

CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON CONTRACTS

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February 23, 2016
Start: 10:16 a.m
Recess: 12:44 p.m.

HELD AT: Council Chambers - City Hall

B E F O R E: HELEN K. ROSENTHAL
Chairperson

COUNCIL MEMBERS: Peter A. Koo
Ruben Wills
Costa G. Constantinides
Chaim M. Deutsch
Corey D. Johnson
I. Daneek Miller

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

Don Sunderland, Deputy Commissioner
Application Development Management
Department of Information, Technology &
Telecommunications, DOITT

Guy Oliveri,
First Deputy Director & Special Counsel
NYC Mayor's Office of Contract Services, MOCS

Doug Tretsky
Chief of Staff & Communications Director
NYC Independent Budget Office, IBO

John Sullivan, Executive Director
Free Software Foundation

Paul Tagliamonte, Software Engineer
Open Source Initiative

Prudence Katz, Research Manager
Common Cause New York

David Moore
Participatory Politics Foundation

Noel Hidalgo, Executive Director
Beta, NYC

Aidan Feldman, Software Developer
18F, Federal Government Open Source Team

Devin Balkind, Executive Director
Sarapis, Information Management Consulting Firm

Karen Sandler, Executive Director
Software Freedom Conservancy

Mark Holegra, Central Administrator
Foresight (sic) Data Systems

2 [sound check, pause]

3 [gavel]

4 CHAIRPERSON ROSENTHAL: Hi, this is Helen
5 Rosenthal. I'm Chair of the Contracts Committee, and
6 I think I just called us into order. I'm delighted
7 to be joined today by my colleague, Council Member
8 Ben Kallos who I should really say is Council Member
9 Ben Technology Kallos, sponsor of Intros 355 and 366,
10 and I'm hoping some other members of the committee
11 join us today. But until they do, I'd like to
12 introduce our new Legislative Counsel for the
13 Contracts Committee, Eric Bernstein. Welcome and
14 Casey Addison is here the Committee's Policy Analyst,
15 and my Legislative Director Sarah Mallory is here and
16 it's her birthday. So, I'm really hoping everyone's
17 testimony will start with happy birthday, Sarah.

18 [laughter] Mine will. Happy birthday, Sarah. 19?

19 SARAH MALLORY: [off mic] Yes.

20 CHAIRPERSON ROSENTHAL: Okay. So we're
21 here today to discuss Intro Nos. 365 and 366, two
22 bills that would require the city to take meaningful
23 steps towards purchasing open source software that
24 can be purchased and utilized by multiple
25 jurisdictions and agencies. That is the extent of my

2 understand of what we're talking about today. So,
3 I'm going to allow Council Member Kallos to discuss
4 the content of these bills, and hopefully it will be
5 in a way that even I can understand. Council Member
6 Kallos caught my attention, though, when he
7 identified the--the goal of these bills would be to
8 help decrease costs associated with purchasing the
9 software. So any measure that can help decrease
10 costs is important to the city and taxpayers. And as
11 the Chair of the Contracts Committee, it's my goal to
12 ensure that the City spend taxpayer dollars
13 prudently. Our oversight responsibility requires
14 that city procurement is efficient and effective. So
15 I'm interested in learning about the practicality of
16 the city implementing an open source software
17 purchasing program, and to learn if the city can work
18 with other jurisdictions to do so. We hope to
19 discuss this bill in detail, and learn about the
20 administration's current practices with purchasing
21 software. And finally, any and all recommendations,
22 and I say this openly to everyone here and any one
23 watching, but any recommendations about how the city
24 can improve on our procurement or implement such a
25 program as Council Member Kallos has recommended all

2 of those suggestions are welcome. And I mentioned
3 happy birthday Sarah Mallory because that's who you
4 would contact with suggestions. So I thank you in
5 advance for providing testimony today that's
6 informative, and moves us forward and now Council
7 Member Kallos will offer an opening statement on
8 Intros 365 and 366 as its bill--bills--as the bill's
9 prime sponsor. Thank you.

10 COUNCIL MEMBER KALLOS: Happy birthday,
11 Sarah Mallory. We--we, uh, we do what we have to for
12 our chairs, and follow their directives. So thank to
13 our Chairperson Helen Rosenthal for hearing
14 Introductions 365 and 366 on free and open source
15 software as well as the comments. I'm Council Member
16 Ben Kallos. I'm a free and open source software
17 developer, and I generally develop on the Drupal
18 platform. And for those of you who are here, or are
19 watching online or on TV or at a time that's actually
20 convenient for you, you can engage with my Twitter
21 handle at Ben Kallos, or if you have ideas on
22 improving the legislation, you can email
23 policy@benkallos B-e-n K-a-l-l-o-s.com. You can also
24 go to my GitHub Repo, github.com/benkallos, and push-
25 -sorry--pull and the push your changes and

2 modifications to the legislation. You can also
3 comment online. We've got it up on Madison and
4 Democracy.OS, and just please get us your comments
5 because your voices are important. Free and open
6 source software gives the user the freedom and
7 ability to use, copy and alter the program in any
8 way. Where the source code is openly shared so that
9 others can individually or collaboratively improve
10 upon the design of the software. So I think if I can
11 start from the very beginning of just a very simple
12 statement. We as a city are buying customized
13 software everyday, and we have choice when we buy
14 that. We can buy it with a license that is
15 proprietary where the person we're buying it from
16 owns the software and we have to pay for it every
17 single year for the rest of time, or we can own that
18 code. And we can own that code and use and free open
19 source software license so that not only do we own
20 it, but we can modify it. We can share it with other
21 cities, with other states, with the federal
22 government, and in that way collaborate, and that's
23 just the big difference. And so the code isn't any
24 different. The only thing that changes is the
25 license. Now, unfortunately most of the software the

2 city of New York maintains is proprietary with a
3 license agreement that restricts us from modifying
4 that software and sharing us, even among and
5 sometimes within city agencies. Fortunately, there
6 are free and open alternatives the city can acquire,
7 which as the Independent Budget Office has noted for
8 several years will save the city at least \$25 million
9 by not having to repeatedly buy the same license for
10 the same products over and over again such as from
11 vendors like vendors who provide software from
12 Microsoft. Switching to free and open source
13 software serves two goals: It safe the City money
14 and unleashes the ingenuity of our City employees and
15 the public to improve upon existing software used by
16 City agencies and the Council Intro 366 requires the
17 Administration to set goals report to the Council on
18 their efforts to shift the City from proprietary
19 software to free and open source software. Free and
20 open source software means the City, not a corporate
21 behemoth will own its software. We will no longer be
22 dependent on a vendor to upgrade the product every
23 year or two from now. We can just do it ourselves
24 and we can do it faster. We'll have the ability to
25 take existing programs and modify them to fit unique

2 needs within our city within agencies or individuals
3 within our city. We already have some of the best
4 and brightest professionals in the field working at
5 DOITT, MODA and embedded within many of our City's
6 agencies, it's time to empower these professionals to
7 modify these programs based on theirs and the city's
8 needs. Introduction 365 calling for software
9 depositories, an idea that actually goes back to
10 2009. Back then, we were calling it Civic Commons.
11 Today, most people call it GitHub, which is a place--
12 having a place, a software repository, a catalog so
13 that when you want to look and see hey I need
14 something to open a Word document do we have a
15 license for Microsoft Word or can I use Libre Office
16 for free, and hey look, it looks like the City has a
17 thousand licenses and there's three left. Let me
18 grab one of those. Instead of having to go off and
19 buy one off my budget, I can buy it off the City
20 budget, or maybe the City has an Enterprise license
21 where we can just get the software, and it's only \$10
22 for every City employee of instead of \$150. So this
23 contemplates just having a software repository for
24 folks to find. Maybe Chicago or Houston or
25 Melbourne, Australia have already come up with a

2 superior production. Civic Commons gives us access
3 to software codes from governments all over the world
4 and will allow us to make sure those places have done
5 it and to build upon it. An example of the
6 collaborative software on an free and open source
7 platform is when Azindia, a geospatial analysis
8 software development company released its source code
9 for its open tree map software. The software was
10 built as an urban tree inventory, and enabled
11 organizations to collaborate with the general public
12 to map trees in urban environments. City employees,
13 residents, even tourists could send information about
14 types of trees they saw, share costs and resources of
15 completing inventory. Open Tree Map was soon picked
16 up by Philadelphia, San Francisco, Sacramento, San
17 Diego, Grand Rapids, Michigan. Each was able to
18 adapt the program for the city's needs, and they and
19 the public benefitted from using an open source
20 software code and having the code shared. Other
21 folks using free and open source software free and
22 open source software include small folks like a
23 senator whose name is Barack Obama who is now at the
24 White House. So whitehouse.gov uses free and open
25 source software and petition.gov. And so, we're

2 seeing at the federal level, and I think one of the
3 key things to note here is New York City is the
4 leader in the country, and we have an \$80 billion.
5 We have an \$80 budget, and if we spend even a
6 fraction of that on free and open source, it could
7 change things because as it turns out, the federal
8 government has an \$80 billion budget just for
9 technology purchasing. And if that was steered
10 towards free and open source software, that would
11 actually change the entire ecosystem for the entire
12 planet as opposed to just making a couple of
13 individuals at the top of software companies
14 incredibly wealthy. Pooling resources reduces costs,
15 avoids duplicate efforts. Equally important, it
16 helps make civic IT expertise more cumulative, and
17 portable across jurisdictions for civil servants, for
18 citizens and for vendors. Many of the programs
19 governments use are similar to and compatible with
20 the ones that other governments use. This software
21 ranges from procurement and contract management to
22 payroll management to content management systems and
23 client relationship management to legislative and
24 constituent service programs by sharing source code
25 where improved and innovating across jurisdictions.

2 I think one great example is that in New York City
3 the City Council way back when spent millions of
4 dollars paying the same contractor that built the
5 Stealth Bomber to build our Client Relationship
6 Management System for what we use for doing
7 constituent service. And, I know that Council Member
8 Rosenthal uses that software more than anybody else
9 because she actually does thousands and thousands of
10 constituent service cases. But at the same time as
11 we spent millions, the Public Advocate then Bill de
12 Blasio spent thousands on a similar product City CRM,
13 which is free and open source, and it has all the
14 tools that we spent millions on, and that others have
15 spent billions on. But we were able to start with
16 the code for free, and we were able to pay people to
17 implement that code and improve upon it. I'd like to
18 thank DOITT for their commitment to free and open
19 source, and for releasing its source codes that you
20 have built internally to the public with your
21 geospatial system, and love to hear what you have to
22 say today. Thank you.

23 CHAIRPERSON ROSENTHAL: [off mic] Thank
24 you, [on mic] Council Member Kallos. So I'd like to
25 call up Don Sunderland, the Deputy Commissioner at

2 New York City DOITT; Guy Oliveri from the Mayor's
3 Office of Contract Services; Doug Tretsky, if he's
4 here from the Independent Budget Office or when he
5 gets here. Oh, there you are. Great, and then my
6 Legislative Counsel will swear you in.

7 [background comments, pause]

8 LEGAL COUNSEL: Can you raise your right,
9 please. Do you affirm to tell the truth, the whole
10 truth and nothing but the truth in your testimony
11 before this committee, and to respond honestly to
12 council member questions?

13 PANEL MEMBER: I do.

14 PANEL MEMBER: I do.

15 CHAIRPERSON ROSENTHAL: [on mic] I don't
16 thing--I don't think it's necessary--

17 GUY OLIVERI: I mean, do I go first.

18 CHAIRPERSON KALLOS: Sure.

19 GUY OLIVERI: Okay.

20 CHAIRPERSON KALLOS: If DOITT could go
21 first.

22 DEPUTY COMMISSIONER SUNDERLAND: DOITT
23 will go first. Okay. That's usually not the way
24 with IT. You know, we usually sit in the back. Good
25 morning Chair Rosenthal and members of the Committee

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2 on Contracts, and happy birthday, Sarah Mallory. My
3 name is Don Sunderland and I'm Deputy Commissioner
4 for Application Development Management at the
5 Department of Information, Technology and
6 Telecommunications or DOITT. Thank you for the
7 opportunity on Intro 365 regarding collaborative
8 software purchasing and Intro 366 regarding free and
9 open source software. As discussed with the members
10 of the committee, the City of New York agrees with
11 the Council on the conception and intention of Intro
12 365 and Intro 366, and welcomes the opportunity to
13 continue our conversations about how best to achieve
14 their goals. Taking each proposal in turn. Intro
15 366--365--sorry--it would require the Mayor to
16 designate an agency to develop and implement a plan
17 to coordinate with other jurisdictions when
18 purchasing software, and would also require the
19 designated agency to create a website with
20 information regarding software purchased by the city.
21 The City of New York supports sharing open source
22 code among the municipalities and has, in fact,
23 advanced this idea in a number of ways. The NYC
24 Government Public Portal, which makes agency
25 publications available in digital form online, was

2 developed using open source software. The Open
3 Records--Records Portal under development to handle
4 Freedom of Information Law requests--utilizes open
5 source software originally created by Code for
6 American and the City of Oakland. Former New York
7 City Public Advocate de Blasio utilized the code from
8 New York State Senate's Bloomberg Constituent Case
9 Management system to build a comparable system on the
10 Open Source Civic CRM Platform. The City also
11 maintains its own dedicated page on GitHub, a web
12 based repository for code sharing and collaboration.
13 Today, the source code for more than 20 city programs
14 initiatives including the aforementioned NYC Open
15 Records is posted on that page as well as the city's
16 Pre-K Finder, City Record Online, Government
17 Publications Portal, NYC Tech Jobs website and data
18 feeds from the Department of Transportation and City
19 Hall.

20 Just last month the City's popular Geo
21 Client Service, the Geo Coding Interface that
22 provides geographic coordinates, latitude and
23 longitude, and other location based attributes such
24 as City Council and Community District for physical
25 addresses was also released under an open source

2 license for the first time and posted to GitHub. Geo
3 Client serves as a critical tool for developers
4 creating mapping applications and for in-depth
5 analysis of city data. While we have embraced the
6 use and sharing open source code where it makes sense
7 to do so, and continue to look for new opportunities,
8 we also have some concern with legislation as
9 currently drafted. As discussed one of these
10 concerns regards the required use of Civic Commons
11 Portal originally a collaboration between Code of
12 American and Open Plan. As of 2015, neither entity
13 is affiliated with Civic Commons. So designated--
14 designating in law a specific platform to serve as
15 the city's open source repository may not be prudent.
16 Additionally, use of the Civic Commons portal
17 providing access to software purchases for use by
18 other jurisdictions would require proprietary
19 software to be purchased with unlimited license of
20 unnamed users, which is not a realistic expectation.
21 Similarly, given the size, scope and complexity of
22 city operations, the requirement for any code the
23 city has or causes to come into use be open sourced
24 is not attainable. Moreover, given multiple complex
25 regulatory frameworks coordinating a single software

2 purchase among say California, Texas, Chicago and New
3 York City to be exceedingly difficult to navigate.

4 Nor do we know what criteria would define which
5 procurements are to be worked on across different
6 municipal--municipalities. And, of course, we cannot
7 compel other municipalities beyond our jurisdiction
8 to pursue or participate in collaborative software
9 purchasing. Finally, at a local level it is unclear
10 how a single agency could without additional
11 resources effectively enforce the requirement that
12 all open source code in use across the city is
13 posted. Still, the aim of the legislation is
14 laudable, and one we are committed to continue
15 working toward. Rather than mandating the use of a
16 specific code repository platform, it would be better
17 perhaps to pursue technology neutral central
18 repository. And in that repository, agencies,
19 entities and individuals within and beyond New York
20 City could post, share and collaborate on code across
21 a range of city initiatives. Finally, requiring each
22 agency to contribute to this shared resource as
23 appropriate to its business needs and requirements
24 rather than requiring one agency to enforce a one-
25 size-fits-all mandate would be a preferred approach.

2 Therefore, we look forward to continuing our
3 discussions with the Council regarding Intro 365.

4 Intro 366 would require the City Chief
5 Procurement Officer and the DOITT Commissioner to
6 develop a plan to minimize the amount of proprietary
7 software the city purchases and increase the amount
8 of free and open source software the city purchases.
9 Like that of Intro 365, the intent of 366 is one with
10 which we firmly agree. In practice, however, we note
11 that it is not necessarily consistently cheaper to
12 use open source software particularly for Enterprise
13 level applications because the city must still
14 purchase maintenance from a third party to address
15 issues with the software once it is in production.
16 Still, long term the trend is clear, and the trend
17 for Enterprise software is toward the increased use
18 of open source. According to a recent study by
19 Gardner, by 2018 more than 70% of new in-house
20 applications will be developed on open source
21 relational databases, and 50% of existing commercial
22 databases instances will have been converted, or be
23 in the process of converting. Now, among the reasons
24 for this trend is that maintaining flexibility helps
25 address vendor lock-in, and allows municipalities to

2 retain leverage in negotiations with software
3 vendors. And the competition inherent in open source
4 technology can also drive down the cost of software
5 licenses. New York City is adapting accordingly.
6 DOITT promotes the use of open source technology as
7 appropriate and beneficial for the city, and where
8 security, scalability and maintenance considerations
9 can be met. As previously mentioned, we leverage the
10 GitHub as a repository for contribution open source
11 projects for use by other city agencies,
12 municipalities, and civic groups and civic
13 technologists. Today, DOITT currently uses open
14 source application platforms such as Linux, OpenGeo,
15 an application framework for PlowNYC and Pre-K--PTA
16 Pre-K Finder. Drupal a content management system,
17 Notify NYC, NYC Developers Portal, and MySQL, an open
18 source database. DOITT also uses open source
19 software tools such as GitHub and Eclipse, which is
20 an integrated development environment.

21 While we do not believe legislation is
22 necessary to continue our progress in employing open
23 source technologies where it makes sense to do so, we
24 recognize the value of establishing broad goals for
25 open source intake, ones that are reasonable and

2 supportable given what would be significant
3 operational, training, funding and migration
4 requirements as reliance on open source increases.
5 Therefore, we believe the best approach for New
6 Yorkers is for the City to continue along its steady,
7 delivered and measured path to open source
8 development and deployment. This path recognizes the
9 value of open source and its tremendous potential for
10 cost reduction for balancing the needs of 8.4 million
11 New Yorkers, hundreds of thousands of employees and
12 thousands of applications across dozens of agencies
13 delivering what are often vital services on a 24 by 7
14 basis. Any fundamental shifts in the underlying
15 technology powering these systems and processes must
16 be pursued without utmost caution and due attention
17 to potential impacts. To that end, we look forward
18 to continuing our dialogue with the Council about how
19 we might achieve the goals of Intro 366 as they
20 relate to reducing the city's reliance on proprietary
21 software, and options for the increased use of open
22 source solutions as appropriate. Thank you for the
23 opportunity to testify this morning. I'm now happy
24 to answer your questions. Thank you again.

2 CHAIRPERSON ROSENTHAL: Thank you very
3 much. Mr. Oliveri

4 DOUG OLIVERI: I don't have a prepared
5 testimony, but I will just reiterate that MOCS
6 supports also the intent behind the legislations, but
7 share some of the concerns that--that have been
8 outlined by DOITT. Oh, and happy birthday Sarah
9 Mallory. [laughs]

10 CHAIRPERSON ROSENTHAL: Nice. Good
11 catch.

12 DOUG OLIVERI: I almost forgot.

13 CHAIRPERSON ROSENTHAL: You really save
14 the Administration on that one. [laughter] Next it
15 might be you?

16 DOUG TURETSKY: [off mic] Thank you.
17 [on mic] Hi, thank you. My name is Doug Turetsky.
18 I am Chief of Staff and Communications Director for
19 IBO. You have our written testimony. I'll just
20 summarize it quickly. On open source the city spends
21 roughly \$80 million a year on software purchases.
22 Open source has a--a--at least on the surface no--no
23 cost to initially purchase it. We have in part of
24 our budget options, which Ka--Kallós referenced in
25 his introduction. We've looked at the potential

2 savings from moving to open source with Microsoft
3 products that get used. There are, as was discussed-
4 -discussed by a representative from DOITT many costs
5 in the process of transitioning, converting your
6 existing applications and other--other things that
7 you have, information. So we think the savings in
8 the first year would be about \$8 million. There are
9 other software applications that are used. We, for
10 example, IBO uses SAS for statistical analysis.
11 There are open source alternatives to that such as R
12 that could also considerable money. There's probably
13 many agencies that use it. For us alone it's about
14 \$25,000 a year. So if you multiply that with--with
15 some much bigger agencies than IBO you probably start
16 to talk about some real savings over time as you take
17 all the migration, transition and training staff--
18 training factors into--into consideration. Why
19 haven't we moved to R? Well, for some of the reasons
20 I just outlined, but there are other--other
21 alternatives such as the collaborative approach
22 that's part of Intro 365. The City actually has some
23 experience with that. Back in October of 2010, the
24 Bloomberg Administration entered into an Enterprise
25 license agreement with Microsoft. We now spend about

2 \$25 million a year for all the Microsoft products the
3 city uses. At the time, it was estimated that would
4 save us \$50 million over five years. Don't know if
5 that's been achieved, but that was--that was the
6 estimate. There were probably numerous other
7 opportunities moving into those kinds of Enterprise
8 agreements with Desktop GIS, statistical analysis
9 programs, web design and layout. All open the--the
10 possibility for both purchases. Just a couple other
11 features in the two intros. One, we think the
12 reporting requirements are--are important on the part
13 of Intro 366, and also part of 366 just the notion of
14 open sources helps ensure the accessibility of the
15 data to the public for the long term and without
16 tracking or other conditions that--that commercial
17 software companies may put on use over time of their
18 products. Than you, and I'd be glad to answer any
19 questions.

20 CHAIRPERSON ROSENTHAL: Thank you so
21 much. I'm going to pretend to know what I'm talking
22 about and ask a few questions, and then I'm going to
23 turn it over to Council Member Kallos. Mr.--

24 LEGAL COUNSEL: [interposing] [off mic]
25 Council Member Chaim Deutsch is here? (sic)

2 CHAIRPERSON ROSENTHAL: What?

3 LEGAL COUNSEL: [off mic] We've been
4 joined by Chaim Deutsch.

5 CHAIRPERSON ROSENTHAL: Oh, and we've
6 been joined by Council Member Deutsch. Thank you for
7 being here. Mr. Turetsky, I was just wondering about
8 a couple of points that you made to make sure I
9 understand them correctly. One point you seemed to
10 make was that in year one, you think the savings from
11 these ideas could yield \$8 million?

12 DOUG TURETSKY: From moving towards open
13 source, correct. That's--that's our estimate about
14 \$8 million in saving in the first year because there
15 still are a lot of expenditures around--around the
16 transition and the staff training.

17 CHAIRPERSON ROSENTHAL: And so then an
18 annual number in year 2, year 3, year 4?

19 DOUG TURETSKY: In--we have not worked it
20 out, but theoretically over time you can get at or
21 near that \$25 million.

22 CHAIRPERSON ROSENTHAL: In your--

23 DOUG TURETSKY: In--in savings. In other
24 words, erase those costs once you scale up

25

2 theoretically to that level. And I should say happy
3 birthday to Sarah, too.

4 CHAIRPERSON ROSENTHAL: We really
5 appreciate that. Well done. [laughter] And then
6 you mentioned that under the Bloomberg Administration
7 they packaged the software licenses--

8 DOUG TURETSKY: [interposing] Right.

9 CHAIRPERSON ROSENTHAL: --in some way.

10 DOUG TURETSKY: Agencies had
11 individually--agency by agency bought licenses for
12 using Word and McAfee, and other software programs.
13 In 2010, the Bloomberg Administration came to an
14 agreement with Microsoft for serve, McAfee, and
15 other--and Word and other basic office programs for
16 roughly \$25 million a year.

17 CHAIRPERSON ROSENTHAL: And--and that's
18 estimated to save \$50 million over--

19 DOUG TURETSKY: At the time--

20 CHAIRPERSON ROSENTHAL: --a span of five
21 years.

22 DOUG TURETSKY: --at the time, yes, that
23 was the estimate.

2 CHAIRPERSON ROSENTHAL: Okay, would you
3 know Mr. Sunderland whether or not those achievings
4 have been saved from --

5 DEPUTY COMMISSIONER SUNDERLAND:
6 [interposing] I--I--

7 CHAIRPERSON ROSENTHAL: --DOITT or--

8 DEPUTY COMMISSIONER SUNDERLAND:
9 [interposing] Yeah, I--

10 CHAIRPERSON ROSENTHAL: --who do you
11 think might know?

12 DEPUTY COMMISSIONER SUNDERLAND: Well,
13 actually, DOITT--DOITT would know. Our--our--our
14 contracting and purchasing group would know. I do
15 know that there was significant true ups on the
16 number of licenses towards the end of the agreement,
17 meaning that there were adjustments to the price.

18 CHAIRPERSON ROSENTHAL: So can you get
19 back to us--

20 DEPUTY COMMISSIONER SUNDERLAND:
21 [interposing] Yes.

22 CHAIRPERSON ROSENTHAL: -- about the
23 annual, or the five-year savings--

24 DEPUTY COMMISSIONER SUNDERLAND:
25 [interposing] Sure.

2 CHAIRPERSON ROSENTHAL: --that ended up
3 happening? That would be very helpful.

4 DEPUTY COMMISSIONER SUNDERLAND: Okay.

5 CHAIRPERSON ROSENTHAL: And then when you
6 talk about this let's just use the Microsoft as an
7 example, are we only talking about City agencies or
8 are you including non-mayoral like NYCHA, HHC, DOE?

9 DEPUTY COMMISSIONER SUNDERLAND: In terms
10 of? I'm not sure--we're not Arrow 2.

11 CHAIRPERSON ROSENTHAL: Well, the
12 packaging I guess.

13 DEPUTY COMMISSIONER SUNDERLAND: The
14 packaging, yes that's different.

15 CHAIRPERSON ROSENTHAL: You know, like
16 you'd include in--

17 DEPUTY COMMISSIONER SUNDERLAND: Yeah, I
18 don't know--I don't know if the--if the Enterprise
19 Agreement include NYCHA or HHC. It--it included us
20 as a--as a city agency, but I don't--I don't--

21 CHAIRPERSON ROSENTHAL: [interposing]
22 Okay.

23 DEPUTY COMMISSIONER SUNDERLAND: --recall
24 the extent.

25 CHAIRPERSON ROSENTHAL: Again?

2 DOUG TURETSKY: Yeah.

3 CHAIRPERSON ROSENTHAL: Do you know?

4 (sic)

5 DOUG TURETSKY: No, I--I--I--I don't know
6 what--if I--if--if it was inclusive in non-mayoral
7 agencies.

8 CHAIRPERSON ROSENTHAL: Okay great if you
9 could--

10 DOUG TURETSKY: [interposing] Yeah, we
11 can get back to you on that.

12 CHAIRPERSON ROSENTHAL: --back to us on
13 that stuff, that would be helpful, and I see Council
14 Member Koo has just joined us. I'm going to ask just
15 a few questions. I promise then I'll turn it over.

16 CHAIRPERSON KALLOS: That would be fine.

17 CHAIRPERSON ROSENTHAL: So currently and
18 this is just a really basic question for DOITT.

19 CHAIRPERSON ROSENTHAL: Okay.

20 CHAIRPERSON ROSENTHAL: How does the--for
21 the--determine who did, you know, purchase the
22 software from, and is there a--does DOITT take the
23 role of making it the same across all agencies, and
24 then does that apply to non-mayoral as well?

25

2 DEPUTY COMMISSIONER SUNDERLAND: Yeah,
3 the only--the only case in which we might have a role
4 making it a--the same across all agencies is when
5 we've engaged in the negotiation for Mandell Price
6 (sic) license agreement, a citywide Enterprise
7 License agreement.

8 CHAIRPERSON ROSENTHAL: Uh-huh.

9 DEPUTY COMMISSIONER SUNDERLAND: In all
10 other cases, the software selection is generally made
11 on a case-by-case and project-by-project basis
12 usually driven by the agencies, but often assisted by
13 DOITT.

14 CHAIRPERSON ROSENTHAL: And do you review
15 every purchase like that? Do you have role in
16 looking at it, and then saying oh, this looks just
17 like some other agency could actually combine and--

18 DEPUTY COMMISSIONER SUNDERLAND:
19 [interposing] We--we do not. We have--we have no--no
20 access to that information. One thing that we have
21 done at the request of--of the CIOs at the agency is
22 to create a portal, a CIO--a portal--a CIO portal
23 where they can post information like that that's---

24 CHAIRPERSON ROSENTHAL: Would it make
25 sense just from a layperson's perspective for DOITT

2 to have that role in overseeing all the purchasing
3 maybe through, you know, MOCS might have it all in
4 one place or not to add layers of government--

5 DEPUTY COMMISSIONER SUNDERLAND:

6 [interposing] Right.

7 CHAIRPERSON ROSENTHAL: --but for the
8 purpose of identifying.

9 DEPUTY COMMISSIONER SUNDERLAND: At, you
10 know, at this point, you know, we would have to
11 presume that would add a significant administrative
12 burden that we're not currently staffed to handle,
13 but we could certainly explore, you know,
14 possibilities.

15 CHAIRPERSON ROSENTHAL: How hard would it
16 be to say the agencies over the next six months give
17 us your--let us know your--what passages you
18 currently are using, and just send that information
19 over to DOITT and then have DOITT analyze that, and
20 sort of produce a report.

21 DEPUTY COMMISSIONER SUNDERLAND: Well, as
22 you said, you used the--the term analyze because
23 actually it has a lot of depth. So when it comes
24 down to actually doing an analysis, you have to

2 determine well what's the cause of the use? What's
3 the proposed application--

4 CHAIRPERSON ROSENTHAL: [interposing]

5 Yes.

6 DEPUTY COMMISSIONER SUNDERLAND: --and
7 there can be similar software that's bought for many
8 different uses--

9 CHAIRPERSON ROSENTHAL: Sure.

10 DEPUTY COMMISSIONER SUNDERLAND: --and
11 that--that analysis can become quite complex.

12 CHAIRPERSON ROSENTHAL: Right.

13 DEPUTY COMMISSIONER SUNDERLAND: I mean
14 as to the appropriateness of the purchase and as to
15 whether it should be leveraged across other agencies.
16 Generally, the--the--

17 CHAIRPERSON ROSENTHAL: [interposing] It
18 seems that could be opportunity for leverage between
19 the agencies.

20 DEPUTY COMMISSIONER SUNDERLAND: I--I--I--
21 --yeah, I--I do--I doubt--in now way doubt that
22 there's an opportunity for leverage between the
23 agencies. What I'm really--what I'm really
24 addressing is that the administrative and analytical
25

2 task of doing the citywide--the citywide survey of
3 software and--and making--and drawing that--

4 CHAIRPERSON ROSENTHAL: [interposing]

5 Isn't that why we all have interns?

6 DEPUTY COMMISSIONER SUNDERLAND:

7 [laughs] This is much more than--

8 CHAIRPERSON ROSENTHAL: [interposing] I'm
9 not kidding.

10 DEPUTY COMMISSIONER SUNDERLAND: --than

11 intern work. I mean that's what I'm saying when
12 you're talking about the analysis phase that's highly
13 skilled work, and you need highly skilled
14 technologists to be able to make objective calls.

15 CHAIRPERSON ROSENTHAL: And that's why we
16 get graduate students, too.

17 DEPUTY COMMISSIONER SUNDERLAND: [laughs]

18 Okay.

19 CHAIRPERSON ROSENTHAL: And so would that
20 be something, and you may or may not know the answer
21 to this--

22 DEPUTY COMMISSIONER SUNDERLAND:

23 [interposing] Yes.

24 CHAIRPERSON ROSENTHAL: --but that's
25 going forward the Technology Steering Committee might

2 want to set procurement standards or mechanisms so
3 that going forward. Is that something--do you know
4 if the Technology Steering Committee is looking at
5 that or--?

6 DEPUTY COMMISSIONER SUNDERLAND: I'm--
7 I've--I've heard no--no talk about it.

8 CHAIRPERSON ROSENTHAL: Yeah, that could
9 be a great agenda item for that them. Let's see.
10 So, currently does the City I guess through your
11 agency provide any support to agency staff for
12 software products, which we could model from to use
13 the open source portal?

14 DEPUTY COMMISSIONER SUNDERLAND: Um, we--
15 we--

16 CHAIRPERSON ROSENTHAL: [interposing] Is
17 that English?

18 DEPUTY COMMISSIONER SUNDERLAND: We--we--
19 we--we--we provide services kind across the board as
20 far as the applicate--application--implementation
21 application development. The vast majority of--of--
22 of projects that--that come our way are not actually
23 custom built. They usually are--are built on top of
24 what's called a COTS product, and a lot of the--a lot
25 of the types of products that--that Councilman Kallos

2 has been mentioning are--are COTS types products. We
3 --sometimes it takes--first, the--the agency actually
4 engages in--

5 COUNCIL MEMBER KALLOS: [interposing]

6 Could you define what COTS means?

7 DEPUTY COMMISSIONER SUNDERLAND: Oh, I'm
8 sorry.

9 CHAIRPERSON ROSENTHAL: Than you.

10 DEPUTY COMMISSIONER SUNDERLAND:
11 Commercial Off the Shelf Software. So there are--
12 there are types of standard kind of platforms that
13 are--that are purchased. Our Customer Relationship
14 Management System would--would often be a COTS
15 product, you know.

16 CHAIRPERSON ROSENTHAL: So in 2015--

17 DEPUTY COMMISSIONER SUNDERLAND:

18 [interposing] Uh-huh.

19 CHAIRPERSON ROSENTHAL: --the most recent
20 year, how many city agencies did DOITT work with to
21 do this type of work? Five, ten, twenty, thirty?

22 DEPUTY COMMISSIONER SUNDERLAND: Well,
23 it would probably be in the 10s, but we worked with
24 them in one capacity or another.

2 CHAIRPERSON ROSENTHAL: Okay, and a
3 different track--

4 DEPUTY COMMISSIONER SUNDERLAND:
5 [interposing] Yeah.

6 CHAIRPERSON ROSENTHAL: --a little bit.
7 How much of the expertise needed to implement on a
8 team open source software is already in the house
9 within city agencies. And you spoke about--

10 DEPUTY COMMISSIONER SUNDERLAND:
11 [interposing] Yeah.

12 CHAIRPERSON ROSENTHAL: --several things

13 DEPUTY COMMISSIONER SUNDERLAND:
14 [interposing] Yeah, and that--that's--

15 CHAIRPERSON ROSENTHAL: --that are
16 already happening.

17 DEPUTY COMMISSIONER SUNDERLAND: Yeah,
18 that's--that's a really interesting question because
19 what it really comes down to is the nature of the
20 open source package. So when you're talking about
21 doing like a, um, um, a web con--web content
22 management system, there certainly could be expertise
23 within a, um, an agency to work within the confines
24 of the Web Content Management System. Where it
25 becomes complex is when it comes to the level of

2 expertise that's re--that's required to actually
3 write that system from scratch--

4 CHAIRPERSON ROSENTHAL: [interposing] Uh-
5 huh.

6 DEPUTY COMMISSIONER SUNDERLAND: --and to
7 maintain that system's code. In some cases, that
8 level of expertise may exist. In--in cases such as
9 the use of operating systems like Linux, we certainly
10 don't have that level of engineering expertise within
11 the system. We don't write operating systems as a
12 rule, and it usually takes a level of expertise that
13 requires both highly specialized skill sets, and--and
14 usually fairly competitive resources to do that kind
15 of work.

16 CHAIRPERSON ROSENTHAL: So I just want to
17 note that during this hearing--

18 DEPUTY COMMISSIONER SUNDERLAND:
19 [interposing] Yeah.

20 CHAIRPERSON ROSENTHAL: --I'm pretty sure
21 Council Member Kallos wrote some sort of code for
22 something.

23 DEPUTY COMMISSIONER SUNDERLAND: Yeah, he
24 did. [laughs]

2 CHAIRPERSON ROSENTHAL: It was like I was
3 going to take a picture of it, but then I thought it
4 might be proprietary.

5 DEPUTY COMMISSIONER SUNDERLAND: Yeah,
6 the city--the city's ability to--to--to--to answer
7 your question, this may be an example from our own
8 case. I mean we were talking about opportunities of--
9 -of packages that are out there. I mean, an open
10 source opportunity to get what we within DOITT have
11 is OpenGeo, which is a platform--which is a--a framework
12 for being able to do GIS coding, and it works very
13 well and we use it extensively and we offer that and
14 help with it to city agencies when they're interested
15 in their multiple M1 Principle Proprietary Packages
16 that agencies often turn to do similar types work.
17 So that would be a similar type of opportunity where
18 we could engage with agencies around finding an
19 alternative. Once again, the agency itself would
20 have to feel comfortable with taking on the--the
21 maintenance of any changes it might actually make to
22 that package when it started using it as open source.
23 And some agencies may have that level of programming
24 expertise and some may not.

2 CHAIRPERSON ROSENTHAL: On a scale of
3 getting from zero to getting to the place where
4 agencies could be in this or faster (sic) in this or
5 faster (sic) with using your office to get us to open
6 software--open wherever I am--

7 DEPUTY COMMISSIONER SUNDERLAND: Yeah.

8 CHAIRPERSON ROSENTHAL: --open source
9 software packages, where are we in that schematic?
10 If open source purchasing were the end game, and
11 surely tomorrow there will be some different end
12 game, but are in teenage years [laughter] or have we
13 reached adulthood or we are still toddlers.

14 DEPUTY COMMISSIONER SUNDERLAND: No, no,
15 no I mean I think--I think citywide at this point
16 we're probably, you know, somewhere in our
17 adolescence. But the thing is that you don't have to
18 wait for being able to do everything to do things.
19 Right.

20 CHAIRPERSON ROSENTHAL: Right.

21 DEPUTY COMMISSIONER SUNDERLAND: I mean
22 the thing is to make the choices towards open
23 sources. They become reasonable, and you're
24 presented opportunity. You don't necessarily turn
25 off a proprietary system just because it's time to go

2 to open source. You wait for the opportunity of
3 timed change, and then you use this as one of the--
4 one of the possible choices when you do get it. (sic)

5 CHAIRPERSON ROSENTHAL: And do you have a
6 timeline like that--

7 DEPUTY COMMISSIONER SUNDERLAND:
8 [interposing] We don't.

9 CHAIRPERSON ROSENTHAL: --where you're
10 sort of--could you? Would it be hard to develop such
11 a timeline. I--I think I understand what you're
12 saying.

13 DEPUTY COMMISSIONER SUNDERLAND:
14 [interposing] Well, I think--I think--

15 CHAIRPERSON ROSENTHAL: So when something
16 comes to the end--

17 DEPUTY COMMISSIONER SUNDERLAND:
18 [interposing] Yeah.

19 CHAIRPERSON ROSENTHAL: --you could be
20 working toward. I mean this would be an amazing job
21 for the Technology Development Corporation, you know?

22 DEPUTY COMMISSIONER SUNDERLAND:
23 [interposing] Uh-huh.

24 CHAIRPERSON ROSENTHAL: But they would do
25 that type of analysis to say in the same way that

2 they're--they're placed in agencies to develop what
3 their technology should be, that that could be the
4 group that would say we've got over the next five
5 years, these 20 agencies with these 20 different--

6 DEPUTY COMMISSIONER SUNDERLAND:

7 [interposing] Right.

8 CHAIRPERSON ROSENTHAL: --things you can
9 do.

10 DEPUTY COMMISSIONER SUNDERLAND: You
11 know, I--I--I think in order to develop a timeline we
12 have to do what you did in the second half of that
13 statement, which is develop--

14 CHAIRPERSON ROSENTHAL: [interposing]
15 Yeah.

16 DEPUTY COMMISSIONER SUNDERLAND: --goals.

17 CHAIRPERSON ROSENTHAL: Uh-huh.

18 DEPUTY COMMISSIONER SUNDERLAND: So, in
19 order for us to understand the timeline, we'd have to
20 say, well where can we reasonably get to, and what's
21 --what really is the goal? And probably that would
22 take some analysis just to intelligently set goals.
23 I mean, we've had a few conversations around this,
24 but we think that you could set goals, and you could
25 report on--on pursuing those goals.

2 CHAIRPERSON ROSENTHAL: Great. Okay, I'm
3 going to turn it over to Council Member Kallos.
4 Thank you so much.

5 DEPUTY COMMISSIONER SUNDERLAND: Yeah,
6 sure.

7 COUNCIL MEMBER KALLOS: Thank you, Chair
8 Rosenthal. I just want to appreciate because you
9 really dove in, and I think many--many of our
10 colleagues wouldn't. They would just not, and I
11 think there are members who--who actively try to stay
12 as far away from this as possible. But you asked all
13 the questions I wanted to ask and did an amazing job
14 at it, and--

15 CHAIRPERSON ROSENTHAL: [interposing]
16 Thank you. We'll call this hearing to a close.
17 [laughter] Thank you, Council Member Kallos.

18 COUNCIL MEMBER KALLOS: My--my pleasure.
19 So for those watching, you go to
20 [GitHub.com/cityofnewyork](https://github.com/cityofnewyork) all spelled out, you can
21 take a look at it. So I just want to thank the--the
22 panel for your--your broad support, and just say that
23 this I think is what in the spirit and free and open
24 source, which actually just about collaborating--

2 DEPUTY COMMISSIONER SUNDERLAND:

3 [interposing] Uh-huh.

4 COUNCIL MEMBER KALLOS: --this is what
5 the collaborative relationship should be and is a
6 model, and if we could get the rest of the city to
7 work like this, this would be--things would move much
8 more smoothly. I also want to thank Doug Turetsky
9 because I--I just got the idea news brief--I--we--
10 they--anyone who's interested in this kind of
11 information can sign up for IBO News Briefs, and
12 Doug, if you can just share where people can sign up,
13 and what kind of information they can get because I--
14 I get these all the time and I'm always emailing them
15 back with lots of questions, and asking for their
16 source documents and things like that. So just--
17 that's actually how I found out that IBO was
18 interested in this, and figured this was a good idea.
19 If you could just tell folks about it, and how to sign
20 up.

21 DOUG TURETSKY: Sure. Thank you for the
22 advertisement. You can go to our website. On our
23 home page is a sign up for free email distribution,
24 ibo.nyc.ny.us. You can also follow us on Twitter or
25 on Facebook. So you can get all our stuff any of

2 those ways on many, many, many subjects and the City
3 and the Council is--is confronting everyday.

4 COUNCIL MEMBER KALLOS: And an important
5 question, which I asked in a Microsoft--sorry in a
6 McDonald's hearing with regards to where your funding
7 comes from, are you being nice just because you got
8 funding form the City Council?

9 DOUG TURETSKY: We get--get no funding
10 from the City Council. We get 100% city tax levy
11 funds is all--is all our funding. So it's not--other
12 than your approval of the budget on or by June 30th,
13 that's all funding comes.

14 COUNCIL MEMBER KALLOS: Thank you and how
15 long has the IBO been recommending free and open
16 source software as a budget savings tool?

17 DOUG TURETSKY: We have had it as an
18 option. You know, we're very careful with our
19 options not to say we are for or against. We lay
20 out--we lay out reasons why it's a good idea as well
21 reasons why there are hesitations about going forward
22 them, and let--with all our budget options and
23 leaders and council member decide what they think
24 makes sense. We have had that in our book I think
25 for about four or five years.

2 COUNCIL MEMBER KALLOS: Thank you and for
3 Don Sunderland, I just want to recognize that I think
4 anyone who hops on the GitHub Repo will notice that
5 ever since this new administration really came and
6 really starting the previous, but since this
7 administration has come in, everything is on GitHub,
8 and you're getting things to GitHub. So, I guess in
9 terms of your recommendations, I--I would support
10 removing say the comments, and if you have any
11 language to make it technology neutral so that we're
12 either using GitHub or just whatever is next as the
13 next up and coming software repo. I remember when it
14 was CVS before it was Git.

15 DOUG TURETSKY: Yeah. [laughs]

16 COUNCIL MEMBER KALLOS: And so, we're
17 happy to do that. With regards to requiring agencies
18 to register, I think that is an excellent idea, and
19 we'll support that, and I think it's just a matter of
20 making sure that there is somebody who is there at
21 the end just to make sure it's happening whether
22 that's the Mayor Office of Contracts Services or
23 DOITT is just perhaps would you--would it be okay to
24 say agencies shall register with the support of DOITT
25 so that we are--

2 DOUG TURETSKY: [interposing] Sure and we
3 already do.

4 COUNCIL MEMBER KALLOS: And I think along
5 the lines of where Chair Rosenthal was headed, if we
6 had a system where folks were registering what
7 software they had both proprietary and non-propriety
8 just on a list so people could see as long--as well
9 as their licenses and what their license cost is, I
10 imagine that would get us to the first piece of what
11 we would need to know of just--

12 DOUG TURETSKY: [interposing] Uh-huh.

13 COUNCIL MEMBER KALLOS: --what is the
14 universe out there--

15 DOUG TURETSKY: [interposing] That's
16 right.

17 COUNCIL MEMBER KALLOS: --and then we'd
18 be in position where the Technology Steering
19 Committee could come in and say, you know what, we
20 have--we're--we're purchasing a software product in
21 18 different ways, and then we'll other--would--would
22 you believe that that might give us more
23 opportunities to see the same synergy we saw with the
24 Enterprise License for Microsoft products?

2 DOUG TURETSKY: It would be hard to
3 refute that, yeah.

4 CHAIRPERSON ROSENTHAL: It would be what?

5 DOUG TURETSKY: I--I--it would be hard to
6 refute that. Yes, I agree.

7 COUNCIL MEMBER KALLOS: Absolutely.
8 Thank you, and also I think those are the--the big
9 items I wanted to touch on. Just if you can clarify
10 the software that city--so--so what-- Let me ask
11 some very basic questions.

12 DOUG TURETSKY: Okay.

13 COUNCIL MEMBER KALLOS: So when we
14 purchase software, and I think the Chairperson
15 touched on this, how often does it get customized by
16 the agency and does DOITT play a role in that?

17 DEPUTY COMMISSIONER SUNDERLAND: It--
18 it's a very high percentage of time that it gets
19 customized, and I mean there's--there are a lot of
20 opinions about whether that's necessary or not, but
21 it--it--it more--more often than not it's customized
22 rather than used in and out of the box form.

23 COUNCIL MEMBER KALLOS: And when we
24 customize we have a choice between doing it in-house

2 with support of DOITT or contracting through a third
3 party vendor to do that work.

4 DEPUTY COMMISSIONER SUNDERLAND: Right
5 and some agencies have IT organizations large enough
6 to do it themselves within the agency.

7 COUNCIL MEMBER KALLOS: And so, under
8 this idea when we are--so when we're doing it in-
9 house are there any impediments to using--to
10 licensing the code that we develop in-house free and
11 open source, and throwing it on GitHub--

12 DEPUTY COMMISSIONER SUNDERLAND: Well,
13 the basic--

14 COUNCIL MEMBER KALLOS: --is the best
15 idea. (sic)

16 DEPUTY COMMISSIONER SUNDERLAND: --the
17 basic problem is it's--it's--the license is going to
18 be determined by the license that came with the
19 software to begin with.

20 COUNCIL MEMBER KALLOS: Right.

21 DEPUTY COMMISSIONER SUNDERLAND: So if
22 you bought proprietary software then you're not going
23 to be able to open so--something that you built upon
24 it, right?

2 COUNCIL MEMBER KALLOS: Right. I--so
3 where I'm going is so Microsoft Office sometimes you
4 want to throw something on top of it, and you'll
5 throw a visual basic script on top or something
6 similar that will create that will create an app for
7 it, or-or--

8 DEPUTY COMMISSIONER SUNDERLAND:
9 [interposing] Right.

10 COUNCIL MEMBER KALLOS: --a wizard and
11 then you can take that code independent of my
12 Microsoft Office and put that code online and--

13 DEPUTY COMMISSIONER SUNDERLAND:
14 [interposing] That's--that's right--

15 COUNCIL MEMBER KALLOS: --and have an
16 open source. (sic)

17 DEPUTY COMMISSIONER SUNDERLAND: I mean in
18 the case of--of--of applications like Microsoft
19 Office and things like Word and--and like--like Excel
20 where you might write scripts that run within the
21 application itself, and enhance the use of the
22 application. The scripts themselves are--are--are
23 yours to do with as you--as you please.

24 COUNCIL MEMBER KALLOS: Great. And so,
25 is there value to--as we're doing different layers on

2 top of software and there's--each agency is
3 customizing for us to have that all available for
4 folks to see each other's nexus? (sic)

5 DEPUTY COMMISSIONER SUNDERLAND: There is
6 and--and in so far as you could even standardize on
7 proprietary platforms you might a shareable code that
8 you can use across those platforms within the city.

9 COUNCIL MEMBER KALLOS: And then with
10 regard to code that we are purchasing that is from an
11 outside vendor, would there make any change to the
12 actual code itself or the quality of the code if we
13 licensed it free and open sources versus its owned by
14 that company, and we have to go to them for every
15 change afterwards?

16 DEPUTY COMMISSIONER SUNDERLAND: We have
17 no way of changing the licensing for the code we
18 purchase. No--no proprietary software seller will
19 allow you to convert their license to an open source
20 license. That's their business sites.

21 COUNCIL MEMBER KALLOS: When we are
22 purchasing new software--

23 DEPUTY COMMISSIONER SUNDERLAND:
24 [interposing] Right.

2 COUNCIL MEMBER KALLOS: --and we go to
3 somebody and we say to them we want you to build
4 something completely new--

5 DEPUTY COMMISSIONER SUNDERLAND: Right.

6 COUNCIL MEMBER KALLOS: --can we--would
7 there be a difference in the code for a new code
8 that's being written from scratch by a vendor between
9 proprietary and open source?

10 DEPUTY COMMISSIONER SUNDERLAND: There--
11 there would in the following way. Nobody really
12 writes from scratch any more.

13 COUNCIL MEMBER KALLOS: Right.

14 DEPUTY COMMISSIONER SUNDERLAND:
15 Basically everybody--there are numbers of libraries
16 and--and--and modules that--that developers buy to
17 build upon. Nobody wants to write how to do a user
18 interface any more. Nobody is going to write that
19 code from scratch. They usually incorporate
20 proprietary libraries to do that. So even before
21 they write--before they write their first line of
22 code, they've incorporated licensed code that goes
23 into the code base itself. So, it's not really
24 practical to--to presume that you could have all
25 thorough going applications even--

2 COUNCIL MEMBER KALLOS: Okay.

3 DEPUTY COMMISSIONER SUNDERLAND: --fully
4 developed applications are completely free of
5 proprietary information.

6 COUNCIL MEMBER KALLOS: And--and I--but I
7 think ultimately we would leave that to you and the
8 goals and working with agencies and making sure that
9 they had support--

10 DEPUTY COMMISSIONER SUNDERLAND:
11 [interposing] Yeah.

12 COUNCIL MEMBER KALLOS: --and do you find
13 that agencies--that there's a culture that favors or
14 disfavors or--I know in the federal government folks
15 feel like they're not allowed to purchase free and
16 open sourcing. You have to pass a rule at the
17 federal level to change that--

18 DEPUTY COMMISSIONER SUNDERLAND:
19 [interposing] Yeah.

20 COUNCIL MEMBER KALLOS: --and they even
21 introduced a--a bill on that.

22 DEPUTY COMMISSIONER SUNDERLAND: Yeah.

23 COUNCIL MEMBER KALLOS: What--what--what
24 is your sense in terms of procurement or--or even the

2 Mayor's Office Contract Services where people feel
3 like maybe free and open source isn't even allowed.

4 DEPUTY COMMISSIONER SUNDERLAND: Do you
5 want to catch that?

6 GUY OLIVERI: I don't know if I really
7 have a sense across, you know, the agencies, but I--
8 it's not my impression. I mean I think more than
9 anything people are looking for a way to get what
10 they need--

11 COUNCIL MEMBER KALLOS: [interposing]
12 Yeah.

13 GUY OLIVERI: --and if it's open source,
14 I think, you know, people are comfortable with that.
15 That's just my impression.

16 DEPUTY COMMISSIONER SUNDERLAND: You
17 know, I--I think, if I might add, I think people are
18 much more open to open source than they used to be.
19 I've been using open source for years both in the
20 private sector and in the public sector. I think
21 that the common concern is that I have a reliable
22 code. Right, I don't have a big corporation behind
23 us. I don't have anybody to pick up the phone and
24 call, and that's where kind of the savings in open
25 source can become a bit reputed because what you end

2 up doing if you really rely on an open source code
3 base, and--and on something like Linux like an
4 operating system that you run critical systems on.
5 Then you go to a private vendor to support that for
6 you. Because an open source community has no
7 responsibility to fix what's broken. If you built
8 something on an open source platform, and it falls
9 over and you don't have the in-house expertise to dig
10 into that code and find out what was broken, then
11 you're just out. So--so for Enterprise systems it's
12 less likely than for other system.

13 COUNCIL MEMBER KALLOS: So for Enterprise
14 systems--so let's talk about MySQL/

15 DEPUTY COMMISSIONER SUNDERLAND: Yeah.

16 COUNCIL MEMBER KALLOS: So if MySQL went
17 down Heartbleed Bug--

18 DEPUTY COMMISSIONER SUNDERLAND:

19 [interposing] Yeah.

20 COUNCIL MEMBER KALLOS: --who do you go
21 to?

22 DEPUTY COMMISSIONER SUNDERLAND: Well, I
23 mean we--we feel confident enough with that code to
24 be able--I mean it's really a well--well understood

2 code, and we feel comfortable enough with it to go in
3 and even if necessary to go to the code--

4 COUNCIL MEMBER KALLOS: [interposing]

5 But--but you could go to a small company like Oracle.

6 DEPUTY COMMISSIONER SUNDERLAND: Yeah.

7 Oh, right. [laughs] Right. No, I mean to be
8 absolutely clear, we have no inveterate love of large
9 software vendors, and--and but there are--there are
10 times when you need that level of support and
11 commitment to be able to support an Enterprise
12 system. Yeah. Does that make sense? Did I make
13 that too obscure? No.

14 COUNCIL MEMBER KALLOS: No, we--we got
15 it. Thank you.

16 DEPUTY COMMISSIONER SUNDERLAND: Uh-huh.

17 CHAIRPERSON ROSENTHAL: Can I just ask as
18 a follow up, where if moving forward you were to
19 decide to start collecting this information, where
20 would that information live? Should it live in MOCS
21 or DOITT? Information about the software packages
22 that each of the agencies--

23 DEPUTY COMMISSIONER SUNDERLAND:

24 [interposing] Yeah.

2 CHAIRPERSON ROSENTHAL: --are using.

3 Actually, regardless of--

4 DEPUTY COMMISSIONER SUNDERLAND:

5 [interposing] Right.

6 CHAIRPERSON ROSENTHAL: --moving toward

7 open source or not.

8 DEPUTY COMMISSIONER SUNDERLAND: Yeah, I

9 think there'--there are legitimate arguments for

10 both, but I think DOITT is probably better qualified

11 to, you know, to--to collect it because we already

12 have a platform for collecting other agency

13 technology information.

14 CHAIRPERSON ROSENTHAL: Could you get

15 the--two questions. Do you have any thoughts about

16 starting to collect it now or are you collecting some

17 agency now, and starting to build a database now?

18 DEPUTY COMMISSIONER SUNDERLAND: We are

19 not. What we actually have--the requests we had--

20 from the CIOs across the city was to provide--provide

21 a platform them to post what systems they have in

22 order for them to be able to help each other. It

23 wasn't so much from a licensing perspective or a

24 purchasing perspective, but from a--well, who knows

25

2 how to work with, you know, with dynamics. You know,
3 and--

4 CHAIRPERSON ROSENTHAL: [interposing]
5 Right.

6 DEPUTY COMMISSIONER SUNDERLAND: --and--
7 and--and is there any folks at the other agencies and
8 DOITT? So in a way, you could see that as being kind
9 of a natural place--

10 CHAIRPERSON ROSENTHAL: [interposing]
11 Right.

12 DEPUTY COMMISSIONER SUNDERLAND: --to do
13 something like this. I mean, but then in order for
14 you to really get a comprehensive look--there's a
15 huge amount of--of software being used by every
16 agency, and many of them are--

17 CHAIRPERSON ROSENTHAL: [interposing]
18 But, hypothetically, wouldn't contracts have that?

19 GUY OLIVERI: Can you repeat the
20 question?

21 CHAIRPERSON ROSENTHAL: Well, wouldn't
22 you know from managing--from having all the contracts
23 through going through Vendex, which packages
24 different agencies have? I mean, how--

2 GUY OLIVERI: [interposing] It's a
3 question of granularity I think. I mean we
4 definitely collect information on contracts. There's
5 a lot of information that sits in the City's
6 Financial Management System, but I think sometimes
7 the specifics about what was purchased is buried like
8 text or the name--

9 CHAIRPERSON ROSENTHAL: [interposing]
10 This isn't a name. (sic)

11 GUY OLIVERI: I don't think we generally
12 collect the information at that level of detail.

13 DEPUTY COMMISSIONER SUNDERLAND: Correct.
14 You know, as a for instance.

15 CHAIRPERSON ROSENTHAL: And--and is that--
16 --that jumps out to me as a problem--

17 GUY OLIVERI: [interposing] Yeah, it--it
18 is.

19 CHAIRPERSON ROSENTHAL: --and that would
20 strike me that DOITT would want to talk to MOCS about
21 here are the ten key words you should be using in the
22 headers so that we could do a run and find out how
23 many Microsoft licenses are out there, you know.

24 DEPUTY COMMISSIONER SUNDERLAND: Well,
25 yeah.

2 GUY OLIVERI: I'll just add to that when-
3 -a lot of times when we're collecting information or
4 when DOITT--I worked at DOITT for a brief time. But
5 when at DOITT we were collecting information about
6 software licenses, it's done through scans,
7 technology scans of the network--

8 CHAIRPERSON ROSENTHAL: [interposing] Oh,
9 I see.

10 GUY OLIVERI: --as opposed to--

11 DEPUTY COMMISSIONER SUNDERLAND:
12 [interposing] That's actually--that's a more
13 efficient way--

14 CHAIRPERSON ROSENTHAL: [interposing]
15 That's the way?

16 DEPUTY COMMISSIONER SUNDERLAND: --r
17 what's actually in use. What we found the biggest
18 problem was when we were trying for ourselves to find
19 out where--where software was and where licenses were
20 that potentially our maintenance was that had to be
21 renewed, was--was that often times the purchasing of
22 the software was embedded in--in a--a systems
23 integration contract with the vendor. And it wasn't
24 easy to find. So it's not--unfortunately it's--the

2 system has not been set up, and such a way that you
3 actually segregate out software purchases cleanly--

4 CHAIRPERSON ROSENTHAL: [interposing] Uh-
5 huh.

6 DEPUTY COMMISSIONER SUNDERLAND: --from
7 the rest of what's going on, and it's not always--
8 it's not always--

9 CHAIRPERSON ROSENTHAL: Is there a way to
10 set it up going forward so it would be clean?

11 DEPUTY COMMISSIONER SUNDERLAND: I'll
12 defer to my colleague on that.

13 CHAIRPERSON ROSENTHAL: All right, you
14 could just pull that out as a--some---

15 GUY OLIVERI: [interposing] Sure.

16 CHAIRPERSON ROSENTHAL: --header?

17 GUY OLIVERI: Yep, I would say there's
18 definitely improvements that we could make to the way
19 we collect information about that.

20 CHAIRPERSON ROSENTHAL: Is it something
21 you're contemplating or should all of us being
22 running back to our offices and writing legislation
23 requiring you to do it?

24 GUY OLIVERI: We're certainly--certainly
25 contemplating it. Yes.

2 CHAIRPERSON ROSENTHAL: Great. Thank
3 you. It's all yours. Okay, I see all my colleagues
4 have questions for you, but at this time I'm going to
5 let you go. Thank you so much for coming to testify
6 today. Thank you for all your--the information and
7 the hard work you do on behalf of the city.

8 DOUG TURETSKY: Okay, thank you.

9 DEPUTY COMMISSIONER SUNDERLAND: Thank
10 you.

11 GUY OLIVERI: Thank you.

12 DOUG TURETSKY: Happy birthday again,
13 Sarah.

14 CHAIRPERSON ROSENTHAL: Nice, nice. I'd
15 like to call up John Sullivan from Free Software
16 Foundation; Paul Tagliamonte from Open Source
17 Initiative; Prudence Katze from Common Cause; and
18 David Moore from Participatory Politics Foundation.

19 COUNCIL MEMBER KALLOS: Free Software
20 would like to go first.

21 CHAIRPERSON ROSENTHAL: Oh, and I'd like
22 Free Software to go first. Actually, Ben would like
23 Free Software to go first. So, John Sullivan.

24 JOHN SULLIVAN: Good morning. I'm the
25 Executive Director at the Free Software Foundation.

2 We're a 501(c)(3) charity that was founded in 1982
3 with a mission to defend the freedom of computer
4 users, and the primary way that we do this is by
5 ensuring that as much as software as possible that
6 they use is licensed under terms that will allow them
7 to freely inspect, share and modify it. So the
8 software that's free as in freedom. We're based in
9 Boston, but please don't hold that against me or my
10 testimony. Our mission and our work really
11 worldwide. So office staff has been developing and
12 promoting free software for 30 years, and personally
13 I've been involved with it for the last 13. WE are
14 very excited about the possibility of the Free and
15 Open Source Software Act here, and we think this is
16 an excellent bill, and strongly recommend its
17 passage. We believe it is in the best interest of
18 New York City, and its agencies to purchase software
19 with a free as in freedom license. It's good for the
20 city's operations, and it's good for the city's
21 people. First, it's the only way for the city to
22 verify what the software that it's purchasing is
23 actually doing. As we saw recently with Volkswagen
24 who used proprietary software to pull EPA regulators
25 for a few years. All software can be doing something

2 very different under the hood than what it claims to
3 be doing up front, and this presents ongoing risks
4 that can undermine the city's operations, and also
5 have great security concerns especially when it comes
6 to city resident data or other sensitive information.
7 And second of all, just being able to audit the code
8 is not necessarily enough to prevent that sort of
9 thing. Even if problems are discovered in code then
10 if the city doesn't have the freedom to fire that
11 vendor and hire a new one to work on the very same
12 platform, then the choice of firing the vendor also
13 becomes the choice to start completely over with
14 another platform, which has a lot of costs and
15 inconveniences associated with it. And third, Free
16 Software really is at the forefront of innovation.
17 Right now the Free Software Program Linux is at the
18 core of the Android Operating System, which is now
19 the most widely used general operating system in the
20 world. The new Linux Operating System powers the
21 majority of servers on the Internet. It's now
22 Windows or Microsoft or any other Windows or Apple or
23 any other proprietary system. And finally, it
24 usually also work out to be cheaper. I think there's
25 been extensive discussion about that, but it creates

2 a good dynamic because even while the cost for the
3 city goes down, it helps boost the local business
4 culture. That because more companies are enabled--
5 now able to provide services associated to the
6 platforms that are in use as opposed to if you want
7 Microsoft service you have to go to Microsoft
8 instead. You can have dozens of shops that all work
9 on Word Press or Drupal, and so that really enables
10 the new local business culture. I do have one
11 suggestion for how the bill could be improved that I
12 wanted to highlight, and that's that we think that
13 free documentation should be added as a requirement
14 or as a goal to the promotion of free software. Good
15 training is really key to the success of any new
16 software platform in any organization, and
17 documentation for how to modify the program is also
18 important. To be able to take advantage, you have to
19 have a different set of developers work on the
20 programs than the ones who originally wrote it. And,
21 if the documentation is not a proprietary term, that
22 still is a lever that vendors can use to sort of
23 dictate or sell very high priced licenses to the
24 city. And it's a pretty simple change because the
25 rules--the principles for free documentation are the

2 same as the principles for free software. They
3 should be shareable, modifiable, readership readable
4 by anybody in the city that's using it. So, we think
5 passing the bill would be a huge step forward for New
6 York City and its residents. I would love to be able
7 to go home to Boston and--and challenge Boston to
8 follow suit, and I hope that you will adopt it, and
9 happy birthday, Sarah.

10 [pause]

11 PAUL TAGLIAMONTE: Happy birthday, Sarah.

12 [laughs] I'm here on behalf of the Open Source
13 Initiative. The Open Source Initiative. The Open
14 Source Initiative is a 501(c)(3) non-profit whose
15 global mission is to protect open source software.
16 Free and open source software is software, which at
17 its core defends users. It defends the users of the
18 software, and as a body, which is accountable to the
19 taxpayers, it's the duty of any democratic government
20 to be accountable to the citizens. And, by assuring
21 that the government operates using as much free and
22 open source software as possible, you ensure that
23 both the government and its citizens have visibility
24 into the software that's running the government as
25 well as being able to ensure that citizens are able

2 to truly use a work source (sic) data that's being
3 produced by the government. As technology starts to
4 become a bigger part of how city operate--cities
5 operate, it's critical that different components are
6 able to interoperate and evolve as the city evolves.
7 The ability to modify the software will only become
8 more important over time. Even when it comes to
9 support for large scale deployments, which there's
10 been a little bit of talk about so far, proprietary
11 software really forces you to sign with a single
12 large vendor than be able to use the free market, and
13 just the--funding the local development community
14 here in New York and keeping the taxpayer money with
15 the City of New York making sure that the people of
16 New York can help maintain these systems first rather
17 than having to sign with some company on the other
18 coast of the U.S. And, yeah, really by providing a
19 way to share a lot of infrastructure, and spread a
20 lot of the costs of maintaining these systems across
21 government. There's definitely a cost savings value,
22 and I would absolutely love to see something like
23 this pass, and I would definitely recommend its
24 passage.

2 PRUDENCE KATZE: Thanks. Happy birthday,
3 Sarah, and whoever else may be having a birthday
4 today as well. Thank you for the opportunity to
5 testify. My name is Prudence Katze. I'm the
6 Research and Manage--Manager of Common Cause New
7 York, a non-part--non-partisan advocacy organization
8 founded as a vehicle for citizens to make their
9 voices heard in the political process. We appreciate
10 the opportunity to speak on the possibilities of
11 opening up and streamlining New York City's software
12 infrastructure. Intro 365 could--could potentially
13 save the city thousands by implementing a plan of
14 coordination between different departments when it
15 comes to purchasing future software packages. Intro
16 366 goes even further by requiring the Department of
17 Department of Information, Technology and
18 Telecommunications, DOITT, to limit future software
19 purchases through fostering free and open source
20 software programs and creating a citywide directory.
21 For these above reasons, Common Cause New York is in
22 favor of the passages of those bills with some minor
23 amendments. Passing both bill would not only start
24 us on a needed path of saving the city money, as we
25 heard earlier, it would also give additional

2 flexibility for all departments in choosing software
3 that best suits our constituents when they're able to
4 tweak the code of an open source data plate--
5 platform. Instead of being locked into multi-year
6 proprietary contracts, the city will be able to focus
7 more on fostering a responsive software and data
8 ecosystem. Common Cause has long advocated for more
9 levels of government to bring software development
10 and programming in house. Currently, the pendulum
11 has swung too far in the direction of outsourcing
12 important functions, relying on expensive private
13 consultants, rather than developing and maintaining
14 capability internally with a workforce that can be
15 held directly accountable for performance and trained
16 to stay in trend. (sic) And that being--being locked
17 in, we do agree with DOITT that it isn't wise to man-
18 -mandate a specific platform to be used as the
19 repository, and we think that it is a good idea to
20 try to be as neutral as possible about that.
21 Additionally, we caution at the moment the idea of
22 coordinating with outside jurisdictions as we think
23 it's going to be an issue unto itself to just
24 coordinate within New York City. I was actually
25 talking to a friend of mine who works within DCAS.

2 I'm actually surprised that they're not--they didn't
3 come to testify because they do a lot of contract
4 work as well. He was surprised also, and he said
5 that it would be pretty amazing just to try to figure
6 out how to get the multiple ArcGIS licenses all
7 coordinated into one bucket, or to figure out how to
8 build the cages. But anyways, in our discussions
9 with government entities who have developed their
10 software in house, we have learned that a major
11 advantage is not only detailed in knowledgeable
12 customization that fits both the legal and
13 performance requirements of the agency at a fraction
14 of the cost of hiring outside consultants, but also
15 the flexibility, and increased responsiveness of
16 having programmers on staff available to address
17 problems quickly and knowledgeably. So, we are
18 pleased to see the introduction of Intro 365 and 366
19 and support their enactment into law. Thank you.

20 DAVID MOORE: First, to begin some
21 preliminaries, happy birthday (pause). So now, I'm
22 good and now I can say again, happy birthday Sarah--
23 Sarah Mallory, because that's a hit with the crowd.
24 Thank you very much Council Members Rosenthal and
25 Kallos for the opportunity to testify. My name is

2 David Moore. I'm with the Participatory Politics
3 Foundation and we're a 501(c)(3) non-profit with a
4 mission to increase civic engagement, and we do that
5 by making technology and websites the free and open
6 source, use open data and they're open to everyone.
7 So with nine years of experience in developing
8 websites that are popularly used for participating in
9 our representative democracy, I'm very proud to sit
10 and testify in favor of Intros 365 and 366, and I
11 think that Council Member Kallos' initiatives will--
12 will result in a healthier ecosystem for developing
13 tools for participation and engagement in New York
14 City. [coughs] Open Source Code has proven to be the
15 back bone for all sorts of innovation. By supporting
16 it and institutionalizing preference for it, we're
17 unlocking the potential of New York City, and also
18 I'll emphasize other cities across the country
19 developed for communities that want to contribute to
20 their communities, but currently don't have the
21 channels to do so. These two initiatives serve as a
22 very, productive and very practical way of connecting
23 more developers to the communities in which they live
24 and to shared resources. I'll note that open source
25 was recently described by a researcher named Donati

2 Agaval (sp?) as quote, "The biggest blind spot of the
3 Internet." All the crucial functions that open
4 source runs and to express a preference in reporting
5 requirements as Intro 366 does and to--to--to
6 establish a pool of shared resources as Intro 365
7 seems to do (coughs) is a--is a very solid step
8 forwards towards brining this blind spot back into
9 the light, and encouraging small business opportunity
10 here in New York City by highlighting the
11 opportunities that exist to develop on open source
12 software. And also opening up new ways of contacting
13 with the City Council and city agencies. [coughs]
14 Intro 365 will coordinate and pool the valuable
15 resources of city governments, not just in New York,
16 I hesitate to add, but also in other cities to
17 improve the products that are used by constituents,
18 and to crucially to increase the pool of developers
19 who are contributing to these shared resources. And
20 366 will directly benefit software that's being
21 developed in the wide community of the public
22 interest contributors. With vendors of government
23 software, there's a risk that we've seen of upselling
24 for needed enhancements, for de-prioritizing basic
25 user experience such as mobile accessibility. And

2 we've seen the resistance to establishing a collab--
3 collaborative road map with the non-profit community
4 and Civic Hack and volunteers toward liberating
5 public data. And you can see the effects of these
6 costs in the low use of some official city government
7 tools. [coughs] So the--there's a great opportunity
8 here for New York City to lead the nation with
9 Council Member Kallos' legislation in establishment a
10 preference for free and open source software for
11 banding together, and making some of the tools that
12 are popular--that are already popularly used in New
13 York City even more powerful by developing them for
14 the public benefit. Thanks very much. I look
15 forward to your questions and comments.

16 CHAIRPERSON ROSENTHAL: Thank you. I
17 have a few questions some of which I probably should
18 have asked the Administration, but I'm just starting
19 to figure out what you guys are talking about. So,
20 I'm going to start actually John or Paul if you have
21 some docs on this. Do you guys see any security
22 risks for moving in this direction?

23 JOHN SULLIVAN: Yeah, I think security
24 risks are basically inherent with software. So free
25 software certainly can't promise, you know, absolute

2 security. Thus, we see a wide agreement in security-
3 -security communities having the code be available
4 for inspection to everybody and fixable by anybody
5 who finds problems is really a precondition to long-
6 term strong security. So there's many incidents over
7 the years that's propriety, encryption algorithms
8 being defeated very quickly. Companies like
9 Microsoft or Apple may discover security problems in
10 their software because they pay a lot of people to
11 work on those issues. But then it's up to them at
12 what pace they release that information, and at what
13 pace they release the fixes. Whereas, when a
14 software is public anybody, you know, there's--
15 there's no hiding it. So it puts the focus on the
16 actual security instead of confusing it with profit
17 agendas and other things that can happen with
18 proprietary software. And I guess the last point I
19 want to make about it is the definition of security
20 is important. So, an iPhone doesn't allow you to
21 install any third party applications on it from any--
22 from--you can only install Apple from the app store,
23 and that does provide for a certain kind of security
24 but it provides for no security for example against
25 Apple itself, and the things that Apple may do that

2 the user may wish Apple didn't do. So, for the City
3 I think it's very important to remember that security
4 for the city means the city is in charge of the
5 definition of security for the city, and not an
6 outside vendor, and that's only for software that
7 enables that dynamic.

8 CHAIRPERSON ROSENTHAL: Although, if it
9 were open sourced is the city secure from a hacker to
10 rewrite from code and expose the city in some way?

11 JOHN SULLIVAN: Not automatically
12 securing those, but that's also an end that--the
13 software technologically is the same, you know, in
14 both cases. So, more of a just a person can take
15 advantage of either proprietary software of free
16 software. So really it's about which one of those
17 arrangements prepares you best to be as safe as you
18 can be, and then which one of them enables the best
19 kind of response and the quickest kind of response?
20 So that's where we think free software comes out
21 ahead in the longer term.

22 CHAIRPERSON ROSENTHAL: Do you want to
23 add?

24 PAUL TAGLIAMAONTE: Yeah, I definitely
25 agree with everything that John said. I think

2 that's--that's definitely true, and one of the sort
3 of focuses in the specific area of competing when it
4 comes to cyptological software is sort of the first
5 rule is that all of the cryptographical--all the
6 routines that are keeping us safe, all the encryption
7 that we use is developed under the assumption that
8 the attacker knows exactly what's going on. So being
9 able to hide the method by which you are securing
10 something doesn't add security. Security through
11 obscurity isn't necessarily added security. And so,
12 by collaboratively going through and discussing these
13 things in the open, you can often times get more
14 people's input into what's going on, and start to
15 actually think through some of the problems rather
16 than try to hide it away and hope no one notices.

17 CHAIRPERSON ROSENTHAL: Wow, that's
18 making me feel really insecure. Can I just ask and--
19 and John, you made this point in your testimony about
20 giving--giving additional work to a large company
21 versus local businesses. One of the points you made
22 was that local businesses would get involved in open
23 software where, you know, obviously there's no
24 opportunity for that if Microsoft is running it. But

2 why do you assume it's local businesses? It could be
3 anywhere in the world, right?

4 JOHN SULLIVAN: Yeah, it--it--it can be
5 anywhere, and it also can be--free software is also
6 produced by the large businesses. So, you know,
7 Oracle was mention as one that--that has involvement
8 with just about every large technology company.
9 Apple, even Microsoft, IBM, Google, all distribute,
10 HPD, all distribute some amount of free software.
11 So, it's not--I don't mean to say that it's
12 automatically only small businesses that get
13 involved, but it creates opportunities for that kind
14 of businesses that don't exist now. And I
15 highlighted local just because I thought that might
16 be of particular interest to the city, but--and I
17 would expect, you know, if the city has adopted these
18 kinds of rules, I--I would expect the local
19 businesses to take more of an interest in
20 participating in that. And we also as a free
21 software foundation have been trying to encourage
22 people who--to contribute their time even volunteer
23 time as a form of civic engagement, and helping the--
24 the local area by contributing technologically to the
25 code that helps operate their city infrastructure.

2 CHAIRPERSON ROSENTHAL: Would they be
3 willing to intern on this project to--

4 JOHN SULLIVAN: I--

5 CHAIRPERSON ROSENTHAL: Okay, we'll be in
6 touch with them.

7 JOHN SULLIVAN: We would be happy to help
8 promote any opportunities.

9 CHAIRPERSON ROSENTHAL: Okay, but is
10 there--when someone would start to interact with this
11 now open source world, do they have to identify
12 themselves in some way?

13 JOHN SULLIVAN: It's--different projects
14 have different cultures, and different methods of
15 evaluating contributions, and some let--you know, the
16 general path is that somebody discovers the code.
17 they might try it out, find a problem with it, and
18 they might report the problem, and also along with
19 the problem report a suggested repair. And then
20 generally--but they can't--often times at the
21 beginning they can't distribute their changes as part
22 of the official version right away. Somebody else
23 has to approve that.

24 CHAIRPERSON ROSENTHAL: Got it.

2 JOHN SULLIVAN: And so it's kind of up
3 to--and there's, you know, small projects with only
4 two or three people, and there's large projects that
5 are thousands of people so--

6 CHAIRPERSON ROSENTHAL: So hypothetically
7 DOITT would be the manager of the open source?

8 JOHN SULLIVAN: I--I think it's, yeah,
9 the city can--can make some choices about how--

10 CHAIRPERSON ROSENTHAL: What we would
11 suggest is a whole different entity, but--

12 JOHN SULLIVAN: Uh-huh. Yeah, but it's
13 different. You know, it--it does help for projects
14 that you're relying on to have some, you know, rules
15 about governance of the projects, and to get to
16 distribute changes right away as part of the official
17 version and who has to be approved first.

18 CHAIRPERSON ROSENTHAL: Okay, and then
19 Prudence, I just want to ask you did you say it was a
20 DCAS firm who--

21 PRUDENCE KATZE: [laughs] [off mic] It's
22 under that. (sic)

23 CHAIRPERSON ROSENTHAL: No, I don't, but
24 I was wondering that person knew about and used I
25 guess it's called GitHub like the--the things that

2 the City now does that seems open data where I could
3 list all the ones the Commissioner talked about.

4 PRUDENCE KATZE: I'm not--I'm not sure
5 if--about it.

6 CHAIRPERSON ROSENTHAL: The point just
7 being raised--

8 PRUDENCE KATZE: [interposing] Yeah.

9 CHAIRPERSON ROSENTHAL: --is it agency
10 culture to know what's even--maybe the change is
11 happening so fast that people entrenched in the
12 system aren't even aware that there are changes now.

13 PRUDENCE KATZE: I mean I don't--I don't
14 want to--I can't speak for this person, and I don't--

15 CHAIRPERSON ROSENTHAL: [interposing] But
16 get back to me tomorrow.

17 PRUDENCE KATZE: Yeah, sure. I--I--I
18 just--I--I think he has just privately expressed some
19 frustration. He does more--he does GIS stuff, and
20 he's just expressed frustration in the way that the
21 licensing is distributed, but that's all I can say
22 about it.

23 CHAIRPERSON ROSENTHAL: Okay, thanks.

24 PRUDENCE KATZE: Yeah.

2 CHAIRPERSON ROSENTHAL: I'm going to turn
3 it over now to Council Member Kallos.

4 PRUDENCE KATZE: [interposing] Actually,
5 I just wanted to add one thing. Sorry. Quickly in
6 regard to what you were saying, both of you all were
7 saying kind of like obscurity through--obscurity
8 isn't necessarily secure. I do want to say the same
9 thing in terms of we can't think of these large--of
10 like Microsoft, Apple, these entities aren't just
11 these neutral providers of software. They also spend
12 thousands and millions of dollars lobbying New York
13 City and New York state, and also directly
14 contributing to the candidates and candidate
15 committees. Not to candidates. Just to candidate
16 committees and party committees. So that's just
17 something I want to--we're not, you know, talking
18 about money and politics specifically right now, but
19 this is a big issue for Common Cause and Common Cause
20 New York, and I just want to point out that we need
21 to take into account some of the software that we
22 may--may be purchasing as by a huge entity that is
23 also spending a lot of money to enact certain laws
24 or maybe not have certain laws enacted.

2 CHAIRPERSON ROSENTHAL: So I'm very
3 interested in what you just said, and I think that's
4 an important point. I mean, instead of a contract
5 committee, my hope is that the procurement process is
6 transparent, and that we could on any issue see
7 what's going on. And certainly with the \$1.1 billion
8 DOE debacle with Community Services specialists--

9 PRUDENCE KATZE: [interposing] Right.

10 CHAIRPERSON ROSENTHAL: --it never
11 smelled right, and, in fact in the redo in going
12 back, the way that it was fixed was by defining the
13 scope of the project better. So, one thing I'm
14 looking for in procurement is that we be as tight as
15 possible in what the city is asking for, and I always
16 wonder--and this is why I'm interested in your point--
17 -does that crush out the possible improprieties?

18 PRUDENCE KATZE: I mean, yeah, I want to--

19 -

20 CHAIRPERSON ROSENTHAL: [interposing] you
21 know, but you see it--

22 PRUDENCE KATZE: --I want to acknowledge
23 the work that you've done. I know you've been
24 thinking a lot and--about how do we make contracts
25 more air tight per se. Maybe what I'm saying the

2 amount--the money that Oracle and Apple and IBM and
3 all that they're spending to--to lobby our city and
4 state entities it's not maybe necessarily on
5 procurement, but it's on a bill that in a round about
6 way would create more business opportunities, which
7 is what a lot of people are after. And that's not
8 necessarily a bad thing to create more business
9 opportunities. It's just something they could take
10 into consideration. like what--what is the end goal
11 down the line. So that's all I'm saying.

12 CHAIRPERSON ROSENTHAL: Totally great.
13 I'm just trying to define my little world here, and
14 it's important to me because I do meet with
15 contractors to learn about their experience with
16 procurement, and that helps me understand better what
17 their experience is. But I generally don't even
18 process what the name of the company is. That's not
19 my interest. My interest is--is in making
20 procurement better, and to the extent that, you know,
21 this can do that, that's really interesting to learn
22 about. Council Member Kallos now wants to jump in.

23 COUNCIL MEMBER KALLOS: First, I just
24 want to thank this panel for being here from parts
25 near and far. For those of you who are near, thank

2 you for being near and contributing to our local
3 economy, and for those of you who came from DC and
4 Boston, thank you. I--I also know that you are here
5 because your counterparts couldn't be here. Richard
6 Stallman who founded the Free Software Foundation did
7 not receive enough notice. He is in another country
8 and was not able to come back for this. We are glad
9 that the Executive Director was able to join us from
10 Boston, and Bruce Parents, who created the
11 definitions for OSI and was one of the founding
12 members with Eric S. Raymond, ESR, is in California.
13 He submitted testimony for the record, but could not
14 be here today. So just thank you, and just one piece
15 of public disclosure, Richard Stallman did endorse me
16 in my hardly fought primary, and I am a huge fan of
17 his and have been for a very long time, and he's
18 incredibly responsive. You just email him,
19 rms@gnu.org and he responds. So, I just want to
20 thank you again for coming. Let me start with first
21 just apologizing a little bit to Richard Sullivan of
22 Free Software Foundation. We did choose to use the
23 word free and open source software, though, I know
24 that Richard Solomon prefers us to use free Libre and
25 open source software. How--

2 CHAIRPERSON ROSENTHAL: [off mic] To use
3 what?

4 COUNCIL MEMBER KALLOS: Libre.

5 CHAIRPERSON ROSENTHAL: Libre.

6 COUNCIL MEMBER KALLOS: Libre as in
7 Liberty.

8 CHAIRPERSON ROSENTHAL: Thanks for--

9 COUNCIL MEMBER KALLOS: [interposing]
10 Yes.

11 CHAIRPERSON ROSENTHAL: Okay.

12 COUNCIL MEMBER KALLOS: And so and--and
13 that acronym would have been FLOSS. However, that
14 acronym is even more difficult than the existing one
15 we're using. So I just want to acknowledge that. So
16 my first thing is I keep hearing this word "free".
17 Does that mean it doesn't cost anything? [laughs]

18 CHAIRPERSON ROSENTHAL: Why do think you
19 know the answer to that? [laughter]

20 JOHN SULLIVAN: Yeah, so that the free and
21 free software refers to freedom so free speech,
22 freedom of the press, the freedom to run the
23 software, do it would source code, modify it and
24 share it, either modify it or how you originally
25 received it. So, we--we use that term instead of

2 open source because we like to keep the focus on the
3 freedom aspect especially in context like talking
4 about using government where we really have some
5 issues of sovereignty and freedom that are at stake.
6 But when it come down to it, it's just something
7 that's described as having an open source license or
8 a free software license as almost always the same
9 thing in practice.

10 CHAIRPERSON KALLOS: And can I charge?

11 Can I charge somebody for me or you or anyone here to
12 write free and open source software?

13 JOHN SULLIVAN: Yes. So you can be paid
14 to write free software and many people are. If you
15 have purchased for example an Android phone, you have
16 paid for some free soft--you have paid for a thing,
17 which has free software on it. So, Word Press, which
18 is--which powers 25% of websites. According to a
19 recent survey, there's something that you can pay
20 people to work on and develop plug-ins for you that
21 are also free software. So it's not free as in
22 price. It's free as in freedom.

23 COUNCIL MEMBER KALLOS: Full disclosure

24 on one of those people. However, I no longer have

25 outside income as of Friday. So, I will have to wait

2 for whatever version that we are at when I finish in
3 office. And then, I guess one question is--and is
4 there--do--do--do you build--do any of you actually
5 build open source software? Do you have any concern
6 that you're giving away your hard work and other
7 people can use it? Has that stopped you from being
8 able to grow as a company, and like who--who would
9 write and operating system and give it away. Like
10 how do--how do you make money doing that, or how do
11 you support your own product, and I'd like to start
12 with David Moore because I know you keep making the
13 product that you're company makes in resources.

14 DAVID MOORE: I do. I--I have a feeling
15 you--you know the beginnings of the answers to the
16 question, Councilman. But thanks--thanks for the
17 question. My view on it is that we're--we're a non-
18 profit organization, but for a lot of developers of
19 open source whether you're for profit or non-profit,
20 it opens up options. It opens up the options to
21 generate revenue in a number of ways, and open source
22 software is really still being successfully vended to
23 city governments across the county in different ways
24 and at different levels. There's the Enterprise
25 software that runs so much that we don't see, but

2 there's also right now a lot of open source tools
3 that are in use, and being used by thousands of
4 people everyday to participate in their communities
5 in ways that-- You don't necessarily interact with an
6 Oracle server, but instead you--you interact with an
7 open source app that is. So we're--open source
8 presents opportunities to develop revenue, inform
9 partnerships in different ways, [coughs] and for us
10 it keeps us very grounded and accountable in the New
11 York City community that we're looking to serve.

12 COUNCIL MEMBER KALLOS: And I guess one
13 question is just so we have an option. We can do
14 full copyright. So I just scribbled on this piece of
15 paper. It is copyright, but that's it. It's
16 automatic. We have--the copyright zero, or we can
17 just say we don't--we don't--we--we give up our
18 copyright. This is a different type of license or
19 protection. Why should--why should we use open
20 source license or free software license or one that
21 satisfies both instead of just releasing something
22 with--without a copyright or without a license? Paul
23 hasn't had a chance to answer a question about that.

24 [background comments, pause]

2 PAUL TAGLIAMAONTE: Yeah, definitely
3 that's a great point. So, in--in the end it's not so
4 much the license that the code is under. So if you
5 look at something--if you look at some of the more
6 permissive licenses, you are able to take those works
7 and incorporate them into proprietary software. And
8 so, it's only the copy left set of licenses that
9 really sort of ensure that those works will forever
10 be free and open source software. By releasing
11 something at CCO, effectively public domain, you are
12 putting that work out for anyone to use in any way,
13 and that can also be effective free and open source
14 software as one that's being distribute--distributed
15 in the term--in--in such a way that you are allowed
16 your four freedoms and you comply with the open
17 source definition of--like you're able to take the
18 work, modify it and use it for whatever purposes
19 you'd like. And so long as you distribute the
20 software in such a way that other people are able to
21 take advantage of that as well, then it's open
22 source. So, yeah, I think that the terms aren't as--
23 as important as what you do with it in looking at
24 this. (sic)

2 COUNCIL MEMBER KALLOS: And John, I
3 believe you have a slightly different answer or
4 similar?

5 JOHN SULLIVAN: The--the same answer.
6 We--we do especially promote the licenses like the
7 one that that comes from us. We give you a general
8 public license because that says that you can share
9 the software however you'd like as long as you give
10 whoever you pass it onto the same permission, and
11 that builds a common software. So that's our
12 favorite kind, but I think the other important point
13 you're making was that by default everything is fully
14 copyright. So if you write a piece of code, and put
15 it online it is important to report a notice that
16 says it is free software, and what license you're
17 distributing it under on that code. If you look at
18 sites like GitHub, you'll find unfortunately a lot of
19 programs that don't have any statement about their
20 licensing at all, and it's highly likely that the
21 people who are--who put them up there intends to
22 share them under freely license terms, but if they
23 don't say explicitly, then under copyright law in
24 most countries around the world an definitely here
25 then it's proprietary software by default.

2 COUNCIL MEMBER KALLOS: Is public domain
3 CCO a free software license?

4 JOHN SULLIVAN: Uh, yes. It is not--it
5 doesn't protect people as much as something like the
6 GPL because for example Apple has taken a lot of
7 software under very like--like in terms like that,
8 and resold it as proprietary software. So I think
9 for government and city use software, which is
10 guaranteed to be free and part of the common use is a
11 preferable alternative. But public domain and CCO
12 are acceptable alternatives.

13 COUNCIL MEMBER KALLOS: I had many
14 arguments with people about CCO versus free and open
15 source. The last question for Common Cause. If you
16 can talk to us a little bit about why you support in-
17 house versus a consultant. Are there different costs
18 associated with it? Is there a preference for
19 investing in city employees. In terms of the issue
20 that was brought up by the chair with regard to
21 making sure software is built in New York City by New
22 Yorkers, with dollars that are being reinvested
23 versus that can be built anywhere on the planet.

24 PRUDENCE KATZE: We're not against
25 consultants per se. I--what we mean by in-house is

2 that the overall control of the software development
3 is by the city. I mean right now we're also
4 advocating for New York State to build software that
5 would make voting easier to do, voting like early
6 voting software. That's a--just be--I mean in-house.
7 Yes, in-house doesn't necessarily mean that you are
8 only going to be able to use the employees that you
9 have because sometimes you might need to have outside
10 help. But it does mean that you get to keep the
11 control of how the software is built. Does that
12 answer the question?

13 COUNCIL MEMBER KALLOS: Perfectly. Thank
14 you.

15 CHAIRPERSON ROSENTHAL: All right. Sorry
16 to just to keep you here a bit longer. Always when
17 the issue--the--the fewer people that are here, the
18 more questions you get. That's sort of how that
19 works. I want--I want to ask you to sort of play
20 Devil's Advocate for a second. The Administration
21 raised a number of concerns, right. I think and I
22 don't know if you have their testimony, but they had
23 concerns about the required use of the Civic Commons
24 Portal with the thought being that that could go away
25 at some point. Why would you put that in law? They

2 had concerns about--I'm just rereading the paragraph.
3 It's complicated to me, but whether or not the free
4 source or open source is even an attainable goal.
5 Ones sort of larger than what they're doing now is
6 even attainable. And they seem to imply that the
7 training while not of staff to get used to this and
8 to switch over while not necessarily cost-
9 prohibitive, it would be a challenge. And I'm
10 wondering--those were some that I could understand,
11 but what--why--do you see those as challenges as
12 well?

13 PRUDENCE KATZE: I just want to jump in
14 really quick. I--I--what I heard as a whole from
15 DOITT was mostly positive.

16 CHAIRPERSON ROSENTHAL: Uh-huh.

17 PRUDENCE KATZE: I--what this law is
18 mandating pretty much is a task force of figuring out
19 how do we get to these--the step of unifying our
20 software infrastructure ecosystem, which I think is
21 laudable. The fact that they're saying like we
22 already do a lot of this. We're already putting
23 things in GitHub, that's great. Let's figure out how
24 to put it all under one tent. So it might be easier
25 for other people to access it.

2 PAUL TAGLIAMAONTE: Um, yeah, I'm--I'm
3 not super familiar with the Civic Common stuff. So I
4 won't be able to speak to that. As--as for whether
5 or not it's feasible to run the city on a resource,
6 I--I think the answer is definitely yes. There have
7 been a handful of cities that have tried this out
8 before, and while they also have their share of
9 controversy, I think it's been positive. The City of
10 Munich in Germany has gone around this, and actually
11 changed their operating system from Windows to Linux,
12 and were able to retain their staff to use the word
13 processing tools that are free open--free and open
14 source. And there's definitely a large number of
15 white papers and case studies that sort of dive these
16 into the complexities of what that looks like and
17 there definitely will be a cost to retrain. That's
18 going to be part of it, and there definitely will be
19 a cost in having contractors customize the software.
20 But I think on the whole there--there probably will
21 be a cost savings again. I'm--I'm not super familiar
22 with their financial situation of any of this--

23 CHAIRPERSON ROSENTHAL: [interposing] Uh-
24 huh.

2 PAUL TAGLIAMAONTE: --but being able to
3 turn around to go hey like we're--we're actually able
4 to modify our text editors for our lawyers when
5 they're doing a review. It's something that just
6 doesn't exist with proprietary software. No one
7 really think oh I can modify Word. Oh, I can modify
8 Office to--to suit my needs so--

9 DAVID MOORE: [coughs] And I'll
10 contribute briefly. On the--Council Member in your
11 first question regarding the Civic Commons Portal, as
12 I read it, it was the correct move by Council Member
13 Kallos to want to participate in the--the community
14 central platform for civic software. And that deals
15 into hearing to working with his staff on the needed
16 edits to that specific one domain because the
17 information can be shared through any other good
18 government and open government advocates. [coughs]
19 On the second point regarding--I've--Intro 365--Intro
20 366 is at--it schedules the City Procurement Officer
21 to work with city agencies, and offices in order to
22 do reviews and to periodically report back. I think
23 that's a tremendously positive dynamic. I think it's
24 very practical. I think it can result in a lot of
25 efficiencies, and much better communication, much

2 more clarity. And so, that's why I support Free and
3 Open Source Software Act as a model for other cities
4 as well. But more importantly here in New York I can
5 see the practical effects that this review can have
6 on processes, and what can be made more effective.
7 Yeah, and we would like train. I think that my
8 colleagues made some other good points.

9 CHAIRPERSON ROSENTHAL: And so if it
10 just--do you think it's just the hurdle of moving
11 toward adolescence or adulthood that's keeping us
12 from doing it? I mean I would have to be trained,
13 right? And so, it--how many people have to be
14 retrained to be able to move in this direction? Is
15 it the Accos (sic) of each of the--or the technology
16 directors of each of the agencies? Is it a lot or a
17 little in perspective of, you know, city government
18 work?

19 DAVID MOORE: I would have to research
20 that more. I'd be happy to provide an answer right
21 away after this hearing.

22 CHAIRPERSON ROSENTHAL: Sure, Ms.
23 Prudence. (sic)

24

25

2 PRUDENCE KATZE: [interposing] I don't--I
3 don't think that you necessarily would need to be
4 retrained.

5 CHAIRPERSON ROSENTHAL: Okay.

6 PRUDENCE KATZE: I mean I think if you
7 were using a lot of--I mean I'm not an expert on
8 this, but a lot of open source software touches Open
9 Office is very familiar in terms of how you use it.
10 I'm trained in ArcGIS, but I use this other program
11 called QGIS often. It's just you--you--we have
12 learned growing up with this kind of software these--
13 what these specific buttons, what these kind of
14 windows mean, and yeah, there might be about I don't
15 know, a 20-minute learning curve, but it's definitely
16 not a retraining I don't think on your level
17 necessarily. I think that retraining come more from
18 these larger infrastructures of how the software is
19 working together.

20 CHAIRPERSON ROSENTHAL: Okay, that's very
21 helpful. I think Council Member Kallos has left
22 further questions.

23 COUNCIL MEMBER KALLOS: Actually, just
24 two quick statements first. Anyone who's interested
25 in free and open source, please just pick up a--a

2 live CD or a live USB stick. I don't have it with
3 me. I was just wanting--running around today seeing
4 if anyone is running Ubuntu on the computer, but free
5 and open source software has gotten to a point where
6 you can get a USB stick, plug into a computer, reset
7 it, and you wouldn't actually know the difference.
8 It's--oh, you have one? Can I borrow it. I'll--I'll
9 reboot my computer. So like literally you can just
10 pop it in and go from being a full service--Oh,
11 somebody else is running it, but it's one of those
12 things where you can test it out, and see how easy it
13 is. One other piece is I would just say in terms of
14 this model legislation, in New York City we have
15 oversight over contracts and limitations on what we
16 can. So this is an oversight and reporting bill. I
17 know that New Hampshire and Kansas have passed laws
18 that actually just say nope we're just going to go
19 straight to this. But I think this is one of the
20 closer things we can do, and I just want to thank--
21 [background comments] [laughs] Thank you. So, I
22 will--just want to thank a member of the public who
23 actually brought a--a version of Linux, which has the
24 operating--what? Which one?

25 FEMALE SPEAKER: [off mic] NOFX.

2 COUNCIL MEMBER KALLOS: NOFX. So it's
3 one in distributions and it has the operating system,
4 a graphical user interface, a Libre Office, and just
5 everything you need to use a computer, and it doesn't
6 actually cost anything.

7 FEMALE SPEAKER: [off mic]

8 COUNCIL MEMBER KALLOS: And an anti-viral
9 program. Thank you.

10 CHAIRPERSON ROSENTHAL: I think I'm also
11 welcoming the first Yeshiva of Flatbush. I think
12 there may or may not still be outside. They were
13 upstairs. Okay, but they were here, the 8th Grade
14 Class was here, and I think it's great that they
15 would involve themselves in civic participation. So
16 thank you for that, and with that, I'll call this
17 hearing to a close. Thank you.

18 COUNCIL MEMBER KALLOS: Okay, we'd like
19 to add--

20 CHAIRPERSON ROSENTHAL: Wait a minute.

21 COUNCIL MEMBER KALLOS: --another panel.

22 CHAIRPERSON ROSENTHAL: Oh, we have
23 another panel. Sorry. Never mind. We have another
24 panel. I--everything I just said set aside. What I
25 meant to say was happy birthday to Sarah Mallory, and

2 I want to invite up our next panel. Thank you guys
3 all so much. Noel Hidalgo, who just--who started the
4 Tweeting today. Welcome and come on up. Devin
5 Balkind if you could come up. Aidan Feldman and
6 Karen Sandler. I'm sorry. I goofed that up. Sorry
7 about that. [background comments] Anyone else show
8 up? [pause] [background comments]

9 SERGEANT-AT-ARMS: [off mic] The class is
10 here.

11 CHAIRPERSON ROSENTHAL: Oh, great. I get
12 to welcome the class again. Okay, good. [background
13 comments, pause] While you guys are--I know you're
14 about to start, I just want to welcome the First
15 Yeshivah of Flatbush, the 8th grade class. Thank
16 you all for so much for coming today. My guess is
17 you're going to understand what we're talking about,
18 and I just want you to all know how impressed I am
19 with you already. Thank you for coming today. Did I
20 see Council Member Greenfield was with you? So,
21 welcome to him, as well. Thank you for bringing the
22 school. It's always wonderful to see kids here. So,
23 Noel, could you start us off?

24 NOEL HIDALGO: Great. Happy birthday,
25 Sarah. Dear Chairperson Rosenthal and the rest of

2 the committee that's currently sitting up there.

3 It's an honor to have this opportunity to represent

4 New York City's civic technology design and data

5 Community. I'm the Executive Director of Beta, NYC.

6 We're a member driven good government organization,

7 and we currently have over 3,000 members. Our

8 mission is to improve people's lives using technology

9 data and design while advocating for city government

10 for the people, by the people for the 21st Century.

11 In 2014, we published the *People's Road Map to a*

12 *Digital New York City* where we outlined the need for

13 New York City government to adopt more free and open

14 source software, and we fundamentally agree with

15 Intro 3--366 preamble that the acquisition and

16 widespread deployment of free and open source

17 software can significantly reduce the city's costs of

18 obtaining and maintaining software. And we applaud

19 the Council and this committee for holding this

20 hearing, and exploring initiatives in innovative ways

21 to save the city money, grow small business and bring

22 government technology into the 21st Century. I don't

23 want to go into all of the details that I--detailed

24 notes that I have here, but some of the observations

25 is that I--I feel that these two bills are great in

2 con--context. You don't have them--I--I don't have
3 any printed ones. I'm going to email this, too. But
4 we don't feel that the bill goes far enough, 366, to
5 detail current adoption open source software
6 policies. I think that the conversations and the
7 questions that you've asked with the city and then
8 the panel that was before this were completely
9 appropriate to understand that we need to know where
10 we want to go, and we need to have a perspective of
11 what is the software? When do those licenses expire?
12 When are they scheduled to essentially go out of
13 date, and if--if we had that map we would be able to
14 understand what are the--the values and potentially
15 the trajectory of then replacing that software with
16 open source software. And, one thing that this 366
17 doesn't have that was a--a pretty big concern is
18 around documentation, and kind of highlighting what
19 is a good practice around open source ecology. So
20 documentation, design documents, the ability to
21 submit comments or bugs. That isn't--those are kind
22 of like implementation details that could be argued
23 in the development, but could also be catalogued--
24 well, they could be, yeah, detailed in this
25 particular legislation. The ability to provide

2 feedback bug reports, and also looking at
3 documentation is something that has hindered the
4 city's open data legislation and particularly
5 creating a platform for dialogue around the data.
6 And so we feel that knowing the--that difficulty that
7 we've now had to get legislation passed last year to--
8 --to strengthen the city's Open Data Law, that insight
9 could be included into this particular legislation.
10 And make sure that this legislation is seen as kind
11 of the--the floor, not the ceiling of adopting and
12 having the--the thriving open source practice in New
13 York City. And we fundamentally encourage New York
14 City to adopt these practices whether it's in
15 legislation, or just codifying a policy around it,
16 and move forward and--and lead the nation in being an
17 open source software.

18 CHAIRPERSON ROSENTHAL: Thank you. Noel,
19 can I just interrupt for one second. You mentioned
20 something that the way you're talking about it was
21 the way I was thinking about, which is this idea of
22 why can't we just get the list from every agency of
23 where you are in the length of term of the license?
24 I mean surely the technology person at each agency
25 should know that, and has that information pretty

2 ready at hand. Why do you think DOITT was so quick
3 to say--I mean they--they even turned the question on
4 its head. They were saying well we need to know the
5 goal before we even need to know when the year ends
6 for each one. But it strikes me maybe even the
7 questions are hand-in-hand. They could go
8 concurrently, but don't--why would it be so difficult
9 to go through that exercise of seeing the citywide
10 picture of where we are with our license agreements
11 for multiple things at each agency?

12 NOEL HIDALGO: I can't speak--I'm not--I-
13 -I'm--I don't have privy to understanding how DOITT's
14 administrative infrastructure is run, but my time as
15 being--starting off in as doing frontline help desk
16 support for the Rand Corporation in DC.

17 CHAIRPERSON ROSENTHAL: Okay.

18 NOEL HIDALGO: For then working for the
19 State Senate here in New York City and up--up in
20 Albany, as well as working for the World Economic
21 Forum in Geneva, Switzerland. In all three of those
22 locations as part of the tech team we had
23 administrative software that we could run reports.
24 And we routinely ran reports to see what applications
25 were out of date to ensure that we could do software

2 patches, and ensure that the--any type of
3 vulnerabilities were taken care of, or just to even
4 have a perspective of have we distributed all of our
5 licenses in--to all of the different computers? I
6 think that that's maybe one side of DOITT doesn't
7 know what the other of DOITT is doing when it comes
8 to the security audits that happen in those
9 applications.

10 CHAIRPERSON ROSENTHAL: [off mic] Okay.

11 NOEL HIDALGO: I know that DOITT is a
12 very capable and intelligent agency. They've been
13 able to move mountains, but it's surprising that
14 parts of DOITT are not in the 21st Century
15 particularly when it comes to a broad open source
16 adoption, a broad GitHub engagement. So, there are
17 definitely opportunities for DOITT to be encouraged
18 to improve.

19 CHAIRPERSON ROSENTHAL: Thank you.

20 Please continue.

21 AIDAN FELDMAN: Dear Chairperson
22 Rosenthal, and the members of the Council, thank you
23 so much for the opportunity to testify in support of
24 these two important bills. My name is Aidan Feldman.
25 I'm a software developer who has been living and

2 working in New York City for six years. I am
3 currently employed at 18F, which is a 100% open
4 source team in the federal government, though I
5 should note that I'm testifying here in my personal
6 capacity. I'm a maintainer of dozens of open source
7 projects, and a strong supporter of open source, and
8 thus, I'm largely in favor of both bills. I have
9 specific feedback on how each can be improved, which
10 I will--which most of it is laid out in the written
11 testimony that I've provided. In this--all testimony
12 I'll discuss the general benefits of open source, but
13 I'm happy to go into more detail about--about my sort
14 of feedback of what could be improved.

15 So interestingly, the this bill is a
16 perfect example of permissive licensing in action.
17 The definition for open source software in the free
18 and open source software bill is pulled directly from
19 the Open Source Initiatives website. This bill could
20 not exist as written without the existence of
21 permissive lightens--licenses. The sponsors of the
22 bill didn't need to come up with the definition of
23 open source software from scratch or even get
24 permission from the open source initiative. They
25 could take that phenomenal (sic) definition that has

2 been developed and refined since 1998 by top experts
3 in the field and reuse it. Now, imagine a similar
4 scenario but applied to procurement. A piece of
5 software may be purchased from one agency and
6 government, but without carefully written contracts
7 the use of that same software by another group or
8 agency could require buying it again and again.
9 These multiple procurements are a huge waste of both
10 time and taxpayer dollars, but are all too common
11 across governments of all levels. Imagine instead
12 the software carried an open source license. If the
13 software is custom built, only one procurement would
14 be required, and if it's available of the shelf, the
15 entire procurement process could be skipped. Open
16 source provides greater freedom to experiment with
17 what software works best for a given problem as there
18 are significantly lower financial and legal barriers
19 to entry to evaluate change, and replace the systems.
20 Open source software also means reduction in vendor
21 lock-in, which has been discussed by a previous--the
22 previous panels. This reduction because the open
23 source can be read and modified by anyone including a
24 new contractor. Therefore, money spent on software
25 projects on--on current software contracts that are

2 proprietary can instead be better spent in supporting
3 and approving the software rather than paying over
4 and over for the same thing. Similarly, upstream
5 improvements that are brought in by the community can
6 directly be--can directly benefit these agencies
7 without having to wait for, you know, the next
8 version to be procured through these slow cycles. As
9 discussed earlier, the commonest misconception about
10 open source is that the--the security of the system
11 is sacrificed by making the code publicly available.
12 This argument is known as security through obscurity,
13 and it is specifically addressed and refuted by the
14 National Institute of Science and Technology.
15 Relatedly, the Department of Defense issued a memo
16 stating that source code on popular open source
17 projects is monitored by many people, which actually
18 means it's often more secure than its proprietary
19 equivalent. It's important to note that source code
20 being public--being public is completely separate
21 from data being public. An open source project is no
22 more likely to reveal sensitive information than one
23 that's closed source that often provides greater
24 opportunities for sharing data, which he city hopes
25 to be open. Open source software can be an enormous

2 benefit to governments of all sizes, and adoption on
3 the scale of New York City could make a huge
4 difference in the open source ecosystem. There are
5 countless software collaboration opportunities with
6 other governments, companies and the public including
7 civic technologists like those in this room all while
8 improving the efficiency and efficacy of New York
9 City government. I applaud the Council for
10 considering these important bills, and hope they pass
11 with the changes suggested in my and other--others
12 testimony. Thanks again for your time, and happy
13 birthday, Sarah.

14 CHAIRPERSON ROSENTHAL: [off mic] Thank
15 you. [pause]

16 DEVIN BALKIND: I'd wish Sarah a happy
17 birthday, but I think she's not here right now.
18 Thanks for the opportunity to--to present, to address
19 you. I'm going to talk about a--a story of real
20 people being impacted kind of tragically by poor use
21 of proprietary software by poor decision making
22 around proprietary software purchases by the City.
23 So, I'm--hey, everybody.

24 CHAIRPERSON ROSENTHAL: If I could just
25 welcome this is the School of St. Rose of Lima.

2 Thank you guys so much for coming today, and I hope
3 you'll--I think you're going to learn a lot from
4 listening to the folks who are here. So welcome,
5 enjoy. If you have questions that you want me to
6 ask, write them down, give them to your teacher.
7 Your teacher will give them to the sergeant-at-arms,
8 and I'll be happy to ask your question. Please,
9 Devin, continue. Oh, I also want to member--welcome
10 Council Member Costa Constantinides here. Thank you
11 so much for joining us. Please continue.

12 DEVIN BALKIND: Thank you. I'm the
13 Executive Director of a non--profit Sarapis, and we
14 do information management consulting for other non-
15 profit organizations. So I have a brief story that
16 illustrates how the lack of understanding about open
17 source software, open data, and collaborative
18 information systems among NYC agencies harmed New
19 Yorkers during Super Storm Sandy. As I said before,
20 I'm an information management Consultant for non-
21 profits. Immediately after Super Storm Sandy I
22 joined Occupy Sandy, and helped coordinate the flow
23 of data within that network and between it and non-
24 profits like the Red Cross and Salvation Army through
25 the NYC VOAD, which is Voluntary Organizations Active

2 in Disasters through their very short-lived data
3 sharing committee. That's how I learned about the
4 whole industry here. So about a week and a half
5 after Sandy struck New York, the National Guard
6 conducted a massive canvass of hard hit areas
7 including the Rockaways and Staten Island to assess
8 needs in those communities. It's important to note
9 that, and I'm thinking this step, canvassing data is
10 critically important for determining how resources
11 should be allocated during response and recovery
12 phases of a disaster. It's the best way to figure
13 out who needs what and where. It's the best way to
14 figure out where you're going to place your
15 resources, and how to invest limited--limited time.
16 It's so important, in fact, that international
17 humanitarian aid organizations have developed a
18 number of open source software tools to ensure that
19 countries in the developing world have the capability
20 to use Smart Phones and Tablets to do canvassing
21 after a disaster. You know, in the--in kind of those
22 specific types of conditions where you don't have
23 connection to the Internet, and all the information
24 can be stored locally on a Smart Phone and then
25 uploaded later. We should have used that software

2 instead of what took place. So, the data that the--
3 that the National Guard collected through their
4 Tablets went through a proprietary software system
5 apparently procured by NYC MODA who promised the VOAD
6 organizations such as the Red Cross and Salvation
7 Army that the data would be shared with them
8 immediately so that it could be used to help people
9 ASAP. That never--the data never came. Days became
10 weeks. There were conference calls. People said
11 it's coming, it's coming. It never came. My guess
12 is that the vendor didn't have the capabilities that
13 they claimed to have had when they got into the
14 contract that they couldn't make the data--the data
15 available quickly enough because canvassed data is,
16 you know, gets, you know, less useful every--every
17 minute, and that the decision makers who went with
18 that contractor got embarrassed and tried to sweep
19 the whole thing under the rug. This caused a lot of
20 harm. And to make matters worse, the same
21 proprietary vendor, who seemed to have botched the
22 canvassed data project, was also tasked with creating
23 a work order management system for the city that
24 would enable agencies and city--and civic groups to
25 coordinate the cleanup after the disaster, after

2 Sandy. This system was supposed to be available
3 within two months of Sandy, but I don't think it was
4 ever launched. What I do know is that while New York
5 City agencies and non-profits are waiting for this
6 proprietary custom fancy product to become available,
7 mun--municipalities and non-profits in New Jersey and
8 Long Island used a free and open source collaborative
9 work order management system called Crisis Cleanup to
10 coordinate their activities. And, in doing so,
11 cleaned up tens of thousands of houses of people who
12 were affected by the storm very quickly, easily and
13 software with no cost to any of the participants
14 using it. It was a real success I think of open
15 source software, and--and the decision making--the
16 awareness of non-profits and government employees
17 recognizing that you--when--when there's a crisis you
18 need to make decisions quickly, and that using an
19 open source option actually might be the best
20 decision. They weren't--they weren't afraid with it,
21 and in doing so created a lot of good. So in--in
22 conclusion, I think had New York City agencies been
23 instructed to give preference of open source software
24 solutions instead of third-party vendor solutions,
25 thousands of New Yorkers would have received aid

2 faster, better and cheaper, and probably the entire
3 Sandy recover process would have been more
4 transparent, effective and responsive. The one last
5 thing I'd like to add about this is that, you know,
6 agencies--the workflows that agencies have are
7 structured--the software agencies do structure their
8 workflows. If you can collaboratively improve upon--
9 if--if agencies have the--the--basically the legal
10 right to change the software, they basically have the
11 ability to actually change their workflows and be
12 flexible and respond--and be responsive to the needs.
13 When you have a licensing agreement that basically
14 mandates that agencies use a particular piece of
15 software, you're--you're basically calcifying the
16 workflow that these--those agencies are going to use
17 to do their work. They can't be flexible. They
18 can't be responsive, and the, you know, the--the
19 outcomes of that are things we see all the time. So,
20 thank you very much, and if you have any questions,
21 I'm more than happy.

22 CHAIRPERSON ROSENTHAL: Thank you. Karen
23 Sandler, if you'd like to testify.

24 KAREN SANDLER: [off mic] I'm Karen
25 Sandler--oops [on mic] I'm Executive Director of the

2 Software Freedom Conservancy. The Conservancy is a
3 New York 501(c)(3) charitable non-profit that I
4 should note is the awesome non-profit home of Sugar
5 Labs, which is great software for kids. [laughs] We
6 promote, develop, and defend free and open source
7 software, which we know is an issue of great and
8 importance to effective and safe functioning of
9 government. I have the beautiful Gnu Linux
10 distribution on my laptop with the beautiful GNOME
11 desktop, which is super easy to use, and looks really
12 good. And if anybody wants to check it out, I'm
13 happy to let you play around with my computer. Free
14 and open source software has many advantages over
15 proprietary software. Studies show that over time,
16 free software is safer from vulnerability. Free
17 software is auditable. Security and functionality
18 can be verified upon inspection. Anyone can
19 independently assess the software and it's risk.
20 Developers can more easily and quickly repair
21 discovered vulnerabilities or bugs, and bugs are very
22 common in all software. The Software Engineering
23 Institute estimates that an experienced software
24 engineer produces approximately one defect for every
25 100 lines of code, which is not a lot of code. Free

2 software removes dependence on a single party as
3 anyone can make changes to their version of the
4 software. And municipalities can hire any contractor
5 on the open market to work on the software.
6 Companies effectively hold governments hostage with
7 proprietary software. In the case of a security
8 vulnerability, governments must wait for the vendor
9 to admit there is a problem and then provide a fix
10 for it. If the City needs a new feature or other
11 functionality added, they are out of luck if the
12 vendor doesn't consider that work high priority. If
13 the company goes out of business, the City has to
14 find another solution entirely. Proprietary software
15 locks the City into the original vendor forever. In
16 contrast, if the City uses free software, anyone
17 familiar with the software can become a vendor.
18 Perhaps more importantly, proprietary software
19 companies increase licensing fees regularly often
20 annually. Fees are paid for users. As the city
21 grows, the fees can rise at a much faster rate than
22 inflation. Free software liberates the
23 municipalities from these challenges. There are
24 licensing fees for free software. Further, the
25 deceits of vendors over deployment can lead to costly

2 claims about unpaid licensing fees. Free software
3 makes the licensing terms clear while providing the
4 city with the rights to do whatever it needs and
5 distribute or deploy the software to all its citizens
6 without consent of a contractor. We at Software
7 Freedom Conservancy believe that the Free and Open
8 Source Software Act to protect the City from a
9 greater expense and long-term vulnerabilities of
10 proprietary software. We have actually sub--
11 submitted small improvements via GitHub, which has
12 emerged, and thank you for that. We--we agree that
13 the Civic Commons Act should be amended to be vendor
14 neutral as well. On a personal note, I'm deeply
15 familiar with the dangers of proprietary software. I
16 have Hypertrophic Cardiomyopathy. I have a big
17 heart, and I have an implanted medical device with
18 software I cannot review or work with my healthcare
19 professional to modify. I rely on one company to
20 ensure its safety, and hope they provide life
21 critical updates I need. I have no real choice
22 because there is no free and open source software
23 defibrillator. I wonder everyday if I will get an
24 inappropriate shock or have my device fail through
25 inaction. I live with proprietary software in my

2 body knowing that it has vulnerabilities I can do
3 nothing about. As a lifelong New Yorker, I love the
4 city and I know that shifting to free and open source
5 software will better keep the city safe. We fully
6 support these--both of these acts, and I thank you
7 for your time and interest. Let the record show that
8 I wish Sarah a happy birthday, and one of the best
9 gifts is software freedom. I'm happy [laughs] to
10 answer any questions you may have.

11 CHAIRPERSON ROSENTHAL: Karen, thank you
12 and thank you for sharing your story. It makes for a
13 really powerful argument. Thank you. Devin, I just
14 want to ask really quickly with the story, the
15 example you gave, again dealing with lots of
16 different agencies, had it all been under the roof of
17 something. Let's call it DOITT for now, that really
18 would have gone a long way. Is that accurate to
19 assume that.

20 DEVIN BALKIND: Yeah, I--I think so. I--
21 I also think I mean 18F is a really interesting model
22 for an organization. I'm--not that I'm a questioner
23 here, but I would be--I think a summary of just how
24 18F acts as kind of the consultant, that my
25 understanding kind of has a reputation within

2 government. You know, within the federal government
3 where people can go to them, and just ask them basic
4 questions. And if the basic question was, you know,
5 if that was the-- It's the basic question of what
6 software can we use to put on Tablets to collect
7 canvassing information? If that question was asked
8 to anyone who is familiar with the open source
9 software ecosystem, they probably would have said an
10 open data kit. Here's the deployment. Here's how
11 it's done. You know, people from Harvard probably
12 would have been on--you know, who helped develop it
13 probably would have been on the phone immediately
14 after Sandy explaining precisely how to do it. It's
15 use by, you know, the biggest international NGOs you
16 can imagine to do this type of work. They're just--
17 they're just--there's so much low-hanging fruit in
18 the open source environment not just for things like,
19 you know, transforming big enterprise. You know,
20 moving to Open Office and Linux and all this stuff,
21 but even for these very simple bottlenecks that come
22 up. How do we build a forum. You know, how do we--
23 how do we visualize the spreadsheet? How do we make
24 this data available. You know, how do we make this
25 data just publicly available? There's so many simple

2 problems that could get solved and so many
3 bottlenecks that could be removed just by cultivating
4 a knowledge base within New York City agencies that
5 were trusted around, you know, what's, you know,
6 around open source. And around not just open source,
7 but also open data, and the type of collaboration
8 that becomes possible when you engage in those types
9 of practices. So, yes, I think so.

10 [pause]

11 COUNCIL MEMBER KALLOS: So my first--
12 first just thank you all for your testimony. My
13 first question is for Noel Hidalgo. We've heard of
14 hackers. We've heard bad stories about hackers.
15 We've seen bad movies about hackers or good movies
16 depending on your opinion. What is a Civic hacker?
17 Is there anything we should be afraid of, or what
18 does it really mean, and how many people are there,
19 and what do they want to do?

20 NOEL HIDALGO: Well, I mean I'm sure you
21 as an adult know that there are good people and bad
22 people in this world, and bad people like to take
23 advantage of naive people. So there will always be
24 those people in my book. Hacking is a terminology
25 that is used to--it's a lore around it. It's a got

2 a, you know, it's a--it's a--once you work your way
3 through enough knowledge, you can call yourself a
4 hacker. I think most City Council members would
5 gladly considering themselves policy hackers or legal
6 hackers. People who know how to kind of get through
7 and--and do interesting things. So, civic hackers
8 are community members who are passionate about using
9 their skills wither it be social, civic or
10 technological to improve their city. I do--I don't
11 fear them because I consider myself one of them. I
12 know that I'm working to improve my community and,
13 you know, the space for my brothers and sisters that
14 are around me. How many are there? That's a good
15 question. Code for America has a community called
16 the Brigades, and through their numbers, which is
17 essentially the Brigades are community groups like
18 Beta NYC. There's over 20,000 kind of brigade
19 members in the United States or in the world right
20 now. But if you go to GitHub, you know, you're going
21 to find millions of users or, you know, software
22 developers who are--have the capability to provide an
23 opportunity to give or work and improve the software.
24 But the potential software that we're discussing
25 today. So, you know, I--to answer your question kind

2 of cheekily, I--I think the first, you know, the
3 second panel was appropriate that was talking about
4 freedom. Hacking is about having the freedom to get
5 in to understanding the underlying pieces, and I
6 think we should all have that opportunity.

7 COUNCIL MEMBER KALLOS: If we post our
8 free and open source software code onto something
9 like Civic Commons and GitHub Repo, will people from
10 the community who aren't paid by the City of New York
11 actually post and improve upon our code? Has anyone
12 even at this table done so?

13 NOEL HIDALGO: I'm--let's see if I still
14 have access. Um, let's see.

15 COUNCIL MEMBER KALLOS: I'm--I'm looking
16 at your picture--

17 NOEL HIDALGO: [interposing] Okay.

18 COUNCIL MEMBER KALLOS: --on City
19 Government.

20 NOEL HIDALGO: All right. So I still
21 have access. You know, I have rights through--
22 through a partnership with DCAS and DOITT. So I have
23 access to the city's GitHub account. We've taken
24 some of that software, and we've provided feedback
25 when the Tech Jobs Academy or the Tech Jobs

2 Initiative that was launched from MOTI, we provide
3 some--the first bug ticket, or we filed the first
4 ticket saying hey you should have had all this other
5 information. So that way, could engage. When DOITT
6 launched their GIS Address Translator, Geocoder, once
7 again we were one of the first groups of individuals
8 getting into the software to find opportunities to
9 improve it. When the City Record Project was
10 launched, you know, we went in there and filed a
11 bunch of--of tickets. It's not just me and Beta NYC
12 and the Members of Beta NYC that are engaged in this.
13 Once it's out in the open and publicly available,
14 order individuals can come and add to it. The point
15 is that you now need to make people aware that there
16 is an actual infrastructure in place to solve those
17 tickets. If you look at my first couple of comments
18 on Twitter when the City launched the Geocoder, it's
19 great when the City produces stuff as open source,
20 and puts it up on GitHub, but if it doesn't have a
21 workflow to actually incorporate people's comments,
22 and to take care of those issues, it--there's--
23 there's no point. It's--it's--well, I mean there's a
24 point to sharing the software, but it's almost futile
25 if you can't add and contribute and improve it. So

2 there needs to be a workflow that's being developed,
3 and we hope that the city will have a unified
4 workflow around that.

5 COUNCIL MEMBER KALLOS: I think just for
6 the record, something to note on the open record
7 GitHub Repo, there's 24 different contributors, and
8 actually everyone from Magic Trust who has one commit
9 to I'm actually seeing a lot of people who when I
10 click on their user names are actually working at 18F
11 who have for whatever reasons out of their own free
12 time come and given a piece of it. I think just a--a
13 question to Karen. I think just the people who
14 talked about security, and you gave quite a
15 compelling story. So right now, you're in a position
16 where you don't know what code is operating your own
17 body. In a similar way not even know what code is
18 operating your government. Tell me why you're not
19 afraid of everyone on the planet being able to see
20 the software in your heart quite literally, and why
21 you're not afraid of that.

22 KAREN SANDLER: It's a perfect example
23 because the software in my defibrillator is closed
24 and proprietary, and yet it has already been hacked.
25 Researchers have been able to show that these

2 defibrillators can be controlled using ordinary
3 equipment and can deliver inappropriate shock. Can
4 also put these devices into testing mode, which runs
5 down their batter, which effectively renders them
6 useless, and you require surgery to get a new device.
7 So it's a real serious issue that software simply has
8 bugs. It has vulnerabilities, and because the
9 software is kept closed and proprietary does not
10 provide any real security. Security, real security
11 simply does not work. What we need is real security
12 over our systems to protect ourselves from malicious
13 hackers, and keep the source code available so that
14 everyone can review, and the code can be auditable.
15 I am in a very unusual situation because women of my
16 age tend not to have defibrillators. So there are
17 all kinds of use cases that are not anticipated by
18 the single vendor for my defibrillator that have--
19 relevant to me. So, for example, I was pregnant very
20 recently, and--and pregnant women's hearts do
21 different things. When I was pregnant, I got shocked
22 twice inappropriately when my heart did things that
23 ordinary pregnant women's hearts. So, you know,
24 it's--because it's not a use case that's of
25 interested to the one big vendor that I must rely on,

2 it's extremely problematic. So, I would feel much
3 safer if I could review my source code. I feel a lot
4 better if I could work with my medical professionals
5 to devise a system that was tailored to me since I
6 may have unique needs the same way the City might
7 have unique needs because there is no other city like
8 New York City. I would also, to answer your--your
9 question before, Software Freedom Conservancy has
10 over 33 software projects that are--are--we are their
11 non-profit home. So we effectively develop that
12 software. One of them is Git, upon which GitHub is
13 built, and we have thousands of volunteers to--to our
14 code bases. We have many people who are contributing
15 as part of their jobs, but many people who do it as
16 volunteers as well.

17 COUNCIL MEMBER KALLOS: One other thing I
18 just wanted to notice I think anyone watching or be
19 viewing later might find it weird that somebody could
20 like raise their hand at a public hearing, and say I
21 need an operating system. I need to write a
22 document. I need to do photo editing. I need to do
23 audio editing. I want to make a movie. Can somebody
24 just give me a USB stick because if--if this USB
25 stick had Microsoft on it, one of--one or both of us

2 would be seeing serious consequences with the Federal
3 Bureau of Investigations, and also if we didn't--if
4 we wanted to do it legally, it is very difficult for
5 one user to sell their software that they legally
6 acquired to a second user. In fact, in most cases,
7 it's forbidden. So, in that instance I mean in 30
8 seconds one person was able to physically hand this,
9 and this happens on the Internet everyday. All the
10 tools that I needed to run a computer and in instead
11 of having to put out an RFP, get a response to the
12 RFP, determine who wins the RFP, put it into
13 contract, cut a check, then spend months if not years
14 with something that usually claims to be commercially
15 off-the-shelf software and implementation. And then,
16 once it's there, then saying, oh, this isn't what I
17 wanted, and then having to put it back into
18 procurement. And if the vendor isn't good, now I can
19 start over from scratch. Or, otherwise, I think one
20 example would be you have one of the best websites in
21 the City Council, and imagine if every time you had
22 to add a feature, if you couldn't add. I think you
23 were on Word Press I think

24 KAREN SANDLER: I think so.

2 COUNCIL MEMBER KALLOS: So you--you were
3 on Word Press, and when you want to add a feature to
4 your website, you just do. Imagine if you have to
5 through procurement. So I just want to thank
6 everybody, and I guess--am I allowed to ask questions
7 of you Aidan about 18F and your person--? So, 18F is
8 a fed--is--is part of the federal government. Does
9 18F currently build, maintain, or recommend the use
10 of open source in the federal government?

11 AIDAN FELDMAN: Yeah, absolutely. So
12 again I can speak about 18F, but not on behalf of
13 18F. So, yeah, 18F is a team that is located in the
14 General Services Administration, and it essentially
15 acts an internal contractor. But everything that 18F
16 builds is open source. So it--it has some
17 similarities to an agency like DOITT in New York City
18 except that we have no, you know, jurisdiction or
19 control over, you know, forcing anyone to--forcing
20 any other agency to use us. You know, to the other
21 parts of your question in terms of promoting open
22 source, everything we build and all the systems we
23 use are open source. And, you know, not only are we
24 able to do these custom deployments for agencies in
25 terms of, you know, building a new site, or building,

2 you know, a new open data portal or--or, you know,
3 whatever they may need or working in the project.
4 We're also doing a lot around experiment. You know,
5 18F is doing a lot around experimenting with ways to-
6 -to make sort of open source practices applicable
7 more broadly. So for example, there is something
8 called the micro-purchase experiment. So rather than
9 going through a procurement for, you know, a large
10 piece of custom software all at once, which, you
11 know, may be millions of dollars, why not instead had
12 code that's open and put up specific features for
13 bid. And so then, software can be sort of constantly
14 improved with--with very small increments and, you
15 know, meet the needs of agency with very quick
16 turnaround time as opposed to, you know, like a year
17 or more of our procurement cycle.

18 COUNCIL MEMBER KALLOS: To shine on the
19 dark here, were you involved in the HHS Maggie and
20 the Cloud GitHub Code Repository all or?

21 AIDAN FELDMAN: No, I was not directly.
22 No.

23 COUNCIL MEMBER KALLOS: Okay. Do--do you
24 know of any case where the federal government or
25 states built free and open source code, and then have

2 spun--maybe one of you knows about it. Where
3 governments have gotten together, built and open
4 source repo and then maintained it together through a
5 nonprofit spinoff or just in general moving forward?

6 AIDAN FELDMAN: I don't that I can say if
7 there's been non-profit spinoffs. I do know that
8 one, you know, one primary example that comes to mind
9 is Project Tor (sp?) that was developed by the U.S.
10 Navy and other--I believe maybe the Department of
11 Energy Research Laboratories, which essentially
12 allows secure access over, you know, insecure
13 networks. So say for someone in the Navy, you know,
14 stationed in Afghanistan to be able to connect
15 securely to Navy--to Navy servers. That's a project
16 that's developed--that's been developed in the
17 government and with financial support of the
18 government, but is broadly used and broadly
19 supported, you know, by--by the public.

20 COUNCIL MEMBER KALLOS: And is there a
21 plug-in I could put in Chrome so I could browse
22 through Tor, or are there pieces that we could use to
23 do that?

24 AIDAN FELDMAN: Yeah, I believe, you
25 know, a lot of the software like Tor can be, you

2 know, because it's open source, others can sort of
3 build integration. So I believe you can, you know,
4 download a plug-in for Firefox and automatically have
5 that secure access enabled. So there's--there's a--
6 there's a potential for this sort of re-use and re-
7 interpretation where the original author may--may not
8 have, you know, conceived.

9 COUNCIL MEMBER KALLOS: So that our tax
10 dollars paid for the development of Tor to be used by
11 the Armed Services. The Armed Services used it, and
12 shared that source code, and now how many people have
13 benefitted? Is it something that anyone on the
14 planet can use, and it's not just government?

15 AIDAN FELDMAN: Yeah, absolutely. Yeah,
16 another interesting example, Tor is an interesting
17 example where the security actually comes from use by
18 the public. So you're essentially making the traffic
19 of people in a melter (sic) agency by, you know,
20 having a lot of other noise from other--from other
21 people using it so--

22 COUNCIL MEMBER KALLOS: So security
23 through transparency?

24 AIDAN FELDMAN: Exactly, yeah.

2 COUNCIL MEMBER KALLOS: I think--is--I
3 think those are all of my questions. The only other
4 piece is just if folks are still around, I'd love to
5 grab coffee with folks who came from DC or Boston.
6 Thank you for coming around, and it's your support
7 and advocacy that will help make this become passed.
8 Yeah.

9 AIDAN FELDMAN: I just want to point out
10 a website that was done by other open source
11 supporters. It's called fot--gov-oss.org. It's open
12 source in government, and it highlights the timeline
13 of open source adoption in the US government, and it
14 actually shows that the US government was, is--was,
15 is and seemingly will always be a huge supporter of
16 open source software for the fact that it is freely
17 available across government. It's open in a way that
18 they can see security--insecurities and securities,
19 and so it becomes a--a national security advantage to
20 have open source software. And just about every
21 type of question, issue that you have around policy
22 implementation, the federal government has been
23 advocating for open source for the last 20 years.
24 And so, I'd love to help connect you to them if you
25 have any questions.

2 COUNCIL MEMBER KALLOS: Thank you and
3 just one name I forgot to drop is Carl Malanmud who
4 is behind pulic.resource.org when he shared with a
5 white paper about this back in I think '05 for an
6 open source tax credit, which has actually been
7 introduced in the New York State Assembly, but we
8 have limited tax and finance power here. But
9 hopefully, with this legislation and your support,
10 and if folks can Tweet support to myself as well as
11 our chair at Helen Rosenthal, and just please use
12 your advocacy online, and make sure folks know that
13 this is a priority for the Internet as a collective.
14 Thank you.

15 CHAIRPERSON ROSENTHAL: Thank you,
16 Council Member Kallos. Thank you for bringing this
17 legislation. I'm glad we could hear it today. Is
18 there anyone else from the public who would like to
19 speak? We've covered all our bases.

20 MARK HOLEGRA: [off mic] Yeah, I would.

21 CHAIRPERSON ROSENTHAL: I think you have
22 to--where the process--the sergeant-at-arms can give
23 you a document to fill out if you'd like to---

24 MARK HOLEGRA: [off mic] I filled it out,
25 and I'm just waiting on you.

2 CHAIRPERSON ROSENTHAL: Oh, okay.
3 Somehow we didn't get your form. Why don't you come
4 on up and introduce yourself, and thank you very
5 much, panel.

6 COUNCIL MEMBER KALLOS: You can--you can
7 take your USB keys. Thank you. My--

8 MARK HOLEGRA: [off mic] Did you want to
9 use them.

10 COUNCIL MEMBER KALLOS: Yes, you're--
11 you're running Mint Linux.

12 MARK HOLEGRA: [off mic] What did you
13 say?

14 COUNCIL MEMBER KALLOS: You're running
15 Mint.

16 MARK HOLEGRA: Oh, at home yes.

17 COUNCIL MEMBER KALLOS: That's--that's
18 for the record.

19 MALE SPEAKER: It was running right for
20 me, and I'll get some more of those there. (sic)

21 COUNCIL MEMBER KALLOS: Oh, yeah.

22 MARK HOLEGRA: It's--it's just possible.

23 COUNCIL MEMBER KALLOS: Don't worry about
24 it.

2 CHAIRPERSON ROSENTHAL: Thank you.

3 [background comments]

4 MARK HOLEGRA: I'm going to have to work
5 on it.

6 CHAIRPERSON ROSENTHAL: All right, next
7 we'll hear from Mark Holegra.

8 MARK HOLEGRA: Holegra.

9 CHAIRPERSON ROSENTHAL: If you could
10 introduce yourself and share your thoughts. We have
11 your written testimony.

12 COUNCIL MEMBER KALLOS: While--while we
13 are waiting, I just want to--I'd be remiss and I'd be
14 in trouble with my staff--it's actually my--one of my
15 community liaison's birthday. Tirso Taveras, (sp?)
16 and just wishing him a happy birthday. He has a day
17 off for his birthday. So happy birthday, Tirso.

18 CHAIRPERSON ROSENTHAL: Multiple staff
19 birthdays. All right, so Mark you can start.

20 [pause]

21 COUNCIL MEMBER KALLOS: Please turn on
22 your mic.

23 MARK HOLEGRA: Is it on now. Okay,
24 that's good. My name is Mark Holegra. I'm from
25 Foresight Data Systems. Foresight Data Systems is a

2 computer consultancy here in New York City my
3 lifelong home. I'm assistant and what really is
4 essentially called a Central Administrator. I set
5 up, configure, maintain, people with their computer
6 systems. I'm not much of a programmer. I've done a
7 little bit here and there, but with this
8 Administration we're talking about different
9 operation systems, applications, and things like that
10 and different operation systems like Microsoft
11 Window, Mac OSX and Linux. And specifically I prefer
12 to use Linux whenever possible because number one it
13 saves my customers money, and it will do the same
14 thing for--for the city. The license--so the
15 licensing terms themselves. For example, Microsoft
16 Windows for servers you buy the software. You have
17 to buy an additional license for every potential
18 user, which you have 1,000 for 1,000 users. And if
19 you install other applications from Microsoft, which
20 you must do, for example SQL Server or Microsoft
21 Exchange you have to buy the software, and additional
22 licensing for each one potential user for that. So
23 you talk about, for example, 1,000 users. Microsoft
24 server the cost, the Microsoft 4,000 license--users
25 for that. SQL Server you buy that, and install it on

2 the server, and 1,000 users for that, and Microsoft
3 Exchange and 1,000 users for that. You can see that
4 the licensing expenses are going to build up quite
5 quickly. For example, the alternative using Linux,
6 which is a free download, and by the way, Red Hat,
7 which produces Red Hat and Enterprise and Linux, the
8 software is actually free, but you pay for support.
9 So you can get commercial support for a Linux
10 distribution, which will be high quality, stable and
11 quite secure just by purchasing that software, and
12 will cost you only for that software for a period of
13 time. You don't have to pay for a per seat license.
14 You can then install something like MySQL, which
15 comes with the distribution for free. So you have
16 SQL Server or SQL Analog, and you can buy other
17 software kind of the management systems. You can get
18 for free download. You can purchase or download free
19 collaboration software or similar to Exchange. All
20 these things are extremely cost-effective because you
21 can pay for support, and use community support, and
22 the downloads are free. And, therefore, with a city
23 this size with many agencies and users, you're
24 talking about the savings of millions of dollars. In
25 the case of desktops, one of the things I advocate is

2 using something called Libre Office or Open Office,
3 which has an open document format and ISO standard,
4 which is much smaller in comparison, which has no
5 binary bits, no proprietary software, and which many
6 municipalities across the world are using simply
7 because a document from a City agency is similar to
8 last thing or available for decades. Under Microsoft
9 Office, for example, the proprietary formats have
10 changed multiple times, and sometimes a newer version
11 of office cannot read an older version of the Office
12 file. That is no longer the case. We're using what
13 called the ODF or Open Document Format, which has
14 formats for documents, spreadsheets and the analog
15 for PowerPoint presentations, et cetera. Again, the
16 software is freely downloadable. Training. The next
17 time a new version of Microsoft Office or Microsoft
18 Operation System comes out, people have to retrain
19 there, too. Since all people have be retrained, you
20 might as well move onto something called like Linux
21 or OPI (sic) Office, and be trained in that, and not
22 have to be retrained again for a longer period of
23 time. More savings. So you get savings from the
24 licensing costs. You get savings from the
25 downloading with your software, and you get much more

2 stable and secure because of the--the transparency of
3 the code than you would be in a proprietary format.
4 So, this is basically my argument for the City you
5 moving to this kind of system, open source.

6 CHAIRPERSON ROSENTHAL: Thank you. Just,
7 sir, could you introduce yourself?

8 COUNCIL MEMBER KALLOS: No?

9 KEVIN MARK: Yeah. Hi, my name is Kevin
10 Mark. At some point I guess I wasn't--I was involved
11 with a project called One Laptop Per Child as a
12 volunteer, which was a project that was--that NIT had
13 doing that. I was about--basically developing
14 educational technology that was trying to help kids--
15 kids in the developing world, and to that end, they
16 used basically exclusively open source soft--you
17 know, free--free software as part of their platform
18 because it allowed them to customize and develop
19 software for the particular needs. And also meant
20 that all the technology could be modified and used by
21 other people as well as basically--it--it--there's
22 absolutely no--no costs in terms of actually using it
23 and giving it-- But also I want to be honest with
24 this particular bill about--about education in--in--
25 in particular, but in order for our software in terms

2 of the types (sic) using in the school system. But
3 obviously this also can be used in terms of the
4 system, you know, a way as cost savings or whether
5 you can actually use the software also in terms of a
6 platform to--to--to allow you to--so you can learn
7 how to program or use it in--in like a STEM capacity
8 I guess. And also that all this could be--you could
9 basically allow--at some--at some point the children
10 or, you know, will learn about technology, usually
11 AOS the modifying use, and the software that it can
12 develop. They can also probably access the Open--
13 Open Data Portal and have it--kind of have projects
14 around schools and space and--and access--accessing
15 government or learning about, you know, I guess a few
16 portals about--I have some bills or, you know, that
17 kind of stuff. I just figure that being--I needed to
18 add that to this government and also schools, and
19 that's obviously a benefit on that. So, I just
20 wanted to mention. Okay.

21 CHAIRPERSON ROSENTHAL: Thank you both
22 very much. No Camber (sic). No. All good. All
23 right, thank you very much for coming. Thank you
24 everyone. I'm going to call this hearing to a close.

25 [gavel]

1 COMMITTEE ON CONTRACTS

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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 March 1, 2016