Project Loop

OPERATIONAL PLAN

Neelam Dwivedi | Garrett Houghton

Girish Seshagiri | Laura Thomas

Tech Executive
Leadership Initiative

Table of Contents

Image by Denny Muller at Unplash

Executive Summary

To ensure meaningful and equitable broadband access in underserved areas of New York City, the Mayor's Office of the Chief Technology Officer (MOCTO) should implement a Community Feedback System (CFS) and a Vendor Incentive Program (VIP) to support the implementation of its Internet Master Plan (IMP). The CFS would provide government authorities with more insight into broadband vendor performance and the VIP would help sustain small vendors' performance. MOCTO should implement these two initiatives in the following three steps:

▸ **Capturing feedback**: The CFS should capture feedback from community members in a web form. It should ask community members to rate their vendors on a Customer Satisfaction (CSAT) scale of 1 to 10. The web form should be embedded in vendors' websites as well as available through MOCTO's website.

▸ **Rating vendors**: The community feedback should be aggregated across NYC boroughs and vendors and should be available on a dashboard owned by and visible only to MOCTO.

▸ **Incentivizing vendors**: The vendor ratings in the dashboard would become inputs to the VIP, which would help MOCTO to incentivize vendors to offer equitable service. MOCTO should incentivize the vendors with high ratings by advertising their services on city properties. This plan specifically suggests advertising on the NYC subway system owned by the Metro Transit Authority (MTA).

This combination of CFS and VIP will help assess as well as ensure the success of the NYC broadband initiative. While the community feedback will provide insight into the IMP's implementation on the ground, the incentives will pro-

vide vendors the encouragement and support they need to sustain their business model.
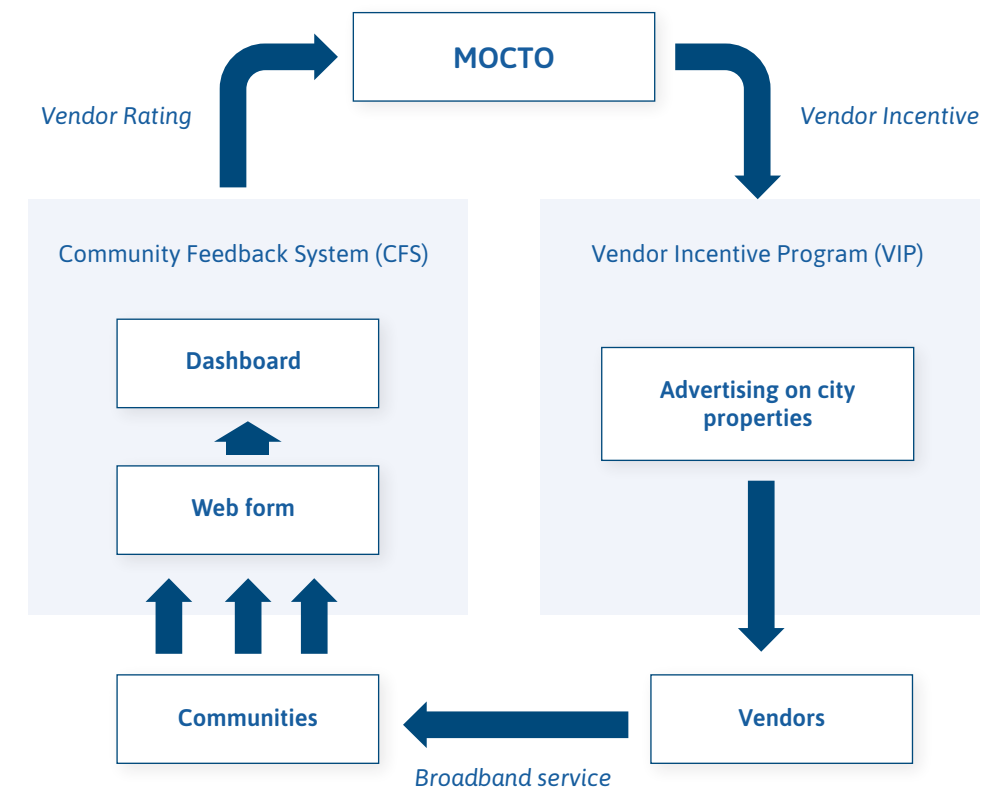
Community Feedback System

The Community Feedback System would comprise a responsive, embeddable web feedback form and a data dashboard. The feedback form should be a simple vendor agnostic form that captures feedback on Customer Satisfaction with their broadband service (via CSAT) and populates a private dashboard that MOCTO can view to monitor all responses and data.

Feedback Form

The feedback form would be a simple web survey that community members can fill out to provide feedback on their satisfaction with their broadband service.

There are several ways in which the feedback form webpage could be made available to community members:

‣ Embedded into the vendor's online website (payment or "contact us" page) to make it easier for community members to access it as they make their monthly payments or reach out to their service providers. Vendors would be incentivized to agree to this arrangement because of the potential for free advertising (see details in the Vendor Incentive Program section) that they will get as more users provide feedback.

‣ Available as a feedback page on MOCTO's Office website.

‣ Available on mobile phone or tablet (via direct form link) as vendors visit customers in home directly during service check-ins, installation, etc.

In all these cases, it is important for MOCTO to encourage community members to provide feedback, as well as to promote vendors who help community members in providing feedback. Once the feedback form is launched, it should run for 6 months to make the CSAT score effective and meaningful. The data from the first 6 months would then become the baseline to rate and incentivize vendors in subsequent years.

NYC
Mayor's Office of the
Chief Technology Officer

DRAFT City of NY Broadband Survey

We value your feedback and hope that you can take a minute to answer a few short questions that'll help us gauge how we're doing!

-NYC CTO's Office

Name

Email *
Including your email address will let us follow-up if there are any additional questions from our team

Neighborhood *

Vendor *

On a scale of 0-10, how satisfied are you with your broadband internet service? *
0 (Very dissatisfied) - 10 (Very satisfied)

Could you please share why you gave that score?

Submit

Never submit passwords through this form. Report malicious form

Example feedback form

Image by Picjumbocom at Pexels

Data Dashboard

The data dashboard, as illustrated by this [video demo](#), aggregates and visualizes the feedback form submissions for MOCTO. It would provide MOCTO the necessary information to understand the satisfaction and equity for broadband service across all IMP vendors and communities. This information will power the advertising grants that MOCTO will provide vendors that meet and exceed expectations. In addition, the dashboard would provide a measurement system to baseline success and track improvement of the program over time. We envision many other IMP-related programs being enhanced via this data measurement and tracking system. Note that only MOCTO would have access to this data.

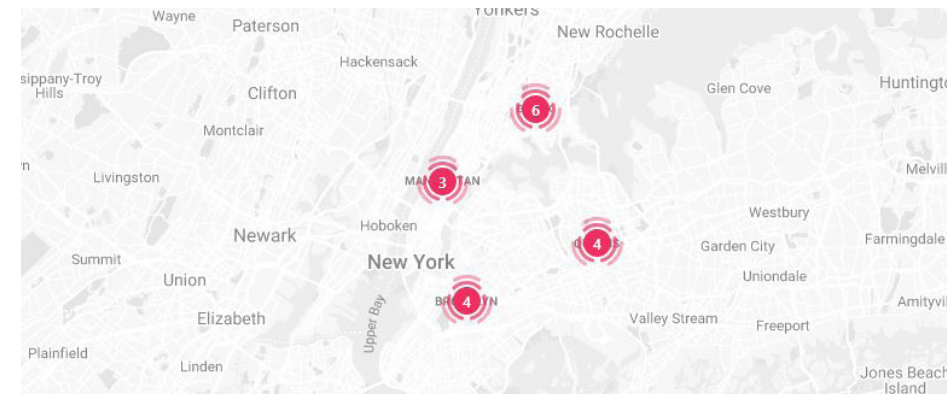To start, the dashboard would display the following information:

Overall CSAT Score Across All Vendors

Number of records
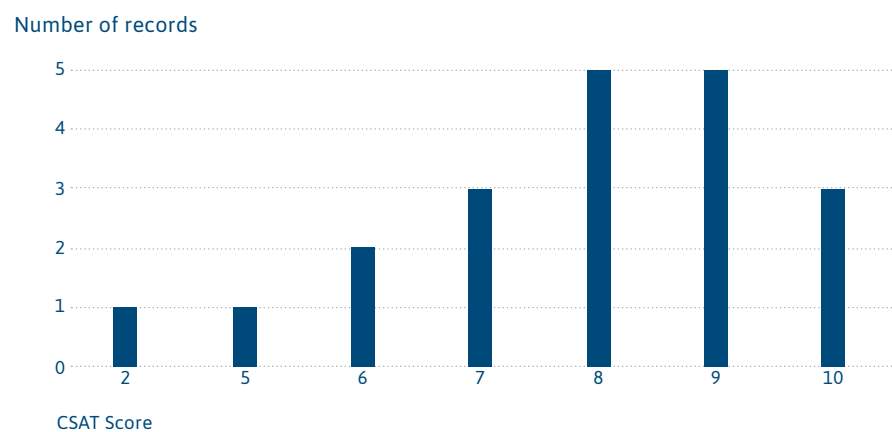
CSAT Score

Overall CSAT Score by Location

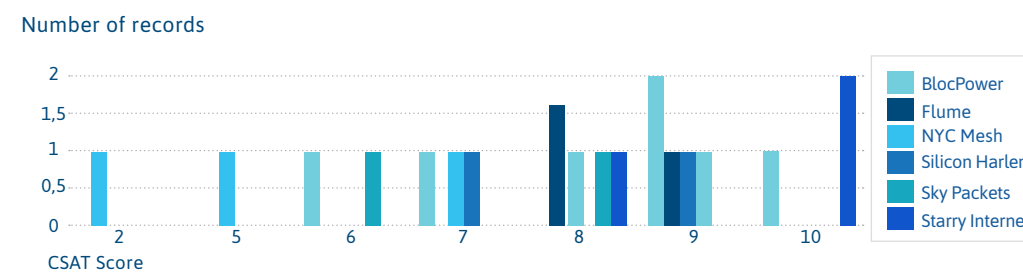Number of records
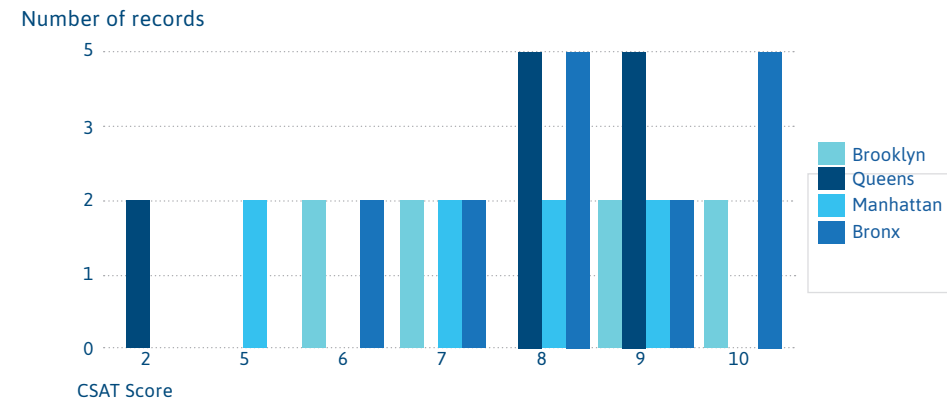
CSAT Score

Overall CSAT Score by Google Maps

As illustrated in [this demonstration video](#), the map shows how many responses have been collected per neighborhood. Users can click the numbers in each neighborhood to see individual responses from that neighborhood.

Overall CSAT Score by Vendor

Number of records

CSAT Score

Qualitative Feedback Submitted by Community Members

Data Dashboard Design Features

The Airtable platform would allow MOCTO to customize and extend the CFS. For instance, all questions on the feedback, as well as the style and color of the form, are editable by MOCTO with no programming skills required. Additionally, new dashboard widgets can be created in less than 2 minutes and the layout of the dashboard can be modified at any time. A large set of automations are available to extend the CFS out of the box. Some examples include:

▸ Automatically sending weekly email digests to MOCTO and/or vendors with real time CSAT survey updates;

▸ Automatically posting survey updates to Twitter or other social platforms directly from the CFS; and

▸ Automatically posting real time survey updates to Slack for instant notifications of new data.

Installation and Setup

The CFS is currently built using Airtable. Appendix A provides more information on installation and setup instructions of the CFS.

Image by Thomas Jensen at Unplash

Potential Challenges and Mitigation Strategies

This CFS comes built-in with permissioning, access controls, and a robust set of tools and automations; however, some challenges with operating this platform remain. These include:

▸ **A learning curve to adopt and iterate within the Airtable platform**. No programming skills are required to use, update, or administer the CFS. Additionally, the authors of this report are available to train MOCTO on ways to adopt and iterate on the system.

▸ **Vendor willingness to embed the feedback form on their websites**. To mitigate any vendor reluctance with adopting the form on their websites, MOCTO should focus on incentives in discussions with vendors. MOCTO may also wish to require that vendors place the form on their websites as part of contract language.

 ▸ MOCTO should also make clear to vendors that the dashboard data is not for public distribution without its consent. Alternatively, MOCTO can insert language into the contract during the negotiation phase that signals that public data will be used to measure vendor performance and that this data may be made public for community awareness.

 ▸ Should MOCTO decide to keep the data private, the Office could consider signing a non-disclosure agreement (NDA) with vendors that reiterates this agreement.

▸ **Challenges with survey administration methods and the use of specific IT infrastructure for survey data.** New York City local government departments have issued surveys in the past, so MOCTO could use a previously issued survey as a template. Please see the New York City Department of Education's annual school survey at https://www.schools.nyc.gov/about-us/reports/school-quality/nyc-school-survey for an example.

▸ **Survey adoption.** To encourage community participation in the feedback survey, MOCTO should partner with the following community organizations to assist in promoting adoption of the survey:

 ▸ Internet Society NY Chapter (ISOC-NY): https://isoc-ny.org/;

 ▸ Community Tech NY: https://www.communitytechny.org/;

 ▸ Digital Divide Partners: https://www.digitaldividepartners.org/; and

 ▸ New York Public Library: https://www.nypl.org/.

Image by Sriharsha Chekuri at Pexels

Vendor Incentive Program

In addition, MOCTO should deploy a Vendor Incentive Program (VIP) that is tied to the Customer Satisfaction (CSAT) scores captured in the residential user survey and dashboard. The purpose of the incentive program is to reward vendors that receive high CSAT scores in traditionally underserved areas of New York City. This will indicate that a vendor is providing reliable and affordable service to diverse populations. Vendors competing for business in these areas often are smaller in size, and these smaller vendors continue to struggle with sustainable business models, new customer acquisition, and revenue generation. A rewards program would assist these vendors in revenue generation from customer sign-ups. This system bears similarities to the Net Promoter Score (NPS) systems typically used in the private sector. The authors of this report specifically propose that MOCTO utilize an advertising program as the main reward in the VIP system.

The following section elaborates on an advertising-based VIP. It covers overall strategy, the process for setting up the program, potential challenges and mitigation strategies, and other opportunities MOCTO might consider should the program expand.

Image by Junior Teixeira at Pexels

Advertising Program

An advertising incentive program should focus initially on providing free advertising rewards to vendors based on their CSAT scores. These advertising rewards can be used by vendors to recruit additional volunteers needed and/or promote their service for revenue generation.

General Framework and Strategy

The City of New York owns or leases more than 17,000 units of public property and has broad authority over the use of this property within the City Charter.[1] In addition, over 7.9 million riders utilize the Metro Transit Authority (MTA) daily[2]. Both City-owned spaces and MTA provide ample advertising space for vendors. MOCTO should work with City government entities to award advertising space on these public lands and work within the City's current contracting structure with MTA to allocate advertising space within subways and buses. There should be an initial 3-month pilot advertising program focused on internal placards within bus routes. MOCTO should also work with vendors to ensure a feedback mechanism with new service sign-ups to indicate if the sign-up came from advertising, as a way to measure the effectiveness of the campaign. To better track advertising metrics, MOCTO and vendors could consider a discount code in the advertising that new users could use in the sign-up process.

Under the Internet Master Plan, the City awards contracts for groups of housing units. If 10% of families residing in these housing units provide their feedback, we consider it to be sufficient to validate the CSAT score that leads to unlocking incentive rewards. For the first year, all vendors would be given equal advertising space and promotional support. For the second and the subsequent years, the top 2 vendors would receive the advertising space split evenly. MOCTO can determine for itself the best allocation of advertising to vendors.

Process

Below is a prioritized list of actions MOCTO should take to create the advertising rewards program. While the authors have ranked these steps chronologically, MOCTO could pursue the first 5 steps in parallel depending on its staffing.

Step 1: Meet with New York City's Department of Citywide Administrative Services (DCAS)

MOCTO should meet with DCAS's Land Use Planning unit, which oversees the disposition and use of publicly owned or leased properties within New York City. MOCTO should work with DCAS to identify 5 locations where vendors could erect billboards that follow specific size requirements/limits on the property. This should be presented as a pilot program, with either side able to discontinue the program at will. Discussions and contractual agreements should include the amount of time the billboard will remain and future DCAS transfers of property that would effectively void the contract.

The acquisition of City property for these purposes closely resembles how a community acquires space for a community garden. Thus, there is precedent for this activity and a blueprint for its success. This same process could be used to determine space awarded for vendor infrastructure needs.

Step 2: Contact the Metro Transit Authority's Advertising Agency

MOCTO should contact the MTA's advertising agency for subways and buses (OUTFRONT Media at the time of this publication) and the WiFi kiosk advertising manager to discuss City-sponsored advertising.[3] OUTFRONT Media has contracts with the City for advertising and will be able to discuss steps in the contracting process with MOCTO.

Step 3: Meet with the NYC City Council Committee on Technology

As a method of achieving additional City Council support and funding for the advertising rewards program, MOCTO should set up a meeting with the Council's Committee on Technology. The Committee will also be able to advise on other reward mechanisms that would require the involvement of legal or policy changes.

Step 4: Meet with Vendors Individually to Discuss the Advertising Plan

MOCTO should set meetings with each of the 6 vendors to discuss the advertising incentives plan and solicit vendor feedback. The authors of this report recommend approaching the Chief Marketing Officer and/or Head of Sales for these vendors as a first touch point for discussions with the companies about the advertising rewards program. MOCTO should convey to vendors that they can decide the content that's included in the advertisements. Based on vendor discussions and published content, the vendors will likely use the space to attract more volunteers and/or users for revenue generation. MOCTO should

anticipate that these companies' legal representatives and CEOs will need to approve the advertisements.

Step 5: Issue a Press Release

MOCTO should issue a press release detailing the survey, dashboard, and advertising rewards incentive plan to draw volunteers and sign-up for these vendors. The press release could also be used to draw the attention of philanthropies and policymakers to expand and enhance the program. Such a press release could also be used to communicate the administration priorities and accomplishments.

Potential Challenges and Mitigation Strategies

▸ **A lack of budget for MOCTO to offer advertising space within DCAS or MTA.** Should MOCTO not be able to identify budget for the VIP, the authors recommend that MOCTO work with the NYC Department of Small Business Services Task Force to allocate budget to the incentives program. MOCTO could also work with philanthropic funders (for instance, Schmidt Futures and the Ford Foundation) to obtain funding from portfolios designated to close the digital divide.

▸ **Vendors providing inaccurate community feedback scores in order to obtain free advertising.** The small business size of the vendors suggests that the vendors will not have the resources to push inaccurate feedback scores. Even so, the authors of this report recommend periodic site visits and random outreach to survey participants who provided email contact information as a secondary verification of these scores.

Other Incentive Opportunities

The advertising rewards program should be easy to implement and almost immediately effective. MOCTO could also consider the following additional incentives:

▸ Making a vendor a provider of choice for City Hall, municipal buildings, school districts/public school buildings, and other City-owned buildings;

▸ Providing tax subsidies (this would require New York State-level engagement);

▸ Naming a public space/park after the vendor;

▸ Providing a scholarship in that vendor's name to underprivileged students;

▸ Including the vendor's name in a speech by a senior administration official at a major event; or

▸ Providing vendors free/discounted sponsorship of City-run events (e.g., NYC Marathon, Turkey Trot, etc.).

Image by Clive Kim at Pexels

Overall Staffing and Costs

We suggest that MOCTO pilot this program for 2 years. The total budget for this pilot program for 2 years is estimated to be $540,000. The first 8 months should be focused on dashboard implementation, with the next 4 months focused on piloting the advertising incentive program. After year 1, MOCTO should spend the first quarter of year 2 evaluating the effectiveness of the advertising incentives.

Should MOCTO utilize the pre-built dashboard administered by Airtable, the total cost for one year would be $240 (see here). While the Google Maps API is .007 USD per 1,000 Map Loads on the dashboard, Google offers $200 Google Maps platform credit each month, making this service free of charge based on the forecasting volume of usage for MOCTO (see here). The budget for the advertising pilot incentive would be $270,000 (6 potential vendors utilizing 3 months of interior bus advertising).[4] Should MOCTO continue with bus advertising for the top 2 vendors, the second-year cost would be $270,000.

The authors of this report recommend that one person within MOCTO have responsibility for this pilot program on a part-time basis. We also recommend that another individual within MOCTO assist on a part-time basis, for a .5 Full Time Equivalent (FTE).

Community Feedback System

The feedback form and dashboard are production-ready for the MOCTO's Office to onboard and launch. In addition, both tools are fully customizable by MOCTO with no programming skills required.

In order to onboard as the owner and admin of the Feedback Form and Dashboard, MOCTO will need to:

1. Create an Airtable account here;

2. Create a Workspace (instructions here);

3. Add ghought@gmail.com as a collaborator to the workspace (instructions here). The authors of this report will then move Feedback Form and Dashboard into CTO Office's workspace; and

4. Remove access to ghought@gmail.com (instructions here).

Note, MOCTO must create an Airtable Pro account ($20/month) to run the Feedback Form and Dashboard.

Onboard vendors will need to embed the Feedback Form on their websites, so MOCTO must also share the below embed code with vendors:

```
<iframe class="airtable-embed" src="https://airtable.com/embed/
shr2hrEkfZTUhgags?backgroundColor=gray" frameborder="0" onmouse-
wheel="" width="100%" height="533" style="background: transpar-
ent; border: 1px solid #ccc;"></iframe>
```

Additionally, vendors can access a direct link to the form here, which they can access on tablet and mobile devices when visiting customers.

Appendix B

Advertising Estimates

For estimates of NYC transit advertising, please see this pricing spreadsheet prepared by OUTFRONT Media, the exclusive advertising provider to the NYC Metropolitan Transportation Authority. Any questions on this spreadsheet should be directed to OUTFRONT Media.

Image by Michal Jarmoluk at Pixabay

Endnotes

1   "City Owned and Leased Properties (COLP)," NYC Department of City Planning, accessed September 7, 2021, https://www1.nyc.gov/site/planning/about/publications/colp.page.

2   "MTA Advertising Opportunities," Metropolitan Transport Authority, last modified August 7, 2020, https://new.mta.info/doing-business-with-us/advertising/opportunities.

3   Please see Appendix Section B.

4   Please see Appendix Section B.

Tech Executive
Leadership Initiative

Tech Executive
Leadership Initiative

ASPEN TECH POLICY HUB