



Nashville Community Review Board

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MNCO Archive License Plate Reader Vendor Update

Originally Published:
October 4, 2023



LPR Vendor Update

Prepared for the Metro Nashville Community Oversight Board

An update on the vendors chosen for the Metro Nashville Police Department's (MNPd's) full License Plate Reader (LPR) program.

Introduction

Following Metro Council's approval of a full LPR program, MNPd went through the procurement process to determine which vendor from their pilot LPR program they would partner with for a full rollout of their LPR program. Rather than just choosing one vendor, MNPd has chosen to work with three different vendors for their full LPR program: Flock Safety, Motorola Solutions, and Insight LPR. There are three categories of LPRs that the vendors will provide: fixed, mobile, and trailer. Each vendor will provide a different combination of these services, as shown below in Table 1:

Table 1: LPR Vendors

LPR Vendor	Fixed LPR	Trailer LPR	Mobile LPR
Flock	✓	X	X
Insight	✓	✓	X
Motorola	✓	✓	✓

Fixed LPRs are cameras that are installed in major roadways and capture the license plates of vehicles that drive through that intersection. Fixed LPRs cannot be moved without reinstallation. The proposed vendors for fixed LPRs are Flock, Motorola, and Insight. Trailer LPRs are cameras installed on a mobile trailer device that can be installed in various locations. Trailer LPRs are used in locations that do not have the infrastructure to support them otherwise, like parks, parking lots, or medians. The vendors for trailer LPRs are Motorola and insight. Finally, Mobile LPRs are the cameras that are installed on police vehicles and capture the license plates of the vehicles the police vehicle encounters while driving. The sole vendor for vehicle LPRs is Motorola. It is worth noting that MNPd uses WatchGuard, a subsidiary of Motorola, for their body-worn and in-car cameras. Motorola could thus have been chosen as the sole vendor for mobile LPRs because they could link with the existing in-car cameras.

In total, there are going to be approximately 117 LPRs in the full LPR program, nearly triple the 40 LPRs used in the pilot program¹. The total bid cost for the full LPR program is \$4,121,928. The full bid is in part composed of the fixed LPR bid of \$2,131,323, of which Flock's bid is \$757,500, Insight's bid is \$750,000, and Motorola's bid of \$623,823. The full bid also includes the trailer LPR bid of \$1,748,827, of which Insight's bid is \$858,750, and Motorola's bid is \$890,077. Finally, the full bid includes the vehicle LPR bid of \$241,778, which is solely Motorola.

Table 2: LPR Bid Costs

LPR Vendor	Fixed LPR	Trailer LPR	Mobile LPR	Full LPR Program
Flock	\$757,500	X	X	\$757,500
Insight	\$750,000	\$858,750	X	\$1,608,750
Motorola	\$623,823	\$890,077	\$241,778	\$1,755,678
Total	\$2,131,323	\$1,748,827	\$241,778	\$4,121,928

¹ <https://www.nashville.gov/sites/default/files/2023-07/LPR-Council-Report-3.pdf?ct=1689087910>

LPR Vendors

Flock Safety

As proposed, Flock Safety will only provide Fixed LPRs for MNPDP². According to Flock's terms and conditions³, MNPDP would own the "customer" data they gather from LPRs. This customer data includes all the data gathered by Flock LPRs, including any footage. Flock does not own, nor can they sell, the customer data. However, Flock LPRs also include "anonymized" data, which is customer data that Flock has the right to "collect, analyze, and anonymize." As per the terms and conditions, MNPDP also grants Flock the right to use and distribute the anonymized data to "improve and enhance the services and for other development, diagnostic and corrective purposes, and other Flock offerings." This anonymized data is non-exclusive, perpetual, royalty-free, and worldwide.

The anonymized data being worldwide is a crucial parameter, as Flock operates on a business model that creates a camera network that law enforcement agencies can search all over the country⁴. According to Flock, their goal is to expand into every city in the US⁵, and the company already has a presence in over 2,000 cities across 42 states. Users can opt into a data-sharing network, where they can share their LPR data and gain access to the LPR data of other users. Through this network, users can keep records of the times and locations of vehicles and individuals that pass through LPR cameras, even LPRs from other law enforcement agencies. As outlined in Metro Code 13.08.080, MNPDP may not share LPR data without written request from other law enforcement agencies, so presumably they would not be able to opt into the data sharing program. This will be important to monitor, however, as a more explicit agreement is created between MNPDP and Flock. Furthermore, Flock LPRs also have the capability of using custom hotlists⁶, which are the lists of license plates that will result in an LPR hit, potentially circumventing having to solely use the heavily regulated and audited NCIC database.

Motorola Solutions

Motorola Solutions is the only vendor that is proposed to provide services across all three LPR categories, and they are the only vendor for vehicle LPRs⁷. According to Motorola's terms and services⁸ and their frequently asked questions⁹, MNPDP would own the data and determine the retention rate. Due to Metro Code 13.08.080, this retention period would presumably be 10 days, as that is the retention period listed in the code. However, per Motorola's terms and conditions, they also have the right to access the data and use that data to provide market research based on the aggregated LPR data. Motorola can only use this data for commercial and non-law enforcement or personal purposes. Additionally, Motorola may retain the data as long as it "has commercial value". Motorola also has a separate database for commercial LPR data collected from repossessed vehicles. However, it is unclear to what extent MNPDP will have access to this data. Additionally, based on the Vigilant "PlateSearch 7.0 User Guide"¹⁰, MNPDP would have the capability to create custom hotlists separate from the NCIC database, based on certain plates or datapoints that they enter.

² <https://www.flocksafety.com/>

³ <https://www.flocksafety.com/terms-and-conditions>

⁴ <https://tinyurl.com/yfzftwsk>

⁵ <https://www.pnj.com/story/news/traffic/2023/07/26/Flock-safety-cameras-crime-prevention-police-license-plate-reader/70468342007/>

⁶ <https://www.flocksafety.com/devices/lpr>

⁷ For more information on Motorola's Mobile LPR products, see: <https://tinyurl.com/b6p8dwkv>

⁸ <https://tinyurl.com/57pczt9p>

⁹ <https://tinyurl.com/yxzfhyj>

¹⁰ https://learnfl.vigilantsolutions.com/learn/Vigilant_PlateSearch_User_Guide.pdf

Like Flock, Motorola's access to MNPDP's LPR data is important, as they operate a similar business model of creating a camera network that both commercial users and law enforcement agencies can access across the country¹¹. However, Motorola also differentiates itself by also having the "Vigilant Mobile Companion", which allows mobile devices, like cell phones, to also act as LPRs¹². Together with the FUSUS technology MNPDP has acquired in September of 2022, MNPDP would have the capability to integrate Motorola LPRs, in-car cameras, and body-worn cameras with their other technology, even their cell phones, to stream their surveillance technology in real-time.

Insight LPR

Insight LPR is one of the vendors that is proposed to provide fixed and trailer LPRs¹³. They are a relatively new LPR company, as their products were revealed at the North American Repossessors Summit in June of 2022¹⁴. Unlike Flock and Motorola, Insight appears to be catered towards the automotive repossession industry. Insight's website even advertises that users of their cameras can earn a "minimum of \$355 per live repossession"¹⁵. Procurement's initial appraisal of Insight's proposal listed that they had limited law enforcement experience¹⁶, but Insight was rated higher in subsequent rounds, indicating that it met MNPDP's technical specifications.

Whether they are commercial, private, or law enforcement entities, Insight LPR users have the power to create their own hotlists, and users can also opt into sharing those hotlists with law enforcement agencies¹⁷. MNPDP would be able to access the custom hotlists of other law enforcement agencies. Furthermore, Insight advertises a "searchable" data feature that would allow MNPDP to conduct custom searches by plate, location, time of day, or even by the make and model of a vehicle. Whether or not this pertains just to the data MNPDP has collected or also includes Insight's national database is uncertain. MNPDP would also have full access to historical data. It is unclear if the 10-day retention rate established by 13.08.080 will influence the data MNPDP would collect, but MNPDP's ability to access Insight's national database would most likely be unaffected by Metro Code 13.08.080.

Unlike Flock or Motorola, Insight shares limited public information regarding data laws, but they do explain some of their data clauses in their privacy notice page, which was last updated in 2020¹⁸. Insight would manage the data that MNPDP collects, but it is unclear from publicly available documents who would own it. It is further uncertain if Insight has different ownership laws for law enforcement agencies versus private buyers since it is catered towards the automotive repossession industry. However, despite there not being clear ownership practices listed, Insight cannot share or sell that data to forwarders, lenders, or competing recovery companies¹⁹, and Insight also collects non-law enforcement personal data. Insight may use personal data for business analytics and business transfers, and may share personal data with Service Providers, Affiliates, and business partners. Insight can store personal data for a maximum of seven years.

¹¹ <https://tinyurl.com/yfzftwsk>

¹² <https://www.policemag.com/technology/article/15634304/the-power-of-lpr>

¹³ <https://insightlpr.com/>

¹⁴ <https://tinyurl.com/4tzynr32>

¹⁵ <https://insightlpr.com/who-we-serve/automotive-finance/>

¹⁶ This information comes from procurement records MNCO was provided with.

¹⁷ <https://insightlpr.com/faqs/>

¹⁸ <https://insightlpr.com/privacy-policy/>

¹⁹ <https://tinyurl.com/mrvbka47>

Conclusion

Flock and Motorola have similar business models, as both are attempting to expand into more cities and build national law enforcement databases. According to the ACLU, both Flock and Motorola have come under criticism for creating national LPR hotlists, including sharing data out of states that have data sharing acts³. While Insight appears to be catered towards the automotive repossession industry, they also have a national database for LPR data that users and law enforcement agencies can opt into. While Metro Code 13.08.080 should prevent MNPD from automatically sharing their data with other law enforcement agencies and prevent certain LPR vendor uses, it is uncertain whether they will get access to the national databases that these LPR vendors have amassed.

Furthermore, all three LPR companies give MNPD the ability to create custom hotlists, and potentially the ability to share them with other users. Custom hotlists give MNPD the capability to circumvent solely using the heavily audited and regulated National Crime Information Center (NCIC) database. Custom hotlists could allow MNPD to create targeted lists of license plates and other identifiable datapoints in the areas where the LPRs are located, and in the areas where mobile LPRs are driving around in. Unlike the NCIC, it is unclear if these custom hotlists undergo auditing or monitoring. While MNPD would own the data that they collect with Motorola and Flock cameras, it is unclear if they would own the data with Insight cameras, as Insight does not have clear data ownership practices listed. For comparison's sake, several important vendor policies are outlined in the table below:

Table 3: LPR Vendor Policies

LPR Vendor	MNPD owns data	National LPR database	Custom hotlist capability	Opt-in to sharing data and/or hotlists	Mobile Companion	Vehicle repossession payments	FUSUS-capable
Flock	✓	✓	✓	✓	X	X	✓
Motorola	✓	✓	✓	✓	✓	X	✓
Insight	X	✓	✓	✓	X	✓	✓

During the LPR pilot program, MNPD expressed frustration to MNCO staff regarding the compilation of data across the different LPR vendors. MNPD has, however, gone with three different vendors for the full LPR program, which may extend or exacerbate these issues. It is unclear why MNPD went with multiple vendors; one possible reason could be that MNPD reached agreements with multiple vendors during the pilot program. Another possible reason is that all three of the LPR vendors have business models that compile law enforcement data gathered by LPRs into national databases that users of those vendors can opt into and access. It could thus be possible that MNPD has contracted with three different vendors to have access to all three of the vendors' national LPR databases. It is further possible that MNPD has selected different vendors because they provide specific, tailored types of LPR services at a higher level than their competitors, though this information is unclear from publicly available procurement information. This should be an important point of clarity for MNPD to establish as they progress further in the procurement process.

Additionally, it is worth noting that MNPD would be able to integrate all the LPRs in the program with the FUSUS technology they acquired in September of 2022²⁰. FUSUS allows MNPD to create a real-

²⁰ <https://www.nashville.gov/sites/default/files/2023-10/MNCO-FUSUS-Informational-Report-ADA.pdf?ct=1696262443>

time surveillance network from both public and private cameras, and all the LPRs they will acquire would be a strong foundation for the FUSUS program. For Motorola, the vigilant mobile companion would additionally allow MNPd to link their Motorola LPRs with their phones. FUSUS, however, would allow MNPd to integrate their Flock and Insight LPRs with their other devices as well.

It is important to note that while the previous Metro Council approved a full LPR program for MNPd, that does not mean that this program is finalized. The current Metro Council will still have to vote to approve the vendors selected by MNPd. Until the vendors are approved by Metro Council, MNPd will not be able to use LPRs to collect data. The second LPR vote was not on the agenda for the September Metro Council meeting, nor is it on the agenda for the upcoming October 17th Metro Council meeting. It is possible that if the LPR vendor vote does not pass, MNPd may not have the same vendor makeup that the current procurement proposal lists. However, what a reconstituted LPR vendor update would look like remains uncertain.