



U.S. Department of Transportation  
Federal Motor Carrier Safety Administration

## **OFFICE OF ANALYSIS, RESEARCH, AND TECHNOLOGY**

### **Overview of FMCSA Technology Division Studies and Projects May 13, 2009**

#### **Webinar Transcript**

##### **Presenters**

- Michael Johnsen, Acting Division Chief, Technology Division, FMCSA Office of Analysis, Research, and Technology (ART)
- Quon Kwan, Program Manager, Technology Division, FMCSA ART
- Jeff Loftus, Program Manager, Technology Division, FMCSA ART
- Chris Flanigan, Program Manager, Technology Division, FMCSA ART

##### **Speakers**

- Kirse Kelly, Web Conference Host, FMCSA ART

##### **Description:**

The mission of FMCSA's technology program is to adopt, develop, test and deploy simple and advanced integrated information technology solutions and innovative on-board commercial vehicle, driver, and roadside technologies. In this webinar, Acting Technology Division Chief Michael Johnsen and members of the Technology Division team will present an overview and answer questions regarding current activities the Division is working on which improve safety and security, save lives, and prevent serious injury by reducing the number and severity of commercial motor vehicle crashes.

## **PRESENTATION— OVERVIEW OF FMCSA TECHNOLOGY DIVISION STUDIES AND PROJECTS**

### **PRESENTATION TITLE SLIDE: OVERVIEW OF FMCSA TECHNOLOGY DIVISION STUDIES AND PROJECTS**

#### **Rosie (Operator):**

Welcome and thank you for standing by. At this time all participants are in a listen-only mode. I would like to remind everyone that today's conference is being recorded. If you have any objections, you may disconnect at this time. Now I would like to turn the call over to Ms. Kirse Kelly. Ma'am you may begin.

#### **Kirse Kelly (Web Conference Host, FMCSA ART):**

Thanks Rosie and thanks to all of you who are participating in our webinar that's going to give you an Overview of FMCSA's Technology Division Studies and Projects. This webinar is part of a series put on by the FMCSA Office of the Analysis, Research and Technology.

You can submit questions throughout the webinar in the **Q&A Box** which is at the left side of your screen and presenters will answer as many questions as they can by the end of the hour. At the end of the call, if there's time, you'll be able to ask questions over the phone line as well.

Please note that you will be able to download a copy of the presentation at the end of the webinar, or you can return out this Website at a later time to download them at that time.

Members of the trade or local media who are participating today are asked to contact the FMCSA Office of Communications at (202)366-9999 at the conclusion of the webinar if you have any questions.

Finally, for anyone who may have a smaller screen and this virtual meeting room is at the upper left-hand side of your screen, you may want to try the **Full Screen** which can be accessed by clicking on **Meeting** at the very top-left side of your screen, choosing **Manage My Settings** in the list and then clicking on **Full Screen**.

Now let me turn you over to Michael Johnsen, who is the Acting Technology Division Chief.

#### **Michael Johnsen:**

Thanks a lot Kirse. Welcome everybody to our Technology Division webinar today. We're going to do something a little bit different in this webinar; generally we kind of go through presentations. Today what we're going to do is try a different format and hopefully it's a little bit more entertaining and educational. It's more of an open roundtable format where the members of the team will be discussing our issues that we work on. We're going to be asking each other "devil's advocate"-type questions to hopefully prompt a discussion amongst ourselves that's a little bit more revealing about how we think about these projects and how we work with these

projects. You can e-mail questions during each topic conversation. We'll try to get a few of them in if we can, but we will try to limit each topic conversation to about ten minutes.

Let me introduce who we have here today. We have members of the Technology Division Team, Chris Flanigan, Jeff Loftus and Quon Kwan. Absent is Julie Lane who works on a lot of the CVISN projects. She is actually on travel doing work and was not able to make it to this webinar today.

## **SLIDE 2: TECHNOLOGY DIVISION TOP PROJECTS**

We have a number of our projects that we have in the Technology Division. I will run through all of them really quick. You see the first six up here:

1. SmartPark
2. Employer Notification Service
3. Enhanced Rear Signaling
4. Wireless Roadside Inspection
5. Indirect Viewing System Field Test in it's Phase III
6. Onboard Safety Systems Effectiveness Evaluations

## **SLIDE 3: TECHNOLOGY DIVISION TOP PROJECTS**

You can see the rest of our top 11 projects here that we're working on:

7. CVISN Deployment Program—probably a lot of folks are familiar with that
8. CDL Third Party Testing Anti-Fraud Software
9. IVBSS – Integrated Vehicle-Based Safety System
10. Onboard Safety Systems Deployment Program
11. Smart Infra-red Inspection System

These all make up a lot of what the Technology Division is working on. Obviously we can't hit on all of them today, so we're going to pull out just a few of them and do those today.

## **SLIDE 4: TECHNOLOGY DIVISION PERSONNEL**

Again, here's our personnel list. Like I said, Julie Lane is out today so she won't be with us. This kind of gives you an idea of who's working on what.

## **SLIDE 5: TECHNOLOGY DIVISION WEBINAR PROGRAM**

Today we're going to be looking at three programs that we're working on. Quon will talk about the SmartPark Program first, followed by Jeff Loftus with the Motor Carrier Efficiency Study, and then followed up with the Employer Notification Service that Chris Flanagan spearheads.

The first topic we have is SmartPark and this is something Quon Kwan has been working on. I'll turn it over to Quon. What's going to happen for each of these is the project lead will kind of

introduce and review where we're at with the project. We're kind of assuming that people know a little bit about some of these projects, but if you have any questions anytime you can always contact us after the webinar if you want to get a little bit more detail about what the project is doing. For the first one, I will turn it over to Quon and he will go through a few slides first.

#### **SLIDE 6: SMARTPARK: REAL-TIME PARKING**

##### **Quon Kwan (Program Manager, Technology Division, FMCSA ART):**

Hi I am Quon Kwan. I'm an engineer and the project manager for the FMCSA's SmartPark project. The purpose of SmartPark is to be able to demonstrate technology for providing real-time information on parking availability to truckers on the road. This is an ITS project—an Intelligent Transportation Systems project. We started on this back in about 2004. As a result of our procurement, we have been able to obtain two contractors, Foster Miller and Vehicle Sense Incorporated, who will be demonstrating two different approaches to determining the occupancy of the truck parking area.

#### **SLIDE 7: SMARTPARK – PURPOSE**

I just talked about the purpose. We can go on to the next slide.

#### **SLIDE 8: SMARTPARK – 2007 CONTRACT AWARDS**

We'll talk about the two contractors. Foster Miller, our contractor, is using an approach of video imaging to determine the occupancy of a truck stop or truck parking area. The site that they are using for demonstrating or field testing the technology is the Charlton Service Plaza on the Massachusetts Turnpike, I-90 westbound. It's about an hour or 50 miles west of Boston.

The second contractor is Vehicle Sense, Incorporated. The approach that they are using is a magnetometer technology—a disturbance in the magnetic field by a truck is registered and data is sent to a computer. There are two sites where they are demonstrating this technology. One is a private truck stop, Interstate Travel Plaza. It's located northbound on US-1. I think it's within the city limits of Brethren, Massachusetts, one mile north of the 495 Beltway. The second demonstration site where they are field testing this technology is mile-marker nine, which is a public rest area with about 27 truck parking spaces on northbound I-95. This is about an hour south of Boston.

#### **SLIDE 9: SMARTPARK – FOSTER-MILLER APPROACH**

In our next slide we show the technology deployed by Foster Miller at Charlton Service Plaza. The video-imaging technology relies on an AutoScope Solo Terra video camera. What happens is that as the truck traverses the field of view, it sets off a number of what we call trip lines. There's a trip-line algorithm that identifies and classifies the vehicle in the field of view. This software adjusts for variations due to weather, lighting conditions, and so forth.

**SLIDE10: SMARTPARK – FOSTER-MILLER APPROACH**

The next slide shows the layout and the setup of the equipment at the Charlton Service Plaza. We have two AutoScope cameras and there's a camera located here at the entrance ramp and the second AutoScope camera is located at the exit ramp. First, before they transmit, they are powered by solar-battery units. The data is sent through a transmitter by Ethernet radio to a receiver at the plaza building. It's processed in an internal computer and sent by Internet to an operations control center.

**SLIDE 11: SMARTPARK – VEHICLE SENSE APPROACH**

On the next slide we see the communications diagram for mile-marker nine. There are sensors in each individual parking space. The sensors send their data about whether the space is occupied or not, which is shown in red, to the base station unit. The base station unit collects the data from five or six, maybe seven, vehicle-detection units and gathers them and sends them to a parking-area relay in the building. The parking-area relay gathers all the data from those space-station units and sends them to the operations control center.

I will turn it over now to Jeff Loftus.

***DISCUSSION: SMARTPARK******Michael Johnsen:***

*Actually Quon, I wanted to ask a couple questions about what you are doing here because I think it's interesting; I think it's great for truckers to know what kind of parking's available, but part of what people like to know, I mean, why would the general public really care about whether trucks can find parking? What's in it for them, really? I can see why truckers would need this information. I think that is a fair question. It's our tax dollars paying for these projects. What's in it for the people?*

***Quon Kwan:***

*This whole project was prompted by a recommendation by the National Transportation Safety Board. They looked at a number of heavy vehicle crashes and found that fatigue was a factor in a lot of these crashes. Last year, I believe, on the Beltway there was a fatigued driver who just fell asleep at the wheel.*

***Michael Johnsen:***

*A fatigued-truck driver?*

***Quon Kwan:***

*Yes, a fatigued truck driver. He took his truck over the ramp and it hit the freeway below, the I-270 Connection. It could have been prevented if he had enough sleep.*

**Michael Johnsen:**

*So this is kind of, in a way, it helps out the ability for truckers to find places to sleep. There are a limited number of truck stops out there.*

**Quon Kwan:**

*Right. And the project is intended to provide safe places for truckers to park their rigs and get their proper rest.*

**Jeff Loftus:**

*Kwan, this is Jeff Loftus for those listening in. Why is it taking so long for us to come up with a solution? It seems like we have been testing these two Massachusetts sites for a long time. What are the barriers?*

**Michael Johnsen:**

*How long has this been tested?*

**Quon Kwan:**

*I believe it started about a year and half ago.*

**Jeff Loftus:**

*We've been talking about this concept for at least three or four years, but what are some of the challenges you are facing?*

**Quon Kwan:**

*These are supposed to be commercially off-the-shelf technologies, but they have not been put in a truck application, a truck parking application scenario. The video imaging cameras are commonly installed at intersections, street intersections to control the traffic lights. They do so by telling the software whether there's a vehicle in the left lane or right lane ready to make a turn. To accurately count these vehicles is a different question. Determining whether something is present or not and classifying are two different issues, and we do have a problem with one of the sensors being able to properly classify the vehicle.*

**Chris Flanigan:**

*Quon—Chris Flanigan for those of you in the audience—I understand that Federal Highway Administration also has a truck parking program and I wonder if you could differentiate or give a differentiation between our program and theirs.*

**Quon Kwan:**

*Our program is focused on driver safety. One of the recommendations that were made by Federal Highways was an Intelligent Transportation Solution to the truck parking problem. In other words, instead of adding capacity, if we could divert drivers, truckers from lots that are filled to places that are not filled, then perhaps we don't have to build as many rest stops or parking areas.*

**Michael Johnsen:**

*It's kind of the efficiency of the utilization of the number of available spots there are. I guess there is that question about the location of them. The ways that truckers can reach into hours of service if you have a route from a major area or do not. I guess that does help. What's Federal Highway Program, what are they working on?*

**Quon Kwan:**

*Federal Highway has a Section 1305 Grant Program where they have grants. They make out grants to states for adding capacity. However, states may use those grants for ITS applications.*

**Michael Johnsen:**

*We have a number of interesting questions popping up that you, the folks in the audience have been e-mailing in. One of them is a great one—how do truckers get the information in real-time? Are they calling a phone number? Do they have a laptop computer onboard? How far away can they get this information? Can you explain a little bit about how the trucker is seeing this information? Is this something that gets beamed to them? Is it an application on their iPhone?*

**Quon Kwan:**

*The information dissemination about how parking availability will be transmitted will be part of Phase II. We are not in Phase II yet. We have several methods that we are thinking about. One is Highway Advisory Radio. Another is—well, we discourage phone use because we do have a NTSB recommendation about using a cell phone while driving. We're thinking about using variable message signs to get the information out. One would be posted about an hour's drive or 50 miles ahead of the parking area. The second one would be posted very close, just ahead of the parking area, in case it fills up just before the trucker arrives.*

**Jeff Loftus:**

*Right, because unless you have a more sophisticated reservation system, if they make a go/no-go decision an hour outside of town, whether to assume that space is there—it probably won't be there.*

**Quon Kwan:**

*Right. That's why having two signs would help truckers.*

**Michael Johnsen:**

*A lot of truckers have a lot of electronic communications onboard their truck anyway. Is there any way we could send it to—do they have systems onboard that they're looking at messages or is that too much of a distraction, have we determined?*

**Quon Kwan:**

*Anything that takes the driver's eyes of the road, we would not use as a . . .*

**Michael Johnsen:**

*And we couldn't recommend something like that, then.*

**Quon Kwan:**

*Right, we would not.*

**Jeff Loftus:**

*The dissemination role—have any of the state parties that are participating or the truck plazas that are participating in the effort, have they made any comments or intent about providing that service of disseminating the availability information to fill that role?*

**Quon Kwan:**

*Yes, Mass Highways would be interested in a variable message sign. In the proposal from Vehicle Sense, they are also interested in somehow using the telephone and Internet.*

**Michael Johnsen:**

*Kwan there are a couple more questions that we have up here, but we have to move on to our next topic. I just want to ask you, what's next for SmartPark and what are we looking for in the next couple of months that folks in the audience can think about?*

**Quon Kwan:**

*We are looking for a final report. We're looking for some conclusion, some data that supports the conclusion as to whether these technologies will work or not. If they don't work, we will have to repeat Phase I and see if there other sensors out there that can count filled parking spaces accurately.*

**Michael Johnsen:**

*One of the last questions I saw up there if the magnetic things were embedded in the concrete? I am assuming that they are if the truck rolls over them.*

**Quon Kwan:**

*They are embedded in the concrete.*

**Michael Johnsen:**

*We will move on to the next topic. Thanks a lot, Quon. That was great.*

[19:02]

## **SLIDE 12: MOTOR CARRIER EFFICIENCY STUDY (SEC. 5503)**

**Michael Johnsen:**

The second topic is Jeff Loftus' project on the Motor Carrier Efficiency Study. I'll turn it over to Jeff and then we'll ask him a few questions, as well.

**Jeff Loftus:**

Thanks Mike. This is an effort that was authorized by the Congress under Section 5503 of SAFTEA-LU, which is our reauthorization legislation that comes out every four to six years. The purpose of the study is three basic things:

1. to identify inefficiencies to motor carrier transportation of freight,
2. to evaluate the safety and the productivity benefits of wireless technologies and then, if appropriate,
3. conduct field tests that confirm and demonstrates the solutions that wireless technologies can provide to the identified inefficiencies.

The program is organized into the following five elements:

- Fuel monitoring management systems;
- Looking specifically at the technology of radio frequency identification which—it's RFID tags, transponders, DCRC. Folks that are familiar with the electronic toll systems like EZ Pass here in the East, Pike Pass in Oklahoma or Sun Pass in Florida—you're using RFID to get through the toll booths without having to stop. So that's the technology we're looking at in this program.
- Electronic freight manifest systems;
- Cargo theft prevention; and also
- Roadside inspection systems.

**SLIDE 13: MCES: PHASE I STUDY RESULTS**

We organized the effort into two basic phases. Phase I was to do a study to identify the inefficiencies and also estimate the potential safety and productivity benefits of the technologies; and then Phase II would be to actually conduct the test. As a high level Phase I result, the priority inefficiencies identified by the research team which was led by Delcan. They did a fantastic job for us where they reviewed 200 sources of information, as well as discussed these topics with well over 500 to 600 motor carrier experts including fleet operators, technology providers, as well as other stakeholders.

The inefficiencies that ranked the highest, for the most part, were waiting time for unloading and loading, whether you are at a seaport or distribution center; waiting time at the border crossing; congestion delays from both expected congestion, as well as what they call nonrecurring congestion that could be caused by a crash; empty miles; hours of service; fuel waste due to excessive speed; lack of a back haul, meaning carrying freight on the return trip back to a dispatch center; as well as poor routing. This report is available on our website, the ART Website. I believe we will have some links on that. If not, I know my e-mail address is at the end of this presentation. I can make sure you get a copy of the report and you can get into more detail on that.

**SLIDE 14: MCES: PHASE II – CURRENT ACTIVITIES**

One of the Phase II activities or field demonstrations that we're doing deals with Wireless Drayage Updating Program which is looking at taking kind of an air traffic control model if you will—instead of tracking planes' arrival and departure, it's looking to track the containers and the various conveyances of the containers—when the containers come in on the rail and they get put on the truck to go across town, and then get put on another rail to continue their journey beyond the Kansas City area. The solution will provide load information and selection for the participating motor carriers, as well as real-time information on congestion for the participants—the intermodal or drayage carriers—and also kind of a scheduling system for arriving at the exact right time at the various rail terminals.

We're doing this under the leadership and in direct partnership with our friends at the Federal Highway Administration, in their Freight Office, as well as with several states and industry partners. I have them listed on this slide—KC Smartports, the Mid-America Regional Council which is the Metropolitan Planning Organization. We have a couple of motor carriers listed here—Greer Transportation and Mid-Cities Transportation. There are two or three additional ones that have signed on. We have Class One Railroads of the UP, BNSF, Norfolk Southern and KC Southern—a lot of key players. Also the Kansas and Missouri Departments of Transportation are participating.

I've got a great question: *What does hours-of-service refer to on the slide?* That is the specific requirements that we have in our Federal Motor Carrier Safety regulations on how long a truck driver, as well as a motorcoach driver are allowed to operate their vehicle. There are daily limits, as well as weekly limits.

That is a quick overview of what we're doing. Again, just to kind of to sum up, we are providing situational awareness and data that the railroads already have, but we're bringing the intermodal carriers—the truckers—into the fold. KC Smartport is providing a mechanism so that the load information is made available in real-time. We're providing some hands-free onboard devices. We're looking at a number of commercially available devices out there and working with those technology providers so that through the dispatchers of the carriers, the drivers are given load information, and if a load's not ready they're given the option through their dispatcher to get a different load, as well as to minimize the wait-time at the various terminals around the Kansas City area, and also minimize other key inefficiencies that were identified in the study, which were empty miles, congestion delays, as well as the safety risks associated with bobtails which are tractors that don't have a trailer. That's kind of a quick overview of the program. I will open up to my colleagues to ask some basic questions, as well as take others on the line.

***DISCUSSION: MOTOR CARRIER EFFICIENCY STUDY******Michael Johnsen:***

*Jeff that was a great overview of this project—this is Mike Johnsen, for the audience again. Obviously, this kind of a program, where you're trying to improve efficiency reducing the amount of time that truckers are waiting, which has that direct implication to how long they can they continue driving. You have safety implications here. You have mobility and efficiency*

*implications here. Actually, you have environmental implications here too, because all that congestion, all that waiting time these trucks are doing is putting emissions into the atmosphere from pollution and making these ports, these places hot spots. Now with the administration's big push on climate change that CO2 emission is going to start counting too. I think this type of thing hits on a lot of different goals that the U.S. Department of Transportation is currently looking at and trying to do in making our areas more livable. Actually, you are making the livability of these truck drivers and port operators better because everything is running smoothly and no one is waiting around. One of the things I am really psyched about on this project is when can we see this operational? I know there are some private operations going on, but we don't see this in the big ports. For the KC project, what are your timelines for this?*

**Jeff Loftus:**

*This is one small part of a larger Cross Town Improvement Program in Kansas City. Federal Highway, our key partner on this, picked Kansas City because it is manageable in size when compared to a larger area like Chicago. We had our kickoff earlier this year with the intermodal carriers, and they're very excited. They shared a number of their requirements and needs and new activities. We are going to be coding this summer and hope to have the system running around this time next year, fully operational for the participating fleets for about a two to three month period. It's going to wrap in the early summer 2010. We'll have a final report in a November, December timeframe 2010—the end of the calendar year 2010.*

**Michael Johnsen:**

*This kind of hits on a question that just popped up here about it being a business market-driven thing and why is FMCSA dealing with this. If we're going to turn this over to the—we're not going to keep receiving this...*

**Jeff Loftus:**

*Exactly, the whole point of the efficiency study in Phase II is to demonstrate the capabilities of wireless technologies and to do the high-risk research that one trading partner may see a benefit on, but it won't benefit the other trading partners, or they don't have an incentive to do it on behalf of a broader view. There is a federal role to demonstrate this technology to the point where we have available public domain products—the code, the software, all the documentation of all the software. Everything that we're developing with the participants on the line—with their money, their tax dollars—will be available to all of the folks on the line, as well as anyone in the country that would like to take this solution. Hopefully, it will sprout additional deployments in other ports are looking for a similar solution. Perhaps if we give them an 80 percent solution to it and they fine tune or tweak it to their unique geographical and operational needs, it would be great opportunity to achieve the safety productivity efficiency, as well as environmental benefits that you alluded to earlier.*

**Chris Flanigan:**

*Jeff, this is Chris Flanigan. I have a question for you. I noticed that we had a great response from the announcement that we placed in FedBizOpps for this webinar. Quite a few people responded to that. I guess it would be reasonable to conclude that folks are probably wondering what public domain products would we expect to have at the conclusion of the project?*

**Jeff Loftus:**

*Again, I think that the documentation will be available and all of the evaluation report that we're doing, and obviously the hardware and software that we develop. Related to that, I think that we're hoping that other ports will see interest in this and continue. One other thing to add, there's a question regarding some other aspects of the program and our plans for future work. We did put out in the general announcement from our Procurement Office that we will be doing additional demonstrations this year. We're going to put out a request for proposals later this year. We're looking to cover the other areas and the program elements—fuel monitoring, management systems, cargo theft and the like. And the driver safety items, as well, because that's a key item for us here at FMCSA.*

**Quon Kwan:**

*Jeff, this is Quon Kwan. Will there be future opportunities for wireless drayage updating applications?*

**Jeff Loftus:**

*I believe so. I think I'm kind of jumping ahead with the script here because I am just so excited about this program—but clearly, I hope other ports see this. I do know of some terminals in the New York/New Jersey area that have a similar system. Perhaps this additional work that we are doing in the public domain could be beneficial to other terminals that do this.*

**Michael Johnsen:**

*Sure. I think one of the things we need to do with this is try it out in smaller, a little bit more controlled applications. You've got Long Beach. You've got Newark. You've got some of these places that would really benefit from these kinds of things.*

*Let's see if we've got a couple of questions. Do you want to try to take one or two of these on? We love you guys e-mailing these questions and we're going to try to capture them all and answer the ones we can kind of pull out here.*

**Jeff Loftus:**

*How will the technology help when each entity runs its own operation? Will we end up at square-one?*

*The idea is to have—this is building on existing contracts and relationships between the railroads and intermodal carriers. It's really providing, through an organized set of business rules, additional information that would be of value not only to the railroads, but also to the motor carrier participating. Having the actual end users involved in this test, we're building on the existing relationships that are there and really challenging them to identify what their inefficiencies are and to see if a wireless technology solution can address them. That's really the whole purpose of the test—to evaluate the effectiveness of that.*

**Michael Johnsen:**

*That's great. We're going to have to move on to our final topic because the time is just kind of running by here a lot faster than I thought, but it's great stuff. Thanks a lot for that, Jeff. It's an*

*interesting project. What can we expect in the next steps, just to give people—I think you said we are looking at this wrapping up by 2010?*

**Jeff Loftus:**

*Right. We're going to wrap up this particular demonstration by the end of calendar year 2010. Like I mentioned, we are going to have additional requests for proposals for folks on the line. The best way to stay in the loop on that is just to register on the [fedbizopps.gov](http://fedbizopps.gov) Website, where you got the announcement for today's webinar perhaps. You will get an e-mail from FMCSA, or through that site, when we post something official.*

**[34:00]**

**SLIDE 15: EMPLOYER NOTIFICATION SERVICE**

**Michael Johnsen:**

We'll move on to our third and final topic. Chris Flanigan is going to be talking about the Employer Notification Service or ENS. If there's folks actually are out driving trucks and they are on the line listening to this, they may know and may be familiar with this program. Chris, let's hear a little bit about what this program does.

**Chris Flanigan:**

Thanks, Mike. As Mike said I'm going to talk a little bit about our program for the Employer Notification Service. This is legislatively required for us to do from the TEA-21 legislation. Right now we are in Phase II and wrapping up a pilot test and the analysis of that pilot test.

I'll start with a little background here. Our research and other entities' research has indicated that truck and bus drivers that have passed convictions for moving related offenses, they're statistically more likely to be involved in a future crash when compared to a driver who hasn't had that.

**Michael Johnsen:**

Now, that's just being involved in a crash. That doesn't mean they're responsible for the crash; just involved in the crash.

**Chris Flanigan:**

Correct. It is fair to assume though that the drivers—I don't know that, I can't, off the top of my head, come up with the numbers of who's at fault. I think when you look at it logically, drivers who operate a vehicle in an unsafe manner—in a manner that would have them incur a moving violation—it's just a no-brainer to me that they're going to be more likely to be involved in a future crash. Whether it's their fault or not, you still need to correct the behavior that might come down to have them being involved.

Another kind of obvious point that I don't think anybody would argue with is that employers are not always notified about these convictions when they occur. It is incumbent upon the driver to inform his carrier, his employer, what has happened. As a result, carriers can't take corrective action with the drivers or, in the case where it might be a particularly egregious violation, maybe terminating that driver's employment with that carrier. Carriers want that information. To that end, the Agency currently requires that carriers check driver history at least once per year. A lot of them do it more than once, but at a minimum, they have to check each driver they employ's history once a year. On the other hand, I mentioned drivers are required to report status changes that result from any kind of a moving violation or conviction. They have to do that within 30 days. However, if their license is suspended, revoked or rescinded, they have to report that within one day. If you do the math on those numbers, and you pick out a worst-case scenario, you could have almost a year of time go by if a carrier chose to do the minimum—one annual check—and a driver chose not to report his suspension or conviction at all. It makes sense; it's logical to assume that a driver, if he is faced with losing his job if he reports something, that he may decide to string it out and see how long he can go.

#### **SLIDE 16: ENS: ADDRESSING THE PROBLEM**

There's a way to address this problem, and that's with an Employer Notification Service. These programs currently exist. A number of states have them now. There are about 13 states or 12 states that have some form of a program. In states like California, they require every driver—every commercial driver, from a pizza delivery guy on up to a heavy truck operator—to be enrolled in their State-run system. States like Illinois—they have requirements that school bus operators be enrolled, and driving instructors. Each state has a little bit of a different approach to how that's run, and it is within the state.

Another way that it's handled is by private companies or third parties. We in this pilot test have been working with a company called Explore Information Services. They were recently purchased by USIS. The way they work is they accept enrollment from carriers of their drivers. Each month they scan the states' conviction records and then report any of those names that come up immediately to that carrier. The carrier doesn't have to go looking for the information; they just get it sent to them without having to ask for it. It's a proactive situation; it's done via e-mail and the carriers can address issues in a timely manner. What this ends up doing is it streamlines the carrier's ability to oversee its drivers. Right now they are required to check 100 percent of their drivers. The kind of the informal numbers that I have heard through my work on this project, have been that of 100 percent of the drivers that they check, only about 20 percent ever come back with any kind of change in CDL status. That might be an endorsement change or something not related to convictions. That being said, they're buying at least once a year, driver history records for 80 percent of their drivers and there's absolutely no change. That's an issue that I'll talk a little bit about with the National Deployment Scenarios and how that affects the States. Essentially, what carriers want is the ability to address a problem, be able to talk to a driver, have a timely interaction with the driver, and have the ability to modify the behavior or remove that driver from the road.

**Michael Johnsen:**

Thanks Chris. That's excellent background. We've been having some questions pop in and we won't be able to get to all of them, especially some of the more detailed ones, but I'll kind of start this off. I always like bringing up the cost thing because it's an important thing. People are paying a few cents on their gas tax and that's what funds FMCSA operations. It's a tax that people are paying. We get this directive from Congress to do this ENS project and we've got to come up with a way of paying for this. We wind up using that money that we're given. For this system, who's paying for this? I can see the benefit to the public. Obviously, you want safety—I have a stake in not having somebody with a ton of convictions out on the roads; that's obviously not an improvement to the system. Where are we getting the money for this?

**SLIDE 17: ENS: NATIONAL DEPLOYMENT SCENARIOS**

On my last slide there, it depends on actually how a National System would be deployed. If it were federally administered, essentially we would have to have a government established and run system which would, of course, be funded by the taxpayers if that were the case. There would have to be an infrastructure built to where a hub could be created where states could then hook-up to that hub to provide conviction data to that system and then give the federally administered system the ability to send out notifications to the enrolled carriers.

The other way—I mentioned before there are a number of third parties out there. Currently, a way that you could achieve a national system without having a federally-run system is by harnessing these carriers and having them cover the entire country. It could be required or optional. I don't know at this point what that would be, but right now, with the services that exist, the carrier would incur the fee for enrollment in the third-party system. The only problem is there are a number of states that do not allow the third-party access to the system. They don't allow these for a number of reasons. Privacy concerns if, for instance, the legislation exists in the state where the privacy of the driver needs to be met. Sometimes the access by the third-party cannot coincide with those laws. There's also, as I mentioned, state revenues that they receive for these annual checks. Also states, in order to hook-up to a system, might need some money for infrastructure modernization.

Who's going to pay for it comes down to two areas. The carrier needs to pay for the service whether they get an e-mail or some sort of notification that says "There is a record that needs to be checked for one of your drivers; pay X dollars . . ." Less than \$10 is probably the number that gets floated around; it could be somewhere within that range. The other costs that would be incurred would be for a federally run system, having IT modernization for states to be able to link up to the system and for a third-party-based system just to be able to move through the issues and get past the issues that are keeping some states from allowing that third-party access.

***DISCUSSION: EMPLOYER NOTIFICATION SERVICE (ENS)******Jeff Loftus:***

*Chris, you answered one of the things that I was thinking about—why third parties haven't gotten national coverage. This is just convictions, right? We're not talking about citations?*

**Chris Flanigan:**

*Correct, just convictions.*

**Jeff Loftus:**

*There's was a questions that came in. Will it do away with our requirements for the annual motor vehicle record pull under Reg. 391.27 if we go to ENS?*

**Chris Flanigan:**

*By virtue of having a system will not automatically do that, but I would hope that that would be the direction we would go if there was a system that everybody could access. Currently, we have an interpretation that we issued that needs clarification, but it does state that if a carrier is enrolled in a system that provides them full updates on the driver's CDL status, then they are exempt already from that annual check. Our Operations Office is now looking at clarifying that to make it clear that, across the board, if you are getting full-time updates, you would be exempt.*

**Quon Kwan:**

*Chris, this is Quon, I've got a question. Will a national ENS System conflict with the current state-run systems?*

**Chris Flanigan:**

*Again, for the two different scenarios for national deployment, if it was a third-party market-based approach, then the ability already exists. These third-parties are already providing these services within states. Some of them are providing within states that already have a system in place and it runs parallel to that system. However, if it were a federally-administered system, that's where the issue would come up where there might be a conflict or there likely would be a conflict, because if a federal system were developed, there would have to be a baseline of what the system would have to provide and who would have to be enrolled in the system. It could optional, but if it were a required by the Federal Government, then you're going to have states like California who has had a form of this in place since 1982. As I mentioned, they require drivers that are beyond what we would cover under our purview. It would also have the effect of perhaps being a little bit of a lesser—not the full system that maybe they have in place. So if we were to come out with a national system that didn't provide the level of monitoring that California provides...*

**Michael Johnsen:**

*Would it be "Grandfathered"-in or something?*

**Chris Flanigan:**

*It's a matter of them having their system running and requiring a certain amount of things but then having it be superseded by a federal requirement for a portion of their vehicles. They've expressed this concern to me a number of times, and quite frankly, I don't have a good answer for how it will affect them until I know what the final system is. I think that the dialogue that we have had throughout the course of this, with the states had been very open. We've been working with them closely on this throughout the project. We would hope that we could come up with*

*some definition of a system that wouldn't conflict, but it remains to be seen what the final system would be.*

**Michael Johnsen:**

*That's some of the work that's left ahead. I just wanted to let folks know that we may go a few minutes over our hour because we want to get some questions from people on the voice line as well; but just to hit a couple of these that are up, somebody asked where we could get that interpretation from that you're talking about; that's probably online on our Website.*

**Chris Flanigan:**

*It is really not an official interpretation from the standpoint that—it was an answer to a question, a professional question, I believe. To obtain it—my information will be on at the end and I can send you a link.*

**Michael Johnsen:**

*Great. If you have a question about wanting to get that question that Chris is referring to, you can ask him on that.*

*One of things, so I can get to some of the questions that people probably have, that they want to call in on, is that on your next steps for this, we have this test program—what can folks expect with the system in the next nine months or so?*

**Chris Flanigan:**

*Currently we are wrapping up the final evaluation. During the pilot test, we had an evaluation done independent of our contractor, and they have come in with their recommendations for national deployment. We're finalizing that report. We're also finalizing the main report from the actual pilot test, which talks about the system, how it worked, and what we will recommend for a national deployment scenario. We're also working on a synthesis document that looks at how you can take both of these documents—the evaluation of the pilot test and the pilot test document itself—and condense it into . . . sort of marry it up and give a short and sweet description, maybe 15 pages or so that actually will tie the two together. Hopefully sometime this summer we'll have both reports published and will contain a specific recommendation on how we can get national coverage as soon as we can and as effectively and efficiently as we can.*

**Michael Johnsen:**

*Great, thanks a lot. Just a follow up on a question frequently asked the ENS deals strictly with the conviction data. To allow companies to see the crash and inspection data that's in MCMIS, we have that order under SAFETEA-LU, that by August 5<sup>th</sup> of this year we have to have a program in place that allows potential employers to see that information before they hire the driver, with the driver consent. The driver has to give their consent for that. That's called the Pre-Employment Screening Program and that's underway here at FMCSA, but that's another conversation. These systems are often talked about in the same one; ENS is all conviction data, and the Pre-Employment Screening Program in MCMIS is crash and inspection data.*

[50:23]

**SLIDE 18: CONTACT INFORMATION**

**Michael Johnsen:**

Can we go to the phones and see if anyone has a question? We probably have time for one or two questions.

**Kirse Kelly:**

Thanks Mike.

[50:35]

***FINAL DISCUSSION***

**Kirse Kelly:**

Once again, if you want to ask a question, you can, of course, submit it in the **Q&A Box** or if you want to ask a questions over the phone, just press \*1. You'll state your name for the recorded message. When the line is opened, Rosie, our phone operator is going to announce you by name, so please state your name clearly for proper pronunciation. Questions will be answered in the order that they are received.

As mentioned at the beginning of the call, you can download a copy of this presentation at the end of the webinar, so there's no need to ask that question.

**Michael Johnsen:**

*There are obviously a lot of questions out there. We have our contact information up there. If we don't answer your question, feel free to give us a call.*

*Chris, did you want to take that one up there that we see?*

**Chris Flanigan:**

*There is a great question. It's something I have not touched on yet. The states do make a considerable amount of revenue by selling these MVRs, motor vehicle records or driver history records. Will the DOT give some financial incentive to the states to go to ENS?*

*One of the toughest problems that we've tried to crack in this program is how much would be lost by states. I mentioned earlier about 80 percent of the DHR requests that carriers do, come back with no change. If those 80 percent were eliminated, what type of an effect would it have on the state revenues? We have not figured out a way, in talking with the states, to figure out what portion would actually be lost if that were to happen. There are a number of other sources where the driver history records are requested. For instance, carriers, when they hire a driver they pull*

*a DHR or they're considering hiring a driver, they pull a DHR. There are a considerable number of DHR requests requested for that. To actually put a number on what would be lost is tough to do. Would the Federal Government ever make the states whole? I can't answer that question, but I think it's going to be one of the things that would have to be quantified, once a system like this is in place. It's very difficult to connect the commercial vehicle requests to the total request for the state revenue. It's a tough question and I know it's probably the biggest question that we're going to have to deal with if we have a federally-run system, but at this point, we have not been able to get a clear number.*

**Michael Johnsen:**

*I am glad that you addressed it. I think it's good to take on some of the tougher questions here, and let folks know we're thinking about this stuff.*

*Do we have anybody on the line? What's our first question?*

**Rosie (Operator):**

*There are no audio questions at this time.*

**Michael Johnsen:**

*All right. Let's see if we can see anything up here. Somebody asked if we had any data about the emissions reductions for some of these programs. I think they are probably referring to the ITS stuff we're talking about. No we don't. Hopefully, that will be some of the stuff we can kind of derive from congestion and time-delay stuff that we're looking at. A lot of this stuff, especially with the environmental stuff and emissions is pretty new. We could use a lot of help in trying to determine some of the research and savings that we can get from this. That's certainly something that people are going to be looking at.*

*Chris, how many states have ENS programs?*

**Chris Flanigan:**

*It's 11, I'm pretty sure it's 11 in some shape or form. As I mentioned, it varies quite a bit across the board what vehicles are covered. In some shape or form, 11 states have one.*

**Michael Johnsen:**

*Somebody asked about the Pre-Employment Screening Program. That's not the topic of the Technology Division, but that's something that is currently underway. I can give an update on that because I happen to work—if you have questions, you can obviously ask me about this. That program—we put a request for proposals out, received bids in, and we are still trying to make our decision about awarding the contract. We've got to get that up and running. I'm hoping that happens soon.*

*Any phone questions on the line?*

*We have a bunch of the ones that we can keep pulling off the Internet here.*

**Rosie (Operator):**

*No sir, not at this time.*

**Michael Johnsen:**

*Okay, do you guys see anything up here that you want to try to tackle?*

**Jeff Loftus:**

*Let's go back to some of the other ones as well.*

*One of the questions I'll take—this is Jeff—regarding the drayage program: Where might this program go beyond intermodal carriers in the ports?*

*I would like to get some ideas on that topic. It possibly could be part of a more of a warehousing or distribution center deployment. It doesn't have to be at a port; it doesn't necessarily have to be at a seaport or inland port. One of the key items that came out of the Phase I Inefficiency Study was waiting to either pick up a load, waiting to get access to a facility, or waiting to drop a load. Having better communications between the shippers, receivers, and the carriers may possibly get some traction on that, but taking a holistic view may be an opportunity so that all the parties can benefit by greater data sharing.*

**Michael Johnsen:**

*Great thanks.*

*Quon, do you want to take one on the SmartPark stuff?*

**Quon Kwan:**

*I'll take the first question there. What if there's no space by the time the driver gets there and he's out of hours?*

*I don't know if the person was here when I was saying, we would have two signs. We would probably go with the variable message sign—the first part of information dissemination in Phase II. The first sign telling the trucker whether there is space or not would be positioned about one hour or 50 miles ahead on an interstate. Then if the spaces fill up, there will be another sign, just in front, maybe a quarter of a mile, no more than a mile in front of the truck parking area to tell them it's full and the next available truck parking space would be at—wherever it is.*

*What if he is out of hours?*

*We can't deal with that. That's up to the state enforcement agency to deal with. We know that in some states, allowing truckers to park illegally is a much better bet—much safer than letting the trucker run on the road, violating the hours-of-service. That's the individual states to enforcement policy.*

**Jeff Loftus:**

*And the management of hours is really a driver and carrier responsibility.*

*There's a question about the scope of the Motor Carrier Efficiency Study that I want to address. Does MCES have any future applications for general carrier, or does it only apply to (the intermodal carriers at) the ports?*

*It's all motor carrier transportation. If you look at the Phase I Study, we talked to a variety of motor carrier operations, private, long haul, pickup and delivery, LTL truck load, specialty, as well as intermodal. This is just one of the demonstration projects, but clearly it's all wireless applications to improve general motor carrier efficiencies. It's not just related to ports, and it's not just related to intermodal carriers. That's just the particular test that I chose to describe under this broader program.*

**Michael Johnsen:**

*We have a number of other questions, but we've run over our time here. We are almost ten minutes after 1:00 p.m. Do you guys see any further questions that are jumping out?*

**Jeff Loftus:**

*Just to reiterate your point earlier, they have our e-mail address, if they wouldn't mind e-mailing it to us directly, we would be happy to answer your questions as best we can so that folks feel heard. The session was to get some great feedback because we don't have all of the answers and we're looking to get smarter if we can.*

**Michael Johnsen:**

*That is a great point, Jeff. I want to thank everybody for listening-in for this webinar. To reiterate, we can answer any of your questions that we did not reach today through our e-mail addresses. The webinar will be posted on our Internet site so that you can check it out later.*

**[1:00:15]**

**Kirse Kelly:**

This will conclude the presentation part of our webinar. Before you sign off, we just ask that you complete the evaluation you see on the screen. We welcome your comments about the webinar and your suggestions. You can just type in that suggestion space at the top-left side of your screen.

You can download a PDF version of the presentation as well. You just highlight the document in the download presentation pod that's on the lower left-hand side of your screen and click **Save to My Computer**.

As a reminder, members of the trade or a local media who are participating, if you have any questions, contact the FMCSA Office of Communications—(202) 366-9999.

We will have a recording of this webinar online on our "Past Webinars" Page. It'll probably be a couple of weeks. I saw some questions about would we repeat this webinar? If you are interested in that, please put that in the suggestions and we'll try to get that going for you.

**Jeff Loftus:**

If I could jump in real quick—we would like to get some feedback, if we could, on the format, if you thought this was better as well, in the e-mails that you send us, in addition to filling out the

questions that Kirse has here. Under Mike's leadership it was a great novel approach that we thought that was fun from our end and we want to get your feedback.

**Michael Johnsen:**

Thanks a lot. It was great. I want to thank everybody participating on our team and everybody else. I think that Kirse needs to say a few more things.

**Kirse Kelly:**

Yes, just one more thing—on June 3rd we're going to host a webinar on Driver Distractions and registration for that will open at the end of the week. Check out our Website, [www.fmcsa.dot.gov/art](http://www.fmcsa.dot.gov/art). You can register—just hit future webinars and check it out. We'll also be sending out announcements for this and other webinars. If you are not yet on our e-mail list you can add your address in the pod at the bottom of the screen.

**Michael Johnsen:**

That would be really helpful since we didn't get everybody's name at the beginning to get everyone on to the phone fast. If you want to stay connected, put your e-mail address in for us, thanks.

**Kirse Kelly:**

Thanks for participating and thanks also to Rosie, our phone operator.

**Rosie (Operator):**

Thank you ma'am. You may disconnect at this time. The call has concluded.

[1:03:00]