



## DRIVING SAFETY AND SUCCESS: THE VIRTUAL ROAD TEST (VRT)

NASCIO 2022 State IT Recognition Awards



**STATE:** Georgia

**AGENCY:** GA Department of Driver Services (DDS)

**AWARD CATEGORY:** Emerging and Innovative Technologies

**PROJECT BEGINNING DATE:** February 17, 2021

**PROJECT END DATE:** December 1, 2021

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## EXECUTIVE SUMMARY

Most teens look forward to getting their driver's license, but for some, the prospect of taking the road skills test with an examiner in the passenger seat causes nerves to kick into high gear.



Typically, an examiner rides in the constituent's vehicle for the duration of the test conducted by the Georgia Department of Driver Services (DDS). When COVID-19 restrictions were enacted, vehicle road testing was suspended for the safety of driver examiners and constituents. A modified version of the road test was quickly devised by suspending the on-road portion and limiting the test to DDS parking lots. The driver's license applicant then remained in the vehicle with windows down while the driver examiner shouted instructions

from the sidelines.

During this new process, DDS saw workers' compensation claims drop considerably due to driver examiners not being involved in crashes during this period. In addition, feedback from customers and team members was positive, encouraging DDS management to devise a more permanent version of this modified test that could also include a road test.

Research led to the rollout of the Virtual Road Test (VRT) in all DDS customer service centers where road tests were previously available. VRT utilizes an innovative dashboard camera that allows the driver examiner to have cutting-edge visibility of the driver off DDS property from a computer or cellphone. It offers live streaming, distracted driving detection, reporting, data analytics, and two-way communication. The camera is easy to install on the applicant's dashboard, and it is easy to remove when the test is over.

With the innovative new testing model, a dashboard camera takes the place of the examiner inside the vehicle. Instead, the examiner directs and monitors the test from the outside. The applicant is accompanied by a parent or other licensed driver, leading to a more relaxed driving experience.



Georgia teen driver Amber Smith is a big fan of the new capability:

*"I was excited and nervous on the way to the driving test. Of course, I'd practiced every day and was confident that I could pass, but the thought of having a stranger grade my every move was intimidating. My mom was with me and assured me that it would be okay. After all, I have friends and family who have taken the same test, and they came out of it with a driver's license. When I got to the DDS center, I was surprised to learn that the rules had changed, and I could put a dashcam in my car and take the test with my mom in the car with me. That really put my mind at ease and helped me pass the test."*



Removing test anxiety is only the beginning when it comes to VRT. Meaningful gains are also realized in personal and, during pandemic conditions, public health safety. Plus, it allows DDS to continue providing a service heavily relied on by Georgians during extraordinary times.

## IDEA

Georgians visit DDS Customer Service Centers for road tests more than almost any other service. Driver examiners conducted 182,989 road tests in 2020, and 194,298 in 2021.

Due to the COVID-19 pandemic, it was not safe for driver examiners to be in the vehicle with applicants to complete road tests. So, DDS devised a modified version of road tests where applicants were instructed on DDS property by an examiner outside of the vehicle. This was only a temporary solution as the primary goal of a road test is to observe how the applicant performs in real-time traffic situations.



Also, road test accidents were a concern. Driver examiners have been injured while riding in the applicant's vehicle during testing. In fact, there were 60 road test crashes in FY 2020 versus 30 in FY 2021 when the modified road tests were used.

DDS Commissioner Spencer R. Moore often encourages his team to look for ways to improve business processes. And, at a time when many agencies were forced to rethink their business processes, virtual road testing was top of everyone's socially-distanced mind.

Commissioner Moore also emphasizes constituent service and embracing new technology to make processes more constituent-focused and efficient. So, DDS embarked on their Virtual Road Test (VRT) project - one that allows a parent or other responsible adult to ride in the vehicle with the applicant while the DDS driver examiner outside the vehicle monitors the test on a computer or other device in real-time. This supports the DDS safety plan, ensuring that team members remain safe through social distancing and eliminating the possibility of DDS employees being involved in road test crashes. VRT also makes constituents feel more comfortable with someone they know riding with them during the test.

During the initial research portion of the project, DDS did not find an existing virtual process and equipment for vehicle road testing, so an in-house model was designed.

  
**Road Tests  
per Year**



Year **2020**  
**182,989** Tests

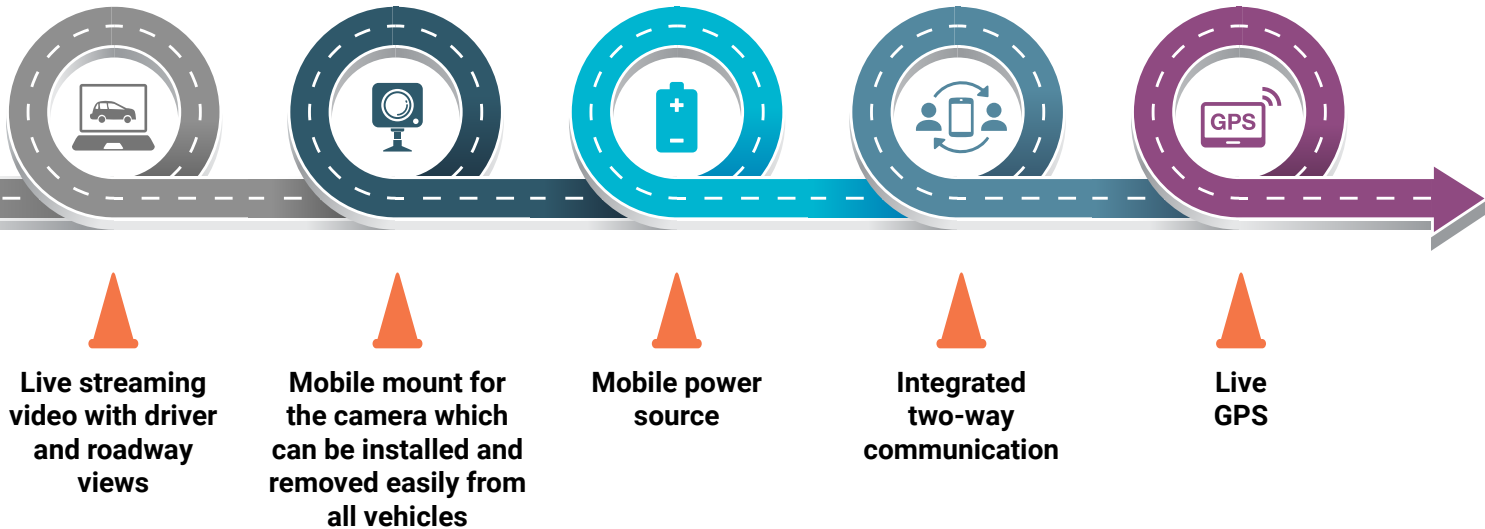


Year **2021**  
**194,298** Tests

## IMPLEMENTATION

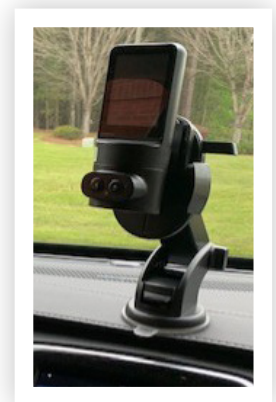
### Developing a Roadmap for Testing Success

At the direction of Commissioner Moore, Deputy Commissioner Ricky Rich initiated the research by looking for technology that would be cost-effective, efficient, and safe. He worked with members of the DDS Information Technology (IT) Division to meet the following specifications:



Even though dashboard camera technology was readily available, DDS could not find a tool that had integrated all the above specifications into a single system. A call to the Georgia Institute of Technology led DDS to the right resources. Working with the engineering department, DDS found ZenduIT, a Canadian-based fleet management company that used ZenduCAM, an HD, live-streaming vehicle incident camera, designed to track commercial vehicles and record incidents.

ZenduCAM appeared to be the perfect solution - two views integrated into one compact device. The system includes live video streaming and an external power source. The system is internet-based and can be viewed from anywhere with an internet connection and correct passcodes. A cellular sim card is placed in the camera to provide operability. The only specification that the system did not meet was two-way communication, which was solved by using cellphones. DDS worked with ZenduIT to tailor their fleet management program to DDS needs.



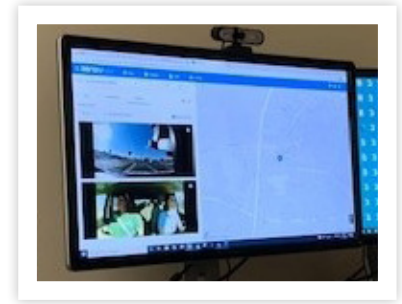
After several months of testing, the project team integrated a mobile mount solution using suction cups. For the mobile power solution, a USB cable can be plugged directly into a vehicle through a USB port or a cigarette lighter adapter. For vehicles without USB ports or working cigarette lighters, DDS provided each Customer Service Center with two external battery packs. The system's live stream time was also extended to 60 minutes to accommodate the duration of the DDS road test. Since ZenduIT was not able to provide two-way communication, DDS is utilizing cell phones effectively for communication between the driver and examiner for now. VRT does not currently have live GPS tracking, but this capability will be part of a future upgrade.



## IMPLEMENTATION *(continued)*

To ensure accessibility to the new technology across all Customer Service Centers, DDS purchased 200 units to distribute to the 63 centers that offer road testing. Each set costs \$239 for the camera, \$8 for the power cable, and \$28 for the window mount. In addition, it costs approximately \$6,500 a month to operate the system with the sim card.

Deputy Commissioner Rich and members of the IT Department enlisted the help of the DDS Procurement and Program Management offices to purchase the devices and secure the appropriate hands-free cellular service through T-Mobile for the majority of Customer Service Centers.



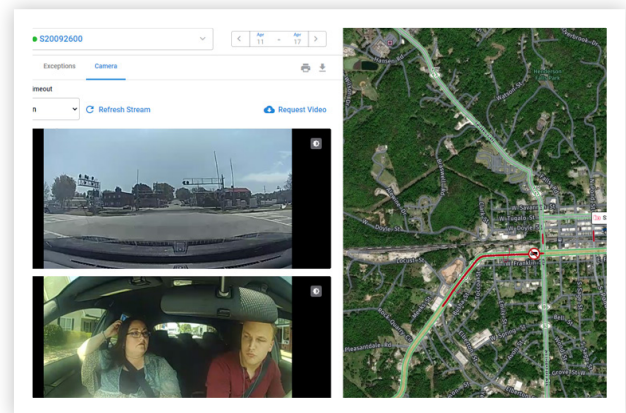
Once the equipment was on site, DDS Field Operations Director Kecia Bevins and Field Operations Deputy Director Pierre Miles handled the distribution and oversight of system installation and use.

DDS District Managers and Customer Service Center Managers monitor the performance of the units and contact IT with any concerns.

## IMPACT

### A Great Turn of Events for Team Members and Constituents

The introduction of VRT has brought a boost to employee morale, especially amid concerns about COVID-19 transmission. In addition, workers compensation claims were reduced due to the elimination of road test crashes involving DDS employees. In fact, there were 60 road test crashes in FY 2020 versus 30 in FY 2021 when the modified version of road tests were being performed. Not having the driver examiner in the applicant's car eliminates the chance of a team member being injured and reduces driver anxiety, resulting in fewer vehicle collisions.



VRT also allows better statewide regulation of the road tests. A road test at any DDS Customer Service Center can be monitored in real-time via computer, laptop, or phone.

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**“The Virtual Road Test is one of the best changes that DDS has made. It keeps our team members safe from potential accidents and illness. At the same time, it helps constituents feel more comfortable and less stressed by riding with someone they know. Team members like it and constituents love it! Win, win for everybody!”**

**Donna James - DDS District Manager**

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## A Comfortable Testing Environment Leads to Success for All

As an evolving tool, VRT has managed to transform the approach to driving tests for both constituents and employees. Still in its early stages, the system has improved testing outcomes for everyone involved. Test scores have increased, road test crashes have decreased, and the number of tests per year continues to rise.

| Date  | Pass Rate | Total # of Tests Performed | # of Road Test Crashes | VRT Use  |
|---|-----------|----------------------------|------------------------|--|
| December 2021<br>(Pilot)                          | 86.3%     | 803                        | 6                      | N/A  |
| January 2022<br>(VRT available at all locations)  | 93%       | 13,246                     | 3                      | 30% of all Road Tests in January were virtual            |
| February 2022<br>(VRT available at all locations) | 94%       | 14,243                     | N/A                    | 75% of all Road Tests performed in February were virtual |
| March 2022<br>(VRT available at all locations)    | 93%       | 17,456                     | N/A                    | 84% of all Road Tests performed in March were virtual    |

**“I couldn’t be more pleased with the outcome of this project. Our team members’ safety and security is one of our top priorities, and the Virtual Road Test fulfills this mission very well.”**

**Commissioner Spencer R. Moore - DDS**

As more road test takers and driver examiners interact with VRT and become more familiar with the process, DDS expects that greater efficiency will emerge. For example, DDS employees have begun the practice of calling and emailing applicants before they arrive for their road tests to let them know about the VRT process.

