should be
13 hearing from New York communities up front about what
14 are the Smart Cities programs that we need. Because
15 oftentimes if we are using these systems to solve
16 problems that communities don't believe exist or in
17 ways that they don't want them supposedly solved, we
18 are going to potentially create more problems than we
19 create benefits and so, I also think that you know
20 while it is somewhat counterintuitive the more we can
21 ban the most abusive forms of this technology, the
22 more we can build public trust in a beneficial form.
23 So for example, if New York City were to ban
24 government use of facial recognition, something that
25 NYCLU organization, S.T.O.P. and countless others

2 have been calling on the City to do for years and
3 that would go a long way in building trust about the
4 additional forms of less invasive and less
5 discriminatory Smart Cities programming. But right
6 now, that trust deficit is so severe that it is hard
7 to really get public buy-in persistence that could at
8 least in theory be more beneficial than harmful.

9 CHAIRPERSON ROBERT HOLDEN: Thank you.

10 DANIEL SCHWARZ: I agree totally with
11 what both Noel and Albert said and perhaps add on in
12 addition to the literacy and the community, un,
13 engagement aspect and community decision making, um,
14 to increase the transparency and that was something
15 that was mentioned in several, in several testimonies
16 but if these, if these Smart City projects, no
17 matter whether it is recycle bins, street lights or a
18 LINKNYC, perhaps even taking LINKNYC as an example,
19 um after seven years now we still don't know what the
20 sensors on the kiosks are. We don't know it adds to
21 the business network functions and without the
22 transparency surrounding these technologist, trust
23 won't be down from New Yorkers and um, it is clearly
24 possible often times government officials push back
25 around open source technologies but what we have seen

2 with the COVID, it is based on open source
3 technologies that is supported by Family Health
4 Foundation and I think that if the weather is there,
5 it is definitely possible to follow it up with public
6 money, all the tips that Barcelona has been
7 pioneered.

8 CHAIRPERSON ROBERT HOLDEN: Yeah, good
9 points Daniel, I appreciate it.

10 CLAYTON BANKS: If I could simply saying
11 representing upper Manhattan and being able to walk
12 around public housing and and sort of interact with a
13 lot of people that are um, that are you know already
14 pretty paranoid because of the amount of surveillance
15 and things that go on in upper Manhattan most of the
16 building have lots of cameras. There is already a
17 public trust issue there and even when LinkNYC was
18 deployed and we fought very hard that it hits Harlem
19 quick, a lot, we found out a lot of people are like
20 these are another surveillance on us. Let me tell
21 you that you are absolutely spot on how do we, how do
22 we move forward with that? And I encourage you to
23 look at some of the strategies that I put inside my
24 testimony and have submitted it because there is
25 great opportunity with, with in and out of the CTOs

2 office, CCOPIIC and all of that by embracing some of
3 these strategies, that get everyone to the table,
4 that's really the key.

5 CHAIRPERSON ROBERT HOLDEN: Thank you,
6 thank you Clayton. Um, any Council Member questions
7 um for this panel.

8 IRENE BAHOSKIE, COMMITTEE COUNSEL: No,
9 Chair Holden I do not see any questions from other
10 Council Members.

11 CHAIRPERSON ROBERT HOLDEN: Thank you all
12 for your tremendous testimony and the information
13 regarding, um, we should meet at some point with all
14 of you, um, I hope we can meet in person but we have
15 a lot of work to do and your expertise is to vital to
16 this, to this City if we are really going to advance
17 as a Smart City. So thank you all, thank you again
18 and I will turn it back to um, tur it over to
19 Counsel.

20 IRENE BAHOSKIE, COMMITTEE COUNSEL: Thank
21 you very much, Chair Holden. I also want to thank
22 all panelists for their testimony and if we have
23 missed anyone who has registered to testify today and
24 has yet been called, please use the Zoom Raise Hand
25 Function and I do not see anyone at this point and I

2 will turn it over to Chair for any final closing
3 remarks.

4 CHAIRPERSON ROBERT HOLDEN: Thank you,
5 thank you so much. And I just want to acknowledge
6 CTO, John Farmer, once again he made it to the end of
7 the hearing. I want to thank him. I want to thank
8 him for his testimony and for listening which um,
9 heads of agencies don't stay on the call or stay on
10 at the hearing and I want to thank him again for his
11 expertise and his testimony. So, I will close this
12 hearing, this hearing is adjourned. (Gavel
13 pounding) Thank you so, thank you so much everyone.
14 Have a good week.

15

16

17

18

19

20

21

22

23

24

25

C E R T I F I C A T E

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 February 28, 2021