Surveillance Impact Report

BERLA

San Diego Police Department

DESCRIPTION

The BERLA iVe Ecosystem is a collection of tools supporting investigators throughout the vehicle forensics process with a mobile application for identifying vehicles, a hardware kit for acquiring systems, and forensic software for analyzing data.

iVe Mobile allows investigators to identify vehicles supported by iVe, determine which systems are installed, know what data can be retrieved, and how to acquire the data – all prior to taking action. It provides instructions for locating and removing vehicle systems and monitors the progress of long-running acquisitions.

The iVe Toolkit is a collection of specifically developed interface boards and cables used to acquire various supported vehicle systems. The toolkit includes tools to help remove the systems from a vehicle when required. The interface boards and cables are used in conjunction with the iVe software to acquire the data.

iVe Desktop is a Windows based application. It is the workhorse of the iVe ecosystem and is used for all acquisitions. It is used to parse data, recover deleted information and view raw file systems. iVe Desktop includes a full suite of analysis and reporting tools to include mapping, data export, search, and timeline analysis.

PURPOSE

The purpose of BERLA is to improve public safety by providing an effective method of investigating criminal activity. The BERLA equipment is used to acquire and analyze data stored within a vehicle's Infotainment/Telematics System. The data can include vehicle events, location data, and connected devices. The analysis of the vehicle data can help determine what happened, where it occurred, and who was involved.

LOCATION

The iVe toolkit is kept in a secure cabinet at Traffic Investigations. The iVe software program is on a stand-alone computer at Traffic Division which is password protected. Access to the software itself is also password protected.

City of San Diego crime statistics can be viewed at Crime Statistics & Crime Mapping | Police | City of San Diego Official Website.

IMPACT

The toolkit is used after a crime has been committed during the investigation of that crime and the analyzed data is provided to the Detective as part of the follow-up investigation. The request to obtain the data is made by the Detective investigating the crime. The kit is used to acquire data from a vehicle, not a person.

MITIGATIONS

The acquisition and analysis is typically conducted pursuant to a search warrant authorized by a Superior Court Judge. It is sometimes conducted without a search warrant in the situation where a victim's vehicle has been stolen or otherwise used to commit a crime and the owner (victim) provided written consent authorizing the search.

Only sworn and trained SDPD personnel with current passwords can access and operate the BERLA equipment.

Data is attached to criminal investigations. Records related to criminal investigations are kept for statutorily varying periods depending on the type of record, whether a person has been prosecuted, and/or whether the record was lawfully sealed. Records will be destroyed in accordance with laws relating to the destruction of evidence when it is no longer needed or as required by court order.

All data recovered is for the official use of the San Diego Police Department. Members of the public do not have access to this information when it is gathered as part of a criminal investigation and the information is exempt from public disclosure pursuant to a public records request. Data that is the subject of a court order or subpoena shall be processed in accordance with the established department subpoena process. Criminal defendants have access to information pursuant to state and federal laws relating to discovery or as otherwise required by law. Discovery is overseen by the courts.

DATA TYPES AND SOURCES

The most common data acquired by the BERLA equipment consists of vehicle events, location data, and connected devices. The vehicle events are events such as door openings, ignition activity, and seatbelt usage. These events are typically recorded along with a date/time stamp and the GPS location of the vehicle at the time of the event. Some location data is included in the vehicle events and others in what are called Track Logs. The software parses location data into what it believes are vehicle trips (tracks) to show where a vehicle was located (based on GPS coordinates) at a given date/time. Connected devices show what devices have been paired with the vehicle system. These can include some cellular phone data, such as contacts and call logs. There is a chance a vehicle may contain devices connected to the vehicle that are unrelated to the specific criminal case. When this occurs, the analyzing officer will need to make this determination and then not further analyze that specific device. This is also restricted by the scope of the search warrant obtained to acquire and analyze the data.

DATA SECURITY

Only sworn SDPD personnel with current passwords can access and operate the BERLA equipment.

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FISCAL COST

The initial cost of the BERLA iVe Ecosystem, which included one sworn Detective to attend the certification course, was $12,000.00. This cost was covered by a grant.

Future costs consist of the annual renewal fee for the software of $2,800.00.

THIRD PARTY DEPENDENCE

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ALTERNATIVES

BERLA is the only company with a product designed to handle vehicle forensics, specifically acquiring, and analyzing data from Infotainment/Telematics systems.

TRACK RECORD

The BERLA iVe toolkit is used around the world by law enforcement agencies to obtain data from vehicles during criminal investigations. There are numerous success stories in which murders and other serious crimes have been solved by using the BERLA kit.

The SDPD Traffic Investigations Unit has used the BERLA kit to assist in criminal investigations involving murder, robbery, and fatal and serious injury traffic collisions.

In order to be used in Court, evidence must meet certain requirements set forth by the Courts. These include the following:

- The BERLA kit has been accepted as the standard for vehicle forensics since 2013. The data recovered by the BERLA kit has been tested and verified as accurate.

- BERLA acquired data has been verified and published in 2017 and 2018 with the Society of Automotive Engineers (SAE), which is the world's leading authority in mobility standards development. In order to be published by SAE, a minimum of three industry experts must review the paper and it must be approved by the SAE Engineering Meetings Board.

- The 2018 SAE paper conducted tests that concluded the BERLA iVe system had an average error of less than 1 kilometer per hour over the entirety of each test. The results

of the research for this paper indicated that the BERLA iVe system was providing consistent and reliable acquisitions and translations of speed data from the vehicles used in the tests.

- In 2016, the Scientific Working Group on Digital Evidence (SWGDE) produced a paper to describe the Best Practices for Vehicle Infotainment and Telematics Systems.

PUBLIC ENGAGEMENT AND COMMENTS

On December 7, 2023, at 1800 hours, there was a publicly held meeting in all nine council districts in the City of San Diego. The following surveillance technologies were presented by the San Diego Police Department:

1. Berla iVE
2. Cellebrite
3. CellHawk
4. CPClear
5. FaSTR
6. Grayshift/Graykey
7. Magnet Forensics AXIOM
8. Nighthawk
9. OffenderWatch
10. RealQuest

There were two attendees in District 1. There were two attendees in District 2. There were three attendees in District 3. There were five attendees in District 4. There were zero attendees in District 5. There were zero attendees in District 6. There were two attendees in District 7. There were zero attendees in District 8. There were two attendees in District 9. There was a total of one comment and five questions out of the sixteen attendees. There were no comments submitted to the online public comment form.

Comment #1:

> Comment regarding the fiscal impact and waste of City employee time for the presentations, in compliance with the ordinance.

Question #1:

> Question regarding Berla. Does it require physical access to the phone to use Berla or can you access it remotely? Does law enforcement have access to the content of messages? Does the ordinance allow clandestine access to gather data and analyze it without the owner knowing?

Answer:

> Physical access to the vehicle cannot be accessed remotely. No, just date and time. No, requires physical access to the vehicle. The system typically needs to be removed from the vehicle and the process takes hours. In addition, a search warrant requires the owner to be notified.

Question #2:

Question regarding Nighthawk and social media.

Answer:

The 2016 Electronic Communications Protection Act (ECPA) search warrant requires any information gathered from social media for analysis be retained until a court order for destruction, for cross-examination, prosecution, discovery, etc.

Question #3:

Questions regarding data storage and access. Who hosts/stores the data? The city or the vendor? Where are the programs hosted/stored? Locally, statewide, federally? Which personnel gets access to the sensitive data? Is there employee access training to prevent biases?

Answer:

SDPD provides training in the handling of evidence. Evidence is downloaded and stored to retention policy dates. They can also refer to the Use Policy for further details.

Question #4:

Question regarding RealQuest. Phones connect to AppleCarPlay and AndroidAuto? Does RealQuest have access to AppleCarPlay or AndroidAuto?

Answer:

No, it is a separate system and has no access to those systems. It is devoted to real estate or real property.

Question #5:

Question regarding Nighthawk. Is Nighthawk access via a search warrant? You stated generally, but is that a requirement in this use policy?

Answer:

Access is usually through a search warrant. No knowledge of any that have been uploaded by other means. ECPA requirements are part of the review.

To maximize the reach of the materials presented at the community meetings, the Police Department created a link to the City of San Diego's technology website which provides all materials for presented technologies as well as upcoming technologies and additional materials. The materials and questions/comments section could be accessed by visiting the below web address: www.sandiego.gov/police/technology. The web address was posted in conjunction with the QR code at the community meeting.

The Department also video recorded a meeting so that it could be presented to a larger group. The benefit of the video was the capability of translating the presentation into over 100 languages such as Spanish, and other languages frequently used by the communities within San Diego, to maximize penetration of the materials to affected groups. The link to the video is at: SDPD Surveillance Technology Community Meeting 12/07/2023 (youtube.com)