



Legislative
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HB 19-1235

**FINAL
FISCAL NOTE**

Drafting Number: LLS 19-0770
Prime Sponsors: Rep. Van Winkle

Date: May 28, 2019
Bill Status: Postponed Indefinitely
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Bill Topic: LIMIT ENCRYPTION OF DISPATCH RADIO COMMUNICATIONS

Summary of Fiscal Impact:

<input checked="" type="checkbox"/> State Revenue	<input type="checkbox"/> TABOR Refund
<input checked="" type="checkbox"/> State Expenditure	<input checked="" type="checkbox"/> Local Government
<input type="checkbox"/> State Transfer	<input type="checkbox"/> Statutory Public Entity

This bill requires all state and local government entities, except for the Department of Corrections and Division of Youth Services in the Department of Human Services, to broadcast radio dispatch communications without any encryption. This bill increases state and local government costs on an ongoing basis.

Appropriation Summary: For FY 2019-20, this bill requires a General Fund appropriation of \$400,000 to the Office of Information Technology.

Fiscal Note Status: This fiscal note reflects the introduced bill. This bill was not enacted into law; therefore, the impacts identified in this analysis do not take effect.

**Table 1
State Fiscal Impacts Under HB 19-1235**

		FY 2019-20	FY 2020-21
Revenue		-	-
Expenditures	General Fund	\$404,000	Indeterminate*
Transfers		-	-
TABOR Refund		-	-

* Preliminarily, costs for hardware and radio reprogramming are estimated to be at least \$8.3 million; however, the exact costs will need to be determined through a comprehensive statewide assessment in FY 2019-20. Future costs are assumed to be requested through the annual budget process.

Summary of Legislation

This bill requires all state and local government entities, except for the Department of Corrections and Division of Youth Services in the Department of Human Services, to broadcast radio dispatch communications without any encryption. Radio communications may be encrypted to:

- preserve the tactical integrity of an operation;
- protect the safety of law enforcement officers or other emergency first responders;
- prevent the destruction of property; and
- to allow for an investigation into potential criminal conduct.

Radio communications may also be encrypted, if an audio stream is made available online and may be delayed or buffered by up to three minutes. The audio stream may be temporarily suspended for up to four hours for an emergency as long as radio communications are recorded during the suspension and made available upon request.

Background

The Office of Information Technology (OIT) operates the Public Safety Network statewide. This network has 241 radio towers and is utilized by over 1,000 state and local government public safety and governmental agencies. State agencies pay a user fee to OIT for the use of the network. Current law, does not allow a user fee to be charged to local governments that use the network. Local governments on the state system purchase and maintain their radios and may own and operate additional radio tower sites. Other local governments not on the state system operate and maintain their own radio communication networks and enter into interoperability agreements to ensure emergency communications can occur across networks.

State Revenue

Beginning in the FY 2019-20, this bill increases state cash fund revenue from civil filing fees by a minimal amount. The number of civil filings is expected to increase from challenges to encryption, audio stream, or temporary suspensions of unencrypted radio communication. The exact revenue impact will depend on the number of civil cases resulting from the bill and the amount of damages sought and has not been estimated. For informational purposes, the civil filing fee for county court ranges from \$85 to \$135 depending on the amount of damages sought and the filing fee for district court is \$235. Civil cases seeking damages of less than \$25,000 may be filed in county or district court, while cases seeking damages over \$25,000 must be filed in district court. Civil filing fees are subject to TABOR; however, under the March 2019 Legislative Council Staff forecast, a TABOR surplus is not expected in FY 2019-20 or FY 2020-21.

State Expenditures

For FY 2019-20, this bill is estimated to increase state General Fund expenditures by \$404,000. State expenditures will increase in FY 2020-21 and beyond by an indeterminate amount. State agency workload will also increased. These impacts are shown in Table 2 and discussed below.

Table 2
Expenditures Under HB 19-1235

Cost Components	FY 2019-20	FY 2020-21
OIT Statewide Public Safety Network Assessment	\$400,000	-
CSU System Radio Reprogramming	\$4,000	-
Total Cost	\$404,000	-

Office of Information Technology. This bill increases costs in OIT by \$400,000 in FY 2019-20 to hire a vendor to conduct a statewide assessment of radio communication technology in the state, and by an indeterminate amount in the future to make hardware and software changes necessary to implement the requirements of the bill. These costs are described in more detail below.

Statewide assessment. This analysis assumes that a statewide assessment must be conducted to determine full implementation costs. OIT will contract with a vendor in FY 2019-20 and will work with the vendor and state and local government system users to complete the study. The cost of this study, which may vary depending on the request for proposal process, is estimated to be \$400,000.

Radio reprogramming and hardware. The OIT estimates that costs to implement this bill could be at least \$8.3 million; however, because the exact cost depends on a number of unknown factors including the number of encrypted dispatch services currently being used, radio tower site capacity to handle any unencrypted talkgroups created, and the number of radios that need to be reprogrammed to accommodate new talkgroups, the exact implementation cost cannot be estimated at this time. It is assumed that additional appropriations will be requested through the budget process beginning in FY 2020-21 once full implementation costs are known. Additional detail on the potential costs to shift to unencrypted radio communication are described below.

- *Radio tower transmitters.* To ensure unencrypted radio communications can occur across the Public Safety Network, separate talkgroups will need to be created by agencies that currently utilize encrypted radio dispatch channels. Each radio tower site has a finite amount of channels/ bandwidth to absorb the creation of additional talkgroups without causing additional busy signals. Any increase in busy signals results in the need to install additional transmitters on the tower. Each transmitter costs at least \$25,000. Should an additional transmitter need to be installed on all 241 radio tower sites, costs will increase by \$6.3 million. Additional costs may also be incurred to install additional antenna to handle certain communication frequencies and for FTE to maintain the additional infrastructure. Because these costs are dependant on how many additional talkgroups are created, the full impact cannot be estimated.
- *Radio reprogramming.* To ensure communications can occur across state and local government agencies many state radios will have to be reprogrammed. More specifically, many radios are not capable of dual mode which could be required as a result of transmitter expansion and some radios will have to have encryption features added to be able to comply with system needs. Radio reprogramming costs are estimated to be \$2 million. This is based on 20,000 state radios needing to be reprogrammed and an average cost of \$100 per radio reprogrammed. The average reprogramming costs includes time to create and upload a new code file to the radio to allow for the radio to receive and transmit newly created talkgroups. An appropriation to cover reprogramming costs will be requested after the assessment identifies the number of added talkgroups that may be needed.

Colorado State University (CSU) System. CSU Police would need to reprogram its radios. This one-time cost is estimated to be \$4,000 and can be addressed within existing resources.

Administrative costs. Other state agencies that use dispatch radio communications, including the departments of Natural Resources, Agriculture, and Public Safety and institutions of higher education, may incur administrative costs and workload to update radio communication policies and procedures to ensure compliance with the bill. If user fees, which are currently assessed to state agencies for radio system access, and OIT support are increased, costs will increase for these agencies. These funds are paid to OIT through reappropriated funds and it is assumed any increase in appropriations, if needed, will be addressed through the annual budget process.

Judicial Department. The bill increases workload for trial courts to hear any civil actions brought against a state or local government entity regarding its radio encryption practices. This impact is assumed to be minimal and will not require an increase in appropriations.

Local Government

Beginning in FY 2019-20, local governments will have increased administrative costs and workload as described below. These impacts will vary by local government and have not been estimated.

Radio dispatch policies. Workload will increase for local government to develop or update radio dispatch policies to ensure compliance with this bill. Costs may be increased to develop an online audio stream for radio dispatch communications.

Radio and system costs. Similar to the state, local governments that use dispatch radio communications will incur costs to reprogram or purchase new radios and other equipment.

Regional Transportation District (RTD). RTD expects that it will incur costs to purchase additional secure radios and group transmitters and to acquire additional channel licenses.

Denver County Court. Similar to the state, beginning in the FY 2019-20, this bill increases revenue and workload for Denver County Court for any civil actions with damages under \$25,000 commenced within the City and County of Denver.

Effective Date

This bill was postponed indefinitely by the House Transportation and Local Government Committee on April 3, 2019.

State Appropriations

For FY 2019-20, this bill requires a General Fund appropriation of \$400,000 to the Office of Information Technology.

State and Local Government Contacts

All Local/non-state Agencies

All State Agencies