



SUNGUIDE® DISSEMINATOR

Florida Department of Transportation's Traffic Engineering and Operations Newsletter



Turnpike Tornado Clearance Efforts Earn Road Rangers Praise

By Mike Washburn, Florida's Turnpike Enterprise

Wednesday, January 27th, started out as just another rainy South Florida day, with morning rush hour commuters sloshing their way along soaked roadways. Then, at 9:30 a.m., the weather turned violent as a tornado dropped to the ground from the rain-wrapped clouds, making its initial touchdown northwest of the Florida's Turnpike and Atlantic Boulevard intersection in Broward County. According to the National Weather Service, the EF-1 tornado, with winds up to 100 mph, first struck the campus of Broward College North, before striking a condominium complex and heading for the Turnpike.

“THE TORNADO THEN CROSSED THE FLORIDA’S TURNPIKE NEAR THE MILE MARKER 67 ENTRANCE AND EXIT RAMPS. SEVERAL CARS WERE TOSSED AND DAMAGED ALONG THE TURNPIKE. ONE CAR TRAVELING SOUTHBOUND ON THE TURNPIKE WAS FLIPPED INTO THE NORTHBOUND LANE RESULTING IN ONE MINOR INJURY. A TRACTOR TRAILER WAS ALSO FLIPPED ON THE SOUTHBOUND OFF RAMP,” cited the National Weather Service’s Damage Survey report.



Overturned box truck on Turnpike mainline lanes and the Coconut Creek Parkway interchange

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Tree debris clearance.

The tornado traveled for more than two miles before lifting. Once clear, responders found six vehicles, including an overturned box truck, an overturned sport utility vehicle (SUV), and a damaged tractor trailer, strewn along the Turnpike mainline lanes and the Coconut Creek Parkway interchange. Motorists only experienced minor injuries, including the driver of a southbound sedan that was picked up by the winds, carried over the median barrier wall, and dropped onto the northbound lanes.

Florida's Turnpike Road Rangers Arnaldo Alvarez and Wesley Matlock were two of the first responders to the scene along with Florida Highway Patrol (FHP) troopers and Pompano Beach Fire Rescue units.

Road Ranger Matlock, after confirming there were no serious injuries, used his tow-capable patrol truck to upright and relocate the sedan from the northbound Turnpike, allowing FHP to open the northbound lanes in less than 30 minutes. Road Ranger Alvarez responded to the southbound lanes and began relocating the other vehicles during the same time. Matlock then responded to the southbound lanes to upright the SUV, and relocate it to the right shoulder. They then assisted with maintenance of traffic setup for the closure of the southbound ramp, where the Turnpike's Rapid Incident Scene Clearance tow vendors had been dispatched for the overturned box truck and tree debris clearance. All mainline lanes were opened to traffic in just over an hour, and Turnpike Roadway Maintenance opened the interchange in just over two hours.

For their quick response and safe, quick clearance efforts, Matlock and Alvarez, both employees of Road Ranger contractor Florida Turnpike Services, were recognized as Florida's Turnpike Responders of the Quarter at the Turnpike's February 9th Traffic Incident Management Team meeting.

Responder of the Quarter Nomination

"It is unanimous that Arnaldo Alvarez and Wesley Matlock be recommended for their commitment to the Turnpike, their fellow co-workers and their exceptional performance on Wednesday, January 27, 2016," according to Turnpike transportation management center (TMC) operators who nominated them. "Arnaldo and Wesley arrived on scene and immediately took control. They had exceptional communication with the TMC (as we had no visual due to tornado damaging CCTV [closed-circuit television cameras]) and all parties involved. Both handled the event so seamlessly. We are proud of them. These two Rangers are exceptional at their jobs and are assets to the Turnpike."

For information, please contact Mr. Gordin at (407) 264-3316 or e-mail to Eric.Gordin@dot.state.fl.us.



Florida's Turnpike Road Rangers Wesley Matlock (l) and Arnaldo Alvarez (r).

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District Two RTMC - A Long Awaited Dream!

By Peter Vega, FDOT District Two

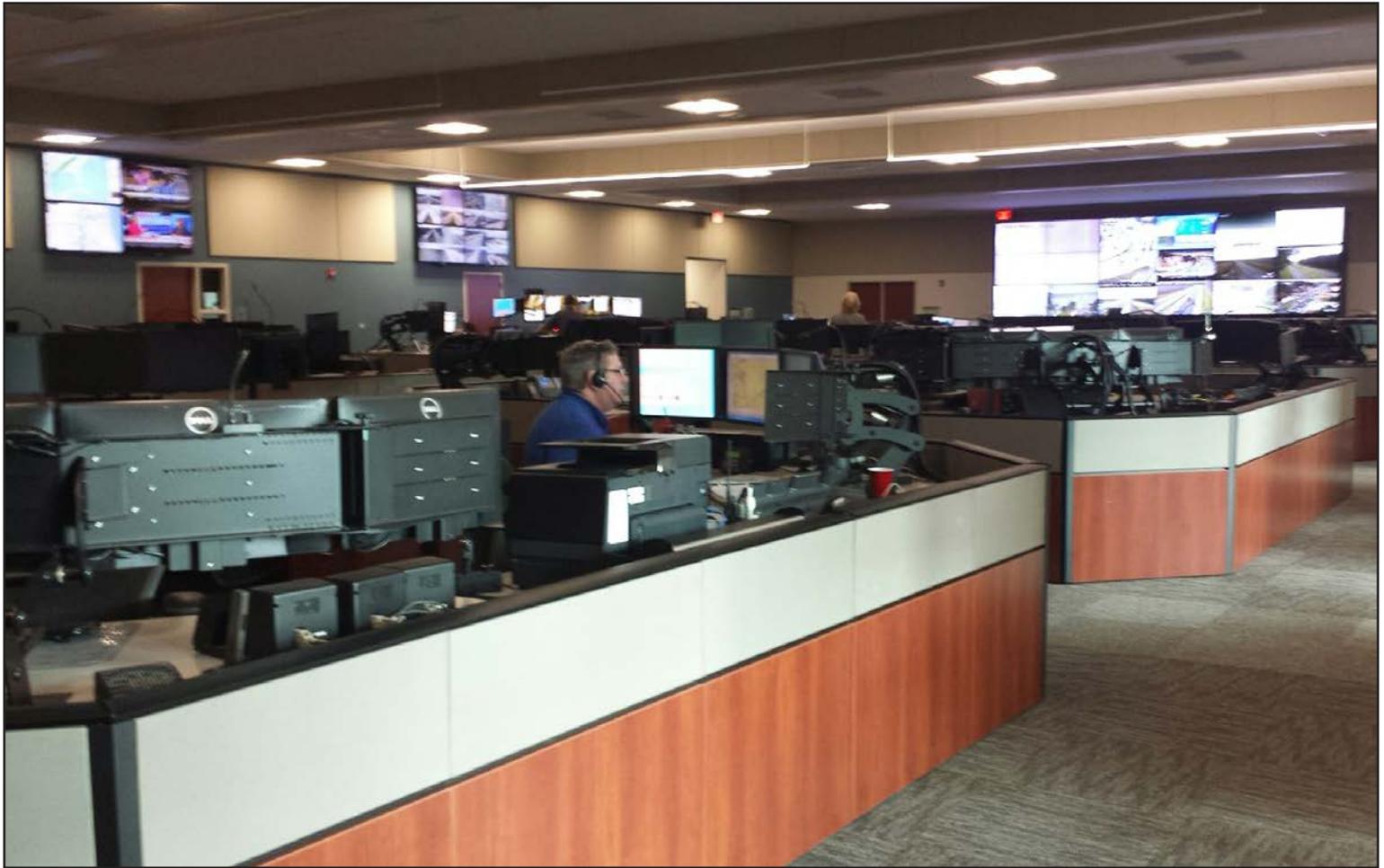
The Florida Department of Transportation (FDOT) District Two Intelligent Transportation Systems (ITS) Office has finally found a new home with the opening of the North Florida Regional Transportation Management Center this past November. It's been a long time coming, but the North Florida Transportation Planning Organization (NFTPO) Executive Director, Jeff Sheffield, couldn't have stated it much more eloquently at the Ribbon Cutting Ceremony when he said in his speech, "**We Freakin' Did It!!!**" For those of you that do not know, this has been an extended journey of over 10 years filled with many ups and downs along the way. In 2004, Governor Bush provided money to District Two for a new regional transportation management center (RTMC) in Jacksonville using growth management funding he had set aside for such efforts. The original design for the facility was supposed to be located at the west end of downtown within the Jacksonville Transportation Complex (JTC). This complex was going to be the base for all modes of transportation, including the Skyway, Amtrak, transit, commuter rail, and bus rapid transit.

FDOT had 100 percent plans in hand for this RTMC and was ready to begin construction when the recession impacted Florida's economy. Since this was a joint venture involving the City of Jacksonville, local transit agency, and FDOT, a reduction of tax revenue led to a significant impact on funding. Unfortunately for North Florida this meant that the project had to be tabled to a later date. Since this was one of the worst recessions ever encountered by our country it appeared that it would be decades before this RTMC could be built. Having seen enough, Jeff decided to approach the NFTPO Board about funding the RTMC in place of FDOT and local funding efforts using their Congestion Mitigation Air Quality/Surface Transportation Funds – Urban funds. The Board understood the importance of having this multi-agency RTMC to help deal with growing traffic congestion in North Florida; therefore, they were "all in" on completing this project.

Since the JTC was on hold and costs for an RTMC at this location would be much greater than what was made available by the NFTPO Board, our team had to put their thinking caps on for an alternative solution and location. Fortunately for us, the existing Florida Highway Patrol (FHP) Regional Communication Center was on a State of Florida campus at the northwest end of downtown. This campus was designed for growth with the intent of providing land to state agencies looking for real estate. Driven by FHP Colonel Grady Carrick, the team decided to take a look at this location as an option since the benefits of constructing at this location saved the project millions of dollars while allowing us to build what was needed for the region.



District Two's new North Florida RTMC.

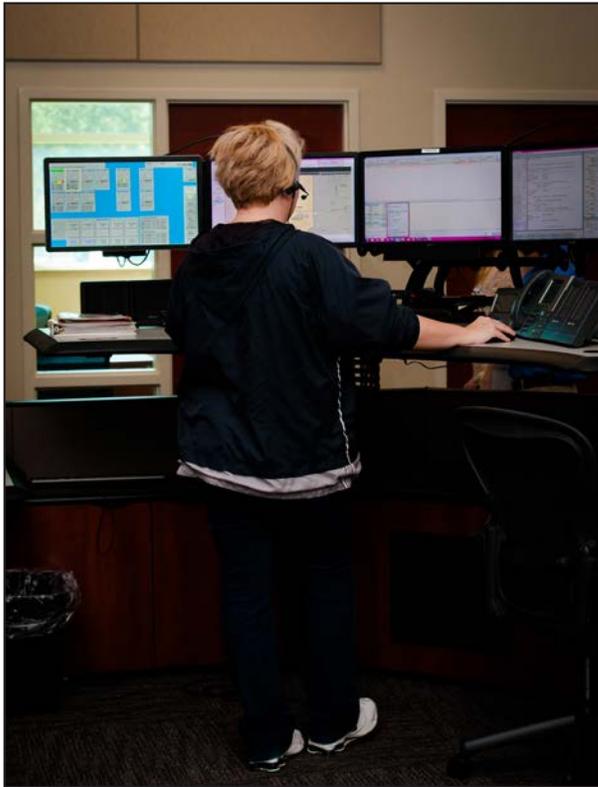


District Two's new North Florida RTMC.

Some of the cost savings included existing on-site drainage that was designed for future buildings within the campus, an existing state law enforcement tower that allowed us to save tons of money on FHP communications, existing gas/water infrastructure that helped control costs, and enough space for us to build a 25,000 square foot facility. Also, since this was State of Florida property, the Department of Management Services real estate division was required to oversee the construction, thereby also saving FDOT money on project management, and construction engineering and inspection costs.

All that being said, during the design process it was decided that we would include our NFTPO partners in the building since they have been a key factor for the North Florida arterial ITS program. During this time, FDOT and FHP focused on designing around the RTMC operations floor while the NFTPO staff focused on a state-of-the-art Board Room. The intent was to have enough workstations on the RTMC floor to accommodate multiple agencies while providing state-of-the-art work consoles that would improve worker morale and productivity. Since the operations floor was a key component in the design, we attacked this area first and built the rest of the RTMC around it. We also decided to target a Leadership in Energy and Environmental Design silver certification, so there was a lot of “thinking outside the box” while working on the plans.

Without getting too detailed, we decided to target the “easy” things for this certification by going with all light-emitting diode lighting, windows that allowed for ambient lighting on the floor, motion/thermal detection sensors for every square inch of the RTMC, hot water that was heated by the heating, ventilation, and air conditioning (HVAC) unit, insulated concrete form walls, and a low energy HVAC system. These were just a few of the decisions made that led to significant cost savings in the monthly energy bill. The team also decided to handle all the technical aspects of construction by having our contractors handle all the cabling, data room, and video wall installation. This proved to be very valuable to our project since we determined having one homogenous cabling approach at each work console provided the opportunity to switch agency positions whenever necessary by moving a few CAT5-E cables in the data room. Likewise, control over installation of the video wall provided us with the



Standing workstations.

opportunity to double the square footage from what was initially intended during preliminary design.

The North Florida RTMC currently has FHP duty officers, FDOT RTMC operators, Florida Fish and Wildlife Conservation Commission dispatchers, and City of Jacksonville operators working on the floor. In March, we expect to have Jacksonville Sheriff dispatchers stationed at some of the work consoles and, by the summer of 2016, our goal is to have at least two Jacksonville fire/rescue operators on the floor as well. There are still a few spots for transit agency dispatchers, but it is not expected that they will arrive until sometime in 2017. The goal is to have everyone settled in and working together as a multi-agency RTMC prior to the end of the year so that we can display the return on investment to the NFTPO Board within the year.

If you were a fan of the movie “Field of Dreams,” then you will understand the line “build it and they will come!” Prior to design, it was like pulling teeth to get our partners to join in on the multi-agency concept, but the closer we got to opening the facility, the clearer they saw the big picture. If we pull this effort off, I expect the need for a bigger and better RTMC in about 10 to 15 years. Fortunately for us, there is the opportunity to expand on the north side of the building with an additional 15,000 square feet of space, if necessary. During the first month we have already seen huge benefits by being under one roof, so I can’t wait until Black Friday 2016 to see how far we’ve come.

For information, please contact Mr. Vega at (904) 360-5463 or e-mail to Peter.Vega@dot.state.fl.us.

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TSM&O Program Update

By Raj Ponnaluri, FDOT State Traffic Engineering and Operations

Florida Department of Transportation’s (FDOT) Transportation Systems Management and Operations (TSM&O) program is advancing significantly with the strengthening of its arterial efforts through the State Arterial Management Program (STAMP) and the Florida 511 program, along with a vision to integrate various TSM&O elements. Towards this objective, FDOT worked closely with the Transit Office and helped deliver four transit signal priority workshops across the state. These workshops were attended by traffic engineers, transportation planners, and transit operators, and were well received.

Given the continually evolving area of monitoring arterial corridors, FDOT Central Office is applying data from the University of Maryland’s Regional Integrated Transportation Information System to quickly develop travel time information dashboards on specific corridors, especially in

urban areas. Dashboards of this type help arterial systems engineers with decisions on corridor prioritization to make improvements from a planning perspective and attend to monitoring efforts, where possible, from an operations perspective. FDOT Central Office also visits District Offices and actively discusses ways to provide value through the TSM&O program.

On the research front, the State Traffic Engineering and Operations Office is developing an exercise to understand ways by which TSM&O can truly be integrated—from planning through design, construction, operations, and maintenance.

For information, please contact Mr. Ponnaluri at (850) 410-5616 or e-mail to Raj.Ponnaluri@dot.state.fl.us.

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District Six Releases SunGuide® TMC's FY 2014-2015 10-Year Anniversary Annual Report

By Javier Rodriguez, FDOT District Six

The Florida Department of Transportation District Six Intelligent Transportation Systems (ITS) Office has published its annual report for fiscal year 2014-2015.

The report commemorates the SunGuide Transportation Management Center's (TMC) 10-year anniversary, highlighting the beginnings of the District's ITS Program and the opening of the TMC and its progress since opening.

The annual report offers insights into how the region's growth prompted District Six to expand the program into what it is today. The District knew it could not build itself out of congestion and that integrating technology and active traffic management strategies into its transportation system would become increasingly necessary to meet South Florida's growing needs. The report also details the steps taken to expand ITS efforts and create the regional hub that would eventually become the SunGuide TMC, which also houses Miami-Dade Expressway Authority, Florida Highway Patrol, and others.

The annual report is categorized by the program's five primary functions: ITS Deployments, TMC Operations, Incident Management, Information Technology /ITS Maintenance, and Traveler Information. It gives a brief history on the origins and needs of each function, how they have developed through the years, and the projects that will take the TMC into the future.

Additionally, it provides valuable data that gives readers the context around the improvements made and the challenges the ITS program has overcome this past year. Specifically, it highlights the ever-increasing traffic volumes on District Six roadways as well as the progress programs, like ramp signaling and incident management, have made. The report also details the benefits of 95 Express, the inception of the TMC's control room retrofit, and the upcoming improvements to its software and operational strategies.

The program's incident management efforts have improved over the last fiscal year. Average lane clearance times have decreased to 27.5 minutes from the 50 minute baseline in 2005. Overall, the incident management team handled 49,500 incidents this fiscal year, an increase of 6,500 incidents from the previous fiscal year. The TMC also posted 426,500 dynamic message sign messages to the public, a 70 percent increase from the previous year.

Overall, the efforts by the TMC and the ITS Office have had a positive impact on the regional community.

The 2014-2015 annual report is filled with helpful statistics for each service and a look-ahead for what is sure to be another exciting ten years in the District's ITS program. The report is available online at http://www.sunguide.info/sunguide/index.php/tmc_reports/archives/81, under the 2015 tab.

For information, please contact Mr. Rodriguez at (305) 470-5757 or email to Javier.Rodriguez2@dot.state.fl.us.



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District Four Joins Efforts for Move Over Month

By *Natalie Cortes, FDOT District Four*

The Florida Department of Transportation (FDOT) District Four is always focused on improving the safety of motorists and responding personnel. In January, FDOT District Four joined with the Department of Highway Safety and Motor Vehicles (DHSMV) to increase awareness during the “Move Over Month” campaign.

Throughout January, safety messages were displayed on select dynamic message signs (DMS) in South Florida, reminding drivers to move over a lane for emergency vehicles. Special holiday safety messages, warning drivers to keep right if they were planning on driving at slower speeds, were also posted on DMSs due to increased travel.



District Four displays safety messages to increase motorists’ awareness during January’s Move Over Month.

According to Florida Statute 316.126, Florida law requires motorists to move over a lane, or slow down to 20 miles per hour (mph) less than the displayed speed limit for stopped emergency, sanitation, or service vehicles. If the displayed speed limit is 20 mph or less, vehicles must slow down to 5 mph. Motorists who fail to abide receive a fine, fees, and points on their driving record.

Last year, FDOT District Six mourned the loss of veteran Road Ranger, Andres Garcia Boligan, who was struck by an oncoming dump truck during a routine service call. In 2014, District Four also lost a Road Ranger, Arnold Metellus, who was struck by a passing vehicle while he assisted a disabled motorist on I-95.

DHSMV reports from 2012 to 2015 indicate that “Move Over” violations caused 41 percent of crashes within Florida and citations increased 58 percent from motorists failing to move over. “The simple act of moving over for law enforcement, emergency first responders, and other stopped vehicles gives these individuals adequate space and can greatly increase safety on Florida’s roadways,” said DHSMV Executive Director Terry L. Rhodes.

For more information please contact Mr. Dong Chen at (954) 847-2785 or email to Dong.Chen@dot.state.fl.us.

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District Five: Finding a Better Way

By Jeremy Johnson, FDOT District Five

Opportunity

Since the 1990s, the Florida Department of Transportation (FDOT) District Five has utilized a traditional desktop environment to get work done. We still maintain desktop and laptop computers in our environment that can number into the hundreds. This way of doing business is proven, tested, and used throughout the state. However, this type of infrastructure no longer makes sense with the ever-changing transportation systems management and operations/intelligent transportation systems landscape. They have become expensive, insecure, and maintenance-heavy.

Even though desktops are still a milestone with our environments, we wondered if there were other avenues available. We began to question if there was a better way to overcome the disadvantages of the traditional desktop. Keeping with the “Do it better” attitude, we started researching for a better way to handle the deployment and maintenance of desktops.

Virtual Desktop Infrastructure

After some research, we started looking at virtual desktop infrastructure (VDI) environment. VDI is the practice of hosting a desktop operating system within a virtual machine running on a centralized server. A few servers can be used to house several hundred computers allowing for centralization of all personal computers (PC) within an environment. This allows for easy administration, such as backups, patches, encryption, and troubleshooting of all desktops.

There are two types of hardware clients that are used to connect to the virtual infrastructure:

1. Thin clients are terminals that have no hard drives or other features typically found inside a PC. It stores its operating system and configuration settings in flash memory, and runs remote desktop protocols or virtualization software utilizing PC over IP (PCoIP) to connect to VDI.
2. Zero clients, also known as ultrathin clients, are the same as the thin client with one main exception, nothing is stored on the client. PCoIP is used exclusively for communications with the server.

The clients are used to connect to the VDI environment to provide user interaction with the virtual desktop replacing the role of the PC while maintaining the same appearance for the end user.

VDI vs Traditional Desktops

Applications

With traditional desktops, most applications are deployed from central software, such as System Center Configuration Manager, or installed by technicians on each computer within the environment. Both methods are time consuming and can be full of problems, such as incomplete installation and application corruption during deployment. VDI allows for packaging and distribution to occur once within the environment reducing the time required and reducing the number of problems that can be encountered.



Disk Encryption

The use of other software, such as Microsoft BitLocker, not inherent to the PC is needed for traditional desktops to encrypt disks. This requires an immense amount of time devoted to the configuration and encryption of all PCs within the environment. Also, compatibility with PCs and operating systems can affect the feasibility of this concept. However, disk encryption is an inherent solution in VDI, making disk encryption a very simple process.

Backup

Traditional desktop backups require software such as Symantec BackupExec, which can be quite costly and can be overwhelming for the personnel managing the backups. VDI easily links up with existing enterprise backup solutions, such as Veeam, requiring little to no extra cost and very little management.

Single OS Images

Traditional desktop deployments usually contain several different models of PCs and variations in hardware. This leads to multiple images to maintain, consuming an immense amount of time as all images need to have an operating system (OS), application patches, and hot fixes applied to them. Since VDI uses a single base image, all patches, hot fixes, or new OS versions can be tested and deployed with minimal to no impact to the end user.

Patch Management

Traditional desktops require management of deploying patches to each PC within the environment, usually by some type of management software, such as Microsoft System

Center Configuration Manager. This can cause issues, such as failed updates, application conflicts, and OS issues. Even if tested, issues can still occur during deployment as images tend to vary on each PC depending on install date. VDI solves this by allowing patching of the application itself, causing no issues with the base image. Since the application resides outside of the image, it is unaffected by the patch.

Troubleshooting

Traditional desktops consume up to 50 percent of a technician's time. This is due to the differences in PC hardware, application versions, hardware failures, and user customizations, to name a few. Since all virtual desktops are contained within VDI, troubleshooting is made simpler. This is due to the basic hardware required and the centralization of all components. Also, redundancy can be used to remove hardware failures from the server environment by creating a balanced environment.

Redundancy

Traditional desktops allow for minimal redundancy, such as using RAID 1 (disk mirroring), to provide data protection. They can take a long time to get back to end users due to parts or PC replacement. VDI allows for redundancy in the system by balancing the load between multiple servers. In this way, a server can be taken down for maintenance issues or hardware failures with no impact on the production environment.

VDI Layering

By itself, VDI has the same flaws in handling images as physical desktops. Each virtual computer must still be built for each user role or application meaning there will still be several images to manage. Luckily, Unidesk® has a solution to this issue through a layering technology specifically designed for VDI. It allows us to streamline operations by simplifying our image handling. It does this by separating operations into three areas; OS image management, application delivery, and desktop support.

Updating desktops with the latest operating system patches and hot fixes is very time consuming. Also, you can run into issues when updates or hot fixes are deployed to the production environment causing issues such as software compatibility or even a computer crash. With VDI, patch failures are a thing of the past as all patches are applied to a shared OS image. All desktops are then re-made from that common image. Unidesk takes this a step further with their Operating System Image Layer by allowing a rollback feature to immediately rollback if an issue is encountered with no effect on any other part of the desktop. They also mark this layer as read-only so that no changes can occur to this layer ensuring image stability.

Just as with OS patches, application patches and new application deployments are another time consuming factor when administering desktops. This, in most cases, requires a technician to visit a user's computer to install the required application or to create a package to be deployed to the environment. Both options are very involved and can include issues and failures. VDI simplifies this slightly by distributing applications through application virtualization software, such as VMWare's ThinApp or Microsoft's App-V, allowing for applications to be packaged and installed once within an environment. Again, Unidesk has taken this a step further in the Application Delivery Layer by greatly simplifying the package and install process, which is all handled by Unidesk. Also, it is integrated back into the desktop image rather than the application residing outside the image, as with application virtualization software, allowing for a more familiar view to the end user. These layers are also marked as read-only ensuring stability.

User customizations to the desktop can be another major issue. This can allow for Dynamic Link Library conflicts, broken application, and slowing of the desktop. In addition, malware and viruses can also play a factor if they are not immediately controlled. With traditional desktops, there are usually two options—either re-image the computer or repair the problem. Both are very time consuming and interrupt the affected user. VDI uses non-persistent virtual desktops to combat this situation. A desktop is supplied in a pristine state every time it is used. This causes some issues as it will not hold the customizations that most users want. However, Unidesk supports all customizations within the desktop support or personalization layer, allowing for immediate remedy without affecting the personalization layers.

Conclusion

We have found that VDI has greatly reduced the time required in remedying PC-related uses. This has reduced the amount of time that technicians are required to troubleshoot either application or hardware related issues. Also, during our testing, we discovered that VDI has helped in reducing our power consumption, licensing, and hardware costs, furthering our push to VDI.

Right now, we are preparing for the full deployment of VDI in our environment. We will be replacing all desktop computers within our environment with zero clients all utilizing VDI. Our current VDI brokering software is VMWare Horizon View, which is being paired with Unidesk to broaden the capabilities of the base software.

For more information please contact Mr. Johnson at (386) 943-5787 or email to Jeremy.Johnson@dot.state.fl.us.

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Working with Connected Vehicle Data

By Suzanne Murtha, Atkins



Data fusion is proving to be a key outcome of connected vehicle deployments. To address how an agency may integrate data from its own sources, from private companies such as Waze®, and now potentially connected vehicles, the Florida Department of Transportation (FDOT) has undertaken a research project called Utilization of Connected Vehicle Data to Support Traffic Management Decision. This project, led by Dr. Mohammed Hadi of Florida International University, considers how to use connected vehicle data to make traffic management decisions. Building on Dr. Hadi’s prior work to demonstrate how other data and information sources and algorithms may be used to support traffic management decisions, this current project integrates connected vehicle data into a suite of decision support tools.

The intent of the project is to understand the available connected vehicle data and the best ways to obtain it. The collection and use of data from both connected vehicle and cellular technologies will be evaluated through this project. After the data is collected, the research team will explore which traffic management processes and modules will benefit from connected vehicle data. In Florida, the data management tool will involve the SunGuide® software to make this technology available to traffic management operators. At the 2011 World Congress on Intelligent Transport Systems (World Congress) in Orlando, Florida, FDOT used SunGuide software for this same data gathering and integration from other data sources for the original connected vehicle basic safety message used to generate travel times. SunGuide software also sent traveler advisory messages to motorists through on-board units (OBU) approaching traffic events. In October 2014, SunGuide software successfully demonstrated additional safety applications to warn motorists of a wrong-way driver, over height vehicles, and vehicles in distress needing a response.

The data in this project could come from a variety of sources, including the OBUs deployed in the pilot test bed during the 2011 World Congress. Another data source could be additional OBUs developed by project participant Southwest Research Institute®. These devices may include controller area network bus data from a vehicle’s on-board diagnostic system connector in the newer basic safety message. There are also existing connected vehicle data sets already collected by the United States Department of Transportation from other deployments around the nation that can be downloaded from the Internet.



The next challenge is to explore ways to transform the data into information. Dr. Hadi has researched this topic for several years using the existing transportation management center data sources; this project builds on that experience of data fusion, adding to the reliability of coverage of Florida’s roadways.

For information, please contact Mr. Fred Heery at (850) 410-5606 or email to Fred.Heery@dot.state.fl.us.

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ITS Florida: Two New Honor Roll Inductees

The Intelligent Transportation Society of Florida (ITS Florida) honors individuals who have made substantial contributions to the transportation and intelligent transportation systems (ITS) industry upon official retirement. ITS Florida is proud to announce that Chris Birosak and Mark Roberts of the Florida Department of Transportation (FDOT) District One have been inducted into the ITS Florida Honor Roll.

Chris Birosak has earned this honor. He started his career with FDOT in October 1980. He is officially retiring from FDOT with 35 years of service, eight years of which he spent in ITS.

Mr. Birosak managed the ITS section of the District One Traffic Operations Office, located in Bartow, Florida. ITS is very specialized and requires a vast technical knowledge in addition to traditional transportation practices. Mr. Birosak has been a great success in developing his staff to reach the level of technical knowledge necessary to achieve District One's ITS goals.

Under Mr. Birosak's leadership, the District One ITS section grew from two employees to five. During this time, Chris developed processes to adopt new programs in ITS. Through the years, his staff has become one of the best teams in the District and has achieved several milestones including finishing implementation of ITS devices along I-75 and I-4. In addition, his staff successfully handled contract awards for the operations and maintenance of the implemented system as well as management of District One's traffic incident management teams. For this reason, ITS Florida has recognized his section for their efforts in the past.

Mr. Birosak has garnered the much-deserved respect of his peers and he acknowledges that this respect is due to the hard work of his team members. He is well respected in the ITS industry for his knowledge and accomplishments.

Mark Roberts is officially retiring from FDOT after a career that began in January 1979. He is retiring from the Senior



L to R: Mark Robert, Sara Calhoun, Chris Birosak, and Russell Allen.

ITS Project Manager in Traffic Operations position with 36 years of service. Mr. Roberts has been instrumental in the success of District One's ITS program and transportation in District One for his entire career. Mark has been with the ITS program since its inception in the State of Florida, which started with signal system projects. Because of his diligent efforts through the years, the ITS program grew from traffic signal system implementations to complex advanced traffic management systems and freeway management systems. He has played a key role in the formation of the traffic incident management teams (consisting of local agency, law enforcement, and fire rescue) in District One.

An ITS Florida member may nominate a retiring colleague who has contributed significantly to ITS in Florida. The Honor Roll is open to all members (public, private, and academic). Please contact Sandy Beck at ITSFlorida@ITSFlorida.org if you wish to nominate a retiree.

For more information on ITS Florida, please check the ITS Florida web site at www.itsflorida.org or contact Sandy Beck, Chapter Administrator, at itsflorida@itsflorida.org.

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Editorial Corner: Florida's Next Gen FL511 System

By Jo Ann Oerter, Atkins, and Russell Allen, FDOT State Traffic Engineering and Operations

Florida is committed to providing the most accurate, timely, and reliable traffic information to its transportation users. So what is the best way for us to deliver this information to our customers? The Florida Department of Transportation (FDOT) believes that answer is through a variety of resources as well as through an adaptive system. We cannot just deliver an information system and then do nothing. We must keep the information up to date and stay current with technology available to deliver that information.

Unfortunately, in the past we have not been as diligent about providing the resources to keep up with the times. However, that is going to change as we move forward. The new advanced traveler information system, known as FL511, will be separated into two pieces—one that will handle receiving and processing data from various sources, and a second that will send the information out to our users.

The first piece, the Data Integration and Video Aggregation System (DIVAS), will accept and aggregate data from SunGuide® software, FDOT's advanced traffic management system software, as well as several other resources, such as the National Weather Service and local and state emergency management agencies. Utilizing multiple sources will allow us to enhance and better validate the data being delivered to the FL511 system as well as other third-party data users such as the media. The DIVAS contract will be advertised in March 2016 with an expected award by June 2016.

The Next Gen FL511 system is the second piece of Florida's advanced traveler information system, which will provide the components that will deliver information to our customers. In September 2015, we solicited for a Next Gen FL511 system. Proposals were received from four vendors and FDOT selected two to move forward with negotiations. We met with each vendor in mid-January 2016, received best and final offers, and are now in the process of selecting a vendor to deliver the FL511 system. We anticipate having them on board by mid-March 2016.



FDOT is very excited about the new system moving forward. We will have a system that not only has the most robust information available and utilizes the most current technology, but we will be able to adapt to the technology and services that are available to us to notify users of incidents affecting travel on Florida's roadways. We are improving how we deliver information to our users. The new system will continue utilizing dissemination tools used in the current system and also add new tools. Our goal is to move towards platforms that 'push' information to our transportation users. This means a user will not need to 'sign-up' to get the information or actively search for information. That information will be provided to them based on their location or from previous requests they have made to the system.

One of the most exciting tools we will be implementing is our mobile applications, which will be able to determine where a user is by their phone's global position system. Once we have determined where the user is, we can then provide an audible alert to them with information on any traffic issues they might encounter while traveling down the road.

Some of the existing tools that we utilize today will also be modified to deliver information to the end user in a more expeditious manner. For example, the Next Gen FL511 system is going to reduce the number of requests that a user has to make to obtain information they desire through

the phone system. The Next Gen FL511 system will also be able to 'learn' the caller's requests. By 'learning' the caller's 'typical' requests, the system can just provide information to the caller at the beginning of the call rather than requiring the caller to navigate through the menu to get that information.

Another new feature of the Next Gen FL511 system is that we will be able to add routes to the system without having to rely on SunGuide software adding them into their system. In the past, the system was only able to report on routes that SunGuide

software has active in their system. The new system will have the ability to report incidents on a myriad of routes, which will greatly enhance our ability to deliver information to our customers.

Lastly, the Next Gen FL511 system will offer FDOT the capability to change with the times. We will be able to easily remove and add new dissemination components to the system. This will allow us to stay up to date with the most current tools and technology available, and allow us to remove tools that are not being used. FDOT will analyze system usage statistics to determine what and how users are accessing their traffic information. If we see one tool is not being used, or that it is continually declining in usage, then we may opt to remove that tool from our toolbox. On the other hand, if there is a new method to deliver information to our transportation user, we will be able to add that to our system with very little effort. Also, in the event that FDOT decides to discontinue

providing the Next Gen FL511 system to its transportation users, we will be able to terminate the dissemination portion without impacting the portion of the system that collects the data and provides a feed to our transportation partners, DIVAS.

As we've learned over time, our Next Gen FL511 system needs to be proactive in the delivery of information. We can't always wait on our users to go and get it. We also need to be able to have a system that can adapt to current needs and technologies. As we move forward, the combination of DIVAS and Next Gen FL511 will be a huge asset to serving Florida's transportation users and partners.

For information, please contact Mr. Allen at (850) 410-5626 or e-mail to Russell.Allen@dot.state.fl.us.

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FDOT Traffic Engineering and Operations Mission and Vision Statements

Mission:

Provide leadership and serve as a catalyst in becoming the national leader in mobility.

Vision:

Provide support and expertise in the application of Traffic Engineering principles and practices to improve safety and mobility.

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