



Silicon Valley Regional Interoperability Authority

DATE: May 18, 2022

TO: Gary Berg, City of Campbell Police Chief and President of the Santa Clara County Police Chiefs Association

FROM: Eric Nickel, SVRIA Executive Director 

SUBJECT: **Encryption Background, Interoperability and an Update on Senate Bill 1000**

BACKGROUND

On February 14, 2022, State Senator Becker (Senate District 13, Santa Clara and San Mateo Counties) introduced Senate Bill 1000 (SB 1000). The proposed legislation would ensure public access to law enforcement radio communications and require law enforcement agencies to prevent or substantially minimize criminal justice information or personally identifiable information from being broadcast in a manner that is accessible to the public.

The proposed legislation is in response to law enforcement agencies complying with the October 12, 2020, California Department of Justice (DOJ) memo that prohibited sharing of personally identifiable information (PII) over unsecured radio networks. The DOJ identified two methods to comply with the mandate, encrypt radio communications or establish policies to not communicate PII over open and unsecured radio channels. Law enforcement agencies in Santa Clara County complied by encrypting radio communications on primary dispatch talkgroups. SVRIA does not set encryption policy for its member agencies, and no policy action was taken by the Board mandating encryption.

SVRIA is comprised of the County of Santa Clara; the Cities of Campbell, Cupertino, Gilroy, Los Altos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, Santa Clara, San Jose, Saratoga, and Sunnyvale; the Town of Los Gatos; the South Santa Clara County Fire District; San Jose State University, Foothill/DeAnza College District, San Jose/Evergreen College District, West Valley/Mission College District; the Santa Clara Valley Water District, and the Valley Transportation Authority (VTA).

SVRIA operates the Silicon Valley Regional Communications System (SVRCS). In calendar year 2021, the SVRCS broadcast 23.5 million transmissions from 11,365 mobile and portable radios and authorized connections to 7,830 mutual aid operators representing federal, state and local public safety agencies through regional interoperable talkgroups.

The goal of SVRIA is to facilitate interoperable voice communications for the public safety and public service providers within Santa Clara County, allowing first responders, police, fire, emergency medical services, public works, utilities, and transportation officials to talk to one another on one platform during emergency incidents and non-emergency events.

Design of the SVRCS: Encryption was always planned for and specifically requested in the SVRCS design and Request for Proposal (RFP) issued in November 2011. Radio encryption was explicitly identified as a requirement in the RFP. Encryption was designed into the system in accordance with the Association of Public Safety Communications Officials (APCO) Project 25 (P25) Statement of Requirements. In the RFP, there are several encryption statements as part of the system design. APCO P25 Statement of Requirements requires encryption as a feature, but it does not require all talkgroups to be encrypted.

APCO sets standards for public safety telecommunications and functions similar to California Commission on Peace Officer Standards and Training (POST) for law enforcement and the National Fire Protection Association (NFPA) in the fire service. APCO is followed by local, state, and federal public safety communications agencies.

From a fiscal perspective, FEMA and Homeland Security Grants paid for a significant portion of the capital construction costs of the SVRCS. As a condition of accepting the millions in grant funds, the funding authorities required APCO P25 compliance.

Interoperability: Interoperability provides the technology and radio system design so multiple agencies and disciplines (law enforcement, fire, public works, transit) from local, state and federal agencies can talk to each other on the same radios used for daily, agency-specific, activities.

For day-to-day and routine public safety and public agency radio operations, agencies use their assigned talkgroups. Law enforcement agencies operate on dedicated primary dispatch, command and tactical talkgroups. The assigned talkgroups across Santa Clara County account for the majority of the radio system usage.

On larger incidents or when a specialized resource is needed, for example a police dog from an adjoining agency, the radio communications for all units assigned to the incident are joined, the technical term is patched, into a shared, regional interoperability talkgroup. When the multiple agencies radios are patched, they are removed from their primary dispatch, command or tactical talkgroup and placed into the regional interoperability talkgroup. The dispatchers create the patch on their computer console and move the assigned radios into the interoperable talkgroup. Field staff can also change talkgroups by selecting the assigned interoperability talkgroup on their radio.

The interoperability talkgroup allows responders from all agencies to seamlessly communicate with one another. The interoperability talkgroups (South Bay Law or SB LAW) are available to all SVRIA members as well as federal, state and local agencies authorized to use the talkgroups. SVRIA is responsible for maintaining the interoperability talkgroups.

While interoperability accounts for less than one percent of the radio system's use, the regional talkgroups are specifically designed and used for significant, complex and dynamic incidents requiring multi-agency public safety response and communications.

SVRIA Encryption Support: SVRIA initially supported its law enforcement members in analyzing and reviewing the October 12, 2020, DOJ encryption memo. A subcommittee of staff representing JPA members collaborated on a written response to the DOJ. The communication with the DOJ required a written plan and deadline to comply. Two letter templates were drafted for law enforcement agencies. One letter was for agencies already in compliance with the DOJ mandate, and a second, more detailed

letter, was for those agencies not in compliance as of December 31, 2020. The templates were provided to the police chiefs and County Sheriff.

SVRIA continues to support its members with technical assistance, legislative analysis and recommendations, subject matter expertise, drafting informational memos for staff and elected officials, and maintaining situational awareness as SB 1000 moves through the State Capitol.

SVRIA’s paramount objective is to maintain functionality of the interoperable talkgroups, to keep the system working the way it was designed and intended, and within the technical constraints of unencrypted and encrypted radios operating together.

Agency Encryption History: Encrypted talkgroups have been used by SVRIA law enforcement agencies since the system was deployed in 2015. The October 2020 DOJ memo served as a catalyst for the law enforcement agencies in the SVRIA that had not transitioned to encryption on their primary dispatch talkgroups. The unencrypted agencies proceeded at their pace and not under any policy directive from SVRIA.

Six agencies representing the majority of the radios on the system, began encryption before the DOJ memo was released. Morgan Hill and Gilroy began operating on the SVRCS with encryption on their law primary talkgroup. The other agencies began with unencrypted law enforcement primary talkgroups, then transitioned to encrypted. It was up to the individual agencies to decide when and how to use encryption in law enforcement operations.

Agency	Date of Encryption on Law Primary Talkgroup
Morgan Hill Police	September 2019
San Jose Police	March 2020
Gilroy Police	May 2020
Campbell Police	May 2020
Los Gatos Police	June 2020
County Sheriff’s Office	August 2020
California DOJ Encryption Memo	October 12, 2020
Sunnyvale Police	November 2020
Palo Alto Police	January 2021
Los Altos Police	March 2021
Mountain View Police	March 2021
Foothill/DeAnza College Police	March 2021
San Jose State University Police	March 2021
Santa Clara City Police	April 2021
Milpitas Police	July 2021
SVRIA Law Interoperability Talkgroups	August 2021
West Valley/Mission College Police	August 2021
San Jose Evergreen College	May 2022 (projected)

SVRIA, DOJ and California Law Enforcement Telecommunications System (CLETS): SVRIA does not have a signed agreement with the DOJ to access CLETS. SVRIA is not a law enforcement agency and has no need or right to access CLETS data. In the event PII was inadvertently transmitted on one of the SB LAW

interoperable talkgroups during an incident, the DOJ would be unable to take any regulatory action against SVRIA as there is no agreement. The DOJ could potentially take action against the law enforcement agency who inadvertently transmitted PII, but to date, the DOJ has not taken action against any law enforcement agencies who transmitted PII.

Even though encryption is the preferred method, it is recommended that agencies establish policies to limit transmitting PII on interoperable and other unencrypted talkgroups.

Encrypted and unencrypted radios operating on the same talkgroup: When encrypted and unencrypted radios are operating on the same talkgroup, all communication is unencrypted, even when the talkgroup is programmed for encryption.

If the shared talkgroup is programmed to be encrypted, and an unencrypted radio or talkgroup is patched, the group of patched radios are now unencrypted and can be heard by the public on a digital scanner. This creates the opportunity for PII to be inadvertently transmitted on the shared interoperability talkgroup.

As DOJ has no regulatory authority over SVRIA, and with the absence of an agreement to use CLETS, there is a low level of concern of any adverse impacts of PII being inadvertently transmitted when using SB LAW or another interoperability talkgroup.

Most importantly, the interoperability features of the SVRCS including all SB LAW interoperability talkgroups will remain available to all members no matter their encryption status.

Staff time and costs to program radios: Radios must be programmed when talkgroups and radios are changed from unencrypted to encrypted or vice versa. This is costly as each radio takes an average of 30 minutes to reprogram. Approximately half of the 11,365 radios operated by SVRIA agencies are assigned to law enforcement agencies, the staff time alone to reprogram radios is nearly 4000 hours, or approximately one and a half full-time equivalent staff position. Additionally, reprogramming the radio system core and other operating systems would be a minimum of 400 hours. Staff costs are incurred by each agency as well as SVRIA.

There is a careful balance when agencies reprogram their radios as certain system features are inactive and inoperable. Thoughtful coordination between radio programming staff, dispatchers, field operations officials, adjoining agencies, and radio system operators (SVRIA and other regional systems in the Bay Area) must occur.

If SB 1000 becomes law, radios and talkgroups would need to be reprogrammed to accommodate unencrypted communications on the primary law enforcement talkgroups. This would comply with SB 1000 as the public could listen to unencrypted radio communications on all of the law enforcement primary talkgroups.

SVRIA BOARD AND WORKING COMMITTEE

On May 9, 2022, the SVRIA Working Committee voted 8-0 to recommend to the Board of Directors that SVRIA not take a position on SB 1000. The SVRIA Board of Directors will hear this item on May 26, 2022.

As noted earlier, Since its inception, SVRIA has not set public policy for its members. It would seem extraordinary for a technical joint powers authority with a \$5 million budget and 1.0 full-time equivalent staff to set policy for its larger Member Agencies and Participating Agencies.

The Palo Alto City Council has already taken a position to support SB 1000, and the Sunnyvale City Council has taken a position to oppose SB 1000. SVRIA does not want to be in conflict with its member's elected bodies by taking a position on SB 1000. SB 1000 is a policy issue to be decided by elected bodies that reflect their local community.

LEGISLATIVE BACKGROUND

On February 14, 2022, State Senator Becker introduced SB 1000. On April 9, 2022, the Senate Committee on Public Safety heard the bill and voted 4-1 to pass the bill and refer it to the Senate Committee on Appropriations. On May 9, 2022, the Senate Committee on Appropriations heard the bill and voted 7-0 to put the bill in the suspense file for further consideration and cost analysis. The Senate has until the end of May to vote on the bill, and if it passes, to send the bill to the Assembly for consideration. A second hearing in Appropriations will occur on May 19.

It is likely that the mandated cost reimbursement to local agencies will be in the millions of dollars, with some costs one-time, but many costs will be ongoing. The ongoing costs would be for added dispatch center staffing in order to access CLETS and relay PII via encrypted talkgroups.

Implications if SB 1000 becomes law: If SB 1000 becomes the law, all law enforcement agencies would need to reprogram their radios and SVRIA would need to reprogram the network to support unencrypted communications on the primary law enforcement talkgroups. The cost to do this would likely be the responsibility of each agency and SVRIA. While the current version of SB 1000 contemplates reimbursement for this new State mandate, the history of local agency mandate cost recovery is minimal at best.

In addition, new procedures would need to be established in public safety dispatch centers to ensure all radios are switched to encrypted talkgroups before entering an interoperable regional law talkgroup. Finally, policies would need to be developed to limit the transmission of PII over shared regional talkgroups. These new steps would require additional workload on the dispatchers and potentially expose SVRIA to non-compliance if PII is inadvertently transmitted on a regional interoperable talkgroup. Training on the new law, procedures and operations would be needed for field users and dispatchers.

ATTACHMENTS

A: SB 1000 Legislation, Amended March 16, 2022

B: Senate Committee on Public Safety – Legislative Analysis on SB 1000

C: Senate Appropriations Committee – Legislative Analysis on SB 1000