No. 25-112

IN THE
Supreme Court of the United States

OKELLO CHATRIE,
Petitioner,

v.

UNITED STATES OF AMERICA,
Respondent.

On Writ of Certiorari to the United States
Court of Appeals for the Fourth Circuit

JOINT APPENDIX
VOLUME II

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Petition for a Writ of Certiorari filed July 28, 2025
Certiorari Granted January 16, 2026

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AFFIDAVIT FOR SEARCH WARRANT

Commonwealth of Virginia VA. CODE § 19.2-54

The undersigned Applicant states under oath:

1. A search is requested in relation to [X] an offense substantially described as follows:
   [ ] a person to be arrested for whom a warrant or process for arrest has been issued identified as follows:

   Code of Virginia 18.2-58: Robbery
   Code of Virginia 18.2-53.1: Use of a Firearm in Commission of a Felony

   [ ] CONTINUED ON ATTACHED SHEET

2. The place, person or thing to be searched is described as follows:

   Google LLC, which is headquartered at 1600 Google Amphitheater Parkway, Mountain View, California 94043, and applies to Target Location: Geographical area pertaining to a radius of 150 meters around a latitude/longitude coordinate, Latitude: 37.438420, Longitude: -77.587900. It is your affiant's belief that the records requested are actually possessed by Google LLC, and that Google LLC provides electronic communication service or remote computing service within the Commonwealth of VA. (See Attachment I. for Additional Information)

   [ ] CONTINUED ON ATTACHED SHEET

3. The things or persons to be searched for are described as follows:

   See Attachment II.

   [ ] CONTINUED ON ATTACHED SHEET

(OVER)

FILE NO. 744

AFFIDAVIT FOR SEARCH WARRANT

APPLICANT:

J.P. Hylton
NAME

Master Detective
TITLE (IF ANY)

P.O. Box 148
ADDRESS

Chesterfield, VA 23832

Certified to Clerk of Chesterfield Circuit Court
CITY OR COUNTY

on 6/14/19
DATE

Magistrate
TITLE

SIGNATURE

Original Delivered [✓] in person [ ] by certified mail
[X] by electronically transmitted facsimile
[ ] by use of filing/security procedures defined in the Uniform Electronic Transactions Act

to Clerk of Chesterfield Circuit Court
CITY OR COUNTY WHERE EXECUTED

on 6/14/19
DATE

Magistrate
TITLE

SIGNATURE

4. The material facts constituting probable cause that the search should be made are:

   See Attachment III.

ALL INFORMATION SEALED

5. The object, thing or person searched for ☒ constitutes evidence of the commission of such offense [ ] is the person to be arrested for whom a warrant or process for arrest has been issued.

6. ☒ I have personal knowledge of the facts set forth in this affidavit AND/OR

   [ ] I was advised of the facts set forth in this affidavit, in whole or in part, by one or more other person(s). The credibility of the person(s) providing this information to me and/or the reliability of the information provided may be determined from the following facts:

   Your affiant has over seven years of law enforcement experience stemming from employment as a police officer with the Chesterfield County Police Department. The undersigned is a duly appointed Task Force Officer with the Federal Bureau of Investigation (FBI). Your affiant is assigned to the Richmond FBI's Central Virginia Violent Crimes Task Force, where his duties include investigating extraterritorial offenses, commercial and bank robberies, murder, kidnappings, serial offenses, armed carjackings, and theft of government property. The undersigned has investigated numerous criminal violations and obtained multiple arrest and search warrants, culminating in the successful prosecution of their respective offenders. Your affiant is familiar with the methods violent offenders use to conduct their illegal activities, to include their communication techniques, utilization of electronic devices for planning/execution, use of additional co-conspirators, and reoccurring method of operation (MO).

The statements above are true and accurate to the best of my knowledge and belief.

Master Detective
TITLE OF APPLICANT

APPLICANT

Subscribed and sworn to before me this day.

6/14/19
DATE AND TIME

[ ] CLERK [✓ MAGISTRATE] [ ] JUDGE

ATTACHMENT I.
PERSON, PLACE, OR THING TO BE SEARCHED:

This data is maintained on computer servers that are stored at premises controlled by Google Inc., a company that accepts service of legal process at 1600 Amphitheater Parkway, Mountain View, California 94043.

Your affiant knows that Google Inc. maintains certain records during the normal course of business and when properly served with a legal request, Google Inc. will provide Law Enforcement with the said records. Your affiant also knows that these electronic records will further support the ongoing criminal investigation. Your affiant believes that the records requested are actually or constructively possessed by a foreign corporation, Google Inc. that provides electronic communication service or remote computing service within the Commonwealth of Virginia.

Your affiant knows that section 19.2-70.3 of the Code of Virginia states that a provider of electronic communication service or remote computing service, which includes a foreign corporation that provides such services, shall disclose certain business records pertaining to their customers, excluding the contents of electronic communications and real-time location data, to an investigative or law-enforcement officer if the investigative or law-enforcement officer shows that there is reason to believe the records or other information sought are relevant and material to an ongoing criminal investigation. This warrant shall be properly served on the entity named above in accordance with 19.2-70.3 of the code of Virginia.

A law enforcement officer will serve this warrant by transmitting it via email or another appropriate manner to the Provider, Google Inc. The Provider is directed to produce to the law enforcement officer an electronic copy of the information specified in ATTACHMENT II.

ATTACHMENT II.
THE PLACE, PERSON OR THING TO BE SEARCHED:

The facts and circumstances outlined in this affidavit brought on by your Affiant suggest that there is probable cause to believe evidence of the commission of the crime of **Robbery**, a violation of **Virginia Code 18.2-58** and **Use of a Firearm in Commission of a Felony,** a violation of **Virginia Code 18.2-53.1**, may be found within computer servers maintained or controlled by Google, Inc. or Google Payment Corp. Such accounts are described further in ATTACHMENT II. (hereinafter "the Accounts") stored at premises controlled by Google, Inc., a company that accepts service of legal process at 1600 Amphitheatre Parkway, Mountain View, California 94043. The following material is sought for the time period listed below:

- **Date/Time: 05/20/2019 at 1620 hours (EST) – 05/20/2019 at 1720 hours (EST)**

- For each type of Google account that is associated with a device that was inside the geographical area described further in ATTACHMENT II., **during the time frame listed above,** Google will provide **"anonymized information"** regarding the Accounts that are associated with a device that was inside the described geographical area during the time frame described above. This **"anonymized information"** will include a numerical identifier for the account, the type of account, time stamped location coordinates and the data source that this information came from if available. The information initially provided by Google will not contain any further content or information identifying the user of a particular device or account.

- Law enforcement officers will review this **"anonymized information"** provided by Google, Inc. in an effort to narrow down the list of accounts associated with devices identified in the **"anonymized information."** Law enforcement officers will attempt to narrow down the list by reviewing the time stamped location coordinates for each account and comparing that against the known time and location information that is specific to this crime.

- Law enforcement officers will return a list that they have attempted to narrow down. This list will still be identified by the **"anonymized information"** described above. After this review by Law Enforcement and upon request, Google, Inc. shall produce "contextual data points with points of travel outside of the geographical area" described further in ATTACHMENT II. of this Application for Search Warrant. The time frame will be expanded for this production of "contextual data points with points of travel outside of the geographical area" for 30 minutes before AND 30 minutes after the initial search time periods. This expanded time frame will be as listed below (Google Inc. shall provide this additional information to Law Enforcement for review):

ALL INFORMATION SEALED

- **Date/Time: 05/20/2019 at 1620 hours (EST) – 05/20/2019 at 1720 hours (EST) (+/- 30 Minutes) Eastern Standard Time (EST)**

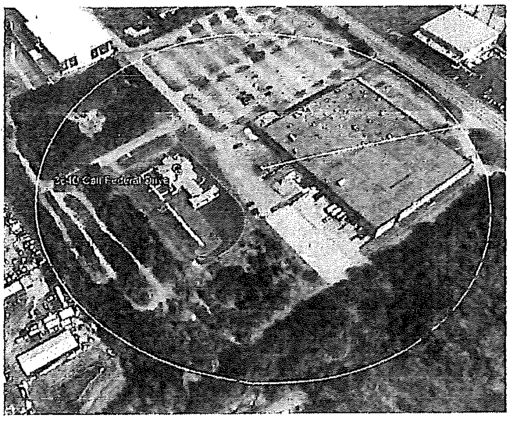
- Law Enforcement officers will review this additional information along with the **"anonymized information"** and will attempt to narrow down the list by comparing this additional information regarding travel and time against the known time and location information that is specific to this crime.

- After review and upon request by Law Enforcement, Google Inc. shall provide identifying account information/CSI for the accounts requested by Law Enforcement. This identifying account information/CSI shall include all of the following that are available: user name and subscriber information to include date of birth if available, account type and account number, email addresses associated with the account, electronic devices associated with the account and their identifying make, model and other identifying numbers, telephone numbers associated with the account including telephone numbers used to set up the account, verify the account or to receive assistance with the account, and Google Voice phone numbers associated with the account.

This search warrant applies to the Google Accounts associated with devices that were located inside the geographical regions bounded by the following latitudinal and longitudinal coordinates, dates, and times:

Date/Time: 05/20/2019 at 1620 hours (EST) – 05/20/2019 at 1720 hours (EST)

Geographical Area: Radius of 150 meters around a latitude/longitude coordinate, **Latitude: 37.438420, Longitude: -77.587900.** **An area encompassing the Call Federal Credit Union and an adjacent business the UNSUB fled towards following the robbery**



ALL INFORMATION SEALED

ATTACHMENT III.

MATERIAL FACTS CONSTITUTING PROBABLE CAUSE:

The Affiant swears to the following facts to establish probable cause for the issuance of a search warrant:

On 05/20/2019 at approximately 1650 hours, an unknown subject (UNSUB) entered the Call Federal Credit Union, [redacted] Call Federal Drive, Chesterfield, VA 23235. After entering the bank, the UNSUB approached a teller line and presented a demand note stating the following:

"I've been watching you for sometime now. I got your family as hostage and I know where you live, If you or your coworker alert the cops or anyone your family and you are going to be hurt. I got my boys on the lookout out side. The first cop car they see am going start hurting everyone in sight, hand over all the cash, I need at least 100k and nobody will get hurt and your family will be set free. Think smartly everyone safety is depending and you and your coworkers action so I hope they don't try nothing stupid."

After reading the note, the victim-teller advised she did not have access to that amount of money; subsequently, the UNSUB produced a silver and black firearm from his waste and began forcing the customers and employees to the center of the room. After forcing several patrons to the floor at gunpoint, the UNSUB moved the manager and other parties present to the back of the business where the vault was located. The UNSUB forced the manager to open the vault and place $195,000.00 of United States currency into a bag he brought with him. After acquiring said funds, the UNSUB fled the area on foot towards an adjacent business, west of the bank.

Upon investigative response, law enforcement officials reviewed the bank's surveillance video prior to the robbery and noted the UNSUB had a cell phone in his right hand and appeared to be speaking with someone on the device. Subsequently, your affiant finds it necessary and prudent to request that Google provide Geo Fencing data in order to assist with the investigation. In the undersigned's training and experience, when people act in concert with one another to commit a crime, they frequently utilize cellular telephones and other such electronic devices, to communicate with each other through WiFi, Bluetooth, GPS, voice calls, text messages, social media accounts, applications, emails, and/or cell towers in the area of the victim-business, located at [redacted] Call Federal Drive, Chesterfield, Virginia 23235. Furthermore, the requested data/information would have been captured by Google during the requested time.

This applicant knows a cellular telephone or mobile telephone is a handheld wireless device primarily used for voice, text, and data communication through radio signals.

Cellular telephones send signals through networks of transmitter/receivers called "cells" or "cell sites," enabling communication with other cellular telephones or traditional "landline" telephones. Cellular telephones rely on cellular towers, the location of which may provide information on the location of the subject telephone. Cellular telephones may also include global positioning system ("GPS") or other technology for determining a more precise location of the device.

This applicant also knows that Google is a company, which, among other things, provides electronic communication services to subscribers, including email services. Google allows subscribers to obtain email accounts at the domain name gmail.com and/or google.com. Subscribers obtain an account by registering with Google. A subscriber using the Provider's services can access his or her email account from any computer/device connected to the Internet.

This applicant knows that Google has also developed a proprietary operating system for mobile devices, including cellular phones, known as Android. Nearly every cellular phone using the Android operating system has an associated Google account, and users are prompted to add a Google account when they first turn on a new Android device.

Based on this applicant's training and experience, this applicant knows that Google collects and retains location data from Android-enabled mobile devices when a Google account user has enabled Google location services. Google can also collect location data from non-Android devices if the device is registered to a Google account and the user has location services enabled. The company uses this information for location-based advertising and location-based search results and stored such data in perpetuity unless it is manually deleted by the user. This location information is derived from GPS data, cell site/cell tower information, Bluetooth connections, and Wi-Fi access points.

This applicant knows that location data can assist investigators in forming a fuller geospatial understanding and timeline related to a specific criminal investigation; and may tend to identify potential witnesses and/or suspects. Such information can also aid investigators in possibly inculpating or exculpating persons of interest.

Additionally, location information can be digitally integrated into image, video, or other computer files associated with a Google account and can indicate the geographic location of the account's user at a particular date and time (e.g., digital cameras, including on cellular telephones, frequently store GPS coordinates indicating where a photo was taken in the "metadata" of an image file).

Your affiant knows that in the September 2013 Pew Research Center study, it was determined that 91% of American adults own a cellular phone with 56% being smartphones. Pew Research Center is located at 1615 L St. NW, Suite 800 Washington, DC 20036 and conduct public opinion polling, demographic research, content analysis and other data-driven social science research. Because of this, your Affiant believes that there is probable cause to believe that the offender(s) in the robbery would have had a mobile device on their person or within close proximity to them.

ALL INFORMATION SEALED

SEARCH WARRANT

Commonwealth of Virginia VA. CODE §§ 19.2-56, 19.2-57

TO ANY AUTHORIZED OFFICER:

You are hereby commanded in the name of the Commonwealth to forthwith search the following place, person or thing either in day or night

Google, LLC. which is headquartered at 1600 Google Amphitheater Parkway, Mountain View, California 94043 - Probable cause that the records are possessed by a foreign corporation that provides electronic communication service orremote computing service within Virginia.

for the following property, objects and/or persons:
See Attached

You are further commanded to seize said property, persons, and/or objects if they be found and to produce before the Chesterfield Circuit Court an inventory of all property, persons, and/or objects seized.

This SEARCH WARRANT is issued in relation to [X] an offense substantially described as follows:
[ ] a person to be arrested for whom a warrant or process for arrest has been issued identified as follows:

Code of Virginia 18.2-58 Robbery
Code of Virginia 18.2-53.1 Use of a Firearm in the Commission of a Felony

I, the undersigned, have found probable cause to believe that the property or person constitutes evidence of the crime identified herein or tends to show that the person(s) named or described herein has committed or is committing a crime, or that the person to be arrested for whom a warrant or process for arrest has been issued is located at the place to be searched, and further that the search should be made, based on the statements in the attached affidavit sworn to by

Hylton, J.P. CPD[redacted]
NAME OF AFFIANT

06/14/2019 10:06 AM
DATE AND TIME

David Bishop
[ ] CLERK [X] MAGISTRATE [ ] JUDGE

David Bishop

FILE NO.
744

SEARCH WARRANT

COMMONWEALTH OF VIRGINIA

v./*In re*

Google LLC

Return to
Circuit Court

Original

SWN: 041CM1900017880

SEARCH INVENTORY AND RETURN

The following items, and no others, were seized under authority of this WARRANT:

1. Data
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.

The statement above is true and accurate to the best of my knowledge and belief.

6/19/2019
DATE

EXECUTING OFFICER

Subscribed and sworn before me this day

6.19.19
DATE

[ ] CLERK [ ] MAGISTRATE [ ] JUDGE

FOR NOTARY PUBLIC'S USE ONLY:

State of .... [ ] City [ ] County of ....

Acknowledged, subscribed and sworn to before me this .... day of ...., 20 ....

....
NOTARY REGISTRATION NUMBER

NOTARY PUBLIC
(My commission expires: ....)

ALL INFORMATION SEALED

EXECUTION

Executed by searching the within described place, person or thing.

6/14/2019 at 1030 Hrs
DATE AND TIME EXECUTED

Hylton
EXECUTING OFFICER

Certified to Chesterfield County
Circuit Court on 6/19/2019
DATE

EXECUTING OFFICER

Received [✓] in person [ ] by certified mail
[ ] by electronically transmitted facsimile

on 6.19.19
DATE

by:
CLERK OF CIRCUIT COURT

ATTACHMENT I.
THE PLACE, PERSON OR THING TO BE SEARCHED:

The facts and circumstances outlined in this affidavit brought on by your Affiant suggest that there is probable cause to believe evidence of the commission of the crime of **Robbery**, a violation of **Virginia Code 18.2-58** and **Use of a Firearm in Commission of a Felony,** a violation of **Virginia Code 18.2-53.1**, may be found within computer servers maintained or controlled by Google, Inc. or Google Payment Corp. Such accounts are described further in ATTACHMENT II. (hereinafter "the Accounts") stored at premises controlled by Google, Inc., a company that accepts service of legal process at 1600 Amphitheatre Parkway, Mountain View, California 94043. The following material is sought for the time period listed below:

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- After review and upon request by Law Enforcement, Google Inc. shall provide identifying account information/CSI for the accounts requested by Law Enforcement. This identifying account information/CSI shall include all of the following that are available: user name and subscriber information to include date of birth if available, account type and account number, email addresses associated with the account, electronic devices associated with the account and their identifying make, model and other identifying numbers, telephone numbers associated with the account including telephone numbers used to set up the account, verify the account or to receive assistance with the account, and Google Voice phone numbers associated with the account.

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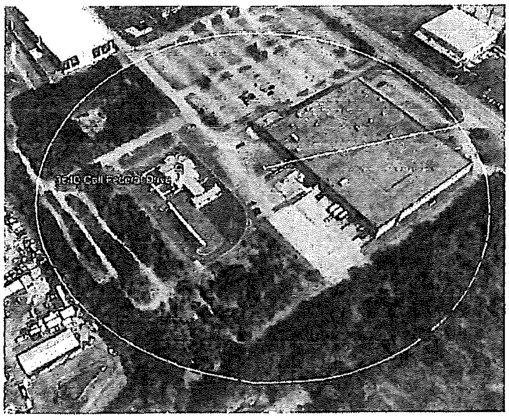
Geographical Area: Radius of 150 meters around a latitude/longitude coordinate, **Latitude: 37.438420, Longitude: -77.587900.** **An area encompassing the Call Federal Credit Union and an adjacent business the UNSUB fled towards following the robbery**



Report Prepared for:

United States vs. Okello Chatrie

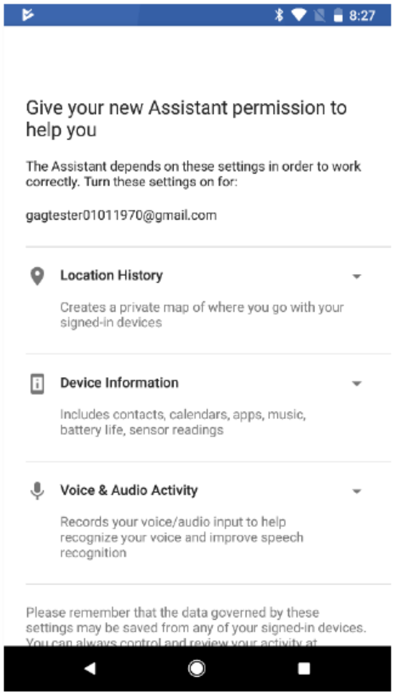
Spencer J. McInvaille CTNS, CWA
Digital Forensic Examiner and Cellular Analyst
2700 Gateway Centre Blvd, Suite 100
Morrisville, NC 27560

Google indicates it has no documentation of the process or application used to enable Location History for the okellochatrie55@gmailcom account. Due to the lack of specific details documenting Location History's activation on Mr. Chatrie's phone, I analyzed the possible ways that Location History could have been activated. As further detailed in my initial report, that analysis indicated Google Assistant likely enabled Location History. That analysis revealed the installation of Google Assistant moments before activation of Location History. This report documents publicly available information and defense investigation regarding the setup and methods to enable Location History upon first use of Google Assistant.

In conducting this analysis, I reviewed the publicly available information regarding the Location History opt-in process related to Google Assistant. Google describes Google Assistant as a productivity application that allows you to get hands-free help, get quick directions, search the internet, set helpful reminders, and other user convenience tasks. Internet searches and further investigation yielded examples of the opt-in methods, specifically when using Google Assistant. Examples contemporaneous to this case appear to be the most reliable way to document the opt-in process. Due to the updates to software and Googles' policies since Location History's activation on the oklellochatrie55@gmail.com account, I cannot replicate the opt-in process Mr. Chatrie would have seen. The examples below should provide the clearest picture of the opt-in process using Google Assistant that he would have seen.

On an Android device with Google Assistant, the user may launch the Google Assistant application by long-pressing the home button. Upon first use, the application will prompt the user to allow permissions. These permissions include Location History. Mr. McGriff describes a version of this permission screen in his third declaration. He omits, however, that the permission screen requested two other permissions, not just Location History.

Figure 1: Quartz Screenshot



Give your new Assistant permission to help you

The Assistant depends on these settings in order to work correctly. Turn these settings on for:

gagtester01011970@gmail.com

Location History

Creates a private map of where you go with your signed-in devices

Device Information

Includes contacts, calendars, apps, music, battery life, sensor readings

Voice & Audio Activity

Records your voice/audio input to help recognize your voice and improve speech recognition

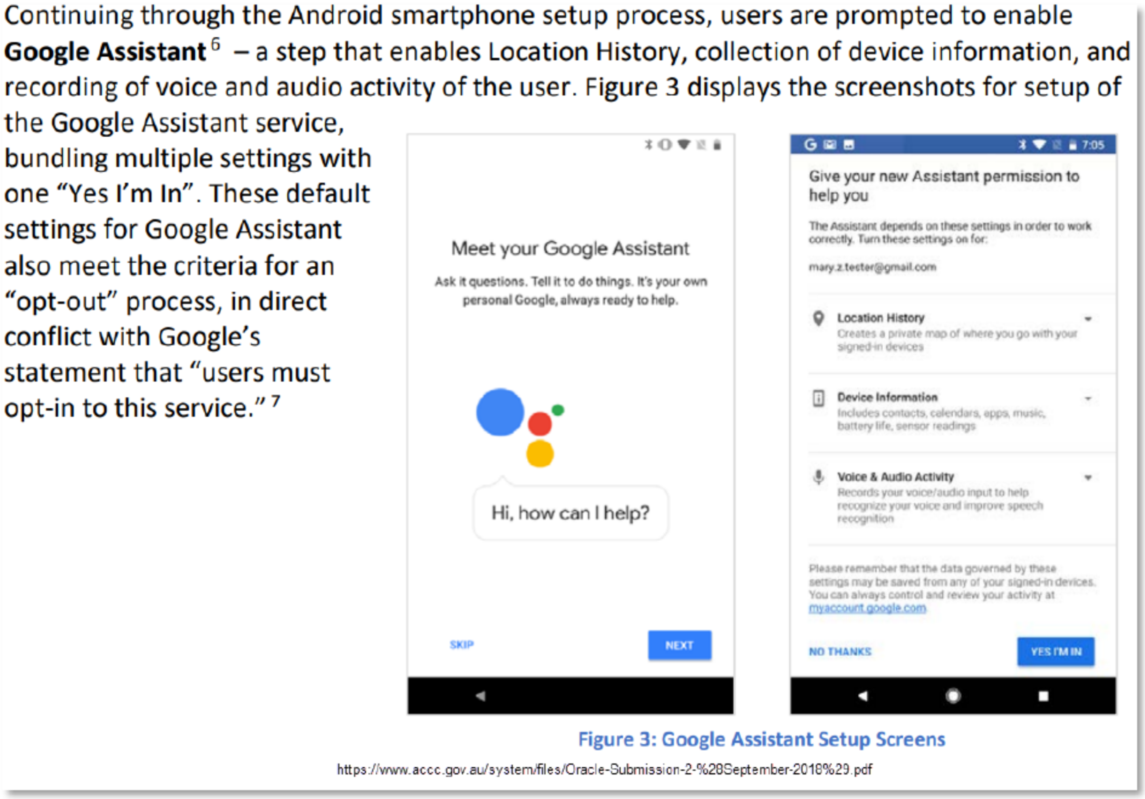
Please remember that the data governed by these settings may be saved from any of your signed-in devices. You can always control and review your activity at

I located several sources that document the process for enabling Location History and specifically enabling location history through Google Assistant. The first is from Quartz (qz.com). Quartz published an article on January 24, 2018, discussing the opt-in process for Location History. (https://qz.com/1183559/if-youre-using-an-android-phone-google-may-be-tracking-every-move-you-make/). The author, David Yanofsky, provides a description and screen captures of these processes. Counsel for Mr. Chatrie contacted Mr. Yanofsky to obtain the actual screen capture from the article, shown in Figure 1, taken on January 18, 2018. Mr. Yanofsky further confirmed that he took this screen capture using a Google Pixel 2 phone, running Android 8.1.

Mr. Yanofsky specifically addresses the opt-in process for Location History through Google Assistant. Mr. Yanofsky describes, upon first use, Google Assistant prompts the user to enable Location History. The article does not provide any other information about the expansion arrows menus you see on the screen.

Oracle, a computer technology company, completed a study in 2018 which details Google's collection of user data. Oracle documented Google's steps for the activation of Location History through several methods, including Google Assistant. In the document labeled "Google, Android and Location Tracking" from September 2018, Oracle discusses location history and other Google services. On page 4, Oracle displays the setup screen for Google Assistant. Oracle also displays the screen once you select "Next." The subsequent screen capture is the same as Quartz, but the selections for "No Thanks" and "Yes I'm In" are visible. Shown in Figure 2 is a screen capture from Oracles' document.

Figure 2: Oracle Screen Capture



Continuing through the Android smartphone setup process, users are prompted to enable **Google Assistant**[6] – a step that enables Location History, collection of device information, and recording of voice and audio activity of the user. Figure 3 displays the screenshots for setup of the Google Assistant service, bundling multiple settings with one "Yes I'm In". These default settings for Google Assistant also meet the criteria for an "opt-out" process, in direct conflict with Google's statement that "users must opt-in to this service."[7]

Meet your Google Assistant

Ask it questions. Tell it to do things. It's your own personal Google, always ready to help.

Hi, how can I help?

Give your new Assistant permission to help you

The Assistant depends on these settings in order to work correctly. Turn these settings on for:

mary.z.tester@gmail.com

Location History
Creates a private map of where you go with your signed-in devices

Device Information
Includes contacts, calendars, apps, music, battery life, sensor readings

Voice & Audio Activity
Records your voice/audio input to help recognize your voice and improve speech recognition

Please remember that the data governed by these settings may be saved from any of your signed-in devices. You can always control and review your activity at myaccount.google.com

Figure 3: Google Assistant Setup Screens

https://www.accc.gov.au/system/files/Oracle-Submission-2-%28September-2018%29.pdf

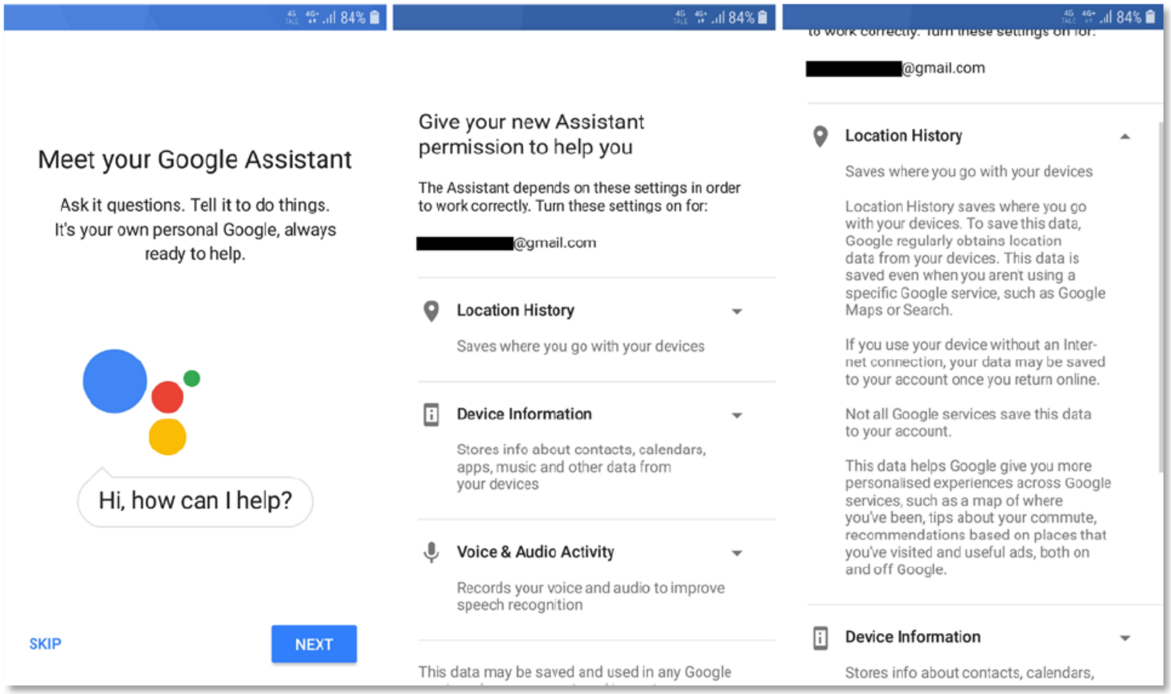
I also reviewed screen captures from a report completed by Forbrukerradet (Norwegian Consumer Council), "Every Step You Take." Screen captures were made during the setup of a Samsung Galaxy S7. The device setup occurred on July 2, 2018, on Android version 8.0. A device setup was also completed using the same device on August 9, 2018. All screen captures from both dates produced were provided to counsel for Mr. Chatrie from Forbrukerradet. The screen captures are from a factory reset device and details each screen the user sees through the process and any expansion arrows menus and selections.

The Google Assistant setup begins with the "Meet Google Assistant" screen, with "Skip" and "Next" choices. Selecting "Next" prompts a permissions screen. Google displays, "The Assistant depends on these settings in order to work correctly." "No, thanks" and "Turn On" are choices for the permissions screen.

In the previous captures for the permissions screen, the expansion arrows and their contents were unavailable. The opening of each expansion arrow is not required to make a selection at the bottom of the screen, meaning a user can activate Google Assistant without looking at the expansion arrows. The screen captures from the July 2, 2018 test show each of the expansion arrows. Expansion arrows for Location History, Device Information, and Voice & Audio Activity are displayed. I note the description under the Location History permission changed at some point between the previous examples. The description changes from "Creates a private map of where you go with your signed-in devices" to "Saves where you go with your devices." Google, in Marlo McGriff's third affidavit, indicates that "Saves Where you go with your device" was the wording used during the time of this case. The screen captures referenced are shown below.

(https://fil.forbrukerradet.no/wpcontent/uploads/2018/11/27-11-18-every-step-you-take.pdf)

Figure 3: Norwegian Consumer Council Screenshots 7/2/2018



Meet your Google Assistant

Ask it questions. Tell it to do things. It's your own personal Google, always ready to help.

Hi, how can I help?

Give your new Assistant permission to help you

The Assistant depends on these settings in order to work correctly. Turn these settings on for:

[redacted]@gmail.com

Location History

Saves where you go with your devices

Device Information

Stores info about contacts, calendars, apps, music and other data from your devices

Voice & Audio Activity

Records your voice and audio to improve speech recognition

This data may be saved and used in any Google

to work correctly. Turn these settings on for:

[redacted]@gmail.com

Location History

Saves where you go with your devices

Location History saves where you go with your devices. To save this data, Google regularly obtains location data from your devices. This data is saved even when you arent using a specific Google service, such as Google Maps or Search.

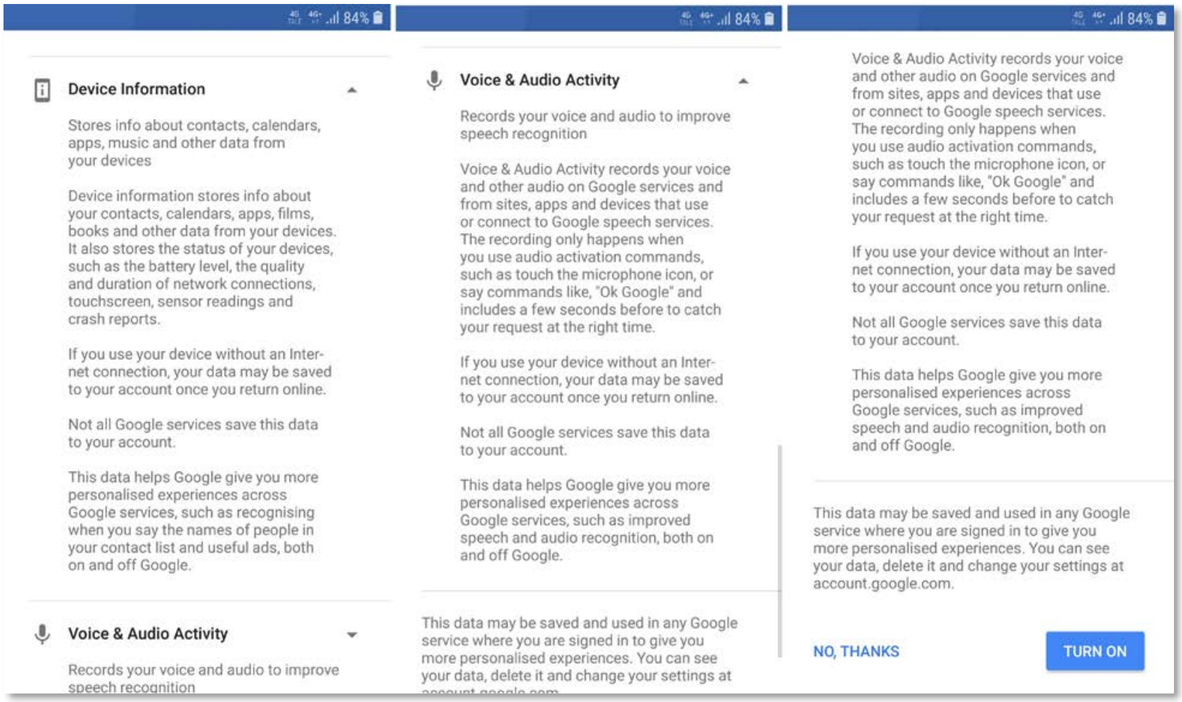
If you use your device without an Internet connection, your data may be saved to your account once you return online.

Not all Google services save this data to your account.

This data helps Google give you more personalised experiences across Google services, such as a map of where you've been, tips about your commute, recommendations based on places that you've visited and useful ads, both on and off Google.

Device Information

Stores info about contacts, calendars,



Device Information

Stores info about contacts, calendars, apps, music and other data from your devices

Device information stores info about your contacts, calendars, apps, films, books and other data from your devices. It also stores the status of your devices, such as the battery level, the quality and duration of network connections, touchscreen, sensor readings and crash reports.

If you use your device without an Internet connection, your data may be saved to your account once you return online.

Not all Google services save this data to your account.

This data helps Google give you more personalised experiences across Google services, such as recognising when you say the names of people in your contact list and useful ads, both on and off Google.

Voice & Audio Activity

Records your voice and audio to improve speech recognition

Voice & Audio Activity

Records your voice and audio to improve speech recognition

Voice & Audio Activity records your voice and other audio on Google services and from sites, apps and devices that use or connect to Google speech services. The recording only happens when you use audio activation commands, such as touch the microphone icon, or say commands like, "Ok Google" and includes a few seconds before to catch your request at the right time.

If you use your device without an Internet connection, your data may be saved to your account once you return online.

Not all Google services save this data to your account.

This data helps Google give you more personalised experiences across Google services, such as improved speech and audio recognition, both on and off Google.

This data may be saved and used in any Google service where you are signed in to give you more personalised experiences. You can see your data, delete it and change your settings at account.google.com.

Voice & Audio Activity records your voice and other audio on Google services and from sites, apps and devices that use or connect to Google speech services. The recording only happens when you use audio activation commands, such as touch the microphone icon, or say commands like, "Ok Google" and includes a few seconds before to catch your request at the right time.

If you use your device without an Internet connection, your data may be saved to your account once you return online.

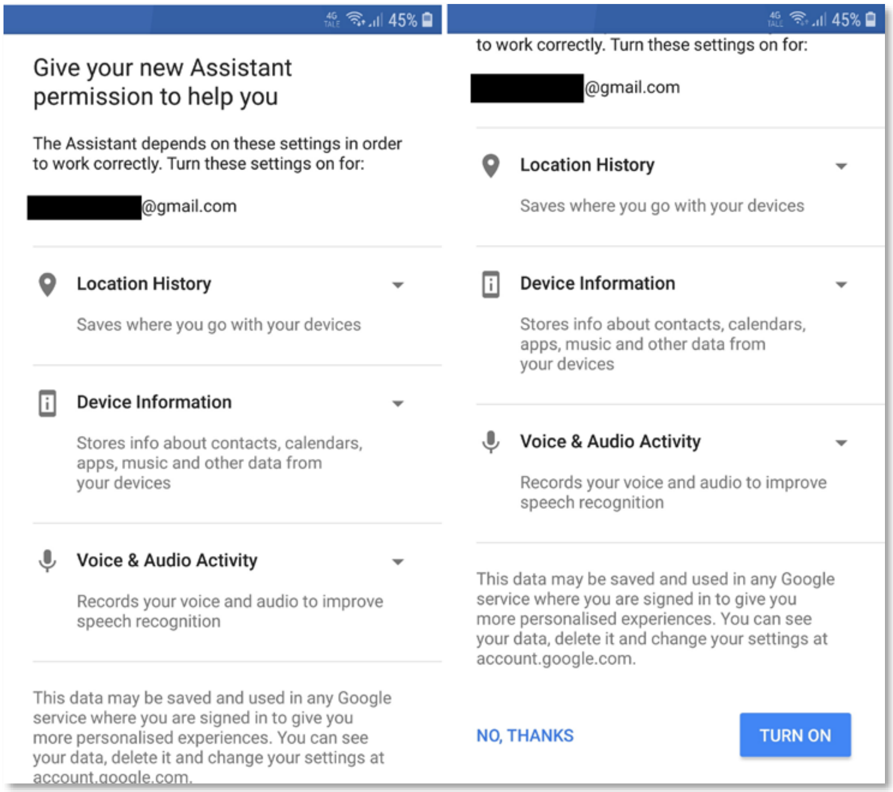
Not all Google services save this data to your account.

This data helps Google give you more personalised experiences across Google services, such as improved speech and audio recognition, both on and off Google.

This data may be saved and used in any Google service where you are signed in to give you more personalised experiences. You can see your data, delete it and change your settings at account.google.com.

NO, THANKS TURN ON

Figure 4: Norwegian Consumer Council Screenshots 8/9/2018



Give your new Assistant permission to help you

The Assistant depends on these settings in order to work correctly. Turn these settings on for:

[redacted]@gmail.com

Location History

Saves where you go with your devices

Device Information

Stores info about contacts, calendars, apps, music and other data from your devices

Voice & Audio Activity

Records your voice and audio to improve speech recognition

This data may be saved and used in any Google service where you are signed in to give you more personalised experiences. You can see your data, delete it and change your settings at account.google.com.

to work correctly. Turn these settings on for:

[redacted]@gmail.com

Location History

Saves where you go with your devices

Device Information

Stores info about contacts, calendars, apps, music and other data from your devices

Voice & Audio Activity

Records your voice and audio to improve speech recognition

This data may be saved and used in any Google service where you are signed in to give you more personalised experiences. You can see your data, delete it and change your settings at account.google.com.

NO, THANKS TURN ON

The examples in each of the documents show consistent screens and selections for enabling Location History through the Google Assistant application. By selecting "Turn On," the user enables Location History, and the account begins to collect and store location data immediately from reporting devices. The user does not need to actually use Google Assistant after installation to generate location data stored within the account. If the device is powered on, it will passively collect and report location data. By choosing to enable Location History, the user will now create location data within the account for the device's life. Deleting the application used to enable Location History does not stop the collection and storage of location data.

End of Report

UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
RICHMOND DIVISION

UNITED STATES OF AMERICA v. OKELLO T. CHATRIE, *Defendant*.	Case No. 3:19-cr-00130-MHL

THIRD DECLARATION OF MARLO MCGRIFF

I, Marlo McGriff, respectfully submit this declaration in regard to the above-captioned matter. I make this declaration based on my knowledge of the facts stated herein.

1. Appended as Exhibit A and Exhibit B are documents in Google's possession responsive to the subpoena issued by the Court pursuant to Federal Rule of Criminal Procedure 17(c) on July 20, 2020 (ECF Nos. 133, 133-1) ("the Subpoena"). These documents consist of Google's subscriber registration record (the "Registration Record") and an audit record (the "Audit Record") associated with the Google Account [redacted], which I understand to be the account that is the subject of the Subpoena (the "Subject Account"). The Registration Record documents certain subscriber registration information associated with the Subject Account. The Audit Record documents user consent to Location History on the Subject Account. The information provided below is intended to translate the technical information in the Audit Record for the Court and to provide other information responsive to the Subpoena.

I. Account Creation

2. The Registration Record reflects that the Subject Account was created on August 20, 2017 (UTC) from the IP Address [redacted].

3. The Registration Record reflects that the Google Account [redacted] is associated with the numerical Google Account ID [redacted].

II. "Location History" ("LH") Setting and Location Reporting Setting

4. As I testified in my first declaration, *see* ECF No. 96-1 at 2, and as Google stated in its amicus brief, *see* ECF No. 73 at 7, a user must opt in to LH before location data can be stored in the LH service. As I also testified in my first declaration, *see* ECF No. 96-1 at 3, for LH to collect location data from a particular device, the "Location Reporting" subsetting within LH must be on for that device.

5. The Audit Record reflects that the user of the Subject Account opted in to the LH service and enabled Location Reporting for a Samsung device on July 9, 2018 at approximately 04:09 (UTC)[1] as follows:

a. The Sensorvault server recorded LH as being successfully enabled for Google Account ID [redacted].

b. Location Reporting was enabled for a device with device tag [redacted], which was a Samsung Galaxy S9 Plus (SM-G965U).

c. The user opted in to LH either through device settings or through a Google application on the Samsung device. This is indicated by the fact that Location Reporting was enabled for the Samsung device at the same time that the user opted in to LH, which can only happen when the opt-in occurs through a device-based consent flow versus a browser-based consent flow.

[1] All timestamps in the Audit Record are in standard millisecond format.

6. The Audit Record did not record the specific interface (i.e., the particular application or settings opt-in screen) through which the user enabled LH. But as of July 9, 2018 (UTC) and at all times since then, the steps and consent text necessary to opt in to LH—what Google refers to as the "supported consent flow"—have been consistent across all applications and services and across all Android devices and operating systems. Moreover, as of July 9, 2018 (UTC) and at all times since then, the Sensorvault server rejects any attempted opt-in to LH from an unsupported consent flow or device—i.e., any attempt to enable LH that does not follow the steps described here will be unsuccessful. *See* ECF No. 110-1 at 2. Because the Audit Record shows Google's Sensorvault server recording that LH was successfully enabled on the Subject Account, the user necessarily opted in through a supported on-device consent flow. If the user had encountered an unsupported on-device consent flow, the Audit Record would not show a successful enablement of LH.

7. Under the supported consent flow as of July 9, 2018 (UTC), across all applications and services, and across all Android devices and operating systems, a user who opted in to LH either directly from within device settings or when attempting to use a feature powered by LH (such as features within the Google Maps application) would be presented with an opt-in screen containing the following text:

> **Location History**
>
> Saves where you go with your devices
>
> This data may be saved and used in any Google service where you were signed in to give you more personalized experiences. You can see your data, delete it and change your settings at account.google.com.
>
> NO THANKS TURN ON.[2]

[2] This text is the same text that would appear on the second screen I described in my

8. Across applications and services, and across Android devices and operating systems, tapping on an expansion arrow next to the text "Location History: Saves where you go with your devices" would present users with additional information about LH, which reads:

> **Location History**
>
> Saves where you go with your devices
>
> Location History saves where you go with your devices. To save this data, Google regularly obtains location data from your devices. This data is saved even when you aren't using a specific Google service, like Google Maps or Search.
>
> If you use your device without an internet connection, your data may be saved to your account once you return online.
>
> Not all Google services save this data to your account.
>
> This data helps Google give you more personalized experiences across Google services, like a map of where you've been, tips about your commute, recommendations based on places you've visited, and useful ads, both on and off Google.
>
> This data may be saved and used in any Google service where you were signed in to give you more personalized experiences. You can see your data, delete it and change your settings at account.google.com.
>
> NO THANKS TURN ON

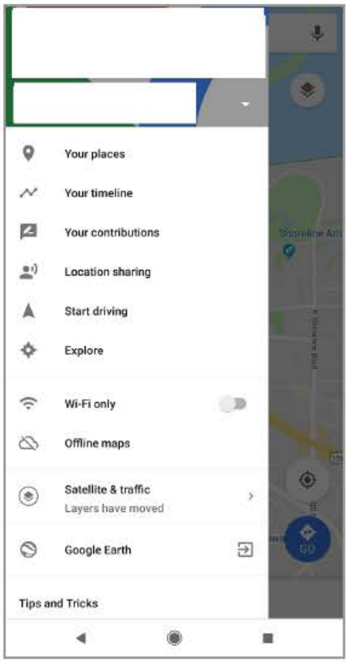
9. Tapping "TURN ON" will enable LH on the user's Google Account.

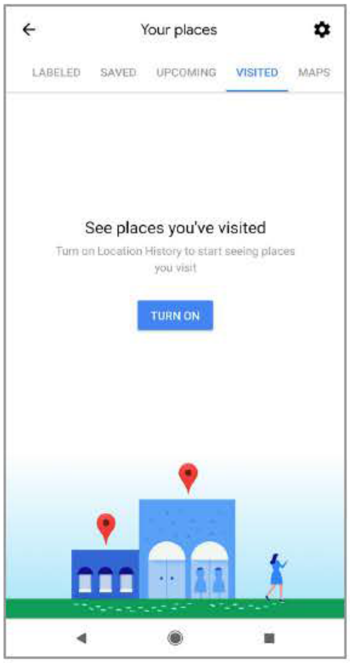
Supplemental Declaration. *See* ECF No. 110-1 at ¶ 7 ("By 2017 at the latest, it was not possible for a user to successfully enable LH solely by tapping on "YES, I'M IN" as depicted on the final screen in the McInvaille Video. Instead, a user who tapped on "YES, I'M IN" when prompted would be presented with a second opt-in screen. Only by opting in via that second screen could the user successfully enable LH for her account.").

10. The text quoted in ¶¶ 7-8 is the same text that the user of the Subject Account would have seen on July 9, 2018 (UTC), and the user would have had to tap "TURN ON" to successfully opt in to LH as reflected in the Audit Record.

11. The user of the Subject Account would have encountered this consent text and had to tap "TURN ON" to enable LH no matter what application or service the user was using when the user opted in to LH. The specific layout and appearance of that text varies depending on what application or service the user is using when the user enables LH, but the consent text and steps are the same for all apps and services. Below are examples of how that consent text could have appeared to the user.

12. For example, if the user of the Subject Account navigated through the Google Maps application and selected "Your places" on the left-hand screen below, the user would have been presented with the right-hand screen below when selecting "Visited" at the top:[3]


[redacted]
[redacted]



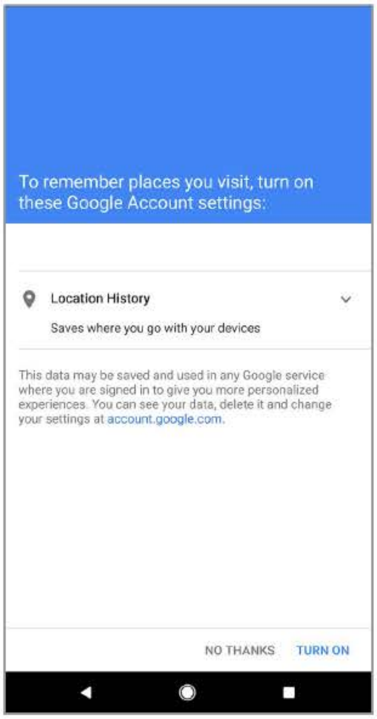
See places you've visited

Turn on Location History to start seeing places you visit

TURN ON

[3] Personal identifying information has been redacted from these screenshots.

13. If the user then tapped on "Turn On" on the right-hand screen above, the user would have been presented with the left-hand screen below. And if the user then tapped on the gray expansion arrow next to "Location History: Saves where you go with your devices" on the left-hand screen below, the user would next have been presented with the additional information depicted on the right below:

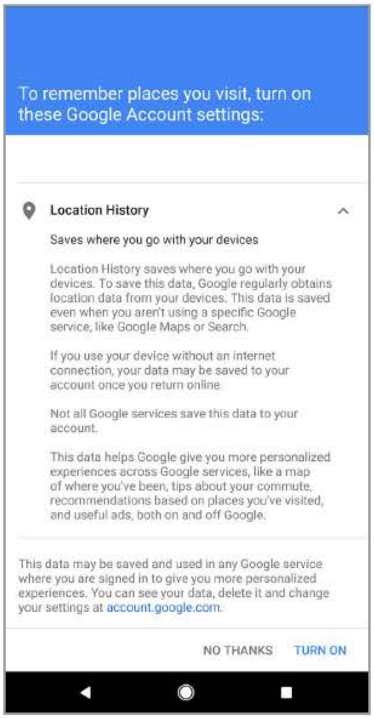


To remember places you visit, turn on these Google Account settings:

Location History

Saves where you go with your devices

This data may be saved and used in any Google service where you are signed in to give you more personalized experiences. You can see your data, delete it and change your settings at account.google.com.



To remember places you visit, turn on these Google Account settings:

Location History

Saves where you go with your devices

Location History saves where you go with your devices. To save this data, Google regularly obtains location data from your devices. This data is saved even when you aren't using a specific Google service, like Google Maps or Search.

If you use your device without an internet connection, your data may be saved to your account once you return online.

Not all Google services save this data to your account.

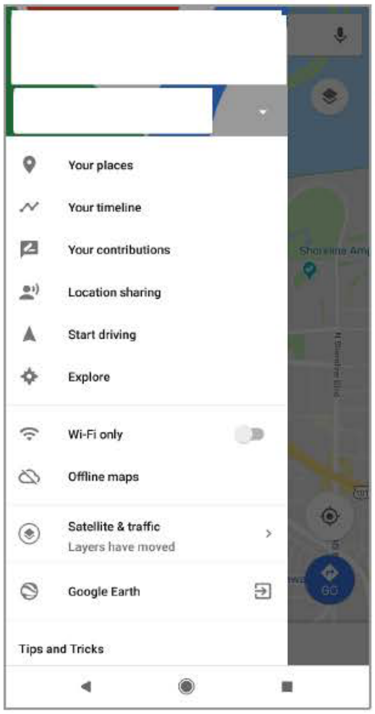
This data helps Google give you more personalized experiences across Google services, like a map of where you've been, tips about your commute, recommendations based on places you've visited, and useful ads, both on and off Google.

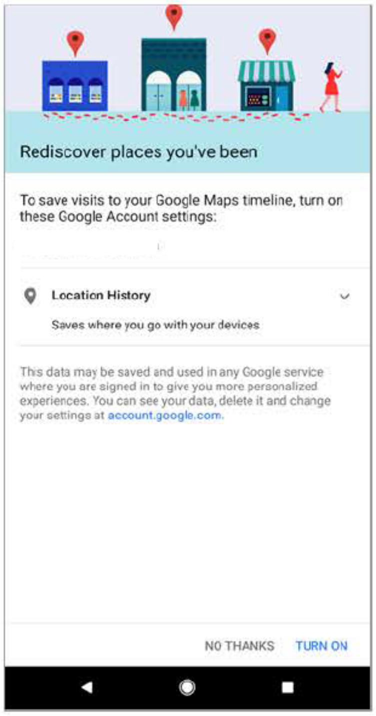
This data may be saved and used in any Google service where you are signed in to give you more personalized experiences. You can see your data, delete it and change your settings at account.google.com.

14. If the user tapped "TURN ON" as shown in ¶ 13, regardless of whether the additional information was expanded, LH would have been enabled on the Subject Account.

15. Likewise, if the user of the Subject Account navigated through the Google Maps application and selected "Your timeline" on the left-hand screen below, the user would have been presented with the screen in the middle below. And if the user then tapped the gray

expansion arrow next to "Location History: Saves where you go with your devices" on the middle screen below, the user would next have been presented with the additional information depicted on the right below:





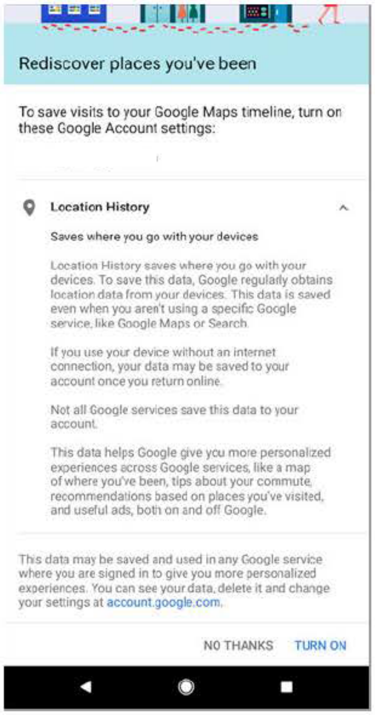
Rediscover places you've been

To save visits to your Google Maps timeline, turn on these Google Account settings:

Location History

Saves where you go with your devices

This data may be saved and used in any Google service where you are signed in to give you more personalized experiences. You can see your data, delete it and change your settings at account.google.com.



Rediscover places you've been

To save visits to your Google Maps timeline, turn on these Google Account settings:

Location History

Saves where you go with your devices

Location History saves where you go with your devices. To save this data, Google regularly obtains location data from your devices. This data is saved even when you aren't using a specific Google service, like Google Maps or Search.

If you use your device without an internet connection, your data may be saved to your account once you return online.

Not all Google services save this data to your account.

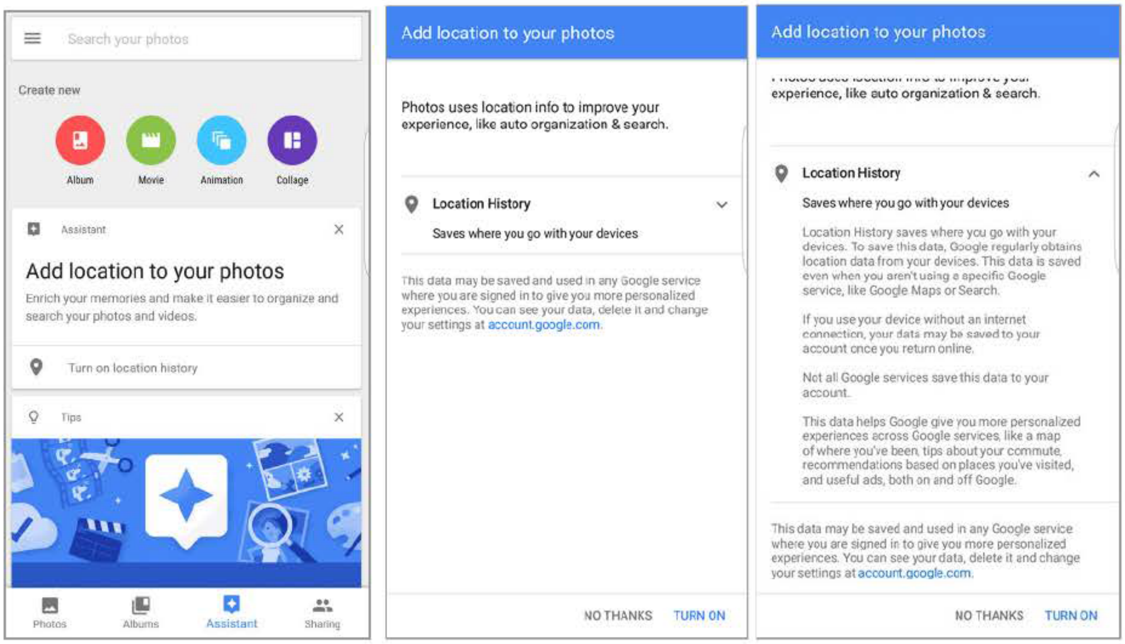
This data helps Google give you more personalized experiences across Google services, like a map of where you've been, tips about your commute, recommendations based on places you've visited, and useful ads, both on and off Google.

This data may be saved and used in any Google service where you are signed in to give you more personalized experiences. You can see your data, delete it and change your settings at account.google.com.

16. If the user tapped "TURN ON" on the middle screen (or with the additional information expanded as depicted on the right) as shown in ¶ 15, LH would have been enabled on the Subject Account.

17. As another example, the user of the Subject Account could have opted in to the LH service through the Google Photos application, as depicted by the following screens. If the user tapped on "Turn on location history" on the left-hand screen below, the user would have been presented with the screen in the middle below. If the user tapped the gray expansion arrow next to "Location History: Saves where you go with your devices" on the middle screen below,

the user would next have been presented with the additional information depicted on the right below:



Add location to your photos

Enrich your memories and make it easier to organize and search your photos and videos.

Turn on location history

Add location to your photos

Photos uses location info to improve your experience, like auto organization & search.

Location History

Saves where you go with your devices

This data may be saved and used in any Google service where you are signed in to give you more personalized experiences. You can see your data, delete it and change your settings at account.google.com.

Add location to your photos

Photos uses location info to improve your experience, like auto organization & search.

Location History

Saves where you go with your devices

Location History saves where you go with your devices. To save this data, Google regularly obtains location data from your devices. This data is saved even when you aren't using a specific Google service, like Google Maps or Search.

If you use your device without an internet connection, your data may be saved to your account once you return online.

Not all Google services save this data to your account.

This data helps Google give you more personalized experiences across Google services, like a map of where you've been, tips about your commute, recommendations based on places you've visited, and useful ads, both on and off Google.

This data may be saved and used in any Google service where you are signed in to give you more personalized experiences. You can see your data, delete it and change your settings at account.google.com.

18. If the user tapped "TURN ON" on the middle screen (or with the additional information expanded as depicted on the right) as shown in ¶ 17, LH would have been enabled on the Subject Account.

19. Between July 9, 2018 and May 20, 2019, monthly Timeline updates summarizing the user's monthly Location History activity (and reminding the user that the user's LH setting is turned on) were sent to users who had viewed their Google Maps Timeline (e.g., available at timeline.google.com).[4] Google has no records reflecting that such emails were sent to the user of

[4] Currently, the monthly Timeline updates are sent to all users who have sufficient monthly LH for the summaries, regardless of whether the user viewed his or her Google Maps Timeline.

the Subject Account. This could be because no such emails were sent or because the records from that time period no longer exist.

III. "Device Location" Setting

20. As I testified in my first declaration, *see* ECF No. 96-1 at 2-3, in order for a particular mobile device to send location data to LH, the device-location setting must be on for that device. Enabling the device-location setting allows the device to determine its location, which can be used by applications and services with requisite permissions.

21. On Android devices, the device-location setting is found under Android "Settings," under the "Location" menu. As of July 9, 2018, and continuing to today, an Android user has the ability to turn the device-location setting on or off.

22. Toggling the device-location setting on or off does not affect whether LH is enabled for the user's Google Account or whether the Location Reporting subsetting within LH is enabled for that device. It simply affects whether there is any location information available to be shared with LH from the device. If LH and Location Reporting have been enabled and the user turns off the device-location setting, LH and Location Reporting will remain enabled, but there would not be any location information available to be shared with LH from the device. When the device-location setting is turned back on, it would become possible for location information to be shared with LH from the device (assuming LH and Location Reporting have previously been enabled).

23. Google does not store and thus has no record of when the user of the Subject Account may have toggled the device-location setting on or off.

IV. Permitting Location Sharing With Google

24. As I testified in my first declaration, *see* ECF No. 96-1 at 2-3, on iOS devices, the user must further configure the user's mobile device to grant the required device-level location permission for an application to share location data with LH. For example, a user of an iOS device can allow Google Maps to access and transmit the device's location by toggling the location permissions for Google Maps to "Always," "While Using the App," or "Never." An iOS device can share location data with LH from a particular application only if the user sets the location permission for that application to "Always."

25. On Android devices, the number of applications that have device-level location permissions enabled impacts the frequency with which location data may be shared with LH. A user may configure applications, such as Google Maps, to access and transmit the Android device's location by toggling the location permissions for the application to "Allowed All the Time," "Allowed Only While in Use," or "Denied."

26. These location permissions are specific to each application, and toggling them does not affect whether LH is enabled for the user's Google Account or whether the Location Reporting subsetting is enabled for that device. This was true as of July 9, 2018 and remains the case today.

27. Google does not retain records reflecting when these permissions are modified for various applications and so has no record of when the user of the Subject Account may have modified these permissions for any applications on the user's device.

V. Signing in to a Google Account

28. As I testified in my first declaration, *see* ECF No. 96-1 at 3, a particular device will not report location information to LH on a particular Google Account unless the user has

signed into that account on that device. On an Android device, this means that the user must associate the user's Google Account with the device through the device settings.[5] Signing into the account through any other means, such as on a web browser, is not sufficient to allow reporting of location data to LH. Moreover, if the user has enabled LH in the user's Google Account and enabled the Location Reporting subsetting in LH for a device, but subsequently removes the user's Google Account from that device through the device settings, the device will stop reporting location to LH (even though LH remains enabled on the Google Account). This was true as of July 9, 2018 and remains the case today.

29. Google has no record showing when the user of the Subject Account may have associated or disassociated the account from the Samsung S9+ SM-G965U device.

VI. Default Settings

30. The default setting for LH at the initial account creation is "off."

31. Android devices, including a Samsung S9+ SM-G965U running Android O.S. 8.0, revision number G95USQS3BRK3, have a default setting for Location Reporting as "off," with Location Reporting for the device being enabled based on user action on the device or elsewhere.

32. The default setting for the device-location setting at the initial set-up of any Android device running Android O.S. 8.0 and earlier is "on."

VII. Version History

33. The consent text and steps I described above at ¶¶ 7-18 constituted the supported consent flow that was required to successfully opt in to LH as of July 9, 2018 (UTC), when the

[5] *See* Google, *Add or remove an account on Android*, https://support.google.com/android/answer/7664951?hl=en (visited July 22, 2020).

user of the Subject Account opted in to LH, and the consent text has remained unchanged since that time.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Executed this 30th day of July 2020, in SAN FRANCISCO.

Marlo McGriff

FEDERAL BUREAU OF INVESTIGATION
CELLULAR ANALYSIS SURVEY TEAM

Special Agent Jeremy D'Errico
FBI Richmond Division

Case Number: 91A-RH-3114865

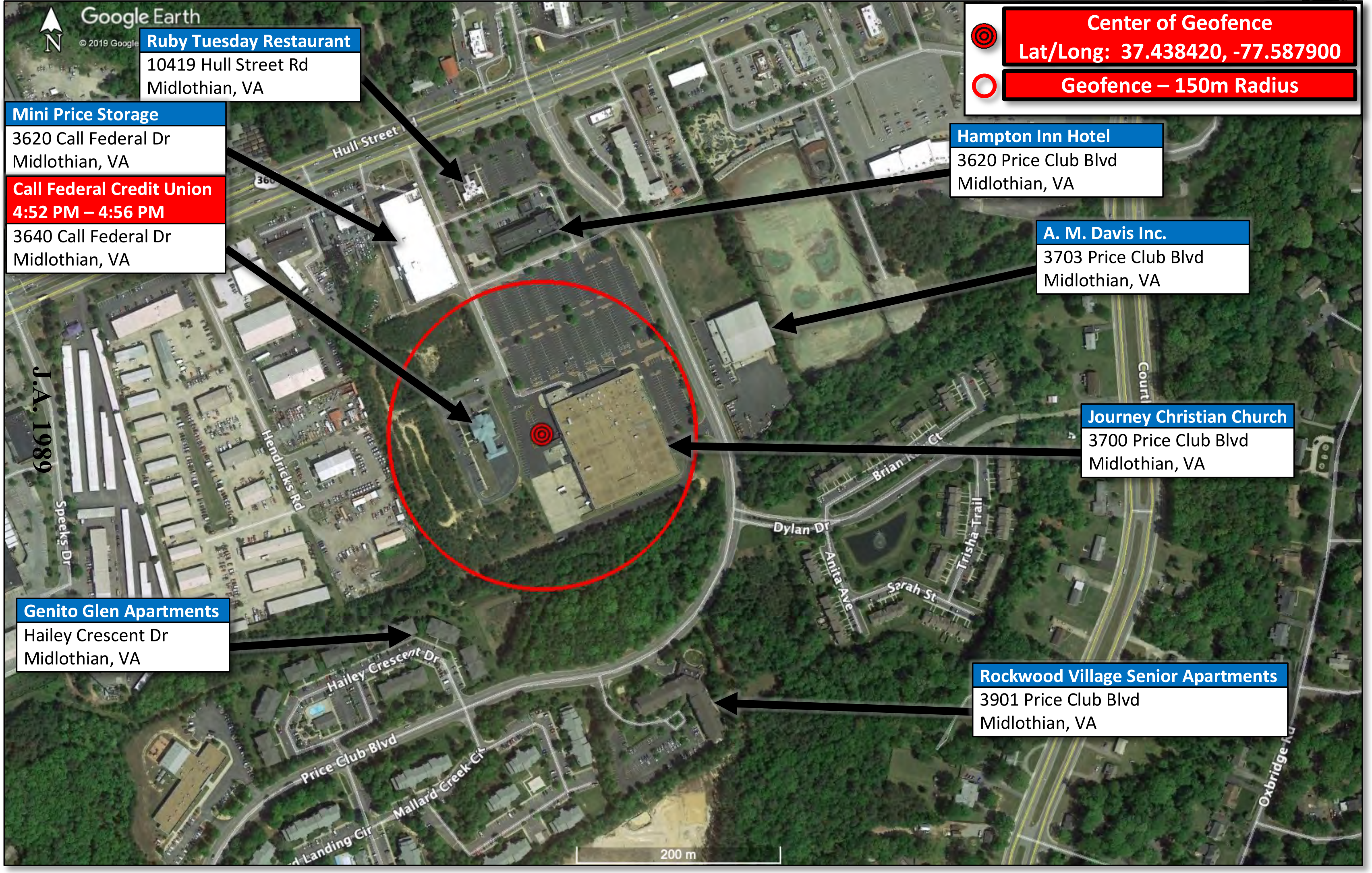
Google Location Geofence Analysis
Area around Call Federal Credit Union
3640 Call Federal Dr, Midlothian, Virginia
May 20, 2019 4:20 PM – 5:20 PM & May 20, 2019 3:50 PM – 5:50 PM

June 17, 2020

FEDERAL BUREAU OF INVESTIGATION
CELLULAR ANALYSIS SURVEY TEAM

Geofence Determination

Area of Call Federal Credit Union – Surrounding Establishments
3640 Call Federal Drive, Midlothian, Virginia



Center of Geofence
Lat/Long: 37.438420, -77.587900

Geofence – 150m Radius

Ruby Tuesday Restaurant
10419 Hull Street Rd
Midlothian, VA

Mini Price Storage
3620 Call Federal Dr
Midlothian, VA

Call Federal Credit Union
4:52 PM – 4:56 PM
3640 Call Federal Dr
Midlothian, VA

Hampton Inn Hotel
3620 Price Club Blvd
Midlothian, VA

A. M. Davis Inc.
3703 Price Club Blvd
Midlothian, VA

Journey Christian Church
3700 Price Club Blvd
Midlothian, VA

Genito Glen Apartments
Hailey Crescent Dr
Midlothian, VA

Rockwood Village Senior Apartments
3901 Price Club Blvd
Midlothian, VA

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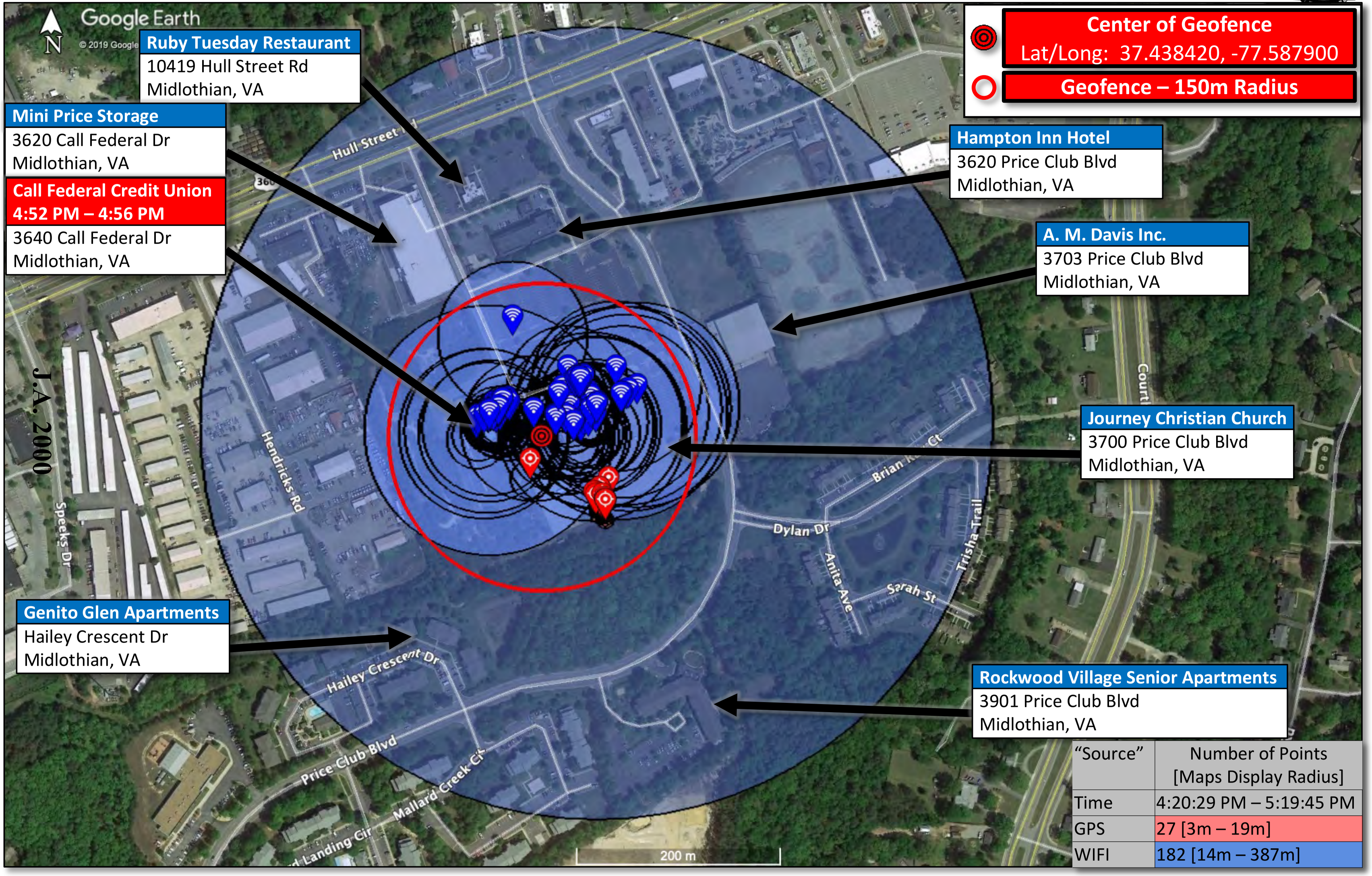
FEDERAL BUREAU OF INVESTIGATION
CELLULAR ANALYSIS SURVEY TEAM

Google Location History Analysis

Initial Return from Google

Area of Call Federal Credit Union – May 20, 2019 4:20 PM – 5:20 PM
Initial Google Geofence Records for All Devices



◎ **Center of Geofence**
Lat/Long: 37.438420, -77.587900

○ **Geofence – 150m Radius**

Ruby Tuesday Restaurant
10419 Hull Street Rd
Midlothian, VA

Mini Price Storage
3620 Call Federal Dr
Midlothian, VA

Call Federal Credit Union
4:52 PM – 4:56 PM
3640 Call Federal Dr
Midlothian, VA

Hampton Inn Hotel
3620 Price Club Blvd
Midlothian, VA

A. M. Davis Inc.
3703 Price Club Blvd
Midlothian, VA

Journey Christian Church
3700 Price Club Blvd
Midlothian, VA

Genito Glen Apartments
Hailey Crescent Dr
Midlothian, VA

Rockwood Village Senior Apartments
3901 Price Club Blvd
Midlothian, VA

"Source"	Number of Points [Maps Display Radius]
Time	4:20:29 PM – 5:19:45 PM
GPS	27 [3m – 19m]
WIFI	182 [14m – 387m]

Summary of Initial Google Geofence Records Provided By Google
Device IDs

Summary of Records Received from Google

Device ID	Number of Records	First Record Time	Last Record Time	Smallest Maps Display Radius (m)	Largest Maps Display Radius (m)	Number of Maps Display Radiuses Extending Beyond Geofence	Maximum Distance Maps Display Radius Extending Beyond Geofence (m)
-2058726931	42	4:30:01 PM	5:19:45 PM	16	45	0	N/A
-1844271119	2	4:20:30 PM	4:22:31 PM	25	66	0	N/A
-1662304683	3	4:44:48 PM	4:47:13 PM	15	68	0	N/A
-1637158857	36	4:21:36 PM	5:18:34 PM	14	42	0	N/A
-1305167611	3	4:31:26 PM	4:35:29 PM	32	80	0	N/A
-1144423700	5	5:03:50 PM	5:06:01 PM	57	100	3	50
-965610516	1	4:41:45 PM	4:41:45 PM	84	84	1	20
-162381959	36	4:21:36 PM	5:18:34 PM	14	42	0	N/A
-41133693	7	4:27:38 PM	5:08:26 PM	24	28	0	N/A
138503045	7	4:27:38 PM	5:08:26 PM	24	28	0	N/A
319756533	2	5:17:15 PM	5:19:31 PM	32	71	0	N/A
449021346	1	5:04:45 PM	5:04:45 PM	122	122	1	25
702354289	2	4:29:14 PM	4:29:37 PM	84	387	1	290
907512662	1	4:35:45 PM	4:35:45 PM	84	84	0	N/A
1135979718	1	5:07:02 PM	5:07:02 PM	104	104	1	35
1207269668	5	4:27:40 PM	4:34:43 PM	42	83	0	N/A
1485182252	1	5:04:45 PM	5:04:45 PM	122	122	1	25
1716665659	38	4:20:29 PM	4:54:34 PM	3	73	1	26
2021066118	16	4:23:01 PM	5:02:54 PM	28	83	1	21
Grand Total	**209**	**4:20:29 PM**	**5:19:45 PM**	**3**	**387**	**10**	**290**

FEDERAL BUREAU OF INVESTIGATION
CELLULAR ANALYSIS SURVEY TEAM

Google Location History Analysis

Supplemental Return from Google

Summary of Supplemental Google Geofence Records Provided By Google Device IDs

Summary of Records Received from Google

Device ID	Number of Records	First Record Time	Last Record Time	Smallest Maps Display Radius (m)	Largest Maps Display Radius (m)
-1844271119	29	3:50:10 PM	5:29:25 PM	16	100
-1662304683	56	3:55:04 PM	5:49:08 PM	4	1,842
-1305167611	63	3:51:29 PM	5:49:23 PM	10	210
-965610516	56	3:50:11 PM	5:48:27 PM	4	1,026
702354289	183	3:50:59 PM	5:49:47 PM	6	387
907512662	64	3:55:11 PM	5:45:36 PM	14	413
1207269668	90	3:53:16 PM	5:45:26 PM	16	164
1716665659	94	3:53:10 PM	5:48:46 PM	3	1,797
2021066118	45	3:51:24 PM	5:49:26 PM	6	1,838
Grand Total	**680**	**3:50:10 PM**	**5:49:47 PM**	**3**	**1,842**