



THE COUNCIL

COMMITTEE REPORT OF THE GOVERNMENTAL AFFAIRS DIVISION

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COMMITTEE ON CONTRACTS

Hon. Helen Rosenthal, Chair

February 23, 2016

INT. NO. 365: By Council Members Kallos, Constantinides, Cornegy and Koo

TITLE: A Local Law to amend the administrative code of the city of New York, in relation to collaborative software purchasing.

INT. NO. 366: By Council Members Kallos and Koo

TITLE: A Local Law to amend the administrative code of the city of New York, in relation to free and open source software.

I. INTRODUCTION

On February 23, 2016, the Committee on Contracts, chaired by Council Member Helen Rosenthal, will hold a hearing on Introductory Bill Number 365 (“Int. No. 365”), a local law to amend the administrative code of the city of New York, in relation to collaborative software purchasing, and Introductory Bill Number 366 (“Int. No. 366”), a local law to amend the administrative code of the city of New York, in relation to free and open source software. Those invited to testify include the Mayor’s Office of Contract Services (“MOCS”), the New York City Department of Information Technology and Telecommunications (“DoITT), and other interested parties.

II. BACKGROUND

i. Proprietary Software & Open Source Software

Proprietary Software, or closed-source software, is software that is usually owned by an individual or a company that developed it.¹ Proprietary software typically has restrictions on its use, and the source code is almost always kept secret.² Source code is the form in which a program is originally written by a person using programming language that is then converted to a machine code directly read by the computers central processing unit.³ Knowing or having access to the source code is necessary for programs to be modified or improved.⁴

Open Source Software (“OSS”) is “software for which human-readable source code is available for use, study, reuse, modification, enhancement, and redistribution by users of the

¹ ‘Proprietary Software Definition’ available at <http://www.linfo.org/proprietary.html> (last visited February 12, 2016).

² *Id.*

³ *Id.*

⁴ *Id.*

software”.⁵ OSS can be modified and shared by multiple parties because it is designed to be publically accessible.⁶ According to the United States Department of Homeland Security’s (“DHS”) report “Open Source Software in Government: Challenges and Opportunities”, since the source code can be reused by others, OSS reduces costs by eliminating duplicative efforts and increases quality through increased reviews.⁷ According to DHS, open source software can provide advantages in developing and updating software-based capabilities including: “anticipating new threats, responding to continuously changing requirements, and supporting software reliability and security efforts.”⁸

III. ANALYSIS OF LEGISLATION

i. Int. No. 365

Int. No. 365 would require the Mayor to designate an agency to develop and implement a plan to coordinate with other jurisdictions to procure software for the City. Int. No. 365 would make it a requirement that the plan include specific steps the designated agency must take to maximize the City’s cost savings from shared purchase and use of software. This bill would require the designated agency to publish the plan on the City’s website and to submit a report to the Mayor and the Speaker of the Council detailing the City’s efforts to effectuate the plan.

Int. No. 365 would require the designated agency to create a portal on the internet that includes (1) notices of software purchase solicitations by the City that multiple agencies or other jurisdictions may seek to collaborate with the City to purchase; (2) Civic Commons software

⁵ Wheeler A. David, “Open Source Software in Government” United States Department of Homeland Security August 2013 available at http://www.dhs.gov/sites/default/files/publications/Open%20Source%20Software%20in%20Government%20E2%80%93%20Challenges%20and%20Opportunities_Final.pdf (last visited February 12, 2016)

⁶ *Id.* at 5

⁷ *Id.*

⁸ *Id.*

source code⁹ in a version control repository of software purchased by the City or by other jurisdictions with whom the City collaboratively purchased software; and (3) source code in a version control repository that the designated agency determines may be used or improved upon by the City, but was not purchased by the City. If a Civic Commons software source code cannot be made available on the internet portal, Int. No. 365 would require the designated agency to report to the Council the name of the code and why it could not be made available on the portal, and a date for which it will be available.

Int. No. 365 would require that the Civic Commons software source code be made available without registration or licensing requirements, or restrictions on use.¹⁰ However, the designated agency may require a third party providing Civic Commons software source code to identify the source and version of the source code and to provide a description of modifications made to the source code.

Int. No. 365 would also require the following:

- a. The Civic Commons software source code must notify the public of all updates;
- b. If the designated agency regularly maintains or updates the Civic Commons software source code, it must be updated as often as necessary to preserve its integrity and usefulness; and
- c. The Civic Commons software source code must be accessible to external search capabilities.

Int. No. 365 would take effect 90 days upon enactment.

⁹ Civic Commons is a non-profit initiative that helps governments build and use shared and open technologies to improve public services, transparency, accountability, citizen participation, and management effectiveness, all while saving money. See “*Civic Commons: Shared Technology for the Public Good*,” available at <http://archive.civiccommons.org/about/index.html> (last visited February 9, 2016).

¹⁰ Registration requirements, license requirements or restrictions on use would not include measures required to ensure access to the source code, to protect against unlawful abuse or attempts to damage or impair the website, or to analyze the types of data being used to improve service delivery.

ii. Int. No. 366

Int. No. 366 would require the City's Chief Procurement Officer ("CPO") and the Commissioner of DoITT to develop a plan to minimize the City's procurement of proprietary software. Int. No. 366 would make it a requirement that the plan include a detailed schedule with annual goals to reduce the City's purchasing of proprietary software, and increase the City's purchasing of free and open source software. Int. No. 366 would also require the CPO to publish the plan on MOCS's website.

Int. No. 366 would also require the CPO and the Commissioner of DoITT to establish guidelines for agencies to assist in increasing the purchase of free and open software; publish such guidelines on MOCS's website; disseminate the guidelines to agencies and train agency contracting personnel on how to implement the guidelines; and monitor agencies' implementation of the guidelines.

Int. No. 366 would also require the CPO to submit an annual report to the Mayor and the Speaker of the Council, and publish on MOCS's website, a report detailing the City's efforts to implement the plan during the preceding year. The report would have to include the total dollar value of software procured, disaggregated by open source software and proprietary software, and an analysis of estimated cost savings.

Int. No. 366 would take effect 90 days upon enactment.

Int. No. 365

By Council Members Kallos, Constantinides, Cornegy and Koo

A Local Law to amend the administrative code of the city of New York, in relation to collaborative software purchasing.

Be it enacted by the Council as follows:

Section 1. Declaration of legislative findings and intent. The Council hereby finds and declares that it is in the best interest of New York City that its agencies work with jurisdictions at all levels to deploy low-cost, reusable software, using open standards, open protocols, as well as free/libre and open source software code wherever possible to: pool resources in order to reduce costs and avoid duplicated effort; help make civic IT expertise more cumulative and portable across jurisdictions, for civil servants, for citizens, and for vendors; and permit the public to assist in identifying efficient solutions for government, promote innovative strategies for social progress, and create economic opportunities.

Section 1. Chapter 4 of title six of the administrative code of the city of New York is amended by adding new sections 6-403 and 6-404 to read as follows:

§6-403. Civic Commons Collaborative Software Purchasing.

a. The mayor shall designate an agency to develop and implement a plan to coordinate with jurisdictions outside of the city of new york regarding the procurement of software. Such plan shall include specific steps the agency shall take to maximize cost savings from the shared purchase and use of software.

b The agency that the mayor designates pursuant to subdivision a of this section shall publish such plan on the city's website.

c. Not later than October first of each year, the agency that the mayor designates pursuant to subdivision a of this section shall submit a report to the mayor and the speaker of the city council detailing the city's efforts to effectuate such plan. Such report shall include an

analysis of estimated cost savings to the city resulting from the shared purchase and use of software.

§6-404. Civic Commons Portal.

a. Within one year of the effective date of this section and thereafter, the agency that the mayor designates pursuant to subdivision a of section 6-403 of this chapter shall make available on the internet accessible through a single web portal that is linked to nyc.gov or any successor website maintained by, or on behalf of, the city of New York:

(1) Notices of software purchase solicitations by the city of New York and its agencies upon which multiple agencies or jurisdictions outside the city of New York may seek to collaborate;

(2) Civic Commons software source code in a version control repository of software purchased and used by the city of New York and its agencies or by other jurisdictions with whom software was purchased collaboratively; and

(3) Source code in a version control repository of software not purchased or used by the city of New York or its agencies that the designated agency determines may be used or improved upon by the city of New York and its agencies.

b. If the designated agency cannot make all such Civic Commons software source code available on the single web portal pursuant to subdivision a of this section, the agency shall report to the council which Civic Commons software source code it is unable to make available, the reasons why it cannot do so and the date by which the agency expects that such Civic Commons software source code will be available on the single web portal.

c. Civic Commons software source code shall make use of appropriate technology to notify the public of all updates.

d. Civic Commons software source code shall be updated as often as is necessary to preserve the integrity and usefulness of the Civic Commons software source code to the extent that the designated agency regularly maintains or updates the Civic Commons software source code.

e. Civic Commons software source code shall be made available without any registration requirement, license requirement or restrictions on their use provided that the designated agency may require a third party providing to the public any Civic Commons software source code, or application utilizing the Civic Commons software source code, to explicitly identify the source and version of the Civic Commons software source code, and a description of any modifications made to the Civic Commons software source code. Registration requirements, license requirements or restrictions as used in this section shall not include measures required to ensure access to Civic Commons software source code, to protect the single web site housing public data sets from unlawful abuse or attempts to damage or impair use of the web site, or to analyze the types of data being used to improve service delivery.

f. Civic Commons software source code shall be accessible to external search capabilities.

§2. This local law shall take effect 90 days after its enactment into law, provided, however, that city agencies, officers and employees, including but not limited to the city chief procurement officer, shall take such actions as are necessary for its implementation prior to such effective date.

SKM
LS #798
5/22/14

By Council Members Kallos and Koo

A Local Law to amend the administrative code of the city of New York, in relation to free and open source software.

Be it enacted by the Council as follows:

Section 1. Declaration of legislative findings and intent. The Council hereby finds and declares that it is in the best interest of New York City and its agencies to purchase software with a free and open source license. The cost of obtaining software for the city's computer systems has become a significant expense to the city of New York. The personnel costs of maintaining the software on city computers has also become a significant expense to the city of New York. It is necessary for the functioning of the city that computer data owned by the city be permanently available to the city throughout its useful life. To guarantee the succession and permanence of public data, it is necessary that the city's accessibility to that data be independent of the goodwill of the city's computer system suppliers and the conditions imposed by these suppliers. It is in the public interest to ensure interoperability of computer systems through the use of software and products that promote open, platform-neutral standards. It is also in the public interest that the city be free, to the greatest extent possible, of conditions imposed by parties outside the city's control on how, and for how long, the city may use the software it has acquired. Finally, it is not in the public interest and it is a violation of the fundamental right to privacy for the city to use software that, in addition to its stated function, also transmits data to, or allows control and modification of its systems by, parties outside of the city's control.

The acquisition and widespread deployment of free and open source software can significantly reduce the city's costs of obtaining and maintaining software: Free and open source software guarantees that the encoding of data is not tied to a single provider; free and open source software enables interoperability through adherence to open, platform-neutral standards;

free and open source software contains no restrictions on how, or for how long, it may be used; and since free and open source software fully discloses its internal operations, it can be audited, at any time and by anyone of the city's choosing, for internal functions that are contrary to the public's interests and rights.

§2. Title six of the administrative code of the city of New York is amended by adding a new chapter four to read as follows:

CHAPTER 4

SOFTWARE PURCHASING

§6-401. Definitions. As used in this chapter:

a. Definitions set forth in section 23-501 of the administrative code of the city of New York is incorporated by reference as if fully set forth herein.

b. The following terms shall have the following meanings:

"Agency" shall mean a city, county, borough, or other office, position, administration, department, division, bureau, board or commission, or a corporation, institution or agency of government, the expenses of which are paid in whole or in part from the city treasury.

"City chief procurement officer" shall mean the person to whom the mayor has delegated authority to coordinate and oversee the procurement activity of mayoral agency staff, including the agency chief contracting officers and any offices that have oversight responsibility for procurement.

"Civic Commons software" shall mean software purchased collaboratively with jurisdictions outside of the city of new york in accordance with section 403 and section 404 of this chapter.

"Free software" means software that provides access to the source code and guarantees users the freedom to run, copy, distribute, study, change and improve the software through the four essential freedoms:

(i) The freedom to run the program, for any purpose;

(ii) The freedom to study how the program works, and change it so it does your computing as

you wish.

(iii) The freedom to redistribute copies to help your neighbor; and

(iv) The freedom to distribute copies of your modified versions to others

"Free and open source software" means software that satisfies all the criteria set forth in the definitions of "free software" and "open source software" under this chapter.

"Open source software" shall mean software that complies with the following criteria:

(1) Free redistribution. The license shall not restrict any party from selling or giving away the software as a component of an aggregate software distribution containing programs from several different sources. The license shall not require a royalty or other fee for such sale.

(2) Source code. The program must include source code, and must allow distribution in source code as well as compiled form. Where some form of a product is not distributed with source code, there must be a well-publicized means of obtaining the source code for no more than a reasonable reproduction cost preferably, downloading via the internet without charge. The source code must be the preferred form in which a programmer would modify the program. Deliberately obfuscated source code is not allowed. Intermediate forms such as the output of a preprocessor or translator are not allowed.

(3) Derived works. The license must allow modifications and derived works, and must allow them to be distributed under the same terms as the license of the original software.

(4) Integrity of the author's source code. The license may restrict source-code from being distributed in modified form only if the license allows the distribution of "patch files" with the source code for the purpose of modifying the program at build time. The license must explicitly permit distribution of software built from modified source code. The license may require derived works to carry a different name or version number from the original software.

(5) No discrimination against persons or groups. The license must not discriminate against any person or group of persons.

(6) No discrimination against fields of endeavor. The license must not restrict anyone from making use of the program in a specific field of endeavor.

(7) Distribution of license. The rights attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties.

(8) License must not be specific to a product. The rights attached to the program must not depend on the program's being part of a particular software distribution. If the program is extracted from that distribution and used or distributed within the terms of the program's license, all parties to whom the program is redistributed should have the same rights as those that are granted in conjunction with the original software distribution.

(9) License must not restrict other software. The license must not place restrictions on other software that is distributed along with the licensed software. For example, the license must not insist that all other programs distributed on the same medium must be open-source software.

(10) License must be technology-neutral. No provision of the license may be predicated on any individual technology or style of interface.

"Proprietary software" means software that does not fulfill all of the guarantees provided by open source software.

§6-402. Free and open source software.

a. Within one hundred eighty days of the effective date of the local law that added this section, the city chief procurement officer, in conjunction with the commissioner of the department of information technology and telecommunications, shall develop a plan to minimize the city's procurement of proprietary software. Such plan shall include a detailed schedule with annual goals for the planned reduction of the purchase of proprietary software and increase in the purchase of free and open source software. The city chief procurement officer shall publish such plan on the mayor's office of contract services website.

b. To advance the goals of such plan, the city chief procurement officer, in conjunction with the commissioner of the department of information technology and telecommunications, shall:

(1) establish guidelines for agencies that will assist in increasing the purchase of free and

open source software;

(2) publish such guidelines on the mayor's office of contract services website;

(3) disseminate such guidelines to agencies and train agency contracting personnel on implementing such guidelines; and

(4) monitor agency implementation of such guidelines.

c. Not later than October first of each year, the city chief procurement officer shall submit to the mayor and the speaker of the city council, and publish on the mayor's office of contract services website, a report detailing the city's efforts during the preceding fiscal year to implement such plan. Such report shall include the total dollar value of software procured by agencies, disaggregated by open source software and proprietary software, and an analysis of estimated cost savings resulting from the purchase of open source software.

§3. This local law shall take effect 90 days after its enactment into law, provided, however, that city agencies, officers and employees, including but not limited to the city chief procurement officer, shall take such actions as are necessary for its implementation prior to such effective date.

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