

California Department of Transportation

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Questionnaire

Regarding Adopting the 6C Coalition AVI Standard Version 4.0 In the Title 21 Protocol for Automatic Vehicle Identification (AVI) Regulation

The California Department of Transportation (Caltrans) is currently considering the development of a regulatory change that would replace the "California 6C Electronic Toll Collection Standard" with the "6C Coalition AVI Version 4.0 Standard" as a Document of Reference in the AVI regulation found in Chapter 16 of Division 2 of Title 21 of the California Code of Regulations.

Caltrans would like to receive input from all interested stakeholders as to their views on this proposal and will be holding a public workshop on July 25, 2024, to solicit initial comments.

In anticipation and in connection with this workshop and other activities to facilitate public participation in the regulatory process, Caltrans is providing this questionnaire to all potential stakeholders. This information will greatly assist Caltrans as it begins the process of considering a regulatory change.

Please provide your responses following each question. Please feel free to forward this questionnaire to any other interested parties.

You may e-mail your responses to: Title.21.Changes@dot.ca.gov.

You may also submit written responses to:

Joe Rouse
Caltrans Division of Traffic Operations
1120 N Street, Mail Station 36
Sacramento, CA 95814

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Please list the name of the person completing the questionnaire and the name of the agency or company you represent.

NAME: Arshad Syed, Senior Transportation Engineer

AGENCY: Santa Clara Valley Transportation Authority (VTA)

- 1) Are there any alternatives to the replacing California 6C Electronic Toll Collection Standard with the 6C Coalition AVI Standard?

The 6C Coalition AVI Standard is used by all other States that use 6C tolling equipment and is the prevailing standard for this tolling technology. The original California ETC standard V1.0 is based off the 6C Coalition 6C AVI Standard V3.1 and the new Version 4.0 allows for backward compatibility with existing 6C transponders and readers. There are no other 6C protocol standards specifically designed and dedicated for tolling applications.

- 2) What are the benefits of the replacing California 6C Electronic Toll Collection Standard with the 6C Coalition AVI Standard? What are the drawbacks?

Benefits of adopting the 6C Coalition AVI Standard are:

1. Using the 6C Coalition AVI Standard V4.0 keeps California technology consistent with all other tolling operators nationally and provides consistency for vendor selling and furnishing 6C equipment in California, which reduces costs to California toll operators and allows for support of future national tolling interoperability.
2. Directly using the 6C Coalition's 6C standard allows California to not to have to maintain a separate parallel 6C standard.
3. The backward compatibility between the 6C Coalition 6C AVI Standard Version 4.0 and the existing California 6C ETC Standard means VTA's FasTrak customers (issued by the Bay Area Toll Authority) can continue to use their existing 6C transponders.

There are no drawbacks to VTA for adopting the 6C Coalition 6C AVI Standard Version 4.0.

- 3) Please discuss any effects, including projected timetables, from replacing California 6C Electronic Toll Collection Standard with the 6C Coalition AVI Standard.

There are no impacts to any project timelines since the 6C Coalition 6C AVI Standard allows for backward compatibility with previous 6C standards. This includes the California 6C ETC Standard, which was based on the 6C Coalition AVI Standard Version 3.1. The 6C Coalition 6C AVI Standard V4.0 will be

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implemented over time with future procurements. Existing 6C transponders and readers will not need to be replaced to implement this new AVI Standard. VTA will only need to make configuration changes to be able to accept Version 4 encoded transponders

- 4) Please describe any impacts replacing California 6C Electronic Toll Collection Standard with the 6C Coalition AVI Standard.

There will be a minor software change to toll systems needed in order to recognize new transponders encoded to the 6C Coalition 6C AVI Version 4.0. This minor update can be included in a normal software revision release. The 6C Coalition 6C AVI Standard Version 4.0 is backward compatible with the California 6C ETC Standard which allows the continuing usage of existing transponders while issuing newly encoded transponders.

- 5) Would you support Caltrans also adopting the latest versions of the International Organization of Standardization (ISO) standard for radio frequency identification devices as part of this rulemaking?

Yes, we support the addition of ISO 18000-63 (2021) to the existing ISO versions already referenced. This will allow transponder and reader vendors flexibility to use newer 6C chips and certify new equipment that can only be tested using the latest ISO standard. By providing vendors the ability to offer a wider range of products, toll operators will potentially see lower transponder and reader acquisition costs, have more supply change redundancy by having access to more alternative 6C products, and gain access to the latest 6C technology.

- 6) Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here?

The proposed regulatory change will not make goods and services more costly so it will not negatively impact the competitiveness of California businesses.

- 7) What are the fiscal impacts on state and local government?

There is no anticipated fiscal impact to VTA by the proposed changes. Our procurement process for new readers will not be impacted. As previously noted, the new AVI Standard is backward compatible with the existing California Standard there is no need to replace existing transponders.

- 8) Are there any issues regarding fairness of competition?

There are no issues regarding fairness of competition since the proposed change is currently being used in the other states using 6C technology.

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Additionally, the regulatory change will not change VTA's procurement process or express lane tolling operations.

9) Are there any issues regarding individual privacy?

The proposed standards change does not impact individual privacy because it does not relate to Personable Identifiable Information.

10) Please provide comments on any other relevant issues not addressed above.

No other comments at this time.

Thank You for Completing This Questionnaire