Q&A Questions and Answers

Data Questions:

1. Why does the data only contain some areas in the county?

   Answer: This is a pilot project of metered parking spaces in the two metro corridors in the county - Rosslyn-Ballston and Richmond Hwy. Use this link to our main Performance Parking Pilot page to get more details about the spatial scope and status of the project.

2. You said the sensors update at least once an hour regardless of whether or not there's any activity, are there fields that indicate this information?

   Answer: The API provides a field which indicates the last time data was received. This field contains a timestamp of the last time a data payload was received.

3. Some sensors appeared to not have any updates in over a month. What could explain that?

   Answer: While the sensors are built to be durable and long-lasting, there are instances where either a device may fail or is destroyed due to activities in the right-of-way like construction or paving, for example. Sensors may be taken offline; the construction project may take months, years till we get to replace them. So yes, if you see a sensor that hasn't reported in a day or so, it's likely that something like this has happened.

4. In the parking meters GIS layer there's a column called rate and sometimes there's more than one value (example: 1.75 / 3.00). Does that mean the rate changed due to some event? Would we use the first price or the second rate?

Answer: It's referring to different times of day. There can be, for example, a $1.75 for one part of the day and there's a $3 for the other part of the day.

Originally the way the data was set up, it assumed one meter had one price, except in a couple locations. But now there is more of a dynamic pricing over the course of the day. What we've done to help with this, is create a separate rate table layer which can be used for a many-to-one relationship; one meter can be related to multiple price records in this other rate table.

5. We were wondering if the API that provides real time data from the sensors has any historical data stored or if we would have to create that ourselves?

   Answer: In addition to the real time API, there is data on the county's open data portal, there'll be a couple different parking datasets and one of them would be historical data. It has occupancy information and dwell time; how long on average the cars are staying there. It is summed to the hour level, and it goes back to January 2024. It updates regularly, once a week.

6. For historical occupancy data, is the smallest granularity 1 hour?

   Answer: Because of the amount of data, we made the decision for the warehousing of the data and the trend analysis to go at the hour level.
   With the events API, if you wanted to scrape some information, you could try to do some spot checks or a smaller geography and collect information at a more granular level.

7. How can we join the rate table with other datasets?

   Answer: The "par1MainGeneralOID" field can be used to link the rate table with the parking meter dataset.

8. Where can we find parking related datasets, such as a curb line file, for Arlington County?
   Arlington Open Data Portal – tabular data
   GIS Data Portal – spatial data
   For large tabular data, open data portal has all kinds of different data. But if it's GIS specific, we have a specific GIS data portal, that's where you find the line

shape file for the curb zone policies, which is not just meters. The other APIs could be linked through the meter table or there is also rate information in the curb zone and policies layer that are on the open data site (the non GIS site).

9. Is there information about when price changes happened and the details of that, so we could maybe do a comparison analysis?

   Answer: Yes, all the information about the project and the different timelines and phases is on the main project page. The first price change happened March 18th, the second on June 24th, and third one was on September 23rd.

Other Questions:

1. Where is the gap between availability of data and tools and awareness?

   Answer: The main challenge we currently have is displaying a combination of price and occupancy information. However, making people aware of the tools and then have hem use it is a whole different challenge. With the data hacking event, we're trying to address the first issue, which is creating solutions that may make the data access more user friendly and may have additional application benefits to a user that would encourage them to use it. But that does not necessarily yet address that people are aware of it and use it, and we are working with our engagement team to improve the public's awareness.

2. Question: Is this the first time for this type of hackathon?

   Answer: Yes, it is, at least for this project.

3. Where is the venue?

   Answer: Northeastern University in Arlington, 1300 17th Street N., Suite 1500, Arlington, VA, 22209

4. How quickly can sensors be installed in a location?

   Answer: In terms of the rate specifically, installers can do about 40-50 sensors a day in terms of individual parking spaces.

5. What kinds of sensors are they? How do they work? How do they detect that there's a car there or not? And how is it currently used in enforcement?

   Answer: You can find answers to the sensor technology and enforcement on the Frequently Asked Questions page in the section “Other Questions You Might Have”.