TRANSCRIPT OF PUBLIC DISCUSSION
RE: UPDATING AUTOMATIC VEHICLE IDENTIFICATION SPECIFICATION

Wednesday, July 8, 2015, 10:00 AM

at

Caltrans District 4 Headquarters
First Floor Auditorium, Room G-900
Oakland, CA 94612

Reported by:
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PANEL MEMBERS:

David Harris, Caltrans
Steve Harris, Caltrans
Joe Rouse, Caltrans

ATTENDEES:

Scott Koblentz, SANDAG
Rick Nelson, TXDOT
Frank Barbagallo, Jacobs
Stephen Lockhart, Star Systems International
Doug Williams, 3M
John Lester, 3M
Eric Redman, Neology
Lynn Valdivia, BATA
Ron Puccinelli, Port of Oakland
Mike O'Brien, Port of Oakland
Lester Patilla, Port of Oakland
Steve Weiss, TTI
Patrick Vu, TTI
Tom Sheehy, Greenberg Traurig
Victor Wong, BATA
Michael W. Melkonians, Caltrans
Jennifer Mennucci, GGBHTD
Murali Ramanujam, Santa Clara VTA
MR. HARRIS: Good morning everybody. My name is David Harris. I'm an attorney with Caltrans. We are here for what we call prenotice discussions on a regulatory action that the department is contemplating.

I will get into the nuts and bolts of that in just a moment, but first of all I wanted to do a quick mea culpa. I am solely, personally responsible for this particular venue and this particular format, and I will be the first to admit/acknowledge that it is not completely conducive to exactly what we want to do which is to have a more informal, free-willing conversation. But when I was planning this back in the spring, honestly I didn't know if we would have five people or 150, and I didn't want to have a room that was overflowing with people. So hopefully, you know, perhaps at some point the acoustics work out, our reporter, Kacy, is able to hear, we can ditch the mic and have a little more of a casual conversation. But again I apologize for the somewhat stilted, formal process that we're engaged in here today, but hopefully that won't hinder us too much in terms of being able to have a free-willing, informal
I'd like to say again my name is David Harris. I'm an attorney at Caltrans. I can also confess that I am the person in this room most unfettered by any knowledge of the subject matter about what we're to discuss today. So I wanted to introduce the two gentlemen to my left up here on the stage who are in fact the subject matter experts who are going to be doing most of the talking. Steve Hancock is to my immediate left and then Joe Rouse to my further left down at the end. Again, they are the subject matter experts, and they are going to be doing most of the talking today. In fact, I believe one of the measures of success of this event will be how few words I say after about 10:15 this morning. So hopefully that will bear out that I will say very little after 10:15.

Before we dive into exactly why we're here, I want to take care of a couple housekeeping matters. There is a sign-in sheet up front. There's also one down here. There are name tags so that we can identify ourselves to the reporter. I'll talk about that in just a minute. Basically we want to get your contact information so we could follow up with you. Again, this is just the beginning of the process in
which the department's now embarking on this regulatory track and being able to talk to you and get in contact with you will be great.

Obviously you're giving that information completely voluntarily. I'll give you the disclaimer we're not going to sell it to anybody. We're not going to share it with anybody. It's solely for the purpose of being able to contact you if we need to talk to you about these regulations. So if you could, please sign in and wear a name tag so that we can know who you are.

There are restrooms if you go out to the main hallway and make a right, go down a little ways. There are men's and women's rooms right there. There is also a coffee cart just to the right there. I think they're open till 3:00. I notice there is a sign here that says no food or drink in the auditorium, but if you don't spill, I won't tell that. But that comment's not been endorsed by the facility folks here.

In any event, those are the basic logistics. I also want to talk a little about the schedule. We have this room until 4:00. If we need it until then, we'll be here that long. Candidly, we'll just play it by ear in terms of, you know, if we are, for
example, to item 8 by noon, I may get a sense in the
room we may just want to just plow ahead and finish
up. I know that there are people from out of town
probably with travel plans and things like that, but
we will be here no later than 4:00. But if we need
to be here until then, we can stay until that amount
of time. And obviously we can take breaks. I'll
talk about that in a second here.

Actually, I'll talk about that right now. Down
at the far end of the stage here is Kacy Barajas who
is our realtime reporter. I want to thank Kacy very
much for coming in from Sacramento to help us with
this because what we're doing here is we're very
interested in what you have to say. Kacy will be
creating a transcript so that we can have it for our
records as we go through so that we can know
hopefully who said what. And so candidly, the
schedule's going to be determined by Kacy's needs.
Because obviously the rest of us can sit back while
somebody else is talking, but while anyone's talking,
Kacy is working. So I'm going to be sensitive to
that. So Kacy, please just give me a high sign or
something if you need a break or something like that.
We'll take a break every 90 minutes or so just to
give everybody a chance to stretch a little bit.
Obviously because we are trying to create a transcript, we can take turns. Kacy's very good at what she does, but she can only take down one person at a time. We'll try to keep things again free flowing, but hopefully we can all be heard and talk to each other like that.

Again, you know, if you can ID yourself before you speak, and again I'm going to say that and immediately recognize that's not how the world works. You have something to say. It's a very stilted, artificial way to have to say your name and who you represent every time. But if you can, to the extent you can, at least the first couple times, I think that would be very helpful so we can know who said what and how to follow up on it.

Now we are here to listen, and so candidly that is an introduction to tamping down some expectations. They're not going to be any major decisions made here today. This is just the beginning of the process. In fact, you know, you may hear me say things like, "Well, that's a very interesting comment. Thank you for bringing that up." "Go with that thought," that sort of thing. Basically the dynamic that we're looking for is more information to come from here to up here. We obviously want to share what we had
gained with regard to where the department is in the
process, but again the purpose of these kinds of
discussions is to hear from everybody.

And again one of the things we're trying to do
honestly is to determine the best way to communicate
with you and to get your subject matter expertise to
help to make sure, first of all, that we're covering
all the issues that need to be covered and also that,
you know, you tell us how the best way for us to
continue this process.

You know, I don't view this is just a
free-for-all brainstorming, but I think initially
that is what we're doing. We're just making sure
that we've captured all the issues, and then
obviously we determine how we go through them.

Okay. So let's dive right into what we're
doing. The department issued a notice of what are
called prenotice workshops, and I'll get to the
prenotice part of this in just a second. But we are
having this one here today in Oakland, and then we
will be having one in Fontana on July 22nd. That's
two weeks from today. A similar format, although
candidly given what we learn here today, we may
change things up a little bit in terms of bulk
procedure and substance depending on the issues that
are inspired here today. I will tell you that I believe we have a facility that will be more conducive for this size of an audience and hopefully to a more free-flowing conversation.

But at this point what the department is doing, and this is where I get to the prenotice part of this, is the department is contemplating a change to Title 21 which is a title of the California Code of Regulations regarding what is known as automated vehicle identification. Again, all of you I think understand those technical aspects far better than I do, but the prenotice part of this is that the department has not gone forward with a formal notice that it's doing it. So we are in what's been called the prenotice stage. I'll go through the calendar and the process. Again, we can show you where that is as well.

Just a couple of terms to get out there to make sure that we're all on the same page. Again, I apologize if this is, you know, too "School House Rock" elementary stuff, but I always believe it's best to start at the beginning, and hopefully that way we'll all be on the same page. You'll hear the acronym APA. That stands for the Administrative Procedures Act which is the act in California that
governs how agencies like Caltrans promulgate regulations that are required or allowed by statute. So when you hear "APA," that's the process that we're engaged in.

You'll also here OAL which stand for the Office of Administrative Law which is the agency in California that oversees and ultimately approves or disapproves regulatory packages from agencies like Caltrans.

At this point I would like to turn to the handout. The handout looks a little like this. It's got the agenda on the front of it. You will see on the second page there is a calendar, and again this is a proposed calendar. And this is because I am a lawyer, I'm going to start with a disclaimer. Obviously this is a very ambitious, tentative schedule and none of this is etched in stone, and obviously there may be things that are unforeseen that come up that change it. But given our most ambitions goals here, people like Joe and Steve have been working on this for a long time, so they're obviously very anxious to get this going. But this is basically our best-case scenario of what we'd like to do in terms of the process.

You'll see at the top that May 2015 to August
2015, it talks about public outreach including the
prenoticed workshops which is what we're doing here
to solicit public input on the regulations.

You'll then see that our goal is to submit our
notice; therefore, that's why this is the prenotice
period of the proposed sets to the Office of
Administrative Law for the publication in the Notice
Register. And that's an important date because that
sets the clock where the department basically has one
year to finish up with the regulatory process from
the time it submits that notice to the OAL.

Then we are aiming for an early September
publication in the Notice Register which is again a
formal document maintained by OAL, and that begins
what's called the 45-day comment period which is the
formal period where all members of public and
stakeholders can come in and make comments on the
actual text that we're proposing to put into the Code
of Regulations.

Assuming our schedule, that would put our -- the
end of our 45-day public comment period in late
October, October 22nd on this calendar, after which
time there will immediately be a formal public
hearing to take comments on the proposed regulation.

After that, assuming there are no major changes,
we would either then send the package to OAL, or if
there are some minor changes, we might go out with
another 15-day comment period. And if the changes
are substantial, then we would have to go to another
45 days.

But again, assuming that we didn't have major
changes, it's our expectation that we would have
these filed with OAL with the regulations by
February 15th. They then have 30 working days or six
weeks to approve them. We're hoping for an early
approval, but in any event, on this calendar that
will get us to about April 1st is when these
regulations would go into effect. Again, that's the
ambitious schedule that we're on right now.

If you go to the next document that says "OAL
Review" on it, this again is kind of a -- excuse
me -- I skipped one, I apologize. The next one is
called "The Rule Making Process," and this is
basically a pictorial representation of the
regulatory process. I stole this from our folks at
OAL. And if you look at it along the top there
you'll see the state capitol, and then there's a
nondescript looking state building where it says
"State Agency." Next to that it says "Preliminary
Activities." That's the stage we're in now. That
includes again this prenoticed workshop here. You will then see, as we talked about on the previous calendar, you have the "Notice of Proposed Rulemaking" which includes the text of the regulations, what's called the initial statement of reasons that justifies why we're doing this, and then you have the publication of those with OAL in their Notice Registry which again starts the 45-day comment period leading to the public hearings and ultimately to the submission of the package formally to OAL for its approval. So that's a representation of how the process works.

If you then go to the next page, which is titled OAL Review at the top, that's another -- that basically sets out the standards. These are, you know, the words that you will hear and certainly that I will hear from the Office of Administrative Law. Authority reference means we have to have a statute that gives us the authority and the reference to promulgate the particular regulations. Those regulations have to be consistent with other applicable law. They have to be clear. They have to not duplicate other laws, and they also have to be necessary. Again, you can see that's just another pictorial representation of the review that OAL will
eventually go through. And again, we can go through these in a somewhat greater detail as we go through.

Now so the next document in the handout is from the Streets and Highways Code. These are in fact the two major sections of the Streets and Highways Code that talks about AVI, and they basically set the parameters and -- for which the department will be working to make sure that we are in compliance with the statute. These are basically the four corners in which the department has to operate to make sure that we are being consistent with what the statute allows us to do.

Because Caltrans obviously is the administrative agency, basically we only have the powers that are enumerated to us, and so we can only do what this Streets and Highways -- what, excuse me, these Streets and Highway Code sections permit us to do. I won’t go through that. We will hopefully get into a little more detail on that as we go through, but that’s just a reference for what we’re looking at.

And then the final thing in the handout is a set of useful links. Again this is basically just a start. I have the URL for the Office of Administrative Law. They do have a lot of very good things in there. They have a really good 25-page how
to participate in the rule-making process document there. In fact, that's where I got a couple of these charts that I was talking about a few minutes ago. It gives a very good perimeter on how this works. So that's a good resource.

I've also included a link to the statutes. So the statutes we just talked about, you can find them there.

I've also included a link to the code of regulations, and again we're talking specifically about Title 21, Chapter 16, starting at Section 1700. And those are obviously things we'll be talking about quite a bit. Also included the Caltrans web site, and then I'm sure Steve is very happy to see that I've included his phone number as well as the e-mail for the Title 21 changes. That is a dedicated e-mail where you can send things.

I will say, particularly those of you from the private sector, I just want to let you know that is a public web site, that the comments will be potentially subject to public disclosure. They may either end up in the rule-making file at some point, or they may, you know, be the subject of a California Public Records Act request. As you all know, the department is subject to disclosure of all documents
in its possession unless there is a statutory basis for exception. And generally over the last ten years there's been a very strong move in the courts in this state towards more disclosure, not less. So that's just something to keep in mind. It's a public process. Again, we're not going to unnecessarily share things with people, but we need you to know that there is a potential that these comments that you make may be publicly available at some point. So I just wanted to make sure that we were clear on that.

And with that, we went a couple minutes over what I wanted to do. We're going to dive right in. I'm going to turn it over to Steve and Joe to give a little bit of a background on what they've been doing, and then we will dive right in to the heart of the agenda.

Steve, you want to go first.

MR. HANCOCK: Sure. Basically what we've been doing is looking at the transition, learning a lot about the administrative law process, looking at various options to transition to what are the options out in the market, talking with the CTOC agencies, working with them to get -- to see what they want. They have requested Caltrans transition to ISO 18063,
commonly referred to as 6C technology, sticker technology.

So we're embarking in that process at -- this process at the request of the CTOC agencies, and in that we will be meeting with -- we're starting with these meetings. We will have other meetings discussing the regulation with various entities. So we developed language, as David described earlier, for the schedule. I believe our first date is what, September 5th or early September -- yeah, September 5th, that we'll do the publication and the notice and the commencement of the 45-day comment period. Obviously I would have to have it in to David well before then, so he on the legal side can go through the regulation, the proposed text, and make comments, make sure that I'm covering things appropriately, and such.

So that's kind of where we're at, what we're doing to date. Joe, do you have anything you'd like to add?

MR. ROUSE: Yeah. I'd like to just kind of take a step back here and give you a little bit more background as to why we are here today. If you look in the statutes that are included in the handout here, you'll see there's a date 1990 at the bottom of
them. So way back in 1990 when the legislature first mandated that the state adopt -- Caltrans adopt, I should say, in cooperation with the toll operators adopt a system that allowed for interoperability between toll facilities around the state, and that was also an open standard. The current Title 21 specifications that are again found in Title 21 Code of California Regulations were designed in compliance with that state law. Those functional specifications that we've been using now were adopted in 1992. So we're using technology that's way over 20 years old. I'm sorry that I'm preaching to the choir here, but I think it's just good just to have this on the record.

I first started getting involved in tolling back in 2007. At that time that was when some of the California Toll Operators Committee agency, CTOC, so some of the CTOC agencies were beginning to make rumblings about wanting to change the specifications in Title 21. The initial interest was being able to write to the tag over time, particularly with the advent of express lanes in different areas around the state, and that's primarily my area of responsibility is express lane operations. With the adding of express lanes across the state, there was a lot of interest in further updating the specifications in
technology to be able to allow for occupancy
declaration, vehicle occupancy declaration, and those
types of things, and we were fortunate that we were
able to work within the existing specifications to
allow for switchable tags. Switchable tags have been
used in California now for about five years, I
believe, maybe a little less. And there's going to
be a pretty much greater use of them in the coming
years particularly here in the Bay Area.

And so we were able to do that, but we're still
working with 12-plus-year-old technology, and so CTOC
agencies have long been feeling that it's time to
move on to something else. And so we've had a lot of
very intense discussions with the CTOC agencies over
the last several months, and that has led us to this
point that we are at today. And again the intent
here is to just hear from you all what your thoughts
are on this, and we do have a series of questions
that have been provided to all of you in advance.
Hopefully a few of you have had an opportunity to
review and respond to some of these questions, and we
look forward to getting that feedback from you.

And Steve is really going to be carrying most of
the water on this one in writing the regulation and
trying to work with David to get everything moving
forward.

I'm here to provide moral support, I guess you could say, but also I'm the primary Caltrans representative on the California Toll Operators Committee, and I'm the one that was formally asked to move this forward. Actually my boss was asked to formally move this forward, but Caltrans is responsible, you know, under the state law for taking care of this process, and so we're taking the lead on this. But we can't do it alone. And we need your input, and we need your feedback. So let's move on.

Let's get this thing going here.

MR. HARRIS: All right. So that brings us to Roman numeral III on the agenda which is entitled "Are there any alternatives to transition to 6C?"

And that's a very open-ended question. But as part of that, you know, and again no requirement here, but if you just want to tell us who you are and your perspective. Again, this is your meeting. We want to hear from you, but that's the initial question. I'll tee it up that way because I want to make sure that everyone knows the department's not wedded to any particular course of action. That's why we're having these hearings. We want to be transparent, listen to people who deal with this thing every day
and get as many good ideas as we can.

So in any event, let me just throw it open with that, whoever wants to get started, again hopefully everyone can hear and be heard. So again I don't want there to be a presumption that the department's wedded to a particular course of action. So are there any alternatives other than a transition to 6C? Anybody have any thoughts on that particular issue?

MR. BARBAGALLO: My name is Frank Barbagallo. I'm with Jacobs. So have you considered not necessarily fully transitioning but allowing both technologies to coexist?

MR. HARRIS: Steve? Joe?

MR. HANCOCK: We have -- we have looked at transitioning at a certain point in time whatever -- whatever protocol is selected, there would be a transition where we would be operating two protocols. Now I wouldn't want to think we would want to do that for an indefinite period of time. But yeah, we've looked at -- we would be looking at operating two protocols at the same time for a period of time in the transition as this moves forward just to give agencies time to capitalize on their investment and such.

MR. HARRIS: Again, no concrete definitive
decision has been made, but I will contemplate there
will probably likely be transitional language in the
regulations calling for a sunset date of a particular
technology if we're going to transition from
something, but I think we do contemplate that there
will clearly be a time period where there will have
to be a transition and that it can't go from turning
one off to turning another one on immediately. There
will have to be some transition period. But we are
definitely cognizant of that and looking into that.

MR. HANCOCK: There's a gentleman over here.

MR. SHEEHY: Thanks, Steve. Tom Sheehy with
Greenberg Traurig. Good morning, gentlemen. Thank
you. So if you go to 6C and you assume there's going
to be -- I mean, there's going to be a dual protocol
but that we might transition everything to 6C, then
that then assumes all of the existing Title 21 tags
would be ultimately phased out. You would have to
issue all new tags with the new 6C technology; is
that right?

MR. HANCOCK: Over time I would imagine what
would happen is, yeah, we would put a sunset date on
the existing Title 21 what I'll call for discussion
here, Legacy protocols, since we're talking. It will
still technically be -- whatever protocol we select
we'll still be under Title 21. As David was indicating. It would be in the regulations. But yeah, I would imagine that the -- that we will put a sunset date on the Legacy protocol so at a certain point in time the Legacy protocol would not be used.

MR. SHEEHY: Now my understanding is that there is a national protocol being worked on. I'm not sure how this process is going to dovetail with that, but if we're required to conform with the national protocol, could you then find yourself in a situation where you had three protocols, the Legacy, the 6C, and assuming that the national protocol isn't identical to what you had adopted already quite possibly, that you then have three protocols that you would be dealing with, how would that work from an infrastructure standpoint?

MR. HANCOCK: Well, on a national level, yeah, there is a national interoperability effort going forward, as you indicated. Time frame, we'll have to see how that works out. Just depending on the timing of it, there possibly could be a time where we would -- could have to consider supporting three protocols. It really -- a lot of that depends on how the national effort goes forward, how it's implemented, the time frame and such. At this point
it's really kind of hard to say what time frame that is going to be.

MR. BARBAGALLO: So Frank Barbagallo, Jacobs again. I hear time frame in a lot of this discussion. What have you guys thought in terms of a time frame for sunset?

MR. HANCOCK: That's something -- go ahead.

MR. ROUSE: I would just point out that that is a topic of discussion under item 5. So, you know, just to kind of stay on -- keep us on track here, we'll get to that if we could just bear that in mind.

MR. BARBAGALLO: Okay.

MR. HANCOCK: Okay. Any other questions, comments about alternatives to 6C, item 3 here, from anyone?

MR. BARBAGALLO: Have you guys considered what the trucking industry impact might be with their --

MR. HANCOCK: That's the purpose of these hearings is to get industry -- public industry input on impacts and how -- you know, how it will affect the various industries. I know the port authority is here and in other meetings will be airport authorities and such, so that's the purpose of these prediscussions.

MR. BARBAGALLO: Have they opined yet on their
views?

MR. HANCOCK: I personally have not received anything on their views at this point. That's why we have done a lot of outreach in various areas and publicized meetings.

MR. HARRIS: Okay. Any other specific comments on number 3? And I think this is a good idea that we're delving into the nuts and bolts of this. And so as we move on, I think we'll hopefully be able to flesh out, you know, some of the things. As you note, there is a discussion item here on time tables. So why don't we move on to the next one. We just talked about Roman numeral IV. "What are the benefits of the transition to 6C?" Well, maybe put it another way, is it inevitable we have to go that direction?

And then "What are the drawbacks?" We've already touched on some of the drawbacks. We talked a little bit about if there is in fact a national standard at some point, are we going to be in conflict with that. Candidly, that's an ongoing issue that we face in a lot of different areas, not just at Caltrans but at other state agencies of not knowing when, if ever, a particular national standard might be implemented that would affect what we're
doing here. So we are going forward cognizant of the fact that that's a possibility, but to be quite candid with regard to our friends in the federal government, we can't wait until they do that. We're going to move ahead and hopefully be nimble and adaptive enough to be able to deal with anything that may come down the line on a national level.

So are there any thoughts on just generally benefits of 6C or drawbacks that you see other than the ones that we talked about? Candidly, at this point, I think you could -- actually, why don't we bring the item 5 in here about time tables. I think it's a good time to talk about that because obviously that is a major issue of how long is it going to take to do these various transitions in terms of infrastructure and things like that, people clearing their inventories of Legacy devices and things like that and getting their manufacturing up to be able to meet whatever new protocol there is. Why don't we talk about that. Are there any specific thoughts on that, on how long you think it will take to make a transition?

MR. BARBAGALLO: Well, we know that tags have a minimum of a five-year life, and some live as long as ten. And so it depends. I mean, that's -- that's
quite a long sunset, right, if you think about the far out 10-year life of the tag. Unless you go about doing a very expensive, very labor intensive recall process where you're exchanging one device for another, if you want them to attrit naturally, it's going to be quite a long time.

MR. HANCOCK: Okay.

MR. LOCKHART: Stephen Lockhart, Star Systems International. I don't know why you would necessarily want to put a date on it. I mean, it could be as long as it needs to be. Like the technology allows for that transition period to be a very long time, if necessary. I don't think they're -- unless there's some commercial reason or some other reason being driven by the toll agencies, technically, from a technical perspective there's no reason to rush it.

MR. BARBAGALLO: That was why I wanted to find out what the thought was behind just adding another protocol, just add 6C. And you have Title 21 or whatever we're going to call Legacy system, and you have 6C. And as long as both are usable and you achieve interoperability, I mean, it's kind of a modern world. You can achieve it through image-based transactions. I think you've satisfied the intent of
the law.

MR. HANCOCK: So what I'm hearing from you, Frank, you're indicating you don't see the need for a sunset date?

MR. BARBAGALLO: Yeah. I think that it's sort of a natural phenomenon. As agencies figure out for themselves what is the most economical and cost-effective mechanism to use across their system and within their base, they will transition or not transition as they deem necessary, as long as those that want to transition to 6C can.

MR. NELSON: Rick Nelson with TXDOT. I'm interested if in fact you go to a 6C, are you at that time also going to offer interoperability to the states? Is that part of the plan or one of the benefits?

MR. HANCOCK: Well, that's outside of actually the statutes. The statutes actually talk about the transponder and reader. The interaction between agencies and how the state agencies would be, to my knowledge, up to the individual toll operators to make agreements with out-of-state entities. Yes?

MR. PUCCINELLI: Ron Puccinelli, Port of Oakland. This is not strictly a timing question, but we're not necessarily a toll authority, but we do use
the automatic vehicle identification for trucks and
parking and other kinds of monitoring of vehicles.
How do you anticipate those of us who use AVI for
nontoll activities will be affected by this? Will we
be forced to transition? Will we be orphaned off on
our own. How does that play?

MR. HANCOCK: For nontolling entities we can
handle it in a separate situation. We can separate
that out in regulation as far as if there was a
transition time, just for sake of discussion here,
there was a different transition time that you needed
versus a toll agency needs, yeah, I think we could --
I think it's a good possibility that we can cover
that in the regulation language on addressing that
situation.

MR. HARRIS: Okay. So if I could just try to
wrap this up a little bit. Again, given my neolithic
status, I'm probably the perfect audience for this.
If I can understand it, then probably anybody can.
Seems like there's at least some sense that perhaps
we could either not have a sunset date or have a more
flexible one. Again, you know, as long as we can
comply with the legal aspects of the statute which
would require that vehicle owners not be required to
purchase or install more than one system, that there
may be some interest in the flexibility of
maintaining the Legacy system for a longer period of
time rather than less. Is that a reasonable
characterization of the sense of what people are
thinking with regard to that? And again, we're not
making any, you know, set-in-stone decisions today,
but it seems like that there is some if not unanimity
at least a consensus around that particular approach.
Would that be correct.

MR. BARBAGALLO: Well, from my perspective I
just worry about a regulation that causes some agency
to have to do something when they're not economically
prepared to do that. So they have a fiscal plan, and
they've got a certain amount of tax they're buying
every year. There's a certain amount of growth.
There's a certain amount of replacement. And to
allow things to happen organically rather than by
force of law, I think is better for agency
autonomy.

MR. HARRIS: Yeah. I think this is, you know,
really a good conversation, to be candid with you,
and I'm going to make a statement a little bit
against the interest of Caltrans, but I think we all
know that the political climate in this state
currently is very much against overly burdensome
regulations. I think this is a very good discussion
to have in terms of, you know, what do we need to do
in terms of promulgating new regulations, shall we do
so, that make sure that we don't put too much of a
burden, that we don't put agencies under a clock that
they can't meet.

So that's really been one of the things we're
trying to do here is to find out how long is it going
to take people to make the transition, and, you know,
we want to obviously do that. Obviously we have to
do that in compliance with the underlying statute,
but I think there's obviously room to do that, and
that's what we're trying to figure out exactly, as a
practical matter, how long will these things take and
how long would a -- you know, a dual system or how
long will the Legacy system have to be allowed to
survive.

MR. HANCOCK: So Frank, just to clarify and
there's a -- Tom had a question up there. So what
you're saying is either, and correct me if I'm wrong
if I'm misstating this, is either putting long -- a
pretty long lead time as far as transitioning out or
not specifying a time at all and just support two
protocols? Which way would you prefer on that?

MR. BARBAGALLO: From the technology
perspective, I'd like the latter, adding a new
protocol and supporting both because you're going to
do that in a de facto mode anyway.

MR. HANCOCK: Okay.

MR. BARBAGALLO: So why -- I don't understand
the need to completely disallow the technology if
the, you know, an agency seems to believe that works
for them.

MR. HANCOCK: Okay. Tom?

MR. SHEEHY: Yeah. So question to Mr. Harris,
does the underlying statute require interoperability
statewide?

MR. HARRIS: No. It requires that a vehicle
owner have to purchase or install one system.

MR. HANCOCK: It's one device.

MR. SHEEHY: Is that another way of saying that
in essence everything has to be interoperable?

MR. HARRIS: I don't know if I would -- I think
that they're basically the same thing. I'm not sure
that they're synonyms exactly for one another.

MR. SHEEHY: Well, I'm not trying to parse it.
I'm just trying to understand just practically
speaking. I guess -- I mean, I'm not a technical
expert like the two gentlemen. It seems like if the
streets and highway code require interoperability,
which I think it does, unless you tell me it doesn't.

MR. HARRIS: No. I think that's right.

MR. SHEEHY: All right.

MR. HARRIS: Yes. Somebody needs to be able to use one device.

MR. SHEEHY: I wasn't sure exactly that's what the code calls for. I would certainly have to read it more carefully, but I think that's an important issue in the legislature in terms of interoperability. What I'm sort of getting at is when you get to this whole issue of sunset date, if there were two different protocols out there, does that then mean that, as this other gentleman mentioned, maybe particular agency in Northern California that has a certain fiscal situation, it bases relative to the tags and the population of the tags and the timing might be for changing them out, will that indirectly have to drive decisions that have to be made maybe for a Southern California agency that has a different set of -- different mix of variables in its fiscal and economic picture, are those two going to ultimately have to sync up because the statute calls for interoperability. So that if I live in Oakland and I have a tag that works in the
Bay Area and then I drive down to Los Angeles, my tag will operate on I-10 or another private or public facility down there, you know, that would read tags.

MR. HARRIS: You raise a good point. Candidly, I don't know the answer to this, but I think obviously the scenario you are positing is quite possibly what you have, for example, an agency in Northern California that decides that it only wants to have one protocol, and yet you have others or another one in Southern California that says it's more economically and technologically easier for it to have more than one, you know, how do you reconcile that? How does everybody stay on the same page? How do we meet the statute in terms of having a vehicle only have to have one device. So there clearly has to be -- in that sense, interoperability, there has to be consensus and agreement among the various tolling agencies as to what devices will work.

MR. HANCOCK: So Tom, just to clarify, you're saying, hey, if one agency has protocol A, another agency has protocol B, how would that work as far as interoperability?

MR. SHEEHY: Well, presumably both agencies would have A and B unless one of them just made a
decision to do a complete recall which I think one
gentleman commented would be, you know, labor
intensive and costly, but I suppose that could be
done. So it seems like that there will be a mix of
protocols for some period of time.

   MR. HANCOCK: Uh-huh.

   MR. SHEEHY: But those -- that really gets back
to the question which is an agency's transition
plan -- one agency's transition plan may fit the
criteria for the predominant usage of that agency,
but it may not fit another agency's plan. And again,
the statute calls for a statewide interoperability.
How will that work? Because agency A may say -- or
agency number 1 may say we want to be completely on
the new protocol by a time certain, and agency number
2 may be in some other geographic location. They
say, well, that doesn't work for us. So then how do
you reconcile that? Then if I'm a Californian who's
a user of the system and I just want to have the one
tag, how would that -- I'm just raising the question.
These are issues that have to be --

   MR. HANCOCK: Sure.

   MR. SHEEHY: -- thought about carefully because
different agencies will face different, seems to me,
fiscal and economic incentives.
MR. HANCOCK: Well, how you would handle part of what you're saying if you have the tag A, tag B, different protocols, would be a multiprotocol reader where you could read both of them and that would be how the agency could operate two simultaneous protocols in the transition period, whatever length that transition period is or, you know, if it was decided it would be indefinite or whatever, that's -- I would see that would be --

MR. SHEEHY: That assumes installation of new readers that would be multiprotocol.

MR. HANCOCK: Correct. If they already do not have them. A lot of agencies I believe already have multiprotocol readers that would be -- would have that capability of reading two different protocols.

MR. HANCOCK: Frank.

MR. BARBAGALLO: I was just going to say that the cost on the agency for this program is for those agencies with a single protocol reader, they need to get new readers in order to play, and then they need to get new tags if you were to eliminate one, so that it gets pretty hefty in that process. So spreading that out so things happen again more organically for the agencies I think makes it more realistic in terms of their ability to comply.
MR. HANCOCK: Okay.

MR. BARBAGALLO: I'm sorry. One last point about achieving interoperability. Most agencies, there's very few and they're express lanes basically that don't have photo enforcement, so most agencies have the ability and within CTOC's arrangements for interoperability to exchange license plate files and license plate information, and so that's a fall back for achieving interoperability while people are getting dual readers, for example.

MR. HANCOCK: Okay. My understanding is there's just a couple agencies that do not have dual readers throughout the state.

MR. BARBAGALLO: That's right.

MR. LOCKHART: Steve Lockhart. I'm a big fan of the organic adoption of the new protocol and for a lengthy time horizon but I would be a little concerned about an indefinite time horizon simply because I figure a situation at some point in the future, maybe it's 15 years in the future, everyone switches to 6C, yet there's a regulation out there that says that you still have to support this other protocol that is not being used, and that leads to higher costs on the equipment. Because the 6C-only reader is going to be significantly more expensive
than a 6C and Title 21 multiprotocol reader.

So I would just be concerned that you have a regulation that says you have to support this, but there's no one really using it. So I don't know if there's some language that could be incorporated to help -- help that sort of situation at some point in the future.

MR. ROUSE: I want to clarify what I just heard. You said that a 6C-only reader would be more expensive than a dual protocol?

MR. LOCKHART: Other way around. Sorry. I may have misspoke. So a 6C-only reader would be less costly than a multiprotocol product.

MR. HANCOCK: Okay. Yes, gentleman --

MR. WILLIAMS: Doug Williams with 3M. Couple things, number 1, we submitted a pretty succinct questionnaire. I want to make sure you guys have it.

MR. HANCOCK: We do.

MR. WILLIAMS: You received that. The second thing is when it comes to my understanding of how things work especially in California, and I manage the 3M from a sales perspective, it's only business for the southwest. That would include TXDOT, E470 WSDOT, the whole nine yards. Agencies -- we have found, agencies in California especially have been
wanting to get some direction from an organization such as this and say whether or not it will be feasible for them to go to 6C. I have personally experienced a lot of support for 6C. Everybody's just kind of waiting. They're waiting for a couple things. They're waiting for the IBBTA interoperability committee to decide when that's going to occur. They're looking somewhere around 2016 for that to happen. I'm not sure that will happen or not. It's debatable whether everybody will come together.

Second thing is different agencies also have, as I believe Tom said, they have different requirements for exactly what they need. You know, you take a look at the L.A. Metro who's worried about how they're going to have a switchable tag, the T21 switchable tag for I-10 or the 10 freeway. You're also looking at companies like sbX that have responsibility just for standard T21, whatever. But there's different T21 formats. Consequently, I think you're going to see different 6C formats, switchable, nonswitchable. The cool thing, when we get to what's the benefit, the benefit is a huge cost savings to the public, and instead of paying $30 for an old-fashioned T21, they're going to procure a 6C
sticker tag for maybe 5 bucks, and that's a huge
benefit to the public.

Now it's going to offset the fact that there's
going to be more toll roads, more opportunities to
use those, okay, but down the line the benefit is,
wow, okay. It's going to be a much less expensive
solution as well as them moving into switchables may
cost a little bit more, of course, whether it's going
to be a switchable for an on/off or switchable 1, 2,
3. In any event, I see that as being a huge
opportunity in fact for the public to be able to not
have to spend as much money for a tag and to have it
interoperable.

3M manufacturers, of course, an interoperable
reader that's -- excuse me, a multiprotocol reader to
read all of them. It can read them all. It's a
matter of flipping some switches. So the beauty to
us of course is some readers would have to be changed
out. But at the same time -- selfishly speaking.
But at the same time, the public ultimately will have
something that perhaps you could drive through from
Washington down to California, it will be read. Go
from Colorado into California, it will be able to be
read.

So I just see the benefit of a multiprotocol
reader, the multiprotocol system, and if it is 6C for
the western United States, ultimately each individual
agency will determine what's best for them, but they
want the option of and the endorsement of a 6C
protocol.

MR. HANCOCK: Okay.

MR. BARBAGALLO: So one of the issues with 6C,
at least as I understand it, is that it's a sticker
tag, and most of the customer databases that I've
seen, vehicles change pretty frequently, once every
sometimes two years, two and a half years, sometimes
even less than that. And so as vehicles change, you
would have to address how the cost impact of a
sticker tag is going to be dealt with when your now
normal tag, living as I said five to ten years, how
that factors over that five- to ten-year life of that
normal tag.

MR. HANCOCK: Well, I would say on that there's
various form factors that are available and 6C, as
the gentleman mentioned, also in Title 21 currently
there's a couple factors. So that would be -- part
of that would be up to the individual tolling agency
and what form factors they would like to offer to
their customers.

MR. BARBAGALLO: So are those form factors still
$5?

MR. HANCOCK: It would just depend on what form factor that you're choosing what the -- you know, what the price would be. That would be up to the tolling agency to decide what form factors. We currently don't cover in the existing regulation any form factors, and there's two form factors. It's up to the agency to decide what form factors they need and what they want to offer to their customer. I would imagine going to 6C or any other protocol would be the same situation where they would have to make the decisions on what form factors they would like to offer the customers.

MR. KOBLENTZ: Scott Koblentz with SANDAG. Looking at this cost-benefit analysis transition just from a tag perspective, we've done a significant cost-benefit analysis. It's a lifetime away. Even if you have a two-and-a-half-year turnover on sticker tags, if that's the only form that you're going with, when you look at the delta between the sticker tag and the Title 21 tag and even at a five-year life of a standard Title 21 tag, I mean, it's simple math at any scale.

MR. SHEEHY: I'm sorry. I missed your opening. You led with your conclusion, and I didn't hear it.
You said what?

MR. KOBLENTZ: I'm sorry. So in terms of the cost-benefit analysis of the transition between a 6C tag in any form and a Title 21 tag, even if it has a two-and-a-half-year life based on the turnover of the vehicle.

MR. SHEEHY: Even if what has a turnover life?

MR. KOBLENTZ: He mentioned that sometimes the sticker tag lives with that vehicle and that vehicle then gets turned over after every two and a half years.

MR. SHEEHY: Okay.

MR. KOBLENTZ: But even at that delta between tags, the Title 21 tags, as it stands today, and a 6C sticker tag or even a 6C case tag which is available and implemented in some areas, there's -- it's black and white. There's no comparison between the two in terms of the cost to the agency.

MR. REDMAN: If I could comment. Eric Redman, Neology. One of the advantages of 6C that hasn't been mentioned is typically there is no battery associated with the 6C tag. That has a savings, you know, environmentally. There's a cost savings. There's also a maintenance savings. You know, the current technology, the customer has to figure out,
hey, the tag's not working anymore. Maybe they get a letter from the agency or something. They have to turn it back in, figure out if it's still good or not.

And then there's a disposal issue. Some of the newer tags now have the symbol on there don't throw away in normal trash. So all those issues are avoidable with the 6C technology.

The other advantage is actually with that loss of a battery, loss of a circuit board. You could put it in a credit card format. You can put it in a hard case. You can put it in a sticker tag. So there's a host of different options. The options actually increase dramatically with technology.

MR. KOBLENTZ: Scott Koblentz, SANDAG. Even if the vehicle does turn over and that sticker tag is on there, it's still an agency advantage of having an identifying object on that vehicle. So if you sell the vehicle to me, I'm not a registered user. I'm not a violator. I have a bad account. I can track that. I can still try and somehow recoup and identify that vehicle. And it's not from a privacy concern and all the other things that will be discussed at some point today, I'm assuming, but it's just allowing us to identify what that vehicle is.
We have a large violation issue in San Diego, and so part of that issue is we do not require transponders for carpoolers. And as time goes on 10, 15, 20 years, even if sticker tags are the preferred method, even with those turnovers, it still allows us to try and recoup some of that.

MR. NELSON: Rick Nelson with TXDOT. In a previous life I was with Florida's turnpike. I was director of toll operations there from 2008 to 2012. Why that's relevant is 2008 is when we went to sticker tags from hard case tags. Overwhelmingly, the customers chose the sticker tag over the hard case tag. I mean, they saw the benefits and costs that they would get on a sticker tag. This wasn't a 6C, it was a 6B sticker tag. But the difference in the delta on that, them turning over vehicles, that was one of the things that we were concerned about. We absolutely didn't see that an issue from the customer.

The other side I'll tell you is the portable tags, the hard case tags that can move vehicle to vehicle caused a lot of additional costs because people would buy one transponder and associate multiple vehicles with it. We ended up I-tolling them or doing a video toll, only charging them a
nonvideo toll rate for it. It's a significant back
office cost because of that. So I believe there is
some benefit to the agencies to have a sticker
because it's on the vehicle. It's associated with
that vehicle, and you won't have to be video plating
all of those and then charging them for a lower rate
if that's your business rule.

MR. HARRIS: Now you said that the preference
was clearly for the sticker, and you said that was
because of cost. Were there any other factors you
think that led to that preference?

MR. NELSON: All I can say is 90 percent of the
customers chose to continue to buy a sticker tag and
go away from the hard case that they could move
vehicle to vehicle. It was a very, very small amount
that still wanted a portable tag.

MR. BARBAGALLO: So there's a customer service
advantage to a sticker tag that is -- we haven't even
touched on here, and that is that you as an agency
can modify your business rules so that enrollment in
your program is really simple. You get a tag. You
stick it on the vehicle. When it goes through the
first time, you identify the license plate, find the
registered owner, create an account for them, offer
them an opportunity to become a prepaid customer. It
really is very, very simple. And if you can get tags cheaply like they did in Vancouver, those tags can be disseminated at events virtually for free without requiring people to buy them. $5 is a lot, I just want to say that. For a sticker tag, that's a lot. It's not a little.

MR. HANCOCK: So even if you mail them out, you're going to be paying a lot less for mailing versus the hard cases.

MR. BARBAGALLO: That's right. Or have events where you just hand them out. And you gain population in your FasTrak database easily and cheaply. There's -- this has been proven in Vancouver. It's a very extreme customer service advantage. So yes, there's advantages to sticker tags. The disadvantage of course in the migration from Title 21's Legacy to 6C and the cost associated with that.

MR. NELSON: One other comment, I've seen bids or seen actual purchases of 6C's at 80 cents to a $1.05. Removable tags, 6C, probably $5 range.

MR. SHEEHY: I'm sorry. I missed that. You said you've seen bids on 6C tags as low as 80 cents, and what was the second part?

MR. NELSON: I've seen bids in agencies buy 6C
for 80 cents. I've seen them buy them for a $1.05
load on top of a small quantity. I've seen the
portables where they were in the $5 range. The $5 is
a very high number for 6C.

MR. HANCOCK: What are the agencies -- toll
agencies paying for Title 21 tags these days?

MR. KOBLENTZ: Switchable or standard or both.

MR. HANCOCK: Both.

MR. KOBLENTZ: Currently range from standard $11
to we've had quotes up to $18 for standard tags. For
switchable tags, the last one we purchased for around
$14, $14.50, and that price ranges from $14 up to the
$19 to $20 range.

MR. HANCOCK: So you're looking at a substantial
difference in cost for the 6C.

MR. KOBLENTZ: Huge delta. It's a scale, we had
conversations.

MR. HANCOCK: Frank.

MR. BARBAGALLO: Yeah. I was going to add on to
the price of a Title 21 Legacy tag varies also
depending on whether or not you warranty it. Don't
warranty it. There's all kinds of --

MR. KOBLENTZ: Right. There is a bunch of
variables. You'll get apples of apples. There's a
large delta in the base price.
MR. HANCOCK: So you're talking well over $10, in that delta?

MR. KOBLENTZ: Could be, yes.

MR. ROUSE: I would just note it is likely that there will still be a pretty strong market for a hard case tag here in California. Just based on my understanding of the form factors for 6C tags, a switchable 6C tag would probably have to be a hard case tag, and there are some agencies such as L.A. Metro that deal almost exclusively in switchable tags. So there would still be -- there would still be a market share for that, but it does sound like there would still be a reduced cost because of the 6C technology, as I understand it. Am I understanding that correctly?

MR. NELSON: In the place that I've seen them used was in Utah where they could turn them on and off, not necessarily set them for different numbers of people in the vehicle. I'm not sure how you're saying switchable. There's the one you can turn on and off or put multiple --

MR. ROUSE: That would be multiple position.

MR. HANCOCK: Multiple three position is what the current Title 21 switchable tag is, single occupancy HOV2, HOV2 plus.
MR. WILLIAMS: You've got tags very similar. Basically it pulls down and will either show red or it would show not. And basically because it's so visible, it gives the state trooper the ability to determine whether or not that person has gone through a reader-only system and has tried to say, yes, I have more people in my vehicle or I don't and be told either way. So that's a tag that's interesting to look at.

MR. SHEEHY: That's a two-position operation reader?

MR. WILLIAMS: It's either one, on or off, toll or no toll.

MR. SHEEHY: Okay. So it doesn't distinguish between HOV2 and HOV3?

MR. WILLIAMS: No that's pretty much L.A. Metro.

MR. SHEEHY: So with a sticker tag on 6C doesn't have a box, it's a -- you could have a two-position scenario where it shows it's either on or off; is that right?

MR. WILLIAMS: I think Eric can speak better on this. Even on 6C you're going to need a box for a switchable, yeah.

MR. SHEEHY: Otherwise, if you have a sticker
you're just on all the time.

MR. WILLIAMS: Plain tag.

MR. REDMAN: There are some agencies that will attempt to still use a sticker and have the selectability be an app or on an online method for the customer. As we can all imagine --

MR. SHEEHY: Then you’re combining RFID with cellular?

MR. REDMAN: No. You’re not managing your tag. You’re managing your account with a -- you know, online that requires the public to do a little bit more than just throwing a switch. That can be problematic.

MR. BARBAGALLO: In L.A. that would be difficult because they use beacons to identify for the CHP on whether or not -- what the position is.

MR. SHEEHY: How does the beacon process work in L.A.?

MR. BARBAGALLO: So what happens, it lights up. There’s a beacon that lights up above the lane, and it will indicate whether or not they’re traveling with the transponder in a mode appropriate for HOV.

MR. SHEEHY: Does the beacon recognize whether you’re HOV2 or HOV3? Or is it just simply on/off?

MR. KOBLENTZ: Currently, no, it doesn’t.
MR. SHEEHY: Does it go red or green depending
on whether the tag is on or off so the CHP can see?

MR. KOBLENTZ: The colors can vary. The colors
can be configured HOV2, HOV3. You can have
multicolors in the beacon. The enforcement is a
whole nother conversation. It's still utilizing
those beacon lights. With CHP, it's a very difficult
thing for them to identify and triangulate regardless
of the position with multiple vehicles going under
the beacon which vehicle is which color and then how
to enforce thereof.

MR. SHEEHY: The officer I guess then has to do
several things. He or she has to see what the color
of the light is, has to determine which car it
applies to, and then he has to get a visual on the
car I assume to see is there two or three or just one
person in it, right?

MR. KOBLENTZ: Yeah.

MR. SHEEHY: All of that has got to happen
simultaneously.

MR. KOBLENTZ: You can't pull them over at 60,
70 miles an hour. It's a difficult scenario for them
to do.

MR. SHEEHY: I mean, it sort of raises a
question if you get into a multitag protocol
situation, is your efficiency going to go down, is that going to create revenue issues.

MR. KOBLENTZ: Our efficiency can't go down any further.

MR. SHEEHY: You're already at the bottom. Good to know.

MR. HARRIS: This is a very obviously light discussion. I think we should probably take a break. We can wrap this up after we take a break. Let's take about ten minutes. That clock is a little fast, but let's try to come back when that clock says 11:25. Thanks.

(Break taken.)

MR. HARRIS: All right. Everybody thank you very much. I apologize for breaking up the conversations. I know that's actually one of the major benefits of gathering like this is to be able to network with people from different places. So hopefully there will be a little more opportunity as well. In terms of scheduling, we're going on a pretty good clip here. My proposal is that we continue on for about another hour, see where we are. If it seems like we're going to be here longer, then we'll break for lunch. Otherwise, we may just go ahead with a short break and then continue.
Hopefully that will be okay. Please let me know if there's any particular feeling one way or another. I thought we would go for another hour or so, see where we are. Kind of take an informal poll as a group as to how we're going to proceed heading into the afternoon. I did not want to close off the entire conversation that we were in the middle of before the break. So if there are any other comments, specifically in regard to time tables, I mean, obviously one of my major take aways from this morning's discussion is that obviously the department needs to make sure that it's communicating and coordinating with people as to what kind of a transition from the Legacy program to any new protocol needs to be, and I think that conversation has been very helpful to us. One comment was made you may not want an indefinite, but I think we need to obviously be flexible to understand the different needs of the different agencies.

Are there any other comments to wrap up the issues regarding time tables at this time? Anybody.

Why don't we move on then to the next part of the agenda. That puts me at Roman numeral VI, and I'm going to be candid with you, these next few items honestly are where the department is looking for your
input because should we go forward with any
regulatory package, these are the questions that the
department's going to be asked by the Office of
Administrative Law again to make sure that our --
that our regulations do what they're supposed to do
and that they're not overly burdensome on, first of
all, the agencies that have to abide by them, but
there is again obviously a very strong moving in the
state to make sure that we don't do anything in terms
of collateral damage to the economic vitality of the
state.

So the first issue is potential economic
impacts. That's obviously a very broad concept. The
next one has to do with the potential impacts on the
ability of California businesses to compete. That's
obviously again a major focus of not just the
legislature but the governor and the state. So why
don't we take those kind of together. What potential
impacts do we see from an economic standpoint of
transition to 6C. We talked to some of them in terms
of the consumer benefit which seems to be potentially
quite strong. Any other comments on that issue?

Yes, down here in front.

MR. LOCKHART: Steve Lockhart, Star Systems. I
just have a procedural question. I also want to
mention something about the survey or the
questionnaire that we sent back in advance. I had
done that as well. Do we need to -- if we've listed
a bunch of things, like I listed a whole laundry list
of technical benefits of 6C. Do we not have to
rehash that? Can I leave it in the questionnaire
that I submitted or do we need to --

MR. HARRIS: If you feel you need to highlight
anything, that's fine.

MR. LOCKHART: I don't. I just wondered if we
submitted them in the questionnaire, is that on the
record?

MR. HARRIS: Yeah. I mean, obviously that will
allow us to follow up and appreciate that very much,
the completing the questionnaire. Again anyone else
who has that questionnaire, if you haven't completed
it, again obviously do that at any time and obviously
you can do it to -- as little or as much as you want,
but any of that information will be helpful.

And again I want to make clear though this is,
you know, not the end of the process. We are at the
beginning. There will clearly obviously be a formal
comment period as we go forward should we indeed
decide to promulgate regulations. But thanks very
much for the questionnaires. So yes, we'll take any
comments written or oral.

MR. HANCOCK: Question in the back here.

MR. HARRIS: Question in the back there?

MR. WILLIAMS: Doug Williams, 3M. Just a quick question. Do we have any type of information you can share with us as to what the different tolling agencies and authorities would like? Do they want 6C? Do they want to move forward with a variation of that? Any information from them other than what I've already indicated.

MR. HANCOCK: They have indicated to us -- can you hear me fine?

MR. WILLIAMS: Yes, absolutely.

MR. HANCOCK: Usually people say I have a loud voice so they don't have a problem. So just want to make sure. They have communicated to Caltrans, CTOC agencies have written a letter to Caltrans asking us to -- indicating that they want us to change the regulations to go to 6C. So yeah, they have made that request.

MR. WILLIAMS: Okay. And have they been specific as to what type of 6C technology they're looking for in the form factor as we discussed earlier? Are they looking for switchables? Are they looking for on/off, toll/no toll?
MR. ROUSE: No. Just strictly adopting the 6C protocol. Again as mentioned earlier, the form factors are really an agency individual choice. If you look at the regs as specified, you know, in Title 21, it is strictly just the communication protocol between the tag and the reader. Nothing more.

MR. HANCOCK: Yeah. We do not specify currently any form factors, and I would imagine with any protocols that we move forward with for the regulation that we would not specify in the regulation what form factors. We would leave that up, as it currently is, to the agencies in terms of procuring what their needs are to the specific agencies.

MR. ROUSE: There is also some supplemental information that we have posted on our web page related to the distribution of the bits -- correct me if I'm wrong; you're the technical guy -- as to how the bits are assigned and the number of IDs that are assigned to each agency. So that's a separate thing that is not included in the regulation itself. The regulations strictly deals with the communication between the tag and the reader, but there's other supplemental guidance, and that's how we're able to
make the distinction for the switchable tag is on
that separate document that lists out the bits that
are going to be used and things like that. He knows
that more than I do.

MR. WILLIAMS: From a Caltrans perspective, is
there any use of tags in a TTI type of environment,
time travel indicator, where like in Colorado, okay,
they'll -- CDOT will use different types of readers.
They'll use a reader simply to pick up but not to
toll, to pick up different, you know, sticker tags,
if you will, so that they can kind of tell how fast
I-70 is going and they can tell, you know, how fast
I-25 is going south of town. Time travel indicators
utilize those sticker tags. CDOT has said to me they
would like to get every car in Colorado to have the
tags so they could measure such things. Is there any
appetite to that within Caltrans?

MR. ROUSE: For a number of years here in the
Bay Area the FasTrak tags were being used for
travel -- the FasTrak readers were being used to
track travel times. There are some concerns with
that, as it relates to privacy. I can tell you the
data is encrypted, so there was no personal
information transmitted as part of that, but there
have -- there have been some concerns raised along
the way about them being used for that purpose.

However, my understanding and the folks from NTC who are here can correct me if I'm wrong, my understanding is that those tags are not being used for travel time information anymore. Instead they are collecting from INRIX. I'm getting nods from the audience, so --

MR. SHEEHY: What's INRIX?

MR. ROUSE: INRIX is a private firm that collects travel time data, freeway performance data and sells it to various entities.

MR. BARBAGALLO: You know, one of the issues that existed in the Title 21 Legacy world was how new vendors were able to come on, get tested, get verified so that they could also sell the tags, and there was a lot of fuzziness around that process for new vendors to get certified, if you will.

MR. HANCOCK: Yeah. New vendors to be able to produce and sell.

MR. BARBAGALLO: Yes. So that goes sort of to this economic impact. The more vendors that are available to produce the item, whether they be local California vendors or vendors outside of the state of California, will help reduce some of those costs so that they do get to that 80 cent level or below.
MR. HANCOCK:  Yeah. As far as new vendors coming online, we've been requested to have a certification process, testing and certification process, as a part of going to the new protocol. So that would pave the way for new vendors to get into the market in California so that where we do not currently have that process, as you indicated Frank, in the Legacy Title 21 protocol. So yeah, that's something that we would -- we had been requested and we would look at addressing in the new regulation.

MR. HARRIS:  Any other comments on the potential economic impact of a -- yes.

MR. NELSON:  Rick Nelson with TXDOT. One of the reasons I'm here and I'm looking at this, Texas is on the train route between Mexico and Canada, some of the bridges that California -- some of the bridge crossings we're dealing with now have 6C. And Canada, same way, some of those bridges have 6C. So we're trying to improve what would be our train route, what would be the best thing -- I guess this is partly a statement, partly a question too. Are you looking at also, I heard your port guy was here, port security, freight security, other things to do with economic development for the state and trade within the state as being part of what you're trying
to accomplish?

MR. HANCOCK: We haven't been requested by
nontolling entities as far as changing the protocols. It's come from the tolling agencies themselves. There are others that use Title 21, but as we indicated before, we could address any timing of transition or a sunsetting differently for the nontolling agencies versus the tolling agencies.

MR. BARBAGALLO: In Vancouver when they entered into discussion, Vancouver is an example where Golden Ears has Title 21, Legacy technology, Port Mann has 6C technology sticker tags. So that's an example of a region where they do have both protocols in existence and use them both. But there was a big discussion when the decision was made for Port Mann to go with 6C with regard to goods and the trucking industries' use of their protocol for that purpose, and so these multiprotocol readers that 3M was discussing were very important and critical to how they would achieve that interoperability, if you will, between in essence three different devices.

So you might want to consider something about a time line for moving to multiprotocol readers for those few locations that don't have it and how is the state going to provide that funding. Is there going
to be assistance in that for the local agencies, how
are they going to accomplish that.

MR. HANCOCK: Okay. Any other questions on the
potential economic impacts?

MR. HARRIS: Okay. Let's move on to the next
one. Again, we've already touched on this a little
bit. I think obviously this is a major issue for the
tolling agencies and others in terms of the fiscal
impacts on state and local government, and I think
that's obviously where we're going to loop back
around to the transition period and how long any
Legacy system is going to stick around, so
particularly from the tolling agencies, but at any
rate, obviously what is the sense of how this
transition is going to impact the tolling agencies in
terms of their making a transition to a new protocol?

MR. SHEEHY: This is a question to the
collective wisdom of the group. It seems like I'm
putting on my Department of Finance hat here since
you're on the state and local government fiscal. It
looks like the vast majority of the fiscal impact
would be a local government impact and not state.
Doesn't look like there's going to be much of a
Caltrans -- Caltrans is not going to be involved in
switching out tags or reading hardware or anything
else. So it looks like it's really a local
government fiscal issue. Am I missing something?

MR. ROUSE: No. That's correct. Caltrans does
not operate -- does not operate any electronic toll
collection systems. Not at this time. We may in the
near future.

MR. HARRIS: Anybody have anything to add with
regard to potential fiscal impacts to particularly
local governments, particularly the agencies that
would be using this technology and that would be
involved in, you know, any transfer or any transition
from the current Title 21 to a new protocol, whether
it be 6C or something else? Any --

MS. VALDIVIA: So there's at least an answer to
this question from one agency's perspective, Lynn
Valdivia from Bay Area Toll Authority. There will be
some costs associated with modifying our systems to
accept the protocols, but we're looking forward to
the lower cost tags, costs of that. So we're not
particularly concerned about a large fiscal impact.

MR. HARRIS: How long do you think it will take
to transition?

MS. VALDIVIA: 18 months to two years, in that
range.

MR. HANCOCK: So long term, will you be saving
money transitioning to 6C, or will it cost you money overall?

MS. VALDIVIA: I have not done an analysis of that.

MR. HANCOCK: Okay.

MS. VALDIVIA: But we are thinking that it will save us money, but I haven't done any kind of analysis on it.

MR. LOCKHART: Steve Lockhart. Actually, this is just a question to Lynn. You said up to two-year length of time for your administrative changes. What do you see as your biggest administrative challenge for a switch, just kind of out of curiosity. Do you have something that comes to mind as your largest administrative challenge?

MS. VALDIVIA: We have different contractors that will need to make software changes, so coordinate that with our partners within the region that will make the changes. We operate the regional customer service center, so coordinating all of that. And then there will be customer education, different form factors out there most likely. So we'll need to get -- make sure that customers understand all of this. So I don't see major hurdles in there.

MR. LOCKHART: So this is sort of a process that
needs to be shepherded through?

MS. VALDIVIA: Yep.

MR. LOCKHART: Okay. Thank you.

MR. HARRIS: Any other comments on the fiscal impacts on state and local governments? Okay. We'll have a catchall at the end. Basically we're down to number 9 on the list here, issues regarding individual privacy, I'll take that as something that I have an interest in obviously because any time you start tracking people's movements, certain segments get skittish about big brother, whether that be government big brother or corporate big brother knowing where they're traveling. So I think that's obviously an issue that will have to be answered probably not so much by the -- with regard to folks in this room but the public at large. The people are always interested in the advance of technology and what it says about that. Does anybody have any particular thoughts on issues of individual privacy.

MR. SHEEHY: So I don't have any new to add today, but I have a question to the collective wisdom in the room. Would the transition to a 6C protocol as is contemplated here create any new privacy issues? I think many of the existing privacy issues that exist with RFID and Title 21 have been well
talked about, documented, understood, debated and
agencies debated in the legislature. I think that
that -- and would back up things like LPR and so on
and so forth, I think those privacy issues are pretty
well mapped out, maybe not fully decided. Does the
transition to this protocol that's being anticipated
bring any new privacy issues to mind?

MR. HARRIS: You framed the issue very well,
obviously far more eloquently than I did. That's
really my concern does the advance of technology
create new privacy issues beyond what already exists
with everything else that already occurs. I think
that's the main issue is will there be any
significant concern or backlash from the public at
large as to will the issue of system allow certain
people, whether it be government or corporate
entities, private entities, to track my movements in
a more detailed way than they currently can, and is
there any sense of what the answer to that question
might be? Is the margin of technology going to make
it even more?

MR. LOCKHART: Sorry, Steve Lockhart. Yeah. I
can't think of how 6C would be any different in terms
of privacy than Title 21 and any existing challenges
that you might have with Title 21.
MR. HARRIS: Obviously that's what we're hoping for, but I just want to make sure we are capturing. Yeah, back here.

MR. PUCCINELLI: Ron Puccinelli, Port of Oakland again. The only thing I can think of off the top of my head that might be interesting because it's an ISO standard, it could potentially open up for more unintended sharing. If I'm from the Bay Area and I go up to, I don't know, Canada or Mexico or whatever, they could without my knowledge gather my information because it's an international standard.

MR. BARBAGALLO: I don't think they can. The information -- your information isn't resident on the tag. Your information is resident in the back office.

MR. PUCCINELLI: Correct. They could still track my tag movement.

MR. BARBAGALLO: As they could by taking a picture of your license plate.

MR. HANCOCK: That could currently occur with the existing Title 21 too. If someone purchased the reader, put it out, they could read that transponder. It would not provide any personal information as Frank indicated.

MR. ROUSE: That's how they were being used for
travel times.

MR. HANCOCK: Yeah, exactly. That's how they were being used for travel times. Same issue. It wouldn't be any different with 6C versus Title 21.

MR. LOCKHART: Steve Lockhart. The only exception to that is maybe 6C readers are going to be much more ubiquitous and widely available to the public perhaps than a Title 21 read would be. Like I can go -- anyone can go buy a 6C handheld reader very easily. I'm not sure you can do that with a Title 21 reader as easily. So, you know, there's more 6C readers available, but you can read somebody's license plate or whatever. Again, there's no personal information or there should not be any personal information stored on the transponder, but just being able to track the movement, I think just because of the nature of the availability of readers, there would be more read points possibly.

MR. HARRIS: You spoke of a transition in Florida -- your time in Florida. Was this ever raised as a concern? Was there any great level of concern that, you know, this new technology was going to allow people to track movements even more than the old technology? Was there any of that?

MR. NELSON: Same protocols. So we had C built
protocol on a hard case active tag. We went to a plastic sticker tag. If they could read the hard case, they could read the sticker tag. And you're right there's just — because this 6C is widely used for EPC, electronic price control, there is a lot more readers out there, but the information on it really doesn't give them anything. I mean, like you say it's like looking at the license plate number. Yeah, you got that, and people get tracked by their license plate number by automatic license plate readers and other things electronically.

So, I mean, as technology advances there's not really any way that you can prevent those thing from happening no matter what protocol you decide to use. That may be a good thing that there's actually more because you may get more applications and other things used that provide the public more services than they get today.

MR. HARRIS: Any other comments on individual privacy?

Okay. Very good. Well, that brings to what is officially our last topic, but in terms of this, what I'd really like to do, anything else that's on your mind, please bring it up. But mostly what I'd like to hear is we are having another workshop in Fontana
in a couple weeks. I'm hoping that some, if not all of you, can attend that. Let us know as we're going forward here exactly what information we need to get to you, to get from you, the way that you want us to communicate with you, so this is now truly the open forum part of the workshop here.

So anything that's on your mind, please let us know, any other issues that we have not covered or you think need to be addressed in any more detail. Anything at all?

MR. NELSON: I would just commend you for what you're doing. I think it's a good process. I really think it's a global issue for a state when you get to a protocol. I commend you for doing that. I think all states should look at that. It gets back and forth between agencies. There needs to be some global standard set because it affects the whole state. I just compliment you on this process. I'm kind of here to see what it is, to see what works and what doesn't work for Texas.

MR. HARRIS: Thank you for joining us here. It's been very enlightening, not just your experience in Texas but in Florida as well. Any other comments?

MR. RAMANUJAM: I have a similar comment. My name is Murali Ramanujam I'm from Santa Clara Valley
Transportation Authority. We do have an express lanes project. We're coming online as an agency. We're quite supportive of what's being undertaken to move to the 6C protocol. See more flexibility and a better way of undertaking this electronic toll.

MR. HARRIS: Okay. Thank you. Any other comments?

MR. PATILLA: Lester Patilla, Port of Oakland Aviation Division. I think it's a good thing if we can have this at the airport facility because we're using the AVI tags for -- RFID tags for our commercial vehicles, limos, shuttles, possibly taxis, things we have in our parking lot operation. So we're not doing tolls. So they in the past -- they have not been Title 21. So I think the new ones probably will be or possibly, but we've had in the past our older ones, I guess there was interference when the FasTraks run, they run near the same location. So that was an issue for us. But again if airports can be called out, that would be great.

MR. HANCOCK: There is a gentleman in the middle I believe that had his hand up.

MR. WILLIAMS: Oh, me.

MR. HANCOCK: Yeah.

MR. WILLIAMS: Doug Williams. I just have to
reiterate that I appreciate the forum very much so.
We've been out talking 6C technology for a while. So
I much appreciate the fact we have the opportunity to
discuss it. I think it's a good day for California.
Native born in Southern California guy, UCLA grad.

I'm looking at this, and I'm thinking, you know,
this is open system. This is an open platform. This
gives us the opportunity for competition. This gives
you the opportunity for other people to come in, DVEs
to come in to participate in the process. This is
good when you're looking at the standard T21 tag just
for reading a toll that the public might pay $30 for,
you will be able to sell that tag for, you know, up
to $5. I mean, cost on that tag is very cheap, 80
cents, 90 cents.

But everybody has the opportunity to participate
in the process. They can jump on a road, if they
need to jump on a road. It's a great day. It's a
great day to take a look and say we're looking into
new technology. At the same time, we're going to
grandfather in those T21 people and switch this into
a process that says, okay, you're going to continue
to use your T21 tag until around maybe five years,
then we're going to move into something just -- first
of all it isn't obtrusive to have in the middle of
your windshield especially people in Southern
California and Silicon Valley drive very nice cars,
and they don't like front license plate let alone big
boxes in their windows. They have a little sticker
tag to participate in the process.

So I'm very pleased that you guys are doing
this, very pleased to be a part of the course from a
3M standpoint. We stand ready to help in any way we
can.

MR. SHEEHY: Vehicle Code requires front license
plates, don't they?

MR. WILLIAMS: Absolutely.

MR. SHEEHY: They may not like it when they take
them off and they get pulled over as a result.

MR. WILLIAMS: Absolutely.

MR. HARRIS: Any other comments, questions at
this point? I would like to thank everybody for
taking the time to come out because those who have
traveled great distances, I'm glad everyone was able
to make it. I'm glad nobody was flying United today
because otherwise you might not have made it.
Hopefully you didn't have to come across the
Bay Bridge which apparently was difficult at least in
one direction today.

I'll also make one more pitch, if you have the
questionnaire, to please, if you can, fill it out, and those who have already done so, we thank you.

Again, we'll be doing this again in two weeks from today in Fontana. We sent that information, and we can get that to you as well. Again if you didn't sign in, please do so so that we can make sure we can contact you. Again there is a web -- or excuse me, an e-mail address on that useful links page at the end of the handout where you can contact us. So again thanks very much. Have a safe trip.

MR. NELSON: One question, will there be a report or something published from these meetings?

MR. SHEEHY: Or a list of who showed up.

MR. HARRIS: Obviously, Kacy is taking a transcript here. We intend to make the transcript available publicly on our web site so people can see it. Obviously the entire record-making file will be in many, many binders and will be available as well. Yeah. We are going to make the record available as well.

Anything else? Well, thanks very much everybody. Have a great afternoon.

(The proceedings concluded at 12:00 p.m.)

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