

DEPARTMENT OF INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS TESTIMONY
BEFORE THE CITY COUNCIL COMMITTEE ON CONTRACTS
RE: INTRO. 365-2014 / COLLABORATIVE SOFTWARE PURCHASING &
INTRO. 366-2014 / FREE AND OPEN SOURCE SOFTWARE
TUESDAY, FEBRUARY 23, 2016

Good morning Chair Rosenthal and members of the Committee on Contracts. My name is Don Sunderland and I am Deputy Commissioner for Application Development Management at the Department of Information Technology and Telecommunications, or DoITT. Thank you for the opportunity to testify today on **Intro. 365**, regarding collaborative software purchasing, and **Intro. 366**, regarding free and Open Source software.

As discussed with members of the Committee, the City of New York agrees with the Council on the concept and intention of Intro. 365 and Intro. 366, and welcomes the opportunity to continue our conversations about how best to achieve their goals. Taking each proposal here in turn:

Intro. 365 would require the Mayor to designate an agency to develop and implement a plan to coordinate with other jurisdictions when purchasing software, and would also require the designated agency to create a website with information regarding software purchased by the City.

The City of New York supports sharing Open Source code among municipalities, and has in fact advanced this idea in a number of ways.

- The NYC Government Publications portal, which makes City agency publications available in digital form online, was developed using Open Source software.
- NYC OpenRecords, under development to handle Freedom of Information Law requests, utilizes Open Source software originally created by Code for America for the City of Oakland.
- Former New York City Public Advocate Bill de Blasio utilized the code from the New York State Senate's Blue Bird constituent case management system to build a comparable system on the Open Source CiviCRM platform.

The City also maintains its own [dedicated page](#) on GitHub, a web-based repository for code sharing and collaboration. Today, the source code from more than 20 City programs and initiatives – including the aforementioned NYC Government Publications Portal and NYC OpenRecords – is posted on that page, as well as the City's Pre-K Finder, City Record Online, NYC Tech Jobs website, and data feeds from the Department of Transportation and City Hall.

Just last month, the City's popular GeoClient service – a geocoding interface that provides geographic coordinates (latitude and longitude) and other location-based attributes such as City Council and community district, for physical street addresses – was also released under an Open Source license for the first time and posted to GitHub. Geoclient serves as a critical tool for developers creating mapping applications and for in-depth analysis of City data.

While we have embraced the use and sharing of Open Source code where it makes sense to do so – and continue to look for new opportunities – we also have some concerns with the legislation as currently drafted.

As discussed, one of these concerns regards the required use of the Civic Commons portal. Originally a collaboration between Code for America and Open Plans, as of 2015 neither entity is affiliated with Civic Commons – so designating in law a specific platform to serve as the City's Open Source code repository may not be prudent.

Additionally, use of a Civic Commons portal providing access to software purchases for use by other jurisdictions would require proprietary software to be purchased with unlimited licenses for unnamed users, which is not a realistic expectation. Similarly, given the size, scope, and complexity of City operations, a requirement for any code the City has or causes to come into use be open sourced is not attainable.

Moreover, given multiple, complex regulatory frameworks, coordinating a single software purchase among, say, California, Texas, Chicago, and New York City would be exceedingly difficult to navigate. Nor do we know what criteria would define which procurements are to be worked on across different municipalities. And, of course, we could not compel other municipalities beyond our jurisdiction to pursue or participate in collaborative software purchasing.

Finally, at a local level, it is unclear how a single agency could, without additional resources, effectively enforce the requirement that all Open Source code in use across the City is posted.

Still, the aim of the legislation is laudable and one we are committed to continue working toward. Rather than mandating use of a specific code repository platform it would be better, perhaps, to pursue a technology-neutral central repository. And in that repository, agencies, entities, and individuals within and beyond New York City could post, share, and collaborate on code across a range of City initiatives. Finally, requiring each agency to contribute to this shared resource as appropriate to its business needs and requirements, rather than requiring one agency to enforce a one-size-fits-all mandate, would be the preferred approach.

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

Intro. 366 would require the City Chief Procurement Officer and the DoITT Commissioner to develop a plan to minimize the amount of proprietary software the City purchases, and increase the amount of free and Open Source software the City purchases.

Like that of Intro. 365, the intent of 366 is one with which we firmly agree. In practice, however, we note that it is not necessarily consistently cheaper to use Open Source software – particularly for enterprise level applications – because the City must still purchase maintenance from a third party to address issues with the software once it is in production.

Still, long-term the trend is clear – and the trend for enterprise software is toward the increased use of Open Source. According to a [recent study](#) by Gartner, by 2018 more than 70% of new in-house applications will be developed on Open Source relational databases, and 50% of existing commercial database instances will have been converted or be in the process of converting. Among the reasons for this trend is that maintaining flexibility helps address vendor “lock-in” and allows municipalities to retain leverage in negotiations with software vendors. And the competition inherent in Open Source technology can also drive down the cost of software licenses.

New York City is adapting accordingly. DoITT promotes the use of Open Source technology as appropriate and beneficial for the City – and where security, scalability, and maintenance considerations can be met. As previously mentioned, we leverage GitHub as a repository for contributing Open Source projects for use by other City agencies, municipalities, and civic groups/civic technologists.

Today, DoITT currently uses Open Source application platforms such as:

- LINUX
- OpenGeo – an application framework for PlowNYC and PKA Pre-K finder
- Drupal – a content management system (NotifyNYC, NYC Developers Portal)
- MySQL – an Open Source database

DoITT also uses Open Source software tools such as GitHub and Eclipse, which is an integrated development environment.

While we do not believe legislation is necessary to continue our progress in employing Open Source technologies where it makes sense to do so, we recognize the value of establishing broad goals for Open Source uptake – ones that are reasonable and supportable given what would be significant operational, training, funding, and migration requirements as reliance on Open Source increases.

Therefore, we believe the best approach for New Yorkers is for the City to continue along its steady, deliberate, and measured path to Open Source development and deployment. This path recognizes the value of Open Source and its tremendous potential for cost reduction while balancing the needs of 8.4 million New Yorkers, hundreds of thousands of employees, and thousands of applications across dozens of agencies delivering what are often vital services on a 24x7 basis. Any fundamental shifts in the underlying technology powering these systems and processes must be pursued with the utmost caution and due attention to potential impacts.

To that end, we look forward to continuing our dialogue with the Council about how we might achieve the goals of Intro. 366 as they relate to reducing the City's reliance on proprietary software, and options for the increased use of Open Source solutions as appropriate.

Thank you for the opportunity to testify this morning. I am now happy to answer your questions.

Thank you again.