



David Spinney (left)
and Mike McIntee
of Econolite

UMOVITY: GRAND OPENING

Exhibiting for the first time under the unified brand Umovity, Econolite and PTV are featuring their comprehensive, innovative smart mobility solutions.

Econolite is highlighting its success deploying the next-generation Cobalt ATC controller and EOS controller software throughout Texas. Currently, EOS is running more than 2,000 intersections state-wide, with approximately 300 additional intersections coming online soon in Dallas.

Key features helping drive EOS's success are its user-friendly interface; dynamic coordinator that adjusts instantly to changes in plans or field conditions; best-in-class signal priority control that adjusts coordination based on real-time ETA and ETD; safety features that reduce red-light running, pedestrian-vehicle conflicts; and connected vehicle SPaT and MAP support.

With more than 100,000 units shipped, Econolite controllers operate

approximately one-third of all intersections in North America. Cobalt and EOS, with its ETA-based technologies, are becoming the solution of choice for transit signal priority projects nationwide.

Centracs Mobility, Econolite's cloud-based ATMS platform, is also being demonstrated, including integration with the PTV Vistro traffic impact analysis tool. Econolite's line of sensors, including Evo Radar and Autoscope Vision HD video detection will be featured at

the Umovity booth. Econolite will demonstrate how sensors are helping to deliver the automated tracking, pedestrian, and dilemma zone detection for situational awareness of the intersection.

Anyone visiting the Umovity booth will be a winner in more ways than one: there is a draw to win a \$150 Amazon gift card at 5:30pm on Wednesday - so make sure to drop your business card off before then.

► **Booth 1007**
www.umovity.com



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Traffic Management Software

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The Q-Free team at the booth

Your chance to get Sassy with Q-Free

The ITS America Conference & Expo gets big in Texas this week, and Q-Free is here to show off a Texas-sized evolution in intelligent transport systems. Visitors can discover SaaS and Kinetic Mobility at the company's booth.

The Software as a Service (SaaS) software delivery and licensing method, in which software is accessed online via a subscription rather than bought and installed on individual computers, isn't a new idea to transport; some services have already adapted to take advantage of SaaS delivery.

However, Q-Free has built Kinetic Mobility, the first advanced transportation management software (ATMS) system designed to be a SaaS-deliverable from the ground up.

Kinetic Mobility is ready to take off and deliver advantages and benefits to all users. Deploying this

ATMS as a SaaS model delivers distinct advantages over legacy systems. Initial startup costs are low and equipment costs are minimal since most modern devices on a secure network can log into Kinetic Mobility servers.

Speaking of servers, agencies won't have to pay for or maintain servers – a huge bonus given often limited IT resources. Best of all, agencies only pay for what they need as Q-Free's entire Kinetic Mobility platform is customisable and discounted based on device volume and contract terms.

ITS America is the perfect place to extend SaaS advantages to across the entire Kinetic Mobility platform. Visitors can discover, connect, and learn with Q-Free and start on the journey to where this transformative technology leads.

► **Booth 705**

www.q-free.com

Doing the rounds of State DOTs

The show floor is the setting this afternoon for a plethora of experts to give their views on the issues facing the transportation industry.

The State DOT CEO Roundtable (15:00 - 16:30 Main Stage), in partnership with AASHTO, has an all-star cast of speakers, from across the US. Laura Chace, president and CEO of ITS America, will be there, as will Texas DOT

executive director Marc D. Williams, and Tara Olds, director of connected and automated vehicles at Minnesota DOT. John Barton, senior vice president for HNTB, has wide experience of the industry after a lengthy career at Texas DOT.

Adding to a high-powered roundtable are Carlos Bracerias, executive director of Utah

DOT and John Hibbard, operations division director for Georgia DOT. Infrastructure investment and safe deployment of ITS throughout the US are likely to be major topics in an unmissable event.

Premier sponsor is HNTB, while Rekor and Amazon Web Services are supporting sponsors.

DAY 1

Today's schedule

Today's conference programme is packed full of content across all aspects of ITS and mobility. To help you plan your day and avoid missing any sessions that might be of interest to you, here is a selection of some highlights that you might like to consider participating in...

WORKSHOP

► The **Gender Equity Forum & Breakfast: From Raising Awareness to Actionable Change** (07:30 - 09:30 Grapevine A), sponsored by HNTB, brings together leaders from the USDOT, tech companies, research community and the mobility industry to discuss the top 10 lessons learned in gender equity work in the past two years. Presenters will share actionable steps to advance workforce and transportation equity as well as reflect on meaningful next steps we as an industry can take.

► The last decade has seen the advancement of smart signals, IoT hardware detection systems, and probe data from connected vehicles to create the age of Big Data.

Data has continued to get bigger and bigger, and agencies across the United States are aggregating more and more, but has the data actually become more useful?

Special interest session **From Aggregation to Integration: The Next Phase of Big Data** (08:00 - 09:30 Grapevine 6) brings together DOT leaders and industry speakers to discuss their experiences in aggregating Big Data, including practical limitations and challenges. They will share how they've been able to go beyond simply having data towards combining data with other advanced technologies to achieve greater actionability. Additionally, panellists will discuss how successful implementations of these platforms have already led to more efficient and more effective decision-making, improving equity, mobility, safety, and environmental impact outcomes.

► This year's **Emergency Response Program** (09:00 - 03:00 Ft. Worth 5) will focus on the ongoing needs and challenges that emergency responders face on our roadways. Emergency Response programming includes curated education sessions from the Emergency Response committee and the ITS America programming team as well as a range of demonstrations.

The programme opens with three presentations from the Regional Joint (Dallas and Fort Worth) Traffic Incident Management (TIM) Meeting: TIM for Rural Texas; The Cost Benefits of TIM Blocker Trucks; and TIM from the Media Perspective

These will be followed at 13:00 by the **TIM Workshop** which will provide Training Update EDC-7 Review; TIM for Large-Scale Incidents; Local TIM Tech for First Responders; Drone Use for Traffic Incident Management; and the Challenge Coin Awards.

PLENARY

► Today's Plenary, **Digital Infrastructure and the Future of Mobility** (10:00 - 11:30 Main Stage) sponsored by AECOM, examines numerous questions. While infrastructure's past focused on concrete and steel, the future of infrastructure focuses on data and code. So how are companies, states, and leaders planning for digital transformation? Industry leaders and USDOT officials will discuss their views of how we implement digital infrastructure and what that means for a safer, greener, smarter future for all.

► Despite some recent progress, most transportation departments do not yet treat cybersecurity as a co-equal concern with safety, efficiency, and economy. Most transportation leaders are aware that cybersecurity should be a higher priority, but changing organisational culture is never easy. The simple habit of challenging project leaders to be ready with an update on potential cyber issues could be a move in the right direction.

In special interest session **"And what are the Cybersecurity concerns about this project?"** (13:00 - 14:30 Grapevine 4) panellists will offer insights on today's challenges from a range of perspectives, including the expanding threat landscape; DOT viewpoints; architecture limitations; the consultant's role in cybersecurity; workforce development; security best practices for DOTs, the value of top-down cybersecurity focus, and managing risk in the procurement process.

► In the interactive session **Accelerating ITS Deployment and Smart Communities** (13:00 - 14:30 Main Stage) presenters will discuss the important roles that information and technical assistance play in helping future deployers make the case for ITS investment, and also in achieving successful ITS deployments.

► The National Electric Vehicle Infrastructure Program (NEVI) was announced in early 2022 with an aggressive timeline for states to create five-year NEVI plans to build out a national electric vehicle charging network. Special interest session **How states are approaching the National Electric Vehicle Infrastructure Program** (15:00 - 16:30 Grapevine 4) will explore how NEVI plans were created, how procurement for the first year is being tackled and how implementation and evaluation will be done. Moderated and audience questions will wrap up the presentation.

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Improve Mobility And Safety • Support Vision Zero

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BOOTH 1200

ATC – THE FUTURE OF TRAFFIC SIGNAL TECHNOLOGY

The Advanced Transportation Controller (ATC) traffic cabinet is designed to support smart city technology and LED signals. With agencies requiring more capabilities from their intersection like bike signals, Vehicle to Infrastructure (V2I) connected vehicle, signal performance data, the ATC can tackle it all. ATC will easily operate large complex intersection and even run multiple small intersections on a local ATC.

See all the power of ATC at www.editrtraffic.com/atc-cabinet



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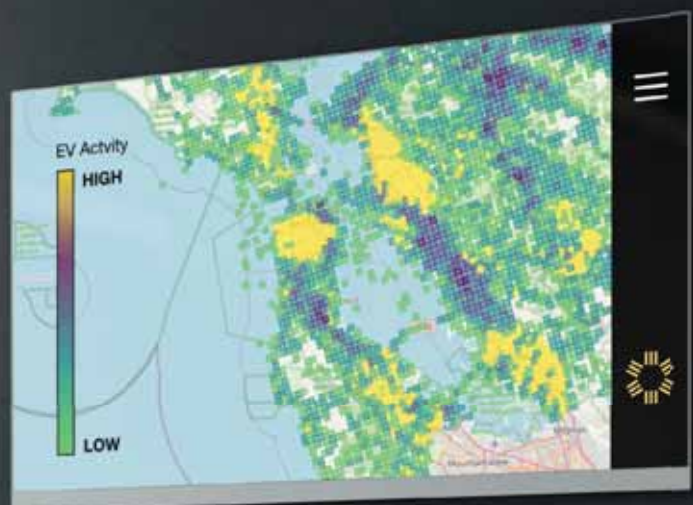
BOOTH#
1119



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Jay Swinea of Swarco McCain

CALTRANS SENDS CLEAR MESSAGE ON SWARCO MCCAIN CMS

Swarco McCain is highlighting that the California Department of Transportation (Caltrans) has renewed their partnership for the supply of industry standard-setting changeable message signs (CMS).

The company's CMS 800 Series of changeable message signs are exclusively NEMA TS4-compliant and provide pertinent roadside information and warnings to motorists through high-quality, full-colour LED

displays. Strategically placed, these signs improve overall traffic flow and commuter safety. Commonly used CMS applications include safety information near airports and major venues, data regarding road closures or detours, direction and availability of carpool lanes or toll roads, advisory phone numbers, and general alerts.

Dean Campbell, Caltrans chief at the Office of Systems Development explained that the company has

been an essential partner in developing a timely replacement for the CMS 700. "Swarco McCain delivered on all the stringent structural, environmental, and controller communications requirements. The CMS 800 signs increase the message contrast and visibility, which helps effectively communicate safety information for all road travellers," he said.

Among the CMS 800's enhanced features are Swarco's patented Precision

Optics lens technology and integrated surface-mount 3-in-1 RGB LEDs, which provide exceptional visibility. Additionally, the signs offer the lowest meantime before failure and require the lowest maintenance levels of any CMS in the industry, plus their 110/120 VAC, 60 Hz internal power supply means exceptionally low energy consumption and low operational costs.

► **Booth 1001**
mccain.swarco.com

AMG injects power into US PoE market

The need for higher wattage PoE continues to drive innovation throughout the industry. To this end, AMG Systems has introduced the AMG 150 series of PoE power injectors for Power over Ethernet applications requiring up to 90 Watts of operating power.

The latest standard IEEE802.3bt has allowed for simple connectivity via CAT5e/CAT6 cable to provide both data communication along with up to 90W of energy to power a multitude of devices. These include outdoor PTZ cameras with heater/blower capabilities, large multi-sensor cameras, PoE Lighting, Wireless Access Points and even Access Control products.

With multiple products now appearing in the marketplace, the demand for products that can supply that power has grown significantly. In response to that need, AMG brings the AMG150 series to market with the capability to power up to 8 devices.

The AMG150 Series is designed in the US and manufactured in an ISO9001-certified UK facility. It is fully TAA and NDAA compliant and unlike similar products from other Asian countries, can be used in all US government installations.

"Asian-sourced products are available, but we found many potential US customers would

rather use higher-quality US- and UK-produced products," said Steve Clarke, AMG managing director. "The AMG150 Series satisfies the need for such a device."

The AMG150 features a small form factor and can be Din Rail or Wall mounted. The line is fully hardened and can operate in outdoors and extreme temperatures (40 to +75°C). The AMG150 Series is a true IEEE802.3bt device and can offer 15, 30, 60 and 90W power-to-edge PoE devices with mains internal power and redundant power supply options.

► **Booth 1340**
www.amgsystems.com

Chile is next stop for Cubic's Umo

Cubic Transportation Systems is bringing its Umo Mobility platform to Chile—the first Umo implementation outside North America.

The deployment is part of a pilot program in Temuco that will let urban and regional bus riders choose their payment method—including contactless smartcards, a mobile app and pre-paid QR codes. The pilot will also allow riders to pay for taxi colectivos—shared taxis that

follow a fixed route—through a mobile app called Araucania Te Mueve. Temuco is the capital city of the Araucania Region of Chile.

Cubic worked with the Regional Government of Araucania, the Ministry of Transport and Telecommunication and implementation partners CityPlanning and CityMovil to deploy the solution.

According to the company, the pilot program is designed

to encourage the use of public transit through discounts, promotions and communication channels that help increase usage and provide transit operators with the information they need to improve services across the region.

“This solution offers an innovative new public transport payment platform that will leverage the latest Fare Payment as a Service (FPaaS) technology to improve access to paid transport around the

region,” said Bonnie Crawford, VP and GM, Umo Mobility, Cubic Transportation Systems. “Based on our successful Umo implementations across North America, we worked closely with the team in Temuco to understand the community’s public transit challenges and apply best practices on how they can leverage a simplified fare payment system to serve their riders’ needs.”

► **Booth 629**
www.cubic.com

HOUSTON RADAR STAYS ON TARGET

Houston Radar is showcasing its Doppler and Frequency Modulated Continuous Wave (FMCW) radars at the ITS America Conference & Expo this week. According to the company, the radars can be connected to the cloud via Bluetooth and 3G wireless access—providing

easy data collection, reporting and device management.

Featuring six different speed and presence detection radars, the company’s units are used for speed awareness, Vehicle Activated Traffic Calming Signs (VATCS), traffic counters,

vehicle flow detectors, speed triggered stop signs and chevrons. The sensors can be integrated directly into other ITS systems or deployed as standalone traffic data collectors.

► **Booth 1235**
www.houston-radar.com

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BOSCH



Detection and data for intelligent transportation systems

Bosch empowers you to build a safer transportation ecosystem with analytics-driven video solutions. With neural network deep learning AI on-board, Bosch intelligent cameras enable video-as-a-sensor solutions delivering highly accurate incident detection and valuable data insights on roadway usage and traffic flow for better highway and urban infrastructure planning.

Visit booth #709 to learn more.



ITERIS HEIGHTENS TX MOBILITY

Visitors to the Iteris booth will get an insight into the company's data-driven solution for analysing and improving maintenance of traffic (MOT) during construction projects. It provides traffic signal monitoring and key insights into the health of signal operations and hardware during roadway building.

Iteris' MOT service is dedicated to helping contractors and agencies maintain an acceptable level of mobility within the physical constraints of a project.

By utilising pan/tilt/zoom (PTZ) cameras, state-of-the-art traffic signal detection and controllers, communications, and analytics, Iteris can quickly identify hardware failures and signal timing issues for safer, and more efficient, traffic flow during construction.



Iteris personnel leverage sophisticated cloud-based software, ClearGuide Signals, and expertise to monitor the traffic controller and detection system. Alerts are provided to the contractor with an initial

diagnosis of any issues. As a result, contractors can respond quicker and more effectively to on-site needs if issues cannot be resolved remotely by Iteris personnel.

"Among the key benefits our

customers see are accelerated response time, more efficient use of personnel, increased detection uptime for better signal operations, enhanced safety and better traffic flow," said Allison Palumbo, Iteris senior traffic engineer based in Texas.

Iteris' intersection-based MOT includes a centralised database manager to store, upload and download controller timing; signal performance measures (SPM) analysis and operations monitoring; detection health and performance monitoring; alerts for detection or controller issues with initial diagnosis; signal timing adjustments for optimal traffic flow; data communications with Iteris-supplied cellular service; and initial set-up and integration.

► **Booth 509**

www.iteris.com

The Connected Work Zone Platform

Learn how to make your roads safer with connected work zone management

Visit
Booth
#1321

Play cornhole for
a chance to WIN an
Apple Watch Ultra

Jason Morrison of Daktronics

Daktronics has a crystal-clear message

Visitors to the Daktronics booth will experience what it's like to have LED screens in a traffic management centre (TMC).

Attendees can view the image quality the ITS industry has come to expect from Daktronics' over-the-roadway signs.

That same technology is available in the TMC, further enhancing transportation operations. This viewing experience makes it clear that direct view, high-resolution screens are essential for quick decision-making.

"Daktronics has more than 30 years' experience in the ITS market worldwide," says Jason Morrison, Daktronics market manager for the transportation sector.

"By putting our advanced LED technology right in the command centre, the traffic management team can see everything as it happens."

LED video displays provide clear, crisp images, allowing operators the ability to see each detail from every angle in any lighting condition. The modular design of Daktronics LED video displays allows for

any size configuration. This seamless set-up eliminates breaks in images and allows operators to view news, weather, and live camera feeds all on one screen.

All Daktronics products are tested to ensure durability and reliability to withstand the test of time. By installing products with quality components, TMCs can maximise operations and ensure the team keeps traffic moving in the right direction.

► **Booth 1217**
www.daktronics.com

CONNECTED AND SMARTER WITH CIENA

Cellular Vehicle to Everything - CV2X - technology is quickly evolving to the point where the software applications and compute power must be deployed roadside rather than in distant data centres.

As these applications add latency-sensitive, bandwidth intensive capabilities like artificial intelligence and machine learning, 5G network

technology must evolve to support it.

While there are vendors that specialise in either 5G or Multi-Access Edge Compute (MEC), Ciena claims to be unique in bringing both technologies together to usher in a new era of connected vehicles and smarter roads.

This powerful combination of technologies will be

instrumental to departments of transportation seeking to improve work zone safety for vulnerable users. It will enable more efficient traffic management by optimising traffic frequency in real-time, sensor fusion and future "killer apps" that are not yet even on the drawing board.

In addition, managing large volumes of local data traffic

versus a centralised cloud enables DOTs to reduce their network bandwidth costs but improve overall application performance.

Drop by the Ciena booth to see a demonstration of its 5G and edge compute solution for C2VX network infrastructure in a test bed case with a large DOT.

► **Booth 1216**
www.ciena.com

Think different.

YOU CAN'T SOLVE PROBLEMS WITH THE SAME
THINKING USED TO CREATE THEM.



BOOTH 705

Experience the difference...

Q-FREE TRAFFIC MANAGEMENT SOLUTIONS

www.q-free.com



The ultimate sensor in ITS.

Transforming data into intelligence

With traffic management centers constantly working to keep traffic moving safely and efficiently, there is an ongoing intense pressure to meet the challenges of the road. Did you know you can leverage the power of your networked devices to provide valuable insight? By combining the high-quality video from IP cameras with ITS-specific applications, the camera can become the ultimate sensor in ITS, working to turn raw data into useful intelligence. This gives TMC's a real-time advantage to understand what's happening on the road.



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ultimate_traffic_sensor](http://www.axis-communications.com/ultimate_traffic_sensor)

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solutions, visit: axis.com/traffic





Bill Weber with the Citilog solution

‘SEND YOUR TRAFFIC AI TO UNIVERSITY’ WITH CITILOG’S ADL

Artificial intelligence (AI) in traffic management can improve safety and reduce congestion, as forward-thinking cities around the world are finding. However, the biggest challenge with most AI technologies is that they cannot match the keen eye and cognition of human traffic professionals, leading to false positives and distracting from actual roadway calamities.

That is where Citilog’s Applied Deep Learning (ADL) comes in. Here’s how it works: video-based automated incident detection from Citilog is fed thousands of actual examples of traffic incidents – wrong-way driving, stopped vehicles, smoke in tunnels, pedestrians and cyclists, debris, slow vehicles, and congestion. This database of incidents trains the AI to be more effective and efficient at recognising authentic events.

Citilog says it is the equivalent of sending your AI off to university for a degree in literal street smarts. The result is a dramatic reduction in false positive alerts caused by environmental factors such as shadows, snow, rain, and other weather conditions, improving accuracy by a factor of 10. The Maryland Transportation Authority is using ADL today to proactively respond to incidents in mere seconds. Meanwhile, the New

York State Bridge Authority is in the process of upgrading its incident detection system with Citilog ADL to improve operational efficiency and deploy emergency responders even faster.

Armed with this automated accuracy, agencies employing Citilog’s ADL have the potential to revolutionise traffic safety and traffic management for their citizens.

► **Booth 621**
www.citilog.com

Innoviz ups its Lidar game

Innoviz Technologies is highlighting its latest LiDAR system this week at the ITS America Conference & Expo. The InnovizTwo Raven is a high-performance Lidar sensing system with 3D performance for smart applications. According to the company, the system is lightweight, low-power, and resilient to sunlight and weather conditions. The sensor delivers a dense, highly accurate 3D point cloud with angular resolution up to 250m. The system includes the Innoviz Media Converter which connects the Lidar to a Gigabit Ethernet network.

► **Booth 1510**
www.innoviz-tech.com

Congestion-buster from Network Optix

The Network Optix Enterprise Video Platform, an intelligent operating system for cities and roadways, transforms mobility management for government agencies and transportation departments. It aggregates and consumes vast amounts of video data from traffic cameras monitoring roadways, intersections, and parking spaces. This rich ecosystem of smart applications, from Network Optix – a video software development company – addresses challenges such as congestion, safety and parking. It uses real-time data and insightful decision-making to improve traffic flow management, parking violations and overall operations.

With seamless integration, infinite scalability and future-proofing capabilities, Network Optix says its platform enhances mobility and creates more sustainable, liveable urban environments for decades to come.

► **Booth 1335**
www.networkoptix.com

THE CLEAR CHOICE FOR TRAFFIC MANAGEMENT

You trust Daktronics over your roadways. Now count on us for your Traffic Management Center.

Daktronics designs and manufactures high-resolution, direct view LED displays. Your team can view multiple camera feeds, news, weather and DOT data feeds on a reliable, seamless screen configured into active zones. Stay informed and improve response time with clear viewing from any angle – from low light to direct sunlight.

DAKTRONICS.COM/TMC | BOOTH #1217



**WATCH
THE VIDEO**



JOIN DAKTRONICS FOR

HAPPY HOUR

WED 4/26 | STARTING @ 4:30PM | BOOTH #1217

Kurtis McBride
of Miovision



HATS OFF TO MIOVISION WITH THE FUTURE OF TRAFFIC MANAGEMENT

Miovision is introducing Miovision One, an all-in-one traffic management platform that integrates the company's various traffic management software solutions into a single, comprehensive cloud-based platform.

Miovision One is designed to help transportation agencies and cities manage traffic flow, reduce congestion, improve safety, and optimise their transportation networks. One of its key features is its detection capabilities. The platform provides a range of features and tools for traffic data collection and analysis, which can be used to improve traffic flow and reduce congestion.

Additionally, the platform offers real-time traffic monitoring and reporting, which can be used to quickly identify and respond to traffic incidents.

Miovision One also includes intersection monitoring capabilities, advanced analytics, and reporting tools, such as the adaptive traffic signal performance measures (ATSPMs), which can be used to identify and address intersection performance issues.

The platform's adaptive capabilities enable transportation professionals to adjust traffic signal timings and patterns based on real-time traffic data, which can improve traffic flow and reduce congestion. Miovision One also includes tools for conducting

transportation studies, which can be used to assess the impact of transportation projects and make data-driven decisions.

Miovision One offers flexibility and scalability, making it ideal for transportation professionals and cities of all sizes. By utilising the platform, agencies and cities can effortlessly manage traffic flow, reduce congestion, enhance safety, and optimise their transportation networks.

The platform can also be tailored to meet specific requirements and offers a comprehensive range of tools to help achieve transportation goals.

► **Booth 809**
www.miovision.com

Get 4Sight into what matters most

AEye is highlighting 4Sight M, a software-defined Lidar sensor that delivers high-performance, cost-effective sensing solutions optimised for a range of ITS application. These include automated tolling, automated incident detection (AID) and smart intersections.

Leveraging a software-definable architecture to identify and focus on what matters most, 4Sight enables the perception

system to locate and identify objects earlier, and track these objects over time, allowing for faster, more reliable perception. Early detection and more accurate, timely perception means that better decisions can be made. AEye says this is critical for signalling to a vehicle when it's safe to proceed, or improving traffic flow through toll booths, intersections, and city streets.

4Sight M comes equipped with

libraries of exclusive performance modes designed to achieve highly accurate detection, perception, and classification of both long and short-range objects. AEye says the system produces the most exact motion forecasting in all environmental and weather conditions. It is designed to complement the use of cameras and radars in existing applications and can be upgraded for future requirements

without hardware modification.

Its sensor-based operating system enables the customisation and enhancement of data capture across countless mechanical and environmental requirements. AEye says it is the only Lidar solution that can be optimised for placement, tolerance, and application to deliver high-confidence data.

► **Booth 408**
www.aeye.ai

SEE MOBILITY THROUGH A NEW LENS.

Ready for a safer, more efficient intersection experience? See your corridors in a new light with our AC3 and FE3 cameras!

Iconic design meets modern technology. Cubic's Gridsmart bell camera that you know and trust is now equipped with High Dynamic Range (HDR) technology for improved visibility and image quality in low-lit areas. Our AC3 approach camera now includes state-of-the-art image stabilization for advanced detection. Save time, money and upkeep while ensuring a safer and more efficient intersection experience for all vulnerable road users.

Upgrade your intersection management with Cubic today!



GET THE PICTURE?



SCAN ME

Changing the work zone safety game

One.network is here in Texas with a game – it's cornhole (pictured) – and attendees have a chance to win an Apple Watch Ultra by playing it. But the company is also changing the work zone safety game – actually, it's changing the whole playing field.

This game is a serious business, with serious implications. Work zone deaths are trending in the wrong direction and as a safety leader, One.network is bringing new solutions and a new way of thinking to this ITS America Conference and Expo.

The company's Live Link application is the cornerstone of a successful state-wide project with Florida DOT and One.network plans to make new deployment announcements in the next few weeks. Live Link allows workers to open



Barry Matlock of One.network

and close lanes and roads right from the jobsite, sharing that information with Waze,

Google, Apple Maps and TomTom as well as the driving public, all with a few clicks on a cell phone. And since commercial trucks are involved in more than 25% of work zone fatalities, One.network has also just announced a partnership with Drivewyze, to deliver work zone alerts from the roadside to the truck cab through

Drivewyze's extensive trucker network. As agencies deal with increasing traffic volumes and consider how to reduce work zone crashes and live up to their Vision Zero commitments, the One.network platform is scalable, it's off the shelf and it's ready to go.

► **Booth 1321**

<https://us.one.network/>

CREATING SMARTER, SAFER, GREENER CITIES

WITH 3D PERCEPTION

Pedestrian
Detection

Wrong Way
Detection

Stopped Vehicle
Detection

Queue Length
Detection

SEOUL
ROBOTICS.
Booth #1222

WTI demonstrates new camera and transcoder

WTI (Wireless Technology Incorporated) is here to demonstrate its Viper H.265 camera (VS265) and Hydra 265 Transcoder.

The VS265 HD camera supports H.265, H.264, MPEG4 and MJPEG compression – and 1080P, 720p, SD and below SD resolution if needed. The company says it is unparalleled as it has 360° continuous rotation on both the pan and tilt axes. It also has a hydrophilic TiO2 and electrically conductive ITO glass window.

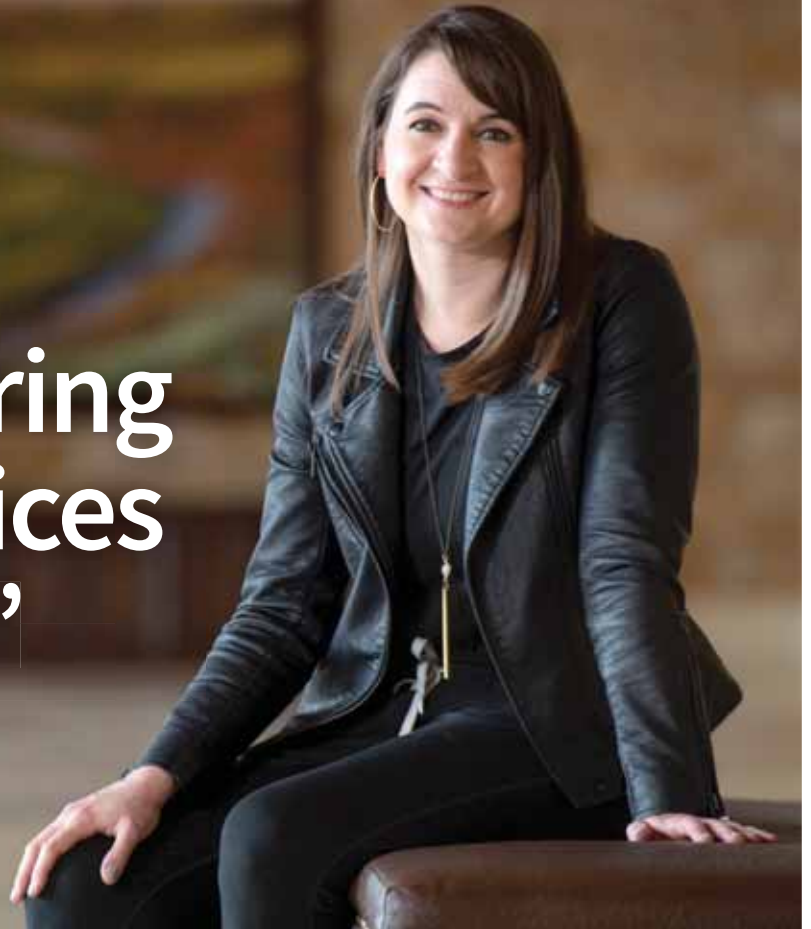
The Hydra 265 Transcoder transcodes H.264 and MPEG4 RTSP streams to H.265 thereby saving users up to 75% bandwidth. It can transcode multiple streams at the same time and output multiple streams per stream. According to WTI, it will work with any make of camera with an RTSP stream in H.264 and/or 4 MPEG4. WTI says it can make all current IP cameras into H.265 cameras without buying new devices.

► **Booth 805**

www.gotowti.com

“We must bring different voices to the table”

Kristin White, chief operating officer of ITS America, explains how the MobilityXX initiative is evolving – and why community voices must be heard



ITS America partnered with The Ray and WTS International Foundation to launch the MobilityXX initiative in 2021 to address gender inequality in transportation. In the last two years, the emphasis has broadened, explains Kristin White, chief operating officer of ITS America: “I have friends and colleagues and mentees that are transgender and non-binary, so that’s why this year we’re rethinking the title of MobilityXX because it’s not about a gender binary. It’s really about this commitment to increase the number of women, women of colour, and people who identify as women in this sector, at least grow the number by 10% in the next 10 years.”

A workshop and forum at the ITS America Conference & Expo in Grapevine is designed “to reset expectations” of MobilityXX. “It’s about amplifying women, finding sponsors for them, committing true resources to diversity, equity, inclusion and belonging work, and to really talk about this,” White continues. “Because a lot of allies and people of power don’t understand the experiences we face, not just within the workforce but in the transportation system - largely personal safety and security issues: for example, the fact that women are sometimes 70% more likely to die in a car crash just because cars

weren’t designed for women that looked like me.”

Inclusion of all kinds is a key driver for White. Her question in committee meetings and internal staff meetings at ITS America is: “Who’s missing from the table that needs to be here?”

To that end, ITS America Events (RX Global) and ITS America are partnering to help pay “for these voices that have not been well served by transportation innovation” to come to Grapevine for sessions on transportation equity.

The money may be used for air fares or for caregiving services, White explains. “If we’re not even including the community voices in these events - even if we have all the diversity within the professionals - we are still not achieving our goals,” she says. “And so it’s not just about looking around about the professionals missing from the conversations; it’s about looking around to see what community members must be empowered to help us solve these solutions together.”

This sense of inclusion needs to go further, she thinks. “I don’t know if you’ve noticed this, but in a lot of these conferences we talk about solutions for the end users - but we don’t have an end user on the panel!

We don’t have a someone in a wheelchair or someone who’s been in a near-fatal accident because a car missed them on a crosswalk. We don’t have people from, for example, Texas communities who have been dissected by the interstates. We must bring those voices to the table if we’re going to achieve our goals.”

White is naturally optimistic but accepts there are challenges. The United Nations, for example, believes gender equality is “300 years away”. White says the US workforce as a whole – not just transportation – has lost nearly “a third of women either leaving their jobs or just downshifting, choosing not to become a manager, just being a frontline worker”.

This is why she is committed to this work. “That really saddens me I really want to see gender equity in my lifetime. I think this is one small niche where we can make some progress. But even the Mineta Transportation Institute research shows us that from 2005 to 2019, we only increased the number of women in transportation jobs in America by 3%. So we have a lot of work to do in 10 years,” she concludes. “But every movement is meaningful, right? I’ll echo Martin Luther King’s words: ‘We’re just trying to bend the arc towards justice.’ And it’s a long arc.” ■



“The pace of technology adoption is accelerating”

ITS veteran and corporate investment adviser **Greg McKhann** looks at some of the reasons why venture capitalists and private equity providers are taking a keen interest in the transportation sector

Does the increased amount of M&A/consolidation in ITS mean that the sector is ‘coming of age’?

I think that ‘coming of age’ is a reasonable way to characterise the consolidation trend. Investors are increasingly attracted to the potential in the ITS sector for a range of reasons. Some of these reasons include strong government funding, increased awareness of the ITS sector’s potential to help address climate change and traveller safety, and the fact that ITS can help reduce transportation costs in a world with significant economic competition between countries.

What tech trends stand out for you in ITS at the moment?

I believe the pace of technology adoption in the ITS market is accelerating as public agencies become increasingly aware of the benefits offered by innovative solutions. Over the last several years there has been an explosion in the number

of sensor providers, and there has been a significant uptake in adaptive signal control systems. Looking ahead, as public agencies get increasingly comfortable with having data and analytics being cloud-based rather than on-premise we will see continuing growth in that area. With autonomous vehicles inching closer to broad adoption, we can expect increased sharing of information between vehicles and the roadside infrastructure.

Where do you think venture capitalists (VC) and private equity providers will be increasingly looking to put their money in ITS?

VCs invest in earlier stage companies than private equity. I would anticipate that VCs will invest in “higher risk, higher reward” opportunities ... perhaps companies looking to change the world through new software-centric applications involving analytics and AI, or companies with significant

energy storage and distribution applications that could benefit climate change initiatives. Private equity firms, such as Vance Street Capital whom I advise, will look for established leaders in various ITS sectors and look to improve their operations. Private equity-owned companies are focused on value-creation through various means which could include better supply chain management, new product innovation, and enhanced customer support.

What headwinds and opportunities do you see for ITS companies in the US market?

I think the most notable headwind will be the pace at which public agencies are able to accept and deploy new technology. Private sector companies are not constrained by public policy so they can innovate at a pace of their choosing. In my experience, public agencies are often deploying technologies that

were developed five or even 10 years earlier. Regarding opportunities in the US market, the factors mentioned above in the first question should be in play for a long time ... healthy agency budgets, needs to address climate change and reduce the cost of transportation, and broad recognition of the benefit of ITS deployment.

Where do you think the roll-out of electric vehicle infrastructure fits into all this?

The adoption of electric vehicles is quite strong, but ‘range anxiety’ is widely considered to be a constraint to the adoption growth rate. I expect the build-out of charging infrastructure to be strong. Range anxiety will decrease over time, particularly as the available of fast DCFC chargers improves. I expect various ITS market players to provide route guidance optimisation for EV owners so this is likely to emerge as a growth market segment. ■

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Google addresses equity need

For several years, the concept of equity in transportation has been discussed at events like this. So, the case has been made for what is essentially a fairer system for all: one that is inclusive and diverse, and has empathy and understanding both internally and externally. Because—make no mistake—equity in transportation can provide substantial business benefits.

How can an organisation move beyond talking of equity as a concept and begin to embed it into their operations? How can you get a handle on what equity really means and what it can do for your organisation?

Reymund Dumlao has the answers and so much more. He spearheads Google Public Sector's go-to-market strategy



The Google Public Sector team

for transportation, driving mobility and equity solutions that address the needs of public sector agencies.

Dumlao will chair an expert

panel in SIS32: Operationalising Equity in Transportation being held tomorrow from 08:00 to 09:30 in Grapevine 2. This panel, which includes Tammy

L. Lee, Hawaii Department of Transportation; Seleta Reynolds, Los Angeles Metro; and Anant Dinamani, Principal, Deloitte, will explore how agencies can use data-driven insights, sentiment analytics, and streamline business processes to advance equity goals.

Panellists will share examples including addressing environmental justice; rethinking community engagement to bring in new voices; improving public contracting practices by creating opportunities for historically underutilised businesses (HUBs); and using digital tools to assess risk and prioritise investment.

This is an unmissable opportunity to gain invaluable insights into equity in transportation.

<https://cloud.google.com>



Axis Communications is unveiling a crossline counting feature, available in beta version as part of the latest release of Axis Object Analytics. This smart feature (in firmware 11.3) counts objects that cross a virtual tripwire in a defined direction and can trigger an event whenever a set number of selected objects have crossed the line. Data can easily be accessed in multiple ways and integrated into third-party applications where it can be visualised for an easy overview.

Axis Object Analytics comes preinstalled on compatible Axis network cameras, adding value at no extra cost. It uses AI-based algorithms and behavioural conditions to analyse the scene and spatial behaviour of the objects within, ignoring common irrelevant sources of unwanted events.

Designed to enable proactive monitoring, users can focus only on objects of interest and events that need attention and



Shannon Martin of Axis

AXIS UNVEILS CROSSLINE COUNTING FEATURE

collect data to access actionable insights. Scenarios can be set up and tailored to specific monitoring needs with just a few clicks and multiple scenarios can run simultaneously. The application intelligently monitors the scene to determine if, and when, an event should be

triggered when selected objects are detected. Key features include edge-based video analytics; classifies humans and vehicles; runs multiple scenarios simultaneously; flexible and easy configuration; and preinstalled at no extra cost. This improves data processing

time and minimises bandwidth and storage requirements. The camera's event management system integrates with Axis Camera Station and all other major video management systems.

► **Booth 739**
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mioVISION

New Bosch cameras deliver valuable detection and data

Bosch is unveiling new cameras with embedded neural network-based video analytics developed for ITS applications.

The new Dinion 7100i IR bullet cameras and Autodome 7100i moving cameras offer intelligent video analytics Pro Traffic to detect safety risks, such as pedestrians in a crosswalk, heavy traffic on a highway, or congestion on an interchange.

Once events are detected, the cameras trigger alerts to partner devices for V2X communications - broadcasting safety messages to on-board units in connected vehicles for a real-time safety solution. In addition to these demonstrations shown at the booth, the cameras can also alert on slow or stopped vehicles, or vehicles travelling the wrong way. They can also deliver instant and automatic incident detection alerts to traffic monitoring consoles.

The cameras' built-in video analytics uses technology based on neural network AI that improves detection capabilities in congested scenes. This results in precise counting of overlapping vehicles at traffic lights or in traffic jams, while ignoring disturbances caused by headlights, extreme weather, sun glare, vibration, and shake, delivering accurate detection and statistical data reporting.

The new Bosch cameras also classify objects in the scene as motorcycles, bicycles, cars, trucks, and buses, and feed the data, including vehicle counts by lane, class, direction, and speed into dashboards. The Bosch ITS Data Service dashboards display the information in an easily consumable and actionable format for informed decision-making. The data can also be imported into existing reporting solutions.

► **Booth 709**

<https://bit.ly/BoschITSsolutions>



Joel White of Bosch

Day-to-day safety with Derq

Safety should be a day-to-day operational priority, rather than a post-mortem and occasional analysis effort. To facilitate this, Derq, an award-winning MIT spin-off and leading provider of AI analytics solutions for connected roads and vehicles, has developed a framework called Automated Safety Performance Metrics.

"Think 'ATSPMs for safety'", says the co-founder of Derq, Karl Jeanbart, who also notes that this automated traffic signal performance measures is an industry-first. Derq's number one priority remains to help

agencies reduce the rapidly increasing number of roadway deaths to ultimately achieve their vision-zero target.

The company's Automated Safety Performance Monitoring solution helps agencies better understand and improve road safety performance through safety scoring and prioritisation across various networks.

Embedded into Derq's dashboard-based INSIGHT suite, this automated safety performance scoring framework draws from the safety and traffic insights the platform collects and generates on a continuous

real-time basis. Derq's automated safety performance monitoring tool fills a key gap in the transportation industry. It accurately detects, tracks and predicts safety events and road user behaviours in real-time such as crashes, near-misses, violations and pedestrian and cyclist compliance issues. This enables agencies to proactively prioritise issue identification and countermeasure development as well as measure their effectiveness with short turnarounds.

► **Booth 736**

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