Testimony of Gale A. Brewer, Manhattan Borough President Regarding New York City 311 Data Use and Collection New York City Council Committee on Technology
November 18, 2014

My name is Lucille K. Songhai; I am Director of Community Affairs for the Manhattan Borough President Gale A. Brewer. I would like to thank Chairman Vacca and the members of the Committee on Technology for holding this hearing and allowing me the opportunity to speak about the ways our office is utilizing 311 data. The Borough President believes that using 311 is a great direct tool for citizens to engage with city departments and to accurately reflect the delivery of and problems related to city services. For many city residents, 311 is a direct line to city agencies working in conjunction with elected officials, local community boards and civic organizations to solve pressing needs.

A few weeks back, The Manhattan Borough President testified in front of this same committee on Local Law 11 of 2012, the Open Data Law. As part of her testimony, she explained her belief in Community Boards being the perfect incubator for teaching citizens how to engage with available data collected by 311. Community Boards play an important role in dealing with quality of life issues. They hear the direct complaints from neighborhood residents and are the first point of contact for citizens wanting to be active and make a difference. Our office sees the future of Community Board members using data from 311 to help shape and influence decisions that impact their neighborhoods, from development proposals to crime reduction strategies. Manhattan Borough President Gale Brewer, sees a need to equip Boards with the capacity to use city datasets for decision making. Just last week, our office hosted a leadership session with the Department of City Planning to teach Community Board members how to use community planning resources and mapping tools. It is

the Borough President's goal to train and provide technical assistance to give Boards the best platform to highlight the needs of their communities.

Currently, our office is training 14 CUNY Service Corps members on the use of the Open Data Portal and has been impressed by how quickly they have learned how to use the data. They have mapped everything from prevalence of heat complaints to excessive noise calls and have tracked complaints about non-functioning muni meters. They have mapped information that reflects many of the constituent service calls our office receives daily from residents in Lower Manhattan to Northern Manhattan. We are encouraged by how quickly they have learned the Portal and see them as budding civic technologists who can help to teach others. This opens up different paths as young people see the ability to solve our city's ills by first being able to identify what the needs are. As the Service Corps members begin working with Community Boards, we expect their fluency to continue to grow and to begin to see correlations between 311 data and the complaints they will encounter from residents contacting their Community Boards.
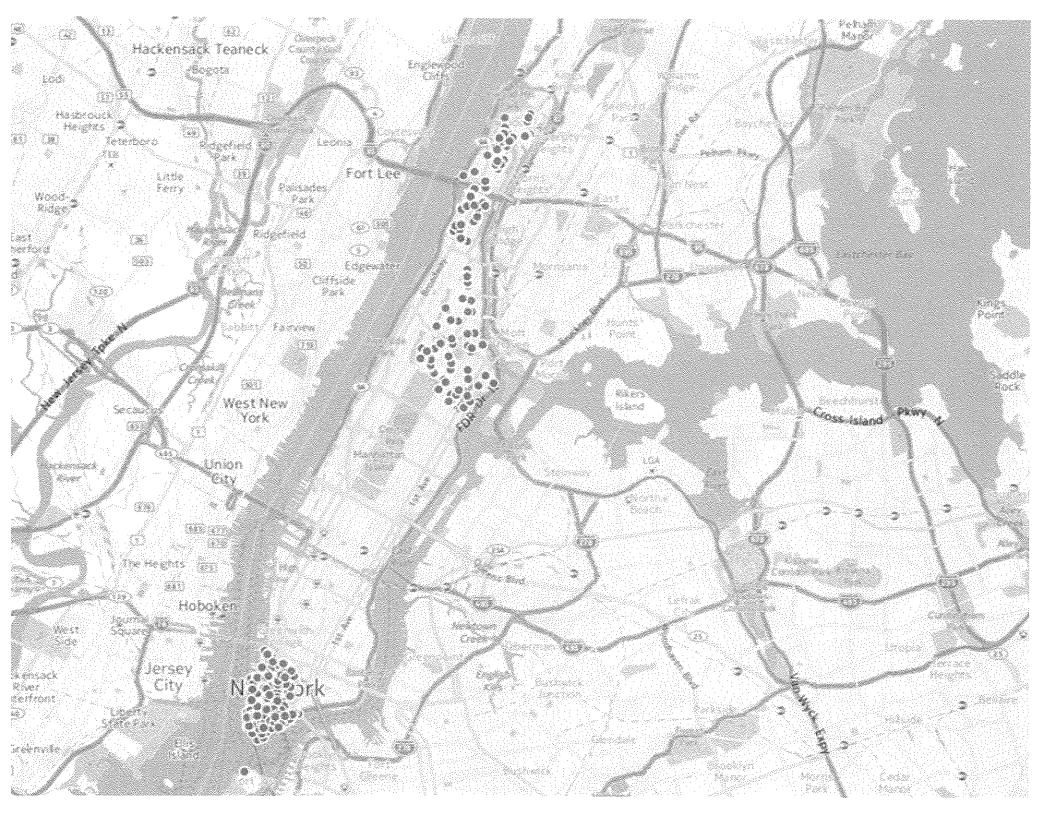
Many of our CUNY Service Corps were unaware of the Open Data Portal's existence before they began working for our office. Their fresh eyes have begun to point out ways to make 311 more user friendly and to accurately reflect problems being reported. The Manhattan Borough President believes that as we are moving forward and using available data to inform and shape policy, there needs to be an emphasis on ensuring collected data is comprehensive and accurate.

While exploring 311, Service Corps members have observed a large number of 311 requests that are in the system as *pending* but have been closed out by a city department after it has been referred to them. Yet the problem has not been resolved or the complaint's shelf life has had a long extension of a year or more. There should be consistency and clarity regarding how complaints are processed and the length of time needed to find a solution. Students also mentioned the lack of consistency in complaint names. While it can be valuable to have more detailed categories for certain violations like. Noise, it is essential that there be consistency in the naming so we can get an accurate sense of neighborhood issues. It all comes down to accuracy and consistency. Transparency plays an important role in making sure citizens continue to see the benefits of utilizing 311 services. Every piece of information collected from 311 online or via a phone call acts as public record and we should hold city agencies accountable for their response.

Another example includes a dataset attached to this testimony that is supposed to reflect complaints that have come out of Manhattan Community Board 1 from September to November 2014. When mapped, the complaints show points in Lower Manhattan but also show complaints in Northern Manhattan as well. This may be a small issue, one that can easily be solved by DoITT but continuing to work out the inconsistencies within the system bolsters the accountability of 311 and the trust people have when acquiring and using information from its datasets.

Another important observation from our Service Corps is about 311 not capturing NYCHA data. If NYCHA complaints are missing from 311, then this is a grave disservice to NYCHA residents whose concerns and issues are not being represented and fairly evaluated. While we know that NYCHA handles its complaints from residents using their own internal system, there can be greater opportunity for NYCHA and non-NYCHA residents alike to have a more complete picture of what is happening in their neighborhood. There potentially could be information that could even prove useful to other city departments to assist in closing open cases. A special code could be devised that allows for 311 agents to continue to send NYCHA complaints directly to the housing agency but still allow for it to be reflected in their system. As of right now, gathered datasets are not including NYCHA issues which means a large amount of data related to one of the city's largest departments is not transparent to the public.

As we continue to see data as a powerful ally to inform how we solve problems, there are now new applications that work alongside 311. Apps such as PublicStuff and See Click Fix offer new ways for citizens to make 311 type requests. We should be doing all we can within our power as local government to encourage access to 311's system for these engagement apps to make it much easier for everyone to communicate and get a response back when they see a local problem in need of a solution. The Manhattan Borough President is committed to working with City Council and the Administration to be responsive to the needs of New Yorkers and our office looks forward to future advances in the 311 system and beyond that can make this happen. Thank you for the opportunity to testify on the Manhattan Borough President's behalf.

To: NYC Council - Committee on Technology
From: Noel Hidalgo, Executive Director

Re: BetaNYC's NYC 311 Oversight hearing testimony

Tuesday, 18 November 2014

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To the NYC Committee on Technology & Chairperson Vacca,

It is an honor to have this opportunity to represent New York City's civic technology, design, and data community.

Over all, NYC's 311 system is remarkable. Since its announcement on 31 January 2002, NYC 311 has led the way in centralizing access to the City's information. On its announcement day, Mayor Bloomberg said: *"This Citizen Service initiative will allow City residents to obtain important non-emergency services through one central, all-purpose phone number quickly and effectively, and it reflects this Administration's commitment to bringing government to the people. I am confident that the new 311 system will vastly improve the way that New York City government functions."*

Twelve years later, NYC 311 has become a platform for open government. NYC 311 illuminates how we can build a city for the people, by the people. While BetaNYC regards many of NYC 311's features to be brilliant, portions are clouded by decades old features that darken the future mission.

Today, BetaNYC will briefly outline what it sees as this city's data northern star and outline the dark clouds on the horizon.

NYC 311, a guiding light for open government

- **NYC 311's Leadership.**
  - In general, the NYC 311 staff has done a great job of attending civic technology events and explaining the intricacies of 311's data and its inquiry application programming interface (API). BetaNYC would like to thank Chenda Fruchter, Assistant Commissioner, her team, and the Content Management team for attending many of our evening and weekend events. They have been wonderful to work with. I'd also like to publicly thank Cynthia Zweier and Magdelin Vargas for their dedication to demystifying 311's data to the public.

- **Community communication interfaces.**
  - Since its launch, NYC 311 has adapted to the changing social media landscape. From SMS, to Skype, to Twitter, to Facebook, to Instagram, NYC 311 takes its services to where the people are located. NYC 311 has demonstrated how agencies can own a one-to-one digital relationship. NYC 311 is leading the way in connecting the city to her people.

- **NYC 311 Service Requests Open Data set**
  - NYC 311's service request data set is one of the City's richest datasets. Due to its user-friendly formating, it consistently ranks amongst the top five most used data sets.
  - When launched in 2009, this data was not easy to use. As the City's open data program has developed, so has the NYC 311 service request data set. **The NYC 311 team should be commended for listing to their users and taking active steps to improve their data output.**
  - Now with records dating back to 2003, the data is updated daily with date, time, referenced agency, address location, and a detailed request or complaint type. Additionally, this dataset is automatically geocoded for Community Boards, Boroughs, and the exact GPS location of incident. No other municipal dataset paints such a complete picture.
  - With this finite data, the public can easily use the data portal's mapping tools and examine 311 requests. This community benefit is exemplified on Manhattan's Community Board 6 website.[1]
  - Because the NYC 311 service request data is geocoded and connected to the data portal's application programming interface, developers are easily able to integrate it into their applications and data science analysis.[2][3][4][5][6]

- **NYC 311 Inquiry Application Programing Interface (API)**
  - In the summer of 2011, NYC 311 was one of the first in the world to launch an "Open 311 content API." This API pioneered the ability for the public to see the same answers a 311 operator would see. Over time it has homogenized agency information and facility assets.[7] Now, this API includes "NYC Today" which is a public feed of school closures, alternate side parking restrictions, and residential sanitation pickup. Additionally, this API is the sole location that harmonizes information on all public services, parks, and other public government spaces. We feel that is one of the most important datasets, yet one of the least promoted.[8]

- **NYC 311's app**
  - Launched in 2011, the NYC 311 app for Android and iPhone. Starting from a limited scope, the NYC 311 now features 21 request types and "Push" notifications updates on alternate side parking, school closings, and critical weather related issues.
  - Unlike other City mobile applications that have come and gone, NYC 311 has invested in a reliable, simple to use, and adaptive mobile application.

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[1] http://cbsix.org/resources/mapping-311-requests-cb6/

[2] http://www.pediacities.com

[3] http://citygram.nyc

[4] http://iquantny.tumblr.com/post/91422276439/williamsburg-leads-nyc-in-weekend-late-night-taxi

[5] http://opendatabits.com/new-york-city-311-service-requests-open-data/

[6] http://heatseeknyc.splashthat.com

[7] http://mashable.com/2011/08/01/nyc-website-hackathon/#_

[8] https://developer.cityofnewyork.us/api/open311-inquiry

The dark clouds that shroud NYC 311's bright future.

BetaNYC firmly believes that 311 has demonstrated its value to support a 21st century city. This future's foundation is framed with equable interfaces, interoperability, and quality data. Without these, the future of 311 will be shrouded in darkness.

Equable interfaces

- Public outreach
    - **NYC's 311 program needs to serve all.**
        - **All mayoral agencies need to have service requests types.**
        - **State Authorities that operate within the City's boundaries should have 311 related service request types.**
            - For example, NYCHA is except from 311 and provides its own service request metrics portal. This data is not machine readable.[9] We ask that NYCHA produce its data in a machine readable manner or integrate into 311.
    - Under the last administration, heard about an experiment mining non-English social media accounts. Whether this was for 311 requests or not, we encourage the 311 team to expand innovative outreach and develop practices that build trust.

- NYC Inquiry API
    - **We encourage the city to develop portions of the inquiry API to be multilingual.**
    - **We encourage the city to consider hosting "edit-a-thons" to expanded the inquiry API. (An edit-a-thon is where the public helps improve content.)**
    - Now that NYC.gov has been redesigned, we ask that popular NYC.gov search results are baked into the inquiry API.

- NYC 311 app
    - **The application's interface needs to support multilingual environments.**
    - **Expand mobile app submission options.**
    - **We would like to see mobile app usage reports.**
        - As the NYC 311 app is the most promoted app in the NYC.gov echo system, these reports provide valubale insight into the usage patterns for other civic applications. Breakdowns of mobile web vs app, handset type, and operating system breakdown will help civic technologists have a better understanding of 311's users.
    - Ideally, users can create accounts that integrate across mobile and webplatforms. Additionally, these user account could be tied to personalized Notify NYC alerts.
    - Explore subscription based tools like citygram[10] that permits citizens to subscribe to neighborhood issues.

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[9] https://eapps.nycha.info/NychaMetrics
[10] http://www.citygram.nyc

- NYC 311's Service Request Map[11]
  - **There are a number of issues with the NYC 311 service request map. Multilingual support and usability are two key deficiencies. We recognize this map's origins are from a time before Google maps, and we call on the city to update the map with a modern, open-source, multilingual, mobile responsive map that allows people to subscribe to 311 alerts.**
  - For a demonstration of some of these features visit Citygram.NYC[12], NYC 311er[13], or Pediacities[14].

Interoperability

- **NYC 311 has grown to be an intergovernmental platform. As the City's core issue tracker, it should be see an open platform and cost should be shared across multiple agencies and, hopefully, other municipal / government bodies.**
  - The technology that powers NYC 311 needs to be thought of as a platform and architected in a similar way. The future of NYC 311's core should be modular, open sourced, and feature read / write APIs.
  - Every mayoral agency should have a tracker type in 311.

- **Adopt an Open 311 API that allows for ubiquitous input.**
  - **In last fall's "People's Roadmap to a Digital New York City," we recommended this administration adapt a read/write Open 311 API.[15] We are living in an age where complaint data can be captured anywhere at anytime. It can be captured within verified 3rd party applications, across agencies, or within Council members' offices.**
  - By adopting such a system, authorized individuals could monitor and assist service requests.
    - Imagine council members being able to look into constituent issues and see how they can help.
    - Imagine tenants rights organizations having greater transparency on bad landlords.

Quality Data

- NYC Service Request Data Set
  - **We ask that the NYC 311 Service Request Data Set be updated sub-daily.** By moving data into a realtime stream, tools like Citygram.nyc become more useful. Increasing the frequency of updates breathes life into the data. This is the number one feedback we have heard from our users. (Note, the City of Seattle provides a near real time feed of their 911 system.[16])

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[11] http://www1.nyc.gov/apps/311srmap/

[12] https://www.citygram.nyc

[13] http://chriswhong.github.io/311er/ (in beta)

[14] http://bit.ly/1oYcSg7

[15] http://nycroadmap.us/#22

[16] http://bit.ly/1vmj90Q

- o **Out of 8 Million requests, 8.6% (713,528) of all requests that do not have geocoded address.[17] It appears that addresses are entered but not verified. Similar to another problem we are facing with the City's crash data, we suspect there is no address verification workflow. We ask that address verification workflows are baked into all service requests.**

- NYC 311's MMR Data
  - o **The daily records we consume should be the foundation of the Mayor's Management Reports.** Thanks to Local Law 47 of 2005, we are fortunate enough to have oversight reports dating back to 2004.[18] The format of these reports are not machine readable, nor are they a data set in the City's data portal. It seems logical to replace the existing system with an automatically reporting data stream built on top of the City's open data portal. **Public accountability should be built on public, open data.**

- Inquiry API
  - o **We need better documentation of the Inquiry API.** The current NYC 311 staff does a great job at explaining what is in the data, but can not explain the intricacies of the API. As part of reinvigorating the City open data team, we hope for the reinvigoration of City's developers portal and detailed documentation on all public APIs.[19]

- Notify NYC[20]
  - o **The future of 311 and emergency notifications are intertwined.** The ability to see something and to say something has been embedded in our consciousness. As we hope 311 develops to be a larger platform, we want to see tools like Notify NYC and Citygram.NYC as inseperable tools. Both complement the 21st century civic experience. **The first step is the production of a Notify NYC API.**

Conclusion

For the last 10 years, NYC 311 has shined a light on municipal complaints, inquiries, and requests. In a world before cameras on phones and high speed internet in our pockets, a single phone number made sense. As the world has changed, NYC 311 has laid the foundation for a modern civic platform. For NYC 311 to thrive in the next decade, we need municipal investments in universal access, software interoperability, and quality open data.

Thank you,
Noel Hidalgo

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[17] https://data.cityofnewyork.us/Social-Services/311-Complaints-with-no-Location-Data/b3ex-p3gq
[18] http://www.nyc.gov/html/ops/ll47/html/ll47_reports/ll47_reports.shtml
[19] https://developer.cityofnewyork.us
[20] https://a858-nycnotify.nyc.gov/notifynyc/

Testimony of

Dominic Mauro, Staff Attorney, Reinvent Albany

before the

New York City Council Committee on Technology

Oversight Hearing on

311 Data Use and Collection

Good afternoon. I am Dominic Mauro, Staff Attorney of Reinvent Albany, a non-profit group which advocates for open and efficient New York State government and which co-Chairs the New York City Transparency Working Group. In that role we worked closely with Council, the Mayor's Office and DOITT to win passage of the NYC Open Data Law. We work with both city and state government to promote the use of everyday technology to make government more transparent and accountable.

We have strongly supported the NYC Open Data Law, which has opened up vast expanses of valuable government information to the public. One of the most important data sets on the Open Data Portal is 311 service request data. Publishing that data in an open format has opened a massive wealth of information about what services the people of New York are asking their government to provide. However, while very useful, 311 data does not show the public how their government responded to their service request. There is no "end to end" reporting on what exactly an agency did.

That data, which would shed a light on agency performance, and vastly in-crease public accountability, is currently only available to the Mayor's oper-ations staff in the city's Databridge system. While we understand that this hearing is about 311 data, we think the intent of hearing is to help the Technology Committee and Council understand what the city is doing to be more transparent about how it responds to 311 requests – service requests in particular.

The reality is that without the data in DataBridge, the public does not have a very good idea of how City agencies respond to 311 requests. All we can see is the request, not the service provided.

The basic idea behind the Open Data Law was to get the greatest value from the data that the city already spends enormous sums collecting and compiling. The idea is that tax payers get a better value for the money they have invested in creating data, when that data is used by other parts of government, academics, advocates, journalists and businesses.

DataBridge is essentially the half of 311 that is missing from public view. Without it, 311 data is worth much, much less to the public – and to government. (We still live in an era in which government agencies FOIL each other for basic information. We need to progress beyond that.)

We estimate it would cost approximately $5 million for the city or its contractor, Accenture, to publish Databridge data in an open data format. This cost is a tiny percentage of the expense of gathering that data and collating it in Databridge. Yet, it is an investment which offers a huge return by allowing the public, elected officials, and agency staff to use the same operational data used by the Mayor's Office of Operations.

Problems with service delivery can be spotlighted and resolved in public view – a revolutionary idea, but one which could transform service delivery and create an unprecedented level of government accountability. It would be a boon to agencies, City Hall, and City Council to have innumerable experts in different fields providing what would essentially be free data analysis for government from public sources.

New York City should not have a two-tiered system with public data sets for the public to use, and private data sets for internal use only. To realize the maximum value of this data, it needs to be shared with the public.

The comprehensive agency data the city has access to via its DataBridge data management system is among the most valuable the city has. Our understanding is that only a small portion of 311 data is unreleasable due to privacy or security concerns, and the bulk is high-quality public data about

how agencies respond to 311 requests. Most of the data about 311 service requests does not affect security or impinge on individual privacy.

311 data without Databridge tells New Yorkers half the story. Let's get DataBridge data in the Open Data Portal, and launch a new era in public data, service delivery, transparency and accountability.

Thank you,

Dominic Mauro

**TESTIMONY OF JOSEPH R. MORRISROE, EXECUTIVE DIRECTOR – NYC311
AND NICHOLAS J. O'BRIEN, DIRECTOR OF PUBLIC AFFAIRS, OFFICE OF DATA
ANALYTICS, OFFICE OF THE MAYOR, CITY OF NEW YORK, BEFORE THE NEW
YORK CITY COUNCIL COMMITTEE ON TECHNOLOGY
NOVEMBER 18, 2014**

Good morning Chairman Vacca and members of the City Council Committee on
Technology. My name is Joe Morrisroe, and I am the Executive Director of New York
City 311. Thank you for the opportunity to testify today on 311 Data Use and
Collection. With me today is Saadia Chaudhry, the Director of Customer Management
and Business Relationships at 311; and Nicolas O'Brien the Director of Public Affairs for
the Mayor's Office of Data Analytics or MODA.

I'm honored to serve as Executive Director of 311 since 2008 and to represent the women
and men of the 311 team. Since 2010, 311 reports directly to the Mayor's Office of
Operations, an alignment that underscores the importance of this operation and service to
the City. Prior to that 311 reported to the Department of Information Technology and
Telecommunications (DoITT). DoITT continues to provide technology services and
general services administration and support for the 311 organization, and work
collaboratively with 311 and the Mayor's Office on the continual evolution and
enhancements to the service delivery and customer experience of 311. As Executive
Director, I oversee all aspects of 311, from the operation of the most popular component,
the call center, to the creation and implementation of multiple customer-facing channels,
performance results and quality control measures, interaction with City agencies,
compliance with regulatory requirements, data collection, and most importantly serving
our customers, the millions of residents, thousands of businesses, and numerous visitors
and commuters to New York City.

The 311 process relies on systems supported by DoITT and partnerships with city
agencies to ensure a customer has access to information, assistance, and services through
a variety of channels including the call center, 311 Online and via text. To understand
311 data collection and performance reporting it is helpful to understand the flow of 311
service delivery, from customer inquiries and requests to the answers provided and
actions taken, and the confirmation provided. With few exceptions, public interactions
with 311 result in one of the following outcomes:

1. Service Request (the City needs to do something)
2. Information Request (Is Alternate Side Parking in effect? When is my recycling
   pick-up day?)
3. Referral to an outside entity (MTA, NY State, FCC)

The data collection process is consistent across these outcomes as well as across the
multiple customer service channels. The 311 system captures the relevant information
for these request types, creates and stores activity records, and then feeds that information
to a business intelligence tool supported and managed by DoITT, for compilation,
processing, and presentation.

The activity record can include the date and time of the call, the topic or subject, the agency responsible for providing the information or response, a confirmation tracking number used by both the customer and the agency, and in the case of most service requests, geographic information on the incident being reported.

The business intelligence tool is the backbone that allows this information to be captured and collected as data, stored and catalogued for reporting and access purposes, and converted to performance measurements, all accessible to the public.

Since 311 was launched in March, 2003 it has received over 190 million calls. Originally launched as a call center, New York City 311 has evolved into the most comprehensive municipal government customer service platform in the nation. Available 24/7 in 180 languages and multiple channels, 311 interacts with over 100,000 customers on a typical business day. In an average month 311 receives 1.6 million calls, over 450,000 visits to the companion 311 Online website, 50,000 mobile app touches, 140,000 text messages, 1,000 online chats, and publishes information for over 100,000 social media followers.

The 311 mission is aligned with the Administration's goals and vision and most notably focuses on providing the public with equitable service delivery through quick, easy access to all New York City government services and information while maintaining the highest possible level of customer service.

The 311 team is focused on *"meeting our customers where they are"* by providing an array of channel options to contact the City ranging from robust self-service solutions to outstanding customer service delivered by professional, polite, and well trained representatives. Over the last 4 years in annual customer satisfaction surveys conducted by the CFI Group 311 ranked equal to or better than the *best contact centers in the private sector* and far surpasses the best in government centers in delivering customer service.

This outstanding performance reflects the dedication and commitment of the women and men who work at 311 and proudly serve their fellow New Yorkers. It is for these reasons that New York City 311 is the recognized model for service delivery and performance reporting for governments across the nation and around the world who study the "New York City 311 model" when considering launching their customer service platforms.

As the source for non-emergency government services and information, 311 was the ideal funnel to capture and store relevant data on activities and outcomes associated with customer questions and requests. Over the past several years 311 data and performance results have been made available to the public via reports, dashboards, maps, and APIs, thanks to a collective effort by 311, DoITT, the Mayor's Office of Operations, City Agencies, Community Boards, the City Council, and open data advocates.

From the early stages of a static report in pdf format to current capabilities which include the NYC Open Data portal, 311, DoITT and the Mayor's Office of Operations have focused on ensuring transparency in city government by making data and results accessible and understandable.

This effort includes organizing the 311 resources and organization structure to ensure proper collection and cataloguing of information received, as well as the data input to the system; and DoITT's work in building and maintaining the technology and tools that make the data available.

Whether an interaction is performed with the assistance of a 311 representative or the customer self-serves via 311 online or the 311 mobile app, the same data elements are captured and fed to the business intelligence platform. This is a critical and deliberate consideration that ensures consistency in data fields and lists of values, and standardization in structure and formatting necessary for users to access and utilize data sets and reports.

The 311 organization is responsible for the accuracy, clarity and consistency of the information provided to the public. 311 works with City, State, and Federal agencies to ensure the most up to date information is available, and then disseminating it across the various customer channels. The agency information presented to the customer and the representative follows a plain-language standard to promote understanding and clarity.

The information captured by the system and fed to the business intelligence tool is formatted in standards that allow cataloguing, compilation and publication. The 311 content management team structures the information for every city service - over 5,000 unique pieces of information - in a way that makes it unique and accessible to users in the call center or with the mobile app and by the business intelligence system. This careful design and regular curating of the content ensures the information provided to the public is correct and the resultant data is useful, accessible, and understandable for our customers. The 311 quality assurance department further ensures the accuracy and credibility of data by inspecting and measuring the intake process with customers and the data entry process performed by representatives or customers. This quality control step is vital to subsequent use of performance results and data.

Consumers of 311 data include internal City government users and the general public.

Internally my organization uses the data generated on a number of levels. This includes monitoring and tracking top drivers and trends to measuring performance results. Internal users including partner City agencies and the Mayor's office use the data to evaluate policies and programs, identify trends, and measure the success of campaigns. In the event of a citywide or localized emergency, 311 data is a critical feed in real time and is of great use to the Office of Emergency Management and city agencies responding to an event.

A good recent example of 311 data monitoring was during the course of the recent notification and information on Ebola concerns. As part of the normal agency relations process 311 was working early on with the Department of Health and the Office of Emergency Management to ensure correct and current content was available for customers seeking more information.

The 311 team tracked these inquiries and created a comparison model using previous public health concerns, notably the H1N1 outbreak in 2010 and previous Flu Season inquiries. 311 data was used to build a baseline response model and then overlay the actual response for Ebola-related inquiries on a daily basis.

This approach allowed 311 to forecast scenarios for staffing, establish upper control limit thresholds providing a relative context to call volumes, and ultimately gauge and evaluate public reaction and response on a daily basis. The 500-plus calls received over a 21 day period provided a suitable universe for tracking and was well within comparative thresholds. This analysis helped determine there were no hidden concerns being raised by the public and there were no unmet needs in terms definitive information and instructions. The ability to track Ebola-related inquiries quantitatively as well as qualitatively was a useful tool for planning and preparation, and a conduit for the Mayor's Office to continuously gauge public response.

For external users with their wide range of interests 311 data is accessible through a variety of options. These include a suite of offerings known as "Citywide Performance Reporting" managed by DoITT and are available and summarized on the Mayor's Office of Operations website on NYC.gov. A sampling of these offerings shows the scope of data sharing and multiple uses of the source data. During the first half of 2014 these tools were accessed in total over 21,000 times per month by the public, with over 60,000 downloads from the NYC Open Data portal.

311 Reporting. Provides statistics on the type and frequency of Information and Service Requests to 311, available on a monthly or annual basis, by type of request, and at the borough, and Community Board level.

Agency Performance Reporting. Access to critical performance indicators for every City agency, including monthly updates and automatic evaluation of trends within specific program areas.

Street Conditions Observations (also known as SCOUT). Maps street conditions such as potholes and catch basis defects and uses the 311 system to record and submit the conditions and allow users to track the progress of repairs.

311 Service Request Map. A visual representation of the location, frequency, and concentration of Service Requests filed through the 311 system at a street or intersection level, as well as by zip code, Community Board and City Council District level.

NYC Open Data. The NYC Open Data tool managed by DoITT increases the accessibility of public data generated by 311 and various New York City agencies. As part of an initiative to improve accessibility, accountability, and transparency of City government, this catalog supplies access to a repository of government produced, machine-readable data sets.

I'd now like to turn to my colleague Nick O'Brien, the Director of Public Affairs at the Mayor's Office of Data Analytics for more insight on their efforts.

Thank you, Joe. And thank you Chairman Vacca and all the members of the City Council Technology Committee for convening this hearing. My name is Nicholas O'Brien and I am the Director of Public Affairs for the Mayor's Office of Data Analytics (MODA). MODA, housed within the Mayor's Office of Operations, serves as the civic intelligence center for operations data, allowing the City to aggregate and analyze data from across City agencies, to more effectively address issues related to crime, public safety, and quality of life, among others. MODA is tasked with executing interagency data projects; one of the most valuable sources of data we use in conducting our analyses is the 311 service request data. For nearly every project we work on, we examine 311 data to help us assess the scope and spatial distribution of a problem.

We have also on a few occasions used 311 data as an input for predictive models to move us beyond the reactive and to actually get ahead of problems before the City is directly made aware of an issue.

For example, MODA worked with the Fire Department (FDNY) to update the Risk Based Inspection System, an algorithm that selects buildings and schedules them for FDNY inspections. FDNY has jurisdiction to proactively inspect over 300,000 buildings in the City. Along with neighborhood and building characteristics, 311 is a key input into the model. We are talking about closed complaints that, while not speaking to an active issue in the building, indicate that that location may be problematic and that inspection resources should be deployed there quickly.

We are also using analytics to enhance 311 information. For example in both the Illegal Conversion Task Force and the Department of Buildings B+ program, MODA takes incoming 311 complaints and assesses them with respect to other City data to determine if they are likely to be more problematic than other complaints and then schedules them for faster and/or enhanced inspection.

We see the potential to scale these types of projects and are actively looking for new ways to find and address issues before they become major problems.

In addition to using 311 data to improve City service provision, MODA is the business owner of the Open Data portal and in this capacity is working to increase the use of the information available on 311 to keep New Yorkers better informed and to make better decisions. 311 service request data is posted daily to the Open Data Portal. This has permitted easy access by non–technical New Yorkers as well as permitting developers to create new applications. The recently launched Citygram sends New Yorkers alerts when new service requests are made in their neighborhood or any area of their choice.

Site Compli, which create unified reports of City data for building managers, includes 311 complaints so that the people responsible for addressing those complaints are made

aware of them quickly. The HereHere app looks at trends in 311 data and allows New Yorkers to compare time periods and neighborhoods. There are a good number of Alternate Side of the Street Parking apps available for download that were created by outside developers.

In order to encourage further app development, 311 and DoITT partnered to create the ReInvent 311 Challenge. This two month challenge culminated in January 2014 and produced a series of apps designed to present information in a more digestible way to New Yorkers. One useful example was Homeless Helper, an app designed for case workers and advocates for the homeless which combines City data on food stamps, homeless prevention, youth counseling, job services, and other outreach information. All this data is made available to the public via the 311 Content Application Programming Interface and is regularly updated.

There is also significant interest in this data from the media and the academic community. A number of pieces on 311 and the stories that 311 data tell have appeared in the popular media including Wired Magazine, the New York Observer, Gothamist and Gawker. At NYU, both the Furman Center for Real Estate and Urban Policy and the Center for Urban Science and Progress have done work with 311 data.

MODA continues to looks for ways to use 311 data to improve City operational performance and is actively working with Open Data consumers to support their efforts to continue to make 311 data an asset for New Yorkers.

With that I'd like to turn it back to Joe Morrisroe.

Thank you Nick.

The success of New York City's 311 customer service platform over the years is tied to its ability to evolve and expand to meet ever-changing customer needs. To do that the 311 organization collaborates with numerous groups to constantly evaluate the current state, receive and respond to feedback that drives improvement, and partner to design and create new initiatives that better serve the City and our customers. There are many partners involved with the ongoing tuning and enhancing of the 311 platform. A notable list includes the following:

- The Mayor's Office on strategic direction and policy.
- DoITT on technology initiatives and production support.
- City agencies for programmatic and procedural information.
- Elected officials and Community Boards for feedback and insight.
- Open government and open data advocates who provide fresh ideas and perspective.

And a constant is to listen to those who understand the daily interaction of New York City and its constituent's very well because they do it on a daily basis – the front line staff at 311 and our customers. The care that goes into providing both the customer service agents and the public with the right information is the same level of attention and detail assigned to make sure the data intake and collection throughout the 311 process is accurate and complete for users of 311 data.

On behalf of my colleagues, I thank the Technology Committee and Chair Vacca for your time and consideration and the opportunity to testify. I am happy to take any questions.

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