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Born on a Bayou A new path is transforming neighborhoods across the city.



View from the Floor Suppliers showcase their latest innovations.



**A Smart Solution** TriMet is using new fare collection

technology to enchance

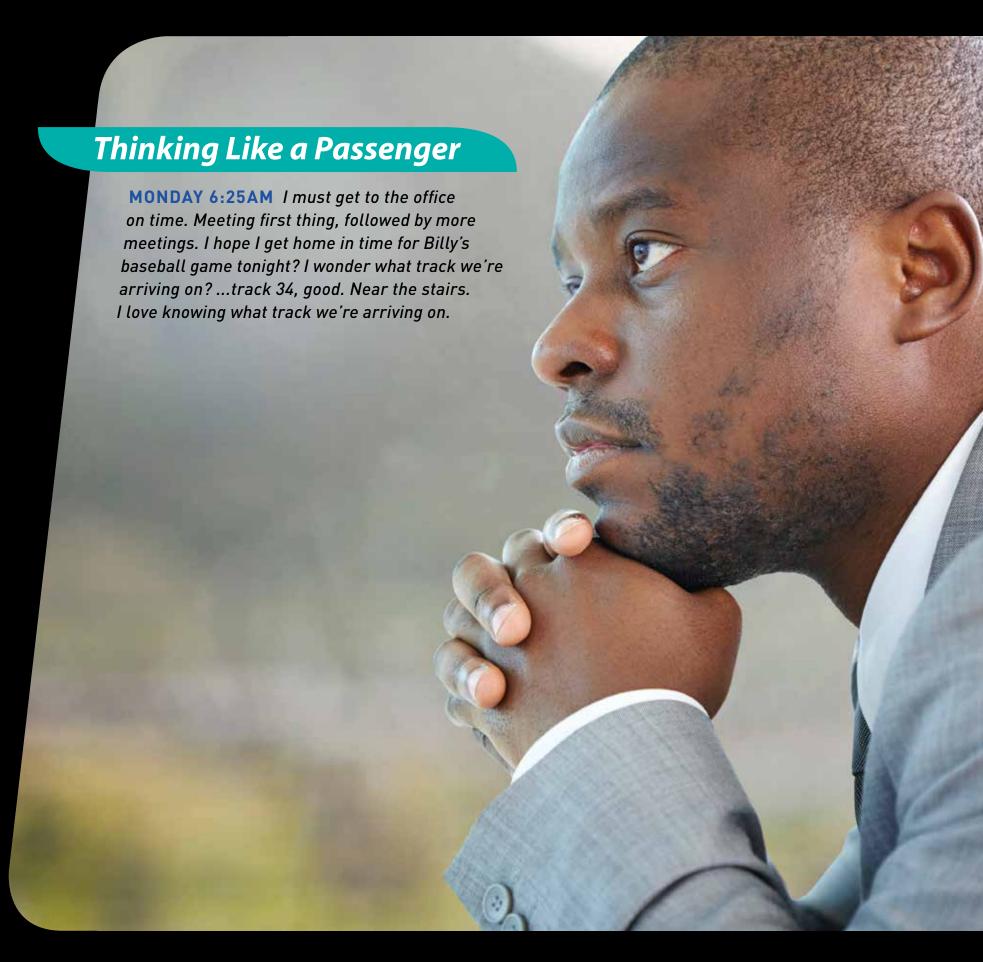
connections and rider experience.

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# **Born on a Bayou**



MICHAEL SKELLY shows riders a green space that was sealed off with a guard rail after construction instead of installing an access path.

**OUSTON IS HISTORICALLY KNOWN AS** a car town with its seemingly endless freeway system, but some residents are pushing changes to move people out of their cars and

The Greenway Bayou System is connecting neighborhoods across the city and transforming the community, but it's still a long ways from where



FREEWAYS RUN above the Greenway Bayou System.

supporters want to see it. "The reason this happened was some remarkable political grassroots," said Harris County Metropolitan Transportation Authority Board Member Christof Spieler.

Houston Parks Board Member Michael Skelly said the idea of a greenway along the city's bayous was first imagined by a local planner in 1910. The idea was to utilize low value land prone to flooding into a greenway.

The idea was kicked around for decades, but it wasn't until 2011 when the city first started taking strong steps to make the idea a reality.

Skelly began pitching the idea to residents by meeting in Market Square Park and taking residents for bicycle rides along the bayous regardless if there was a trail or not. Once riders saw the potential for what could be, it began to generate support.

Skelly said supporters then approached the city to put a bond measure to voters, which then passed with 68 percent support. The measure cleared \$100 million in bonding to build the project and the private sector pitched in another \$120 million.

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See what is on display at this year's Expo.







The latest transit industry news.







TWO BAYOUS converge in the area where the city of Houston was founded.

"We think we've done a pretty good job of capturing an idea and running with it," Skelly said.

Once construction began on the path, it then started a whole new process of getting it built in a way to make sure residents got the most from the system. However, on a tour Spieler and Skelly helped lead Oct. 12 during the APTA Expo, they mentioned there are still plenty of gaps in connectivity along the lines.

"We as a city have had a lot of land to expand on over the years ... so we're sort of a little too married to the single use of land," Skelly said. "And when you come up with something like this idea, the trick is to get these different public agencies to come up with dual uses of land, so that requires a lot of coordination that can be unnatural at times."

The gaps are being filled due to continued community support for the greenway. Spieler said they've worked to connect the poor areas of town like the near northside with jobs in the downtown area in order to make sure it's not a system only for the affluent.

"This trail bypasses infrastructure that would be otherwise really difficult to cross on a bike," he said.

Development is starting to sprout up in depressed areas of town along the greenway and at the elevated light rail station at Burnett Street, a new bus transfer point is planned along with a vision to cater more to bicycle parking than car parking.

It's also cleaning up the bayous around Houston which have often been used by residents to dispose of trash because they now see the benefit of having healthy waterways.

"It all takes a while, but we're going to get there," Skelly said.



CHRISTOF SPIELER spoke with riders along the Greenway Bayou System.



THE HOUSTON bayous have been neglected for years, but the greenway system is getting more people to care about the system.

MICHAEL SKELLY explains the beginnings of the Bayou Greenways project.



**HOUSTON'S B-CYCLE** bicycle share system operates with private sector sponsorship.



# **HOUSTON Restaurant Guide**

HILE YOU'RE IN TOWN FOR APTA'S EXPO 2014, one thing is for sure: you won't go hungry. Houston has 8,000 restaurants representing cuisine from more than 35 countries and features options to fit any taste. Whatever it is you crave, there is an option to fit your desire.

#### **Near McGowen Station**

#### 13 Celsius

3000 Caroline (713) 529-8466

#### www.13celsius.com

Named for the optimal temperature for storing wine, this is a charming, European-inspired retreat. Set in a 1920s Mediterranean-style building, it features the extensive alwayschanging wine list and light bites.

#### **Bar Munich**

2616 Louisiana St. #103 | (713) 532-1008 |

#### www.barmunich.com

A neighborhood bar serving good German beers and simple food. They feature Houston's largest and freshest selection of Deutschland imports in draft and bottles.

#### Damian's Cucina Italiana

3011 Smith St. (713) 522-0439

#### www.damians.com

For 30 years Damian's has served authentic Italian cuisine with an Old-World tradition. The extensive menu includes homemade pastas, fine meats and fresh seafood. Breads and pastries prepared daily in an upstairs bakery.

#### Gloria's

2616 Louisiana St. (713) 360-1710

#### www.gloriascuisine.com

The first of 15 of their restaurants where Salvadorian meets Mexican. A modern yet elegant atmosphere includes awardwinning margaritas and black bean dip.

#### Ibiza Food and Wine Bar

2450 Louisiana | (713) 524-0004 |

#### www.ibizafoodandwinebar.com

A party-like atmosphere with the "main show" being the open kitchen. The bold flavor profile comes from the blend of Spanish, Southern, Mediterranean and Southeast Asian influences.



13 CELSIUS wine bar and retail shop stores its wine in an actual cellar, maintained at 13 degrees celsius.

#### **Mongoose Versus Cobra**

1011 McGowen St. (713) 650-6972

#### www.mongooseversuscobra.com

A well-worn, slightly industrial yet homey feel, they strive to champion the most artfully and passionately made beer and spirits. Small bites of meats and cheeses are offered on the well-edited menu.

#### **Nouveau Antique Art Bar** 2913 Main St. (713) 526-2220

www.art-bar.net

If you're looking for a drink in a unique setting, this bar displays one of the largest private collections of reproduction Tiffany lamps and features a variety of drink specials.

2030 Smith St. | (713) 400-8400 |

#### www.pubfiction.com

An urban tavern with a wide variety of drinks, food and roaring good times.

#### **Reef Restaurant**

2600 Travis | (713) 526-8282 |

#### www.reefhouston.com

Expertly prepared seafood with Gulf Coast, Mediterranean and Asian influences, it reflects culinary sophistication among Houston's high-profile restaurant scene.



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Published by Cygnus Business Media 1233 Janesville Ave., P.O. Box 803, Fort Atkinson WI 53538-0803, (920) 563-6388. For change of address or subscription information: Toll Free: 877-382-9187, Local: 847-559-7598, Email: circ.masstransit@omeda.com.

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# **Around HOUSTON**

#### **Pharmacy**

#### Walgreens

1315 St. Joseph Pkwy #100 (713) 658-0022

#### **Maxor Pharmacies**

1315 St. Joseph Pkwy (713) 759-9040

#### **Park Drugs**

1200 McKinney St. (713) 650-1610

#### **CVS Pharmacy**

1000 Flain St (713) 526-4478

#### **CVS Pharmacy**

917 Main St. (713) 982-5565

#### Coffee

#### **Starbucks**

2nd Floor of the Convention Center (713) 853-8172

#### Ben's Beans

1302 Dallas St. (713) 654-8856

#### **Amilles Coffee Bar**

1301 McKinney St. (713) 739-0541

#### Visitors' Center

#### **Explore Houston!**

2nd Floor of the Convention Center (713) 853-8258

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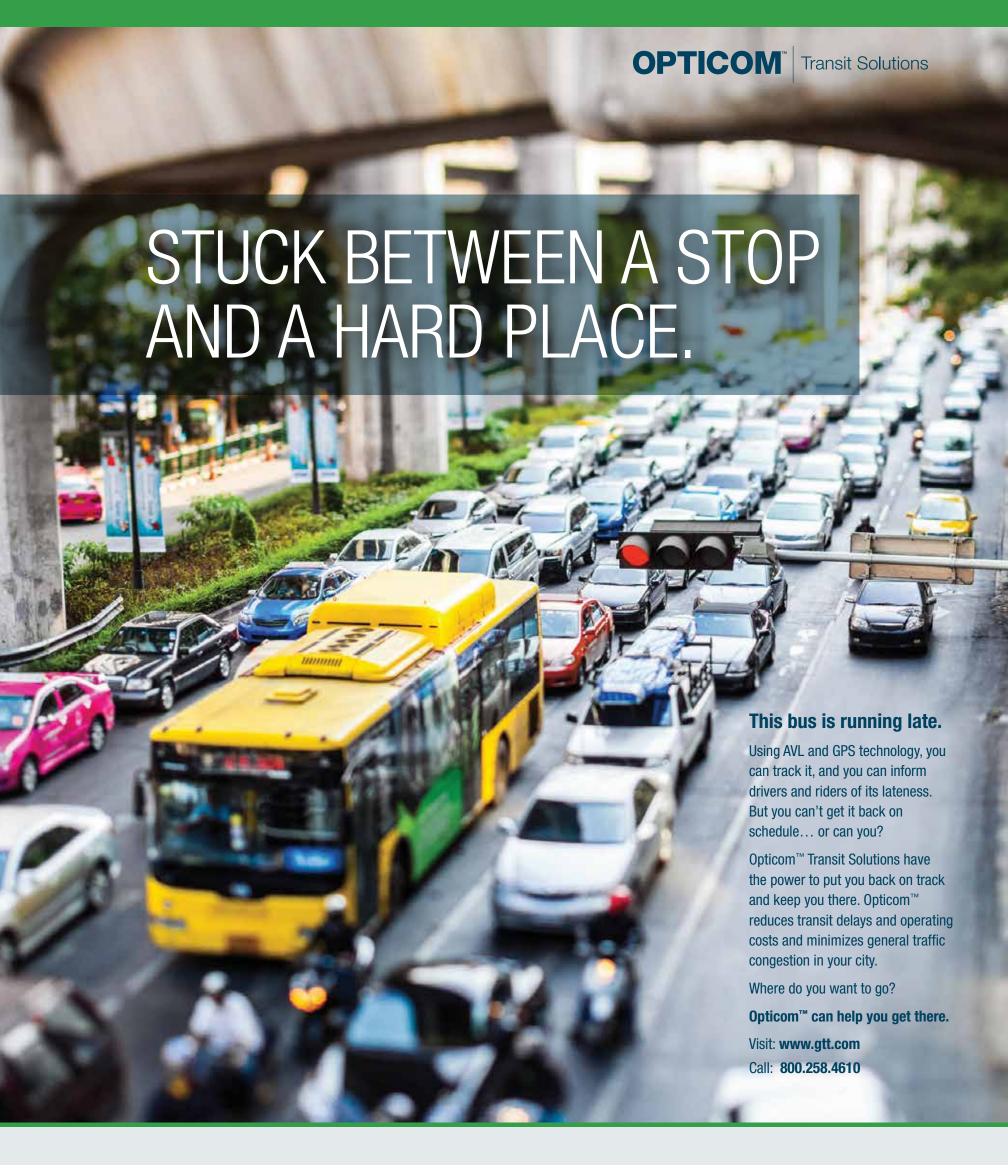
777 Walker St. (713) 225-8582

#### FedEx Office Print & **Ship Center**

2nd Floor of the Convention Center (713) 658-1899



Scan the QR code to set up a print order for flyers, signs, posters and more.



APTA Expo | Booth #4500

October 13-15th, 2014 George R. Brown Convention Center in Houston, TX





# **Cubic displays number** of customer ticketing solutions

**Cubic Transportation** Systems | Booth 1845

**TRANSPORTATION** Systems had a number of new products on display at booth 1845 during APTA Expo, including the Urban Insights data analytics service and NextAgent Video Ticket Office.

Urban Insights data analytics service delivers data tools and predictive analytics to the transportation industry to improve operations, reduce costs and better service travelers.

"Urban Insights provides ticketing and scheduling data on how people travel, how and why they transfer at certain locations, and assists in planning decisions," said Boris Karsch, vice president, Strategy and Business Development. "The system turns the data into information agencies can use."

NextAgent Video Ticket Office provides customers personal ticket purchasing capabilities with an actual person from a remote location, who can interact with a connected customer.

The passenger speaks with the clerk throughout the ticketing process just as they would at a regular tickeing



THE CUBIC NextAgent Video Ticket Office can provide out-of-hours ticketing and pool specialists skills such as foreign languages or unusual ticketing requirements, allowing customers to interact with a real ticketing agent remotely.

window. The only difference being that the interaction takes place over a high-speed video link.

"[NextAgent] uses video confer-

ence technology to restore a personal touch to the customer experience. It's designed to be used in stations, passenger change areas and shopping centers,"



SMART DEVICES, such as the newly introduced iPhone 6, can now be used together with the latest Cubic technology to streamline the process of utilizing one device, instead of a reloadable card, for customers to pay for fares, check transit account balances and more.



THE CUBIC booth featured a number of new and emerging customer ticketing solutions.

said Karsch. "It allows a real-life person to handle your inquiries, transactions and deal with advice on the best type of ticket. It does everything a ticket window can do, but creates more options."

With the launch of the iPhone 6, smartphone users will now have the ability to utilize their iPhone as an NFC (near field communication) device. This technology provides users the ability to streamline the ticketing process, by using their device to transmit payment and add funds to a transit account, versus using a separate reloadable card.

On the horizon, Cubic has an "innovation corner" set up at the booth to display developing technologies, such as a gate that can automatically open with the use of Google glasses. "We're exploring a lot of different ways to improve the customer experience," said Karsh. "We still need to make sure that every person that travels can travel. That's really our job, to give you options that match your everyday use." @



# Ultracapacitors Save Energy, Reduce GHG Emissions

Maxwell Technologies Booth 3906

energy storage systems are being implemented to collect unused energy usually lost during braking events for reuse during higher power demands during vehicle propulsion. The U.S. is behind in policy in relation to other parts of the world however, lacking a concrete energy plan to guide the development of future technology.

In the transportation industry, the world's largest energy consumer, ultracapacitors improve a vehicle's energy efficiency through regenerative braking systems. In stop-and-go transit applications, the savings for energy and fuel can be significant, as well as the emissions reduction for cleaner air.



**CHUCK COOK,** sales application engineer, Maxwell Technologies, in front of several of their ultracapacitor technologies on display at Expo 2014.

"There are a number of applications of that in the world today that use ultracapacitors for energy recuperation, primarily diesel-electric hybrid buses," said Chuck Cook, sales application engineer, Maxwell Technologies.

Braking energy recuperation systems in electric and hybrid vehicles save fuel and electrical energy by using resistance from the electric motor to stop the vehicle, thereby converting kinetic energy that would be wasted in a conventional frictionbased braking system into stored electrical energy. Ultracapacitors' rapid charge/discharge characteristics uniquely enable them to capture and store more energy during each braking event than battery-based systems, which have limited ability to absorb energy in the few seconds required to stop a vehicle.

Maxwell partner — co-exhibiting at APTA 2014 with Maxwell Technologies — Crosspoint Kinetics makes bolt-on systems for trucks and light buses (Class 3-7). The bolt-on system,

The Kinetics Hybrid, puts the torque motor in line with the driveshaft to collect the energy during braking events and give the energy back to the vehicle when needed while reducing greenhouse gas emissions. When applied and driven correctly vehicles can see up to 30% greater fuel efficiency, and corresponding emissions reductions.



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# CradlePoint introduces rugged 4G LTE in-vehicle networking solution

CradlePoint | Booth 7520

RADLEPOINT DEMONSTRATED the COR IBR1100 cloud-managed, in-vehicle networking solution at APTA Expo.

CradlePoint COR IBR1100 allows individual buses to process credit cards, power bus driver tablets, manage interior and exterior digital signage, power security cameras as well as deliver passenger and driver Wi-Fi.

"This product is powering that connected experience in buses and vehicles — everything from Wi-Fi to digital signage to GPS all on the vehicle — anything that needs to be connected to the Internet," said David Murray, senior marketing manager for CradlePoint.

The CradlePoint COR IBR1100 provides reliable and trusted wireless connectivity packaged in a compact and ruggedized case that endures extreme temperatures, high vibration, and wiring and electrical issues often found in vehicle deployments.

The COR IBR1100 series, like all CradlePoint networking solutions, can be managed via Enterprise Cloud Manager — a cloud-based, real-time monitoring, management and application solution for the entirety of the mobile data fleet.

Developed to withstand the challenges of the mass transit and in-vehicle networking markets, the CradlePoint COR IBR1100's features



THE CRADLEPOINT booth has a number of cloud-managed networking solutions for vehicles on display



THE CRADLEPOINT COR IBR1100 is fully ruggedized to military specs and features 4G LTE capabilities.

high bandwidth and support of dual SIM card connectivity; full ruggedness to military specs to maintain operation during vibration and improved video streaming capability for transit security.

With the updated 4G LTE capabilities of the COR IBR1100, "Video can be stored locally on the bus," said Murray. "When it pulls into the dock at the end of the day the video is offloaded via a Wi-Fi connection, so there's no manual process involved. Or it could stream over that 4G connection, which is also a possibility, but is a little more data-intensive."

The IBR1100 also features a more streamlined process for vehicle battery connectivity, with a built-in fuse box and simplified plug-and-go access to avoid worry with voltage drops or surges from the vehicle battery.

# **Developing the Best Ride** and Performance **Package**

**ZF North America** | Booth 3412

F NORTH AMERICA INC.'S JACK SKARREN, BUSINESS unit manager CV Transmission Systems North America, said ZF is in the business of producing products for mobility. "We have the expertise to match components to applications. When the vehicles hit the road, they perform reliably and efficiently."

ZF's North American market generates 18 percent of its sales - a result of its investment in the region. Andreas Moser, executive vice president Commercial Vehicle Technology Axle & Transmission Systems for Buses & Coaches with ZF, said they have ramped up business with MCI. Earlier this year they started series



**ZF NORTH** America Inc. highlights its mobility offerings for the North American bus and rail markets.

production on the steer axle, drive axle and tag axle on the MCLL coaches.

With agencies being forced to look at ways to cut dollars out of their budgets, Skarren said there is a lot of discussion on fuel economy. "It's the driving force of decisions being made," he stated. "We have transmissions that can improve fuel consumption."



Use **#APTAExpo** to join the conversation on Twitter! @MassTransitmag

#### **Featured Tweets**

@COMTO\_National @APTA\_ info COMTO is here in Houston at the #APTAEXPO. Visit us at booth 7505 and booth 7604 on the top floor.

#### JOYCE TSE

*ajoycetse* Day 2 of #APTAEXPO - don't forget to stop by to check out the life size lite brite wall. #FeelLikeAKidAgain

#### **ANGELA MILLER**

@ecologyIT #APTAEXPO #sustainability meeting. One of the most successful APTA teams in last 5 years, but time to move past #energy to the #social pillar

#### PARSONS BRINCKERHOFF

@ExpoLive4Trans "technology is big and will be bigger" in what we do for customers, Mike Allegra, @RideUTA #APTAEXPO: This video at booth #3023.

#### **ZACH SWANSON**

@swanson\_design Great faces and great products @ #APTA-EXPO in Houston, TX.

#### **CHRISTOPHER ANDREWS**

@chrisandrewsCDA Learning more about Complete Streets from @SmartGrowthUSA here at #APTAEXPO

#### ILIDE KIAH

@JudeKiah So much to learn even after six times! #APTA-

#### **DASH BUS**

@DASHBus DASH is on display at the APTA Expo this week! #APTAEXPO #APTAExpo2014 **#DASHBUS** 

# Our name has changed, but our superior performance continues.



We continue to lead the industry with innovative, customer-focused solutions to strengthen transit, paratransit and rail operations in more than 200 cities and communities in the U.S. and Canada.



Veolia Transportation has changed its name to Transdev



# Designed for the Highway: Safe and Comfortable for **Commuter Service**

**Booth 2837** 

OTORCOACHINDUSTRIES(MCI) brought its latest generation of commuter to Expo, showing transit agencies the greenest, safest and most reliable coach model on the market.

Only MCI currently manufacturers a commuter coach which is Buy America-compliant, Altoona-tested and available in clean-diesel, hybrid



THE MCI buses for Metro include a Sportswork bike rack where the luggage compartment is on a coach, protecting the bikes on highway driving.



# doubles your air flow output

Like the original Dual Turbo-2000 for extreme compressor duty cycles, SKF's newest model keeps air systems clean and capacity high with two desiccant cartridges and an intricate oil removal system that removes even the finest oil residue. But the new H.C. Dual Turbo-2000 is designed for even greater compressor size to meet the air flow output needs of high output compressors required on 2010 transit bus engines, (80 scfm and up to 40% compressor duty cycle). So now you have more ways than ever to meet your fleet needs. Easy to install and service; reduces fleet downtime.



www.vsm.skf.com © Copyright 2014 SKF Group





**HOUSTON METRO** recently ordered 95 coaches from MCI.



THE NEW MCI coaches for Metro include features for additional passenger comfort, including Kiel North America Avance 2010 seating for 55 passengers.

dards they'll need to give up their passenger cars. We think our lineup of MCI Commuter Coaches will convert drivers to coach as never before."

At the MCI booth, attendees had the chance to inspect one of Houston Metro's clean-diesel coaches, part of a recent 95-coach order for MCI. Metro has ordered an impressive set of features, including Kiel North America Avance 2010 seating for 55 passengers, a Transmark Mobile View nine-camera color surveillance system, 110-volt power outlets with USB plugs at every seat, and Sportworks bike rack.



and CNG options. Designed for the highway, the MCI Commuter Coach offers a high-floor design and rugged semi-monocoque structure that elevates passen-

gers and drivers well above traf-

fic. Forward-facing seating and

advanced safety features such as

electronic stability control pro-

vide comfortable, secure trips. As cities, suburbs and exurbs plan

commuter service expansions, the MCI Commuter Coach offers an

optimal package, combining the low total cost of operation with

maximum seating capacity, reli-

in high-speed commuter express

as metro areas expand," said Pat-

rick Scully, MCI executive vice

president of Sales and Marketing.

"Each year, commuters grow more

sophisticated about the safety,

comfort and environmental stan-

"MCI is leading the evolution

ability and safety.

Donny Lehnhardt National Sales Manager

Charlotte, N.C.

We're new to the industry in North America, so we're looking for opportunities and contacts with manufacturers and transit authorities. We're fighting a mentality in the U.S. of 'don't fix it unless it's broken.' We do sensors for door obstruction detection ... but in the U.S. it doesn't seem to be a priority, so we're fighting a cultural slant. We're looking to show people the advantages and drive specifications from transit authorities to start requesting sensors on doors.



# MAINTENANCE



# Maximize Maintenance Efficiencies

By Jim H. Davis

Ensure you have the right parts, at the right time, in the right quantity and at the best cost.

predictive maintenance (PdM) activities on incoming equipment to a centralized repair facility, such as rail transportation equipment, surface transportation vehicles, or assigned fleet vehicles, is one of the most important, if not the most important, set of activities that an organization can apply as part of an overall asset care and reliability program.

#### THE BENEFITS ARE MANY, SUCH AS:

- Repair/replacement of worn items/parts due to usage, time in service, normal wear and tear and/or abuse. (Typically, these are predetermined patterns and conditions easily corrected by scheduled PM's). This could/should also include scheduled cleaning and sanitation activities as well.
- The identity of possible or impending failures not normally found or covered in scheduled time-based or calendar-based PM's can either be repaired while the unit is already in the repair facility or put on a watch list for further monitoring, in-the-field checks and inspections for addressing at a later time. (Typically, predetermined patterns and conditions can easily be found by performing noninvasive and timely PdMs).

Unit Event	Activity	Responsibility	Results
In-field checks and inspections.	Identifies key conditions or operating characteristics that require attention, investigation or remedy.	Operations, security, janitorial or other personnel.	Possible safety, security or mechanical (operational) issues are found and reported to the CRF well ahead of the next scheduled visit.
Pre-determined PM and PdM tasks are pulled from the CMMS/EAM system in advance of the next scheduled visit.	The maintenance planning function extracts the next round of PMs/PdMs due for a given unit(s) along with any additional maintenance work requests that have been triggered for resolution in Step No. 1.	Maintenance planning and scheduling person- nel and operations scheduling personnel.	All work needed to be done on the incoming unit(s) is verified, pre-planned for time and materials (if not already existent in the computer files) for the required timeframes, personnel requirements and for MRO spare parts and materials. After proper planning of these upcoming tasks, the requirements for personnel, tooling and equipment and MRO spare parts is communicated to the appropriate supervision and/or affected departments.
Required maintenance staffing, tooling and equipment are sched- uled for the appropriate work week, day and shift.	Maintenance supervision and planning coordinates their efforts to fully prepare for the next round of scheduled work triggered from the above activities.	Maintenance planning and scheduling personnel.	A published plan is put in place to ensure that all required work tasks are distributed and properly communicated to those who need to know.
Material (spare parts) reservations are activated in the CMMS/EAM to trigger the formal requests for parts and supplies.	This sends advance notice to the MRO procurement chain department for the upcoming materials requirements for the next round of scheduled repairs. Typically, pick tickets would be used to schedule the materials needed for the proper time, and eventually convert the CMMS/EAM reservations into actual allocations assigned to specific maintenance work order numbers. This is where good bills of materials files can improve accuracy and save a lot of valuable time.	Maintenance planning and scheduling. Very long lead time parts will have to be acknowl- edged and communi- cated much earlier in the process.	The storeroom and the procurement department can begin verifying the need for parts and materials to ensure that they are available at the time needed and in the correct quantity. This requires timely conversion of purchase orders, appropriate expediting — where needed — and efficient receiving and put-away. Very long lead time parts will have to be acknowledged and communicated much earlier in the process. Or, consideration given to normal stocked status for these hard-to-get, long-lead parts and materials.
Material requests for MRO spare parts and supplies are forwarded to the storeroom and/or procurement department for resolution.	This would include the above activity, plus the pre-preparation of needed purchase requisitions for parts not normally stocked or stocked in the current needed quantity.	Maintenance planning and scheduling. Very long lead time parts will have to be acknowl- edged and communi- cated much earlier in the process.	The storeroom and procurement department can begin verifying the need for parts and materials to ensure that they are available at the time needed and in the correct quantity. This requires timely conversion of purchase requisitions to purchase orders, appropriate expediting — where needed — and efficient receiving and put-away. Very long lead time parts will have to be acknowledged and communicated much earlier in the process. Or, consideration given to normal stocked status for these hard-to-get, long-lead parts and materials.
The next weekly or bi-weekly schedule for all maintenance work is finalized, released and published the week or two prior to the next scheduled work week.	This then becomes the official schedule for the next work week and thus puts into play all pre-plans and associated schedules for labor and material requirements.	Maintenance planning and scheduling.	At this point the storeroom can begin parts picking, kitting, staging and delivery activities in time with the work efforts to be accomplished.
Emergency or last- minute work needs are identified.	Changes to the schedule and all labor and material requirements are adjusted as need be. These last-minute changes are duly noted and eventually addressed by the maintenance and MRO improvement team to mitigate future occurrences as much as possible.	Maintenance planning and scheduling, MRO improvement team and management.	This will probably trigger the need for some emergency expedited orders, additional unit costing and associated freight charges.
All informational data is entered into the CMMS/ EAM system for future reference.	This may also trigger the opportunity to add/change/delete various work elements or activities, or how they are processed and handled.	Maintenance planning and scheduling, MRO improvement team and management.	Hopefully, a better, more efficient and effective process next time around.



# APTA 2014 MAINTENANCE

- Pre-scheduled and pre-planned work allows for faster and more efficient turn-around times to get needed equipment back into service.
- Improved performance and utilization of the units, until the next scheduled repair center visit.
- Increased overall safety of operations due to resolving
- operational or other issues before they occur in service and effect other units.
- Pre-scheduled and pre-planned repair center visits provide windows for equipment upgrades.
- A sound asset care and reliability program extends the service life of the equipment to maximize ROI.

# TO ACCOMPLISH AND FULLY REALIZE THE MANY BENEFITS NOTED ABOVE REQUIRES:

- Attention to detail
- Standardized policies/procedures
- Management and staff support and involvement
  - Data and equipment history files
  - An optimized CMMS/EAM software system
  - Effective and efficient work requirements, tasks and activities
  - On-hand MRO parts and supplies
  - Proper tools and repair equipment
  - $\bullet$  Training for all personnel involved

The key to efficiency and effectiveness of required checks, inspections, calibrations, repairs, upgrades and modifications is good planning and scheduling.

# THIS PROVIDES THREE MAJOR ADVANTAGES:

- Knowing when a unit is due for a scheduled centralized repair facility (CRF) visit so that it can be appropriately routed in the general direction of the destined facility and the provisioning of a replacement unit to provide uninterrupted service while the scheduled unit is offline for due service.
- Maintenance and other needed personnel, along with needed support tooling and equipment, can be appropriately staffed and scheduled.
- MRO spare parts, supplies and materials can be acquired in advance (utilizing the appropriate JIT approach for that given operation) to further ensure that the parts and supplies needed are on hand, in the quantities needed and ready for issue to the appropriate job work order.
- A sample scenario of how this could all come about for the best effectiveness and efficiency: see chart on page 13.

If you can't get the right parts, at the right time, in the right quantity at the best overall costs, it will result in:

- Excessive downtime
- Lost revenue
- Expedited/excessive purchasing and freight costs
- Overtime
- Rework

Have documented policies, practices and procedures, standardized methodologies; accurate job descriptions; defined roles and responsibilities; accountability; good data; and well-trained personnel.

Continental The Future in Motion

South South State of the State of th

# Find out how Continental is making traveling by bus more efficient, comfortable and safer.

When traveling by bus, everyone wants to arrive safe and sound. A vehicle that's equipped with the right components is the first step to ensuring safe travel.

Continental supports you with innovative and sustainable solutions for busses and motor coaches. We take the needs of bus companies and motor coach operators as seriously as those of drivers and passengers.

That's why we develop products that make traveling by bus safer, more efficient and more comfortable. Our ground-breaking Driver's Workplace, ProViu 360 degree camera systems, innovative instrumentation and control systems are all examples of what Continental has to offer.

Learn more about how Continental helps you drive towards a safe and successful future.

Visit us at our APTA booth #4813

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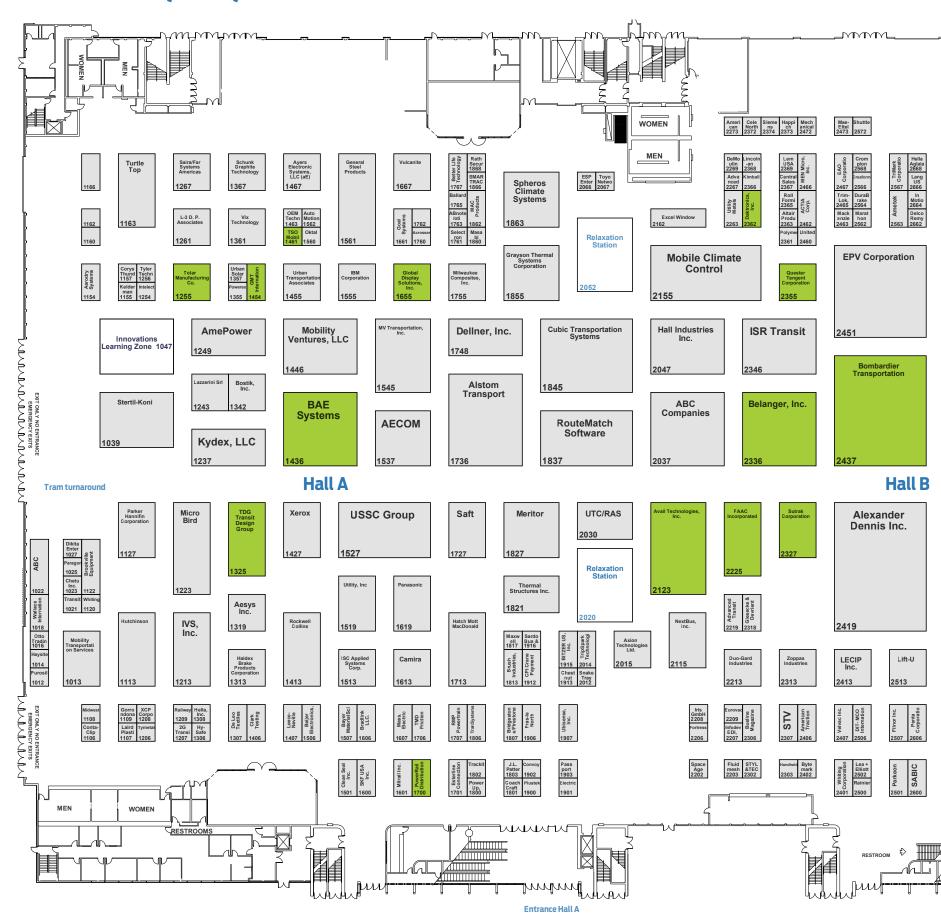
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# Hall A / B / C







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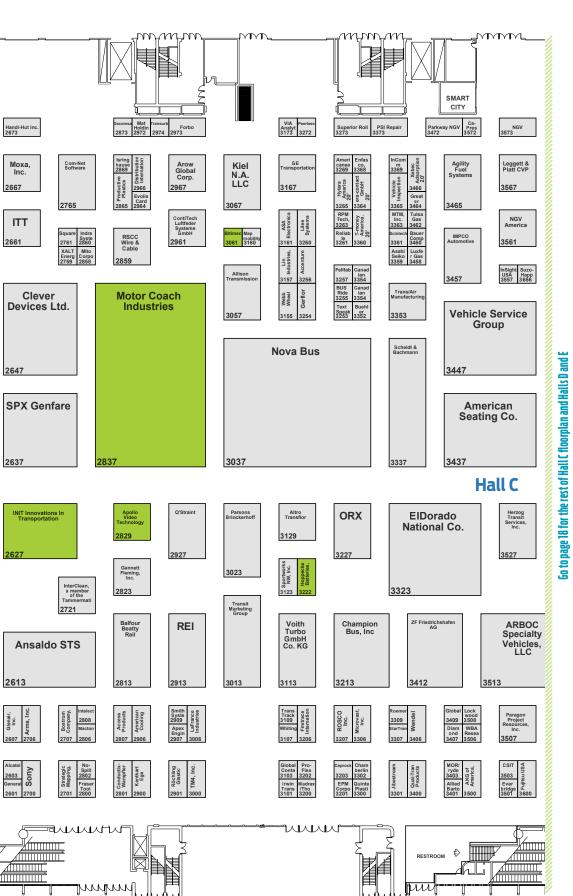
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C.E. Shepherd Co. L.P CAF USA, Inc. CalAmp Cambridge Systematics Inc Camira Canadian Urban Transit Association Caprock Mfg. CBM N.A. CCI Thermal Technologies Cele North America Central Sales & Service, Inc. Centralp Ce-Pres LLC	7744 4713 5500 4514 1613 3354 3200 3755 5500 2377 2366 3744 3577
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C.E. Shepherd Co. L.P CAF USA, Inc. CalAmp Cambridge Systematics Inc Camira Canadian Urban Transit Association Caprock Mfg. CBM N.A. CCI Thermal Technologies Cele North America Central Sales & Service, Inc. Centralp Ce-Pres LLC Cetest CG Automation Solutions USA CH2M HILL Chamberlin Rubber Company	774.1 471.3 550.2 451.4 161.3 335.4 320.3 375.3 55000 237.2 236.3 374.3 357.2 446.6 470.3 330.2
C.E. Shepherd Co. L.P CAF USA, Inc. CalAmp Cambridge Systematics Inc Camira Canadian Urban Transit Association Caprock Mfg. CBM N.A. CCI Thermal Technologies Cele North America Central Sales & Service, Inc. Centralp Ce-Pres LLC Cetest CG Automation Solutions USA CH2M HILL Chamberlin Rubber Company Champion Bus, Inc	774:4713 5500 4514 1613 3354 3203 3753 5500 2377 2366 3747 4466 4700 3302 3213
C.E. Shepherd Co. L.P CAF USA, Inc. CalAmp Cambridge Systematics Inc Camira Canadian Urban Transit Association Caprock Mfg. CBM N.A. CCI Thermal Technologies Cele North America Central Sales & Service, Inc. Centralp Ce-Pres LLC Cetest CG Automation Solutions USA CH2M HILL Chamberlin Rubber Company Champion Bus, Inc Chestnut Ridge Foam Inc.	774: 4713 5500 4514 1613 3354 3203 3753 5500 2377 2367 374: 4466 5360 4700 3302 3213 1913
C.E. Shepherd Co. L.P CAF USA, Inc. CalAmp Cambridge Systematics Inc Camira Canadian Urban Transit Association Caprock Mfg. CBM N.A. CCI Thermal Technologies Cele North America Central Sales & Service, Inc. Centralp Ce-Pres LLC Cetest CG Automation Solutions USA CH2M HILL Chamberlin Rubber Company Chestnut Ridge Foam Inc. Chetu Inc.	7744 4713 5500 4514 1613 3354 3203 3753 55000 2372 2363 3744 4466 4700 3302 3213 1913 1023
C.E. Shepherd Co. L.P CAF USA, Inc. CalAmp Cambridge Systematics Inc Camira Canadian Urban Transit Association Caprock Mfg. CBM N.A. CCI Thermal Technologies Cele North America Central Sales & Service, Inc. Centralp Ce-Pres LLC Cetest CG Automation Solutions USA CH2M HILL Chamberlin Rubber Company Champion Bus, Inc Chestnut Ridge Foam Inc.	7744 4713 5500 4514 1613 3354 3203 3753 55000 2377 2367 34466 4700 3302 3211 1913 1023 1406

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D

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**Fuel Solutions** 

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G

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Hoppecke Batteries, Inc.         3222           Houston Metro         7404           Hubner Manufacturing Corp.         4448           Hug Engineering         7332           Huitt-Zollars Inc.         4000           Hunt Guillot & Associates, LLC         3768           Hunter Technology/eHunus, Inc.         5364           Hutchinson         1113           Hybmm Overseas         5529           Hydrogenics         6045           Hy-Safe Technology         1306           Hytera America         3265           I/O Controls         4560           IBM Corporation         1555           ICOP Technology Inc.         6064           id metalco, Inc.         7438           iiX         7734           Impact Recovery Systems, Inc.         7508           IMPCO Automotive         3457		4864
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Hubner Manufacturing Corp.         4448           Hug Engineering         7332           Huitt-Zollars Inc.         4000           Hunt Guillot & Associates, LLC         3768           Hunter Technology/eHunus, Inc.         5364           Hutchinson         1113           Hybmm Overseas         5529           Hydrogenics         6045           Hy-Safe Technology         1306           Hytera America         3265           I/O Controls         4560           IBM Corporation         1555           ICOP Technology Inc.         6064           id metalco, Inc.         7438           iiX         7734           Impact Recovery Systems, Inc.         7508           IMPCO Automotive         3457	Hill International	4307
Hug Engineering         7332           Huitt-Zollars Inc.         4000           Hunt Guillot & Associates, LLC         3768           Hunter Technology/eHunus, Inc.         5364           Hutchinson         1113           Hybmm Overseas         5529           Hydrogenics         6045           Hy-Safe Technology         1306           Hytera America         3265           I/O Controls         4560           IBM Corporation         1555           ICOP Technology Inc.         6064           id metalco, Inc.         7438           iiX         7734           Impact Recovery Systems, Inc.         7508           IMPCO Automotive         3457	Hill International Hoppecke Batteries, Inc.	4307 <b>3222</b>
Huitt-Zollars Inc.         4000           Hunt Guillot & Associates, LLC         3768           Hunter Technology/eHunus, Inc.         5364           Hutchinson         1113           Hybmm Overseas         5529           Hydrogenics         6045           Hy-Safe Technology         1306           Hytera America         3265           I/O Controls         4560           IBM Corporation         1555           ICOP Technology Inc.         6064           id metalco, Inc.         7438           iiX         7734           Impact Recovery Systems, Inc.         7508           IMPCO Automotive         3457	Hill International  Hoppecke Batteries, Inc.  Houston Metro	4307 <b>3222</b> 7404
Hunt Guillot & Associates, LLC         3768           Hunter Technology/eHunus, Inc.         5364           Hutchinson         1113           Hybmm Overseas         5529           Hydrogenics         6045           Hy-Safe Technology         1306           Hytera America         3265           I/O Controls         4560           IBM Corporation         1555           ICOP Technology Inc.         6064           id metalco, Inc.         7438           iiX         7734           Impact Recovery Systems, Inc.         7508           IMPCO Automotive         3457	Hill International  Hoppecke Batteries, Inc.  Houston Metro  Hubner Manufacturing Corp.	4307 <b>3222</b> 7404 4448
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Hutchinson         1113           Hybmm Overseas         5529           Hydrogenics         6045           Hy-Safe Technology         1306           Hytera America         3265           I/O Controls         4560           IBM Corporation         1555           ICOP Technology Inc.         6064           id metalco, Inc.         7438           iiX         7734           Imeco Cables inc.         4002           Impact Recovery Systems, Inc.         7508           IMPCO Automotive         3457	Hill International  Hoppecke Batteries, Inc.  Houston Metro  Hubner Manufacturing Corp.  Hug Engineering  Huitt-Zollars Inc.	4307 3222 7404 4448 7332 4000
Hybmm Overseas         5529           Hydrogenics         6045           Hy-Safe Technology         1306           Hytera America         3265           I/O Controls         4560           IBM Corporation         1555           ICOP Technology Inc.         6064           id metalco, Inc.         7438           iiX         7734           Imeco Cables inc.         4002           Impact Recovery Systems, Inc.         7508           IMPCO Automotive         3457	Hill International  Hoppecke Batteries, Inc.  Houston Metro  Hubner Manufacturing Corp.  Hug Engineering  Huitt-Zollars Inc.  Hunt Guillot & Associates, LLC	4307 3222 7404 4448 7332 4000 3768
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Hy-Safe Technology       1306         Hytera America       3265         I/O Controls       4560         IBM Corporation       1555         ICOP Technology Inc.       6064         id metalco, Inc.       7438         iiX       7734         Imaco Cables inc.       4002         Impact Recovery Systems, Inc.       7508         IMPCO Automotive       3457	Hill International  Hoppecke Batteries, Inc.  Houston Metro  Hubner Manufacturing Corp.  Hug Engineering  Huitt-Zollars Inc.  Hunt Guillot & Associates, LLC  Hunter Technology/eHunus, Inc.  Hutchinson	4307 3222 7404 4448 7332 4000 3768 5364 1113
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IBM Corporation         1555           ICOP Technology Inc.         6064           id metalco, Inc.         7438           iiX         7734           Imaco Cables inc.         4002           Impact Recovery Systems, Inc.         7508           IMPCO Automotive         3457	Hill International  Hoppecke Batteries, Inc.  Houston Metro  Hubner Manufacturing Corp.  Hug Engineering  Huitt-Zollars Inc.  Hunt Guillot & Associates, LLC  Hunter Technology/eHunus, Inc.  Hutchinson  Hybmm Overseas  Hydrogenics  Hy-Safe Technology	4307 3222 7404 4448 7332 4000 3768 5364 1113 5529 6045 1306
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id metalco, Inc.       7438         iiX       7734         Imeco Cables inc.       4002         Impact Recovery Systems, Inc.       7508         IMPCO Automotive       3457	Hill International  Hoppecke Batteries, Inc.  Houston Metro  Hubner Manufacturing Corp.  Hug Engineering  Huitt-Zollars Inc.  Hunt Guillot & Associates, LLC  Hunter Technology/eHunus, Inc.  Hutchinson  Hybrm Overseas  Hydrogenics  Hy-Safe Technology  Hytera America	4307 3222 7404 4448 7332 4000 3768 5364 1113 5529 6045 1306 3265
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Total Plastics Mass Mobility Toyo Denki Seizo K.K./Toyo Denki USA, Inc. Toyo Networks & System Integration Trackit Traction Systems Inc. Trans/Air Manufacturing Transdev North America Transit Associates Transit Cooling Solutions Transit Marketing Group TransIT Solutions (TSI) Transitvue Communication Systems TransitWorks	5213 4922 5759 2067 1802 5301 3353 5237 7321 1021 3013 5650 4519 5865
Total Plastics Mass Mobility Toyo Denki Seizo K.K./Toyo Denki USA, Inc. Toyo Networks & System Integration Trackit Traction Systems Inc. Trans/Air Manufacturing Transdev North America Transit Associates Transit Cooling Solutions Transit Marketing Group TransIT Solutions (TSI) Transitvue Communication Systems TransitWorks Trans-Lite	5213 4922 5759 2067 1802 5301 3353 5237 7321 1021 3013 5650 4519
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Zonar Systems

Zone Defense Zoppas Industries





Stertil-Koni

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- Demonstrate the features of our
   Crash Energy Management System
   in the popular BOMBARDIER
   BiLevel commuter rail car
- Present the measurable benefits of our World Class Operations and Maintenance Program.

We look forward to seeing you at Booth #2437 in Hall B.

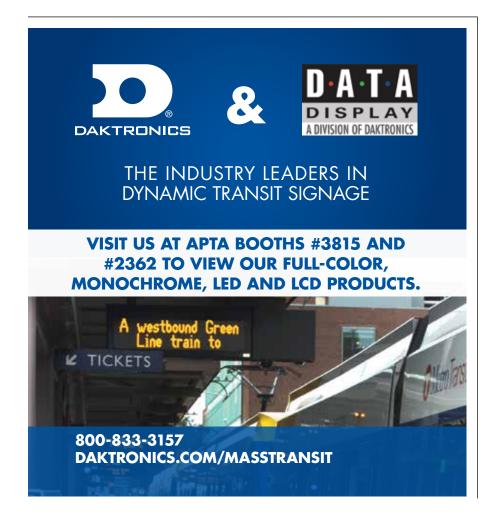






# **A Smart Solution for Portland**

TriMet is using new fare collection technology to enchance connections and rider experiences



HEN IT COMES TO cutting-edge technology, TriMet rises to the top as one of the most progressive agencies in the country. As it looked for a mobile ticketing solution. The agency became the first in the U.S. to implement mobile ticketing across bus and rail. The inertia of the mobile ticketing launch was followed in 2014 by the contract with Init for the implementation of an open payment and smart card e-fare system.

The TriMet project required a solution that would seamlessly integrate with its already existing ITS systems and infrastructure, as well as ensure multi-client capability. This aspect was needed to provide access for other agencies to join the e-fare structure in the future. Another requirement included the necessity for a comprehensive back-office system that could define individual agency parameters, while at the same time protect the exchange of important data.

Open application programming interfaces (API) and third-party



shared with other agencies to create a regional fare media.

system integration were also critical to the success of the entire system. These components would help ease the arduous task of connecting the agency with retail partners and suppliers, and would provide passengers with outlets to purchase the media to utilize the new fare system.

TriMet's e-fare project includes the implementation of ID-based smart cards and an open payment fare structure for the use of bank cards.

With ID-based smart cards, the card is linked to a rider's account where their information and subsequent fare calculations are processed. The rider's identification and payment information are safely stored in the back-office system.

The use of ID-based cards will benefit TriMet planners by providing a more comprehensive view of anonymous riding patterns. This data will help the agency tailor services around high-usage times and locations. ID-based smart cards will reduce boarding times and use of cash fares, as well as improve operational performance.

In addition to ID-based smart cards, Init will implement an open payment fare structure for TriMet using the EMV (Europay, Master-Card, Visa) contactless payment standard. Using Init's proximity readers, a bank card is tapped on the terminal which then communicates the transaction in real-time with Init's back-office system, Mobilevario. All forms of mobile payment will be accepted at the fare readers.

Once implemented, the system will integrate with several third-party systems and include open API. These interfaces will be made available to external partners, including an extensive retail network. This will give Tri-Met's passengers the ability to

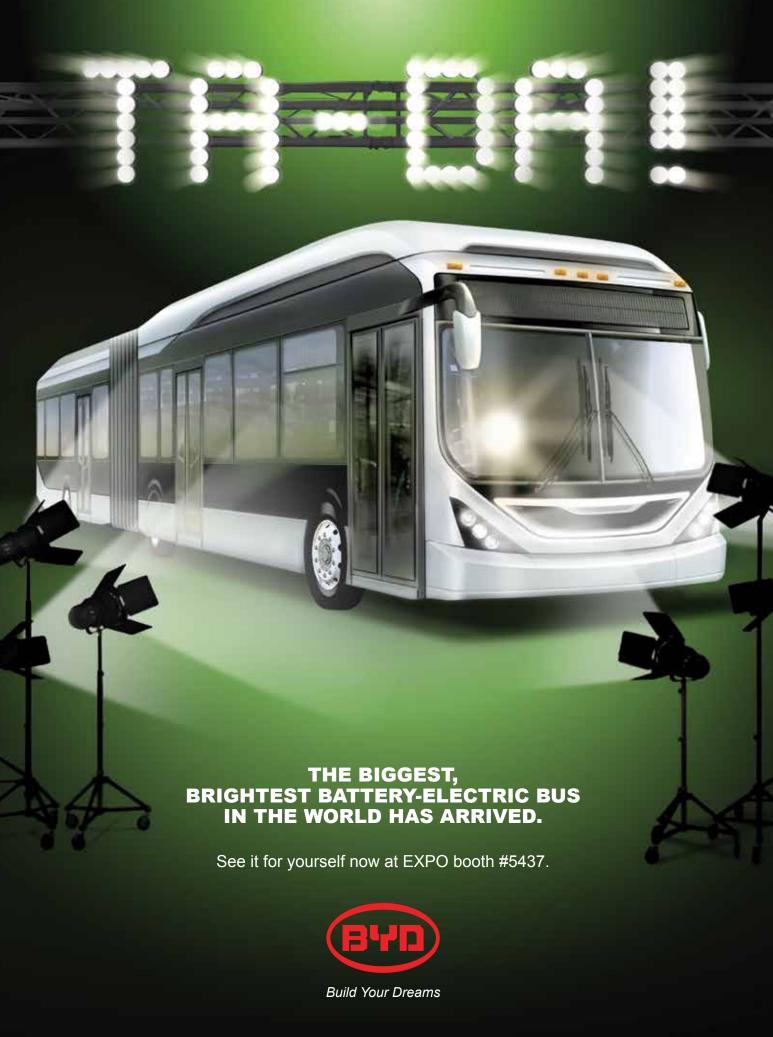
NAX

open new or top up existing accounts through several hundred retail stores conveniently located throughout the city.

Another open interface will give the agency access to a powerful CRM solution, and yet another will provide access to third-party ticket vending machines. In total, there will be eight open APIs serving more than a dozen integration projects.

The systems are multi-client capable, so other transportation providers can be added for a region-wide fare structure. TriMet is considering extending the system to the Portland Streetcar and Vancouver, Washington, where it could incorporate transportation services provided by the Clark County Public Transit Benefit Area Authority (C-TRAN).

TriMet is a trail blazer and the city of Portland reaps the benefits. The result will be a smoother, economically managed transit network and increased transportation services.





# **Expo Product HIGHLIGHTS**



# FlexPlay Pro 7: Icon-Driven Playback Software with **Driver Report Card**

AngelTrax | Booth 1213

Designed as a completely self-managed driver coaching system, FlexPlay Pro 7 eliminates the need for a third-party solution and monthly fees.

View surveillance video in two interchangeable playback modes each, featuring familiar icons for easy navigation of the footage.

FlexPlay Pro 7 displays footage and report card for reference in identifying driver improvements. Personalize each report card with driver-specific notes of behavior modifications or improvements. Each driver report card can be saved and output as several file types - complete with embedded metadata — for employee files, driver incentive documentation or future comparisons.

FlexPlay Pro 7's standard mode features GPS routing displayed side-by-side with video footage for an overall view of the trip, including speed, stopping points and event markers. Fleet directors can target specific signs of potential trouble.

# The Stertil-Koni Ecolift: Ideally **Suited for Heavy-Duty Lifting** at Transit Agencies of All Sizes

Stertil-Koni's Ecolift is recognized as the original ultra-shallow, full-rise, in-ground axle engaging lifting system.

Ecolift has a hydraulic lifting system that reaches a maximum lifting height of 70 inches in 80 seconds. It uniquely combines high-pressure,

> low-volume hydraulics.

Recipient of two U.S. patents, Ecolift is available in a 2-scissor or 3-scissor with total lifting capacity of 60,000 lbs. and 90,000 lbs. A tandem configuration is possible, with a

lifting capacity of up to 120,000 pounds and every configuration provides transit agency's wheelsfree lifting to maintenance facilities.

In addition, because it has an installation depth of just 34 inches, Ecolift is the answer to a broad range of heavy-duty lifting situations. It is well-suited for servicing transit buses and other vehicles with low clearance. In addition. Fcolift delivers an unparalleled combination of superior lifting matched with an environmentally friendly design to the transit industry.

# First Transit Technology **Strengthens Paratransit Services**



First Transit is committed to providing safe and reliable paratransit services. First Transit has worked with client passengers and technology developers to create software applications to meet the needs of paratransit passengers. First Transit introduced one of the newest products in its suite of information products. Info-Client, a Paratransit Travel Companion, is a scalable mobile solution designed to keep passengers in touch with their paratransit service. Using First Transit's Info-Suite architecture, this mobile application allows passengers — from any smart mobile device or computer — to enter a unique ID and a personal password for a safe, secure connection to their service information.

The Paratransit Travel Companion utilizes scheduling and real-time information from the authority's scheduling systems. The information display can then be customized by the transit authority and used for branding



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#### **FEATURED MATERIAL LEXAN™ H6500 Sheet**

for interior components

LEXAN H6500 sheet is an opaque, solid, low-gloss polymer blend that delivers high stiffness for railway sidewalls. tables and seating.



# First/Last Mile **Solutions: Bike Shelters Complete the Transit Connection**

**Duo-Gard Industries Booth 2213** 

We have applied our knowledge and experience to develop a variety of standard bike shelter models, including architecturaldiesnged shelters.

Bike shelters and parking are highly visible and are a areflection of your commitment to a more sustainable environment for your riders. Designated parking is more orderly, prevents damage to trees and street furniture and prevents bikes from blocking the sidewalk.

With our custom-designed shelters, a custom structure doesn't necessariy mean a custom price. If you envision something different than one of our standard models, our ability to design and engineer the structure using either aluminum or steel, gives us the flexibility to manufacture exactly what you want at a reasonable cost.

# **BYD Introduces 60-foot, Battery-Electric Transit Bus**BYD Motors Inc. | Booth 5437

BYD Motors Inc. is introducing the latest in its series of zero-emissions fleet vehicles — the first long-range, 60-foot-long, battery-electric transit bus.

This 60-foot articulated BYD bus was designed in the U.S. out of BYD Motor's Los Angeles research and development site and manufactured at the BYD Electric Bus manufacturing site in Lancaster, California.

The first model built for the U.S. Federal Transit Administration (FTA)-sponsored Altoona testing can be viewed at APTA Expo before it leaves for demonstrations and the Altoona test tracks in December



# **Thermo King Displays HVAC Solutions**

Thermo King Corp. **Booth 3851** 

Thermo King products help transit operators meet energy efficiency and sustainability objectives. It has been providing a range of HVAC solutions for buses since 1956. The compay understands that one size doesn't fit all so it focuses on the customer's needs to develop customized, value-added solutions.

Thermo King products help transit operators meet energy efficiency and sustainability objectives. These products include the fuel efficient Screw Compressor, the IntelligAire III microprocessor with advanced diagnostics and J1939 CAN-BUS communication capability, long-life brushless motors, electronic capacity control for reciprocating compressors and a full line of all-electric HVAC systems for buses.

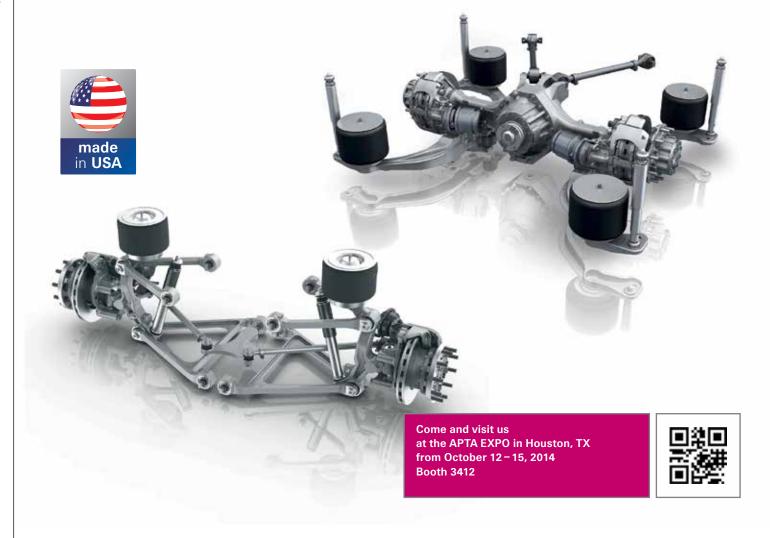
The IntelligAire III is the third generation advanced microporcessor control and communications technology that provides improved diagnostics and troubleshooting and reduces setup time for installing and changing program files.

Our all-electric bus HVAC solutions use less fuel by eliminating the effect of variable engine RPM on load and demand, provides optimum air conditioning capacity at all bus speeds and dramatically improves reliability with a reduced number of maintenance items. They use the energy-efficient R-407C refrigerant.



#### DRIVE THE BETTER WAY









# New Panasonic 720p and 1080p **Cameras with Optional Modules Deliver Crystal Clear Images** and Unmatched Versatility

America | Booth 1619

Panasonic System Communications Co. of North America announced two new HD and full HD indoor fixed-network cameras with modular options.

Further expanding its 6 Series i-PRO camera lineup, the new full HD 1080p (WV-SPN631) and HD 720p (WV-SPN611) models deliver advanced image processing capabilities and exceptional video quality and clarity for a wide range of video surveillance applications. The new fixed-network cameras support two optional modules. The first module (WV-SPN6FRL1) adds IR illumination to the camera to enable capture of clear images in low light or complete darkness, illuminating up to 100 feet with infrared light. The optional RS-485 communications module (WV-SPN6R481) enables camera control of third-party pan-tilt positioners and RS-485 communications.

Leveraging Panasonic's advanced, next geeration UniPhier LSI processors, new 6 Series cameras deliver high definition video images in 1080p resolution and up to 133dB of dynamic range thanks to its enhanced super dynamic and adaptive black stretch (ABS) technologies, making the cameras ideal for use in challenging lighting conditions.

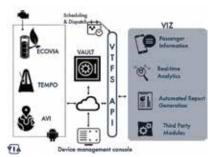
# **Seon Features Two New Mobile** Surveillance Offerings Seon Design Inc. | Booth 4059



Seon has two new mobile surveillance offerings. A new compact, high-resolution digital video recorder (DVR), the Trooper TL-HD, and a new Web-based version of Seon's video management software, vMax Commander (v5.0).

The TL-HD is a compact, yet full-featured DVR offering pristine recording of four analog and one high-definition camera views at 30 frames per second simultaneously across all five channels. Packed with powerful features, such as an inertia sensor which triggers an alarm in dangerous driving conditions, it is also GPS-ready to provide the exact vehicle location and route at the time of video recording. The TL-HD's dual streaming feature allows recording a high-quality version of the event while providing a low-resolution stream for viewing live video over a low-bandwidth cellular network. It is also Wi-Fi-ready for automatic video downloading without having to go out to the bus to physically retrieve video.

In vMax Commander Version 5.0, Seon introduces a Web version of its video management software designed to drastically reduce the time and effort required to locate, download and review video of an onboard incident.



# **VIA Analytics Launches Four New Products**

Via Analytics | Booth 3173

Via Analytics simultaneously launched four new products in time for Expo.

On the vehicle side, Via transit synchronization system, Tempo is a proven solution to keep even spacing between vehicles while maintaining high system speeds. It runs as an app on inexpensive, networked Android tablets, giving drivers simple visual guidance to coordinate routes in real-time.

Via introduces two more tablet applications to complement Tempo.

Via is helping vehicle-side applications with the release of an open, cloud-based analytics platform. Via states that releasing analytics tools open-source represents a fundamental shift in how the transit industry turns data into useable information to enhance service.

Releasing VIZ open source means agencies can freely use, view and modify the underlying source code. In addition to reducing financial costs compared with proprietary software, open source comes with a number of other benefits.



# More Economical, More Flexible and **More Comfortable: ZF Chassis Technology** for Low-Floor Buses

**ZF North America Booth 3412** 

New axle technologies can work to accommodate low-floor buses and higher axle loads.

ZF is rolling out a new axle generation for low-floor buses in two stages. Modifications were made to the advanced driven axle back in 2011. Due to integration of functions for consoles and screw connections, the AV 133 will already be much lighter yet provide increased performance compared with the AV 132. The new low-floor portal axle already makes heavy-duty applications easier since it is designed for higher torques.

The further developed RL 82 EC low-floor front axle is also an answer to increasing weight due to more requirements with emission standards or driveline electrification. ZF adjusted the RL 75 EC independent suspension via design changes and by using high-strength steel. The load at the front axle thus increased by up to 700 kg to 8.2 tons.







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Power Rail Impact Analysis System (PRIAS): Provides information and data on collector/shoe gear impacts, system voltage at all points on the line, individual & total current at all points on the line, system trend analysis to guide preventative maintenance programs.



Visit us at APTA Expo Booth: 2801



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# **Cummins booth features extensive** engine lineup, including 95L, 4,400 **HP QSK95**

**Cummins | Booth 4547** 

COMPREHENSIVE ENGINE PRODUCT LINEUP FOR both transit bus and rail markets is on display at the Cummins Inc. booth 4547 during APTA Expo.

The Expo marks the first time that products serving transit bus and rail markets have been jointly displayed in North America, featuring engines ranging from 6.7L to 95L.

On display for the first time at Expo, the high-output 16-cylinder high-speed diesel QSK95 locomotive engine features up to 4,400 hp (3281 kW).

"[The QSK95] was recently named the prime mover for the Siemens Charger diesel-electric passenger locomotive, winning a 35-unit initial order operating across five states," said Glen Rees, business manager - Rail Business.

Cummins has also partnered with All Aboard Florida, a private passenger line from Orlando to Miami, with a phase-one order that includes 10 units.

"Outside of the passenger market, we are engaged in a locomotive repower project. It's going to be operating on the Indiana Railroad. We're partnering with another Indiana company to work on this product," said Rees.

Cummins also has established dedicated engineering to the bus segment, separate from trucking and freight haul. Sheif Abou-Rayan, chief engineer - Global Bus Segment is focused on analyzing this segment to produce more efficient products for the transit industry.

"The bus duty cycle tends to be urban areas and cities, so you have a lot of idling. The start/stop technologies wouldn't make much sense if you're hauling goods," said Abou-Rayan. "You're also moving people, which has does have some requirements for comfort."



THE QSK95 16-cylinder 95L engine provides up to



**CUMMINS' BOOTH** features a number of bus and rail engines on display.

#### **FLOOR CHATTER**



Use #APTAExpo to join the conversation on Twitter! @MassTransitmag

#### **Featured Tweets**

@Sentry\_360 Fits in the palm of your hand. See our award winning 14 megapixel camera at Booth 4472 #APTAEXPO #APTAExpo2014

*apricearmstrong* Mobility Mgmt Comm. looking for ways to empower Millennials who want to ditch their cars. No hope for Boomers? #antaexno

#### **KEOLIS NORTH AMERICA**

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@APTA\_infoTake a break or catch up with your new contacts in one of our Networking Lounges at 2020, 2052 or 5056. #APTAEXPO

THE FULLY sealed Xtreme can withstand all forms of weather.

# **Peerless-AV Makes Signage Xtreme in Transit**

Peerless-AV | Booth 3272

**EERLESS-AV IS SHOWING TRANSIT AGENCIES** how they can expand digital signage offerings for any environment.

Jack McKeague, general manager and vice president of sales - display division for Peerless-AV, said the Xtreme Display is fully sealed so the unit is fully protected from the environment.

"The beauty of the unit also that for the industry we're participating in right here is that with brake dust, any kind of outdoor wind, sand dirt, nothing can get into



THE XTREME Outdoor Display offers fully sealed protection.

this screen, nothing can get out of this screen," he said.

The Xtreme unit uses LG screen rated to withstand high temperatures and the heating and cooling units are within the 6 inch frame as opposed to external mounts. The Xtreme is rated to withstand temperatures from -40 degrees to 140 degrees.

McKeague said the units all contain tuners within them so they can still run on cabling. It creates powers savings as the most expensive part of the unit is the few milliseconds when it powers up.



THE PEERLESS-AV Xtreme is designed to withstand all transit environments and elements.



# Proterra Displays All-electric Bus

Proterra | Booth 5037



RYAN POPPLE, President and CEO of Proterra (left) and Al Babinicz , general manager/CEO of catbus in Clemson, S.C. (right) have partnered to implement the use of four battery electric 40-foot Proterra Catalyst buses on all Seneca, S.C. routes. The agency plans to add an additional all-electric bus in the near future.

**THE PROTERRA** Catalyst all-electric bus includes a fast-charge feature that can fully charge a bus in less than 15 minutes.



# **BAE Shows a Hybrid Solution**

**BAE Systems | Booth 1436** 

AE SYSTEMS IS SHOWING ATPA EXPO ATTENDEES IT'S ABLE TO TAKE FUEL savings and emissions cutting to a new level.

The company is showing its electric propulsion system for use in buses, which offers a hybrid drive system built in a series architecture.

Whether it be diesel fuel, whether it be fuel cell, whether it be pure electric, our

system can take us through all those phases," said Bob Lamanna, director of global accounts for HybridDrive Solutions for BAE Systems.

BAE unveiled its new relationship with Cummins at the show to provide startstop technology and anti-idle technology.

Development of electric accessories has furthered the usage of hybrid systems, Lamanna said, so electric drive propulsion can go longer without the loss of power steering, air conditioning and other technologies.

The longer electric range allows buses to operate sans diesel for longer distances, such as in tunnels and shopping districts where diesel noise is unwelcome.



**BAE SYSTEMS** is showing its electric propulsion systems in booth #1436.





**Transit Operations Manager** Montebello Bus Lines Montebello, Calif.

I've been with Mobtebello Bus Lines for 21 years and it's my third Expo. I'm here looking for bus stop amenities, including shelters.



# Better Life Wants to Bring Solid Vinyl Flooring

Flooring to Transit

Better Life Technology LLC | Booth 1767

LLC representatives at the APTA Expo are telling attendees they can save them money with their new vinyl floor.

Brett Sneed, founder and president of the company, said the G-Floor Transit solid vinyl flooring is lightweight and durable, so it will save on gas mileage and extend the life of the floor. He said it also stands up to heavy traffic better than layered flooring commonly used in transit.

"With our product, since it's a solid vinyl product, nothing can break down," he said.

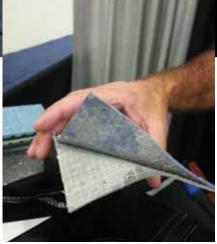
Sneed said he's breaking into the transit sector because the durability of the floor is appealing seeing as it doesn't have seams compared to traditional flooring.

Graphics can also be embedded in the floor to put in safety warning signs and advertisements if a transit agency wanted to earn more revenues. •



Sharad Agarwal
Vice President
National Call Centers
First Transit
Seattle, Wash

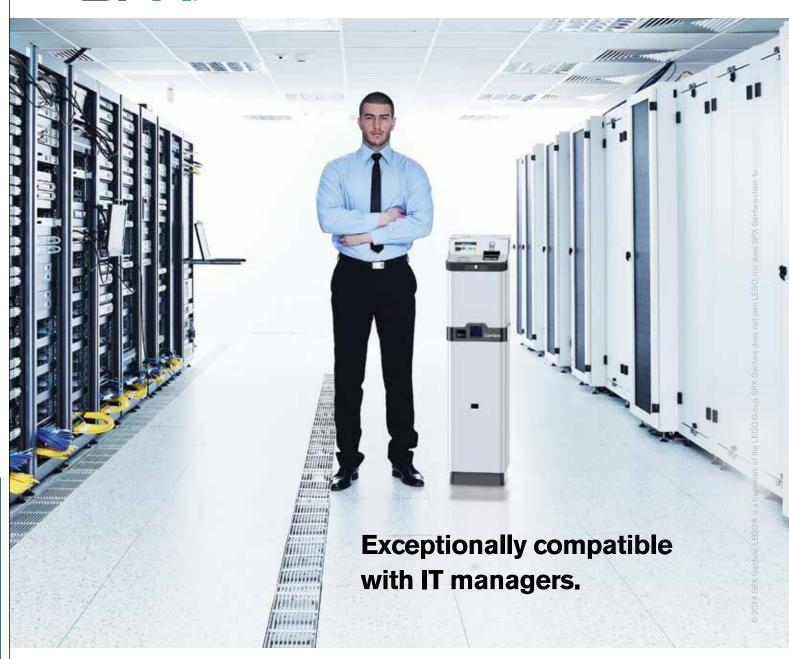
It's my third
Expo. I look
forward to seeing
old colleagues,
meeting new
people and
seeing all of the
new technology





BETTER LIFE uses solid vinyl flooring with customized designs for branding and durability.

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alarms and so much more. It's a fully loaded solution with Fare System Intelligence that can handle any type of fare media you throw at it.

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Hadley | Booth 4267



HADLEY'S DIGITAL signage display at its booth provides real bus route information.

#### ADLEY IS EXPANDING

its options for transit vehicles in order improve operations and enhance rider experience.

The company is displaying its new digital signage option for transit at the APTA Expo, which is currently being used in a bus route in Grand Rapids, Michigan.

The company is also showing its new bus mirror switches, which can automatically fold in mirrors before a bus enters a wash.



HADLEY'S NEW switches includes an automatic switch to ease the process of folding in mirrors before getting washed.

## FLOOR CHATTER



# **Featured Tweets**

#### **CHRISTOF SPIELER**

**achristofspieler** Any agency that uses Comic Sans on their displays should be disqualified from federal funding. #APTAexpo

#### JASON WALDRON

**@WaldronKC** Checking out Houston's Metrorail and their ambitious plans for expansion. #APTAEXPO





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# Rotary Lift debuts MOD35 Modular **Heavy-Duty Inground Lift**

Rotary Lift | Booth 3447

**OTARY LIFT INTRODUCES THE NEXT** generation of the industry's best-selling modular, environmentally friendly, heavy-duty inground lift: the MOD35 Series.

The modular design of the MOD35 inground lift enables it to be customized for any application and location. It is available with two or three multi-stage hydraulic cylinders to provide lifting capacity of 70,000 to 105,000 lbs.



A pendant-only custom remote control comes standard with every MOD35

THE NEW handheld pendant provides maintenance personnel easier access to setting up and lifting buses and other vehicles.

inground lift instead of a floor console. The pendant makes it easy for technicians to operate the lift from anywhere in the bay, for more efficient spotting and lifting. The pendant's joystick controls provide infinite variable speed control for positioning, raising and lowering the lift, as well as fine adjustment.

With the MOD35, "We've added 25 preset vehicle locations. As fleets are expanding out there, different types of buses, different passenger buses, you want to be able to swap those quickly," said David Fischmer,



A SIDE-PROFILE shows the containment of the MOD35, like the MOD30, still has the Enviroguard to protect everything inside the lift, and also protect the

marketing manager for the Vehicle Service Group.

To protect both the environment and the lift, the MOD35 is totally contained in a six-foot-deep



**THE AIR-POWERED MW-500** Mobile Wheel Lift can remove and position any wheel or tire weighing up to 500 lbs.

steel enclosure that has been sealed inside and out with Rotary Lift's exclusive EnviroGuard coating. The enclosure is warranted against corrosion and electrolysis for 10 years. This containment forms a barrier between the lift components and the ground to trap oil and shop fluids while at the same time locking out groundwater.

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# **Foxx Trots Expo**



U.S. DEPARTMENT of Transportation Secretary Anthony Foxx visited the ATPA Expo show floor Oct. 14 to tour with several vendors showcasing products. Foxx met with Mobility Venture CEO Rick Smith and Marketing Assistant Kristina Rhoades inside an MV-1. Rhoades spoke with Foxx about the latest MV-1 models and how the unit accommodates the Americans with Disabilities Act. Foxx then met with representatives from Alstom, RouteMatch, Gillig and Vapor Bus to learn more about their products.







**THE SERIES** 57 door-opening pushbuttons combine optical, tactile and acoustic features in a single integrated product package.

# **EAO Delivers** Integrated **HMI Systems**

AO IS WELL KNOWN FOR SPECIFIC HMI components, and in recent years merged into a complete HMI system bringing knowledge and services to new customers that may not have background in button assembly, placement or regulatory

"We can help them design a whole dashboard and cockpit. We have the component level expertise as well as the ergonomics and the knowledge of the specific industry standards, and we can bring the total integrated solution to the customer," said Lance Scott, president, EAO Corp.

The company is working with train car builders to develop sub-assemblies for maintenance, repair

> and integration. "At one point the builder would buy individual components and assemble it themselves, but creating integrated systems to provide the customer has been a big focus of EAO in this industry" said John Pannone, VP sales, HMI Systems, EAO Corp.

From a passenger's perspective, EAO Corp. continues to provide the latest in human machine interface (HMI) technology, the Series 57 door-opening pushbuttons that combine optical, tactile and acoustic features in a single product package.

The modern design features an extra-large operating area, including two independently illuminated feedback rings. The raised symbols conform to TSI PRM and ADA and is resistant to wear and fading. Options include illuminated symbols and an integrated "finding tone" to help visually impaired passengers.

"When the passenger boards the train, we want to make indicators easy to understand so the experience of riding the vehicle is a pleasant one," said Pannone.

# **Atkins Prepares** Transit for the Future



**ATKINS IS** challenging transit agencies and planners to look at p3 developments in a different manner than the traditional approach.

Atkins | Booth 4213

TKINS IS PUSHING DEEPER into its future proofing of cities concept with ideas on how to future proof transit.

Jon McDonald, vice president, business sector manager, transit and rail for Atkins, said the company is showcasing its process on preparing transit for the future to make it more resilient and create cities everyone wants to live in.



ATKINS IS showcasing how it plans to future-proof transit.

"This is a way to get to the future we'd all like to have versus the one we're going to end up with if we don't do anything," he said.

McDonald said future growth rates can harm quality of life if steps are not taken to address them now. Los Angeles at its current rate could have a density coupled with poor quality of life like in Mexico City compared to Singapore, which has the same density, but with a 60 percent transit ridership.

McDonald said the plan takes a cyclical approach to futureproofing and addressing issues given the need and lack of funds. It challenges transit agencies to look outside of the traditional ways of planning or doing business in exchange for a world view of how things are done.









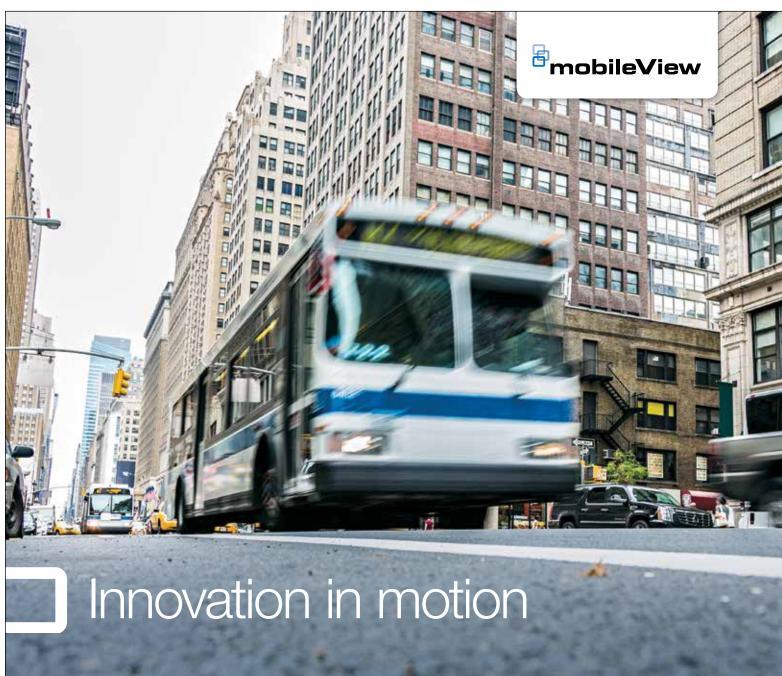




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#### MobileView® now offers an all-IP solution for mobile transit applications.

Introducing the new MobileView 7000 Series Network Video Recorder (NVR), a 16-channel all-IP solution that captures high-resolution video and full audio surveillance on transit and rail vehicles. Easy to install, the new MobileView NVR includes advanced and flexible features to help maximize resources and increase vehicle uptime.



Visit us at APTA, Oct. 13-15, to learn more. Booth #3013



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# News

# **Albert Scala has joined** Urban Engineers as the firm's regional manager in California.

He will be managing task orders related to Urban's Project Management Oversight Consultant (PMOC) services contract for the FTA on the Los Angeles County Metropolitan Transportation Agency's Westside Subway Extension and Regional Connector projects.





**GORAN SPARRMAN** 

# **Parsons Appoints** Sparrman as Seattle Area Manager

Parsons is pleased to announce the appointment of Goran Sparrman as the area manager for Seattle, Washington. In this role, he will guide business development, political advocacy, staffing and operations for the Seattle area.

Sparrman comes to Parsons from the Seattle Department of Transportation (SDOT) where he served as interim director as well as deputy director. His most recent area of responsibility involved managing 700 employees across eight divisions and an annual budget of \$400 million. The SDOT's work covers arterial and non-arterial streets, bridges, retaining walls, seawalls, bike trails, onstreet bicycle facilities and street trees. Sparrman was directly involved with numerous major proj-

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ects in the area, including the Central Waterfront Development and Elliott Bay Seawall Replacement, the Alaskan Way Viaduct Replacement, the SR 520 Bridge Replacement, and the rehabilitation of the historic King Street Train Station.

#### Sima Vaidani Joins LAN

Sima Vajdani, P.E., joins planning, engineering and program management firm Lockwood, Andrews & Newnam Inc. (LAN) as vice president and business group director - California. Vajdani will lead LAN's practice in California and oversee and coordinate the business development efforts, production activities and operations in the state.

Vajdani has more than 30 years of engineering, project delivery, construction and management experience. Previously, she served as president, CEO and founder of McInfra, a company that provided consulting services to the water and transportation infrastructure community. Prior to McInfra, she worked as director of engineering for Samsung Engineering and Construction in the Americas

where she focused on alternative delivery methods for major transportation projects.

Vaidani has served public and private sector clients throughout the western United States on a range of water and transportation infrastructure projects, including mass transit, water/wastewater, high-



projects include the California High Speed Rail, Segment 1, Port of Long Beach Pier T Container Terminal Improvement, Michelson Water Reclamation Plant (Phase II Upgrade) for Irvine Ranch Water District, Irvine, Calif., and Water Recycling Plant Expansion for West Basin Municipal Water District, El Segundo, California. "Sima Vajdani is a strong

leader and manager with exceptional technical skills, along with an enviable track record of success," said LAN President Dennis Petersen. "With her addition, we are looking forward to further improving our service to our California clients.

Vajdani also is actively involved in various organizations, including the Women in Transportation, Construction Management Association of America and Design/Build Institute of America. She received her bachelor's and master's degrees in civil engineering from California State University, Long Beach, and City University of New York, respectively. Vajdani is a registered professional engineer in California, New York and Washington.

# **Honolulu Passengers Get a New Ride** with BAE Systems'

The Department of Transportation Services of the city and





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Communications and

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county of Honolulu, Hawaii, has selected BAE Systems' HybriDrive Series-E propulsion system to power four New Flyer Xcelsior 60-foot, low-floor rapid transit buses. The system enables all bus accessories, such as air conditioning, power steering, and more, to run electrically.

"Honolulu's new buses will be equipped with

Series-E electric drive, which not only reduces noise in and around bus stops, but represents a greater impact on environmental sustainability for the communities in which it operates," said Steve Trichka, vice president and general manager of HybriDrive Solutions at BAE Systems. "Because of these features, Honolulu riders will enjoy reduced noise at stops, while the Honolulu transit authority can take advantage of electric drive modes to eliminate emissions and reduce engine idling."

New Flyer of America Inc. will provide the four articulated buses, equipped with BAE Systems' hybrid propulsion system, to the Department of Transportation Services (DTS) of the city and county of Honolulu. Articulated buses are comprised of a single-deck design with two rigid sections linked by a pivoting joint, allowing for higher passenger capacity.

# ABB's Work with SEPTA Wins ESNA Innovation Award

ABB announced that its work to transform the Southeastern Pennsylvania Transit Authority (SEPTA) system into both a smart consumer and producer of energy has won the prestigious award for "Innovation in Mobility" at the Energy Storage North America (ESNA) conference, the largest grid energy storage event.

ABB led the design, supply and integration of the Wayside Energy Storage Project within SEPTA's aging transit infrastructure. Originally installed in April 2012, the system captures braking energy for redistribution into the SEPTA power network while generating revenue with behind the meter load response to sustain the local grid and the wholesale energy market.

Results achieved to date show that the single substation system on the Market-Frankford Line in North Philadelphia generates over \$250,000 of annual energy savings and earned revenues. The initiative supports SEPTA's Sustainability Program goal of reducing energy intensity (energy use per passenger mile) by 10 percent by 2015.

"SEPTA is proud to receive this award," said SEPTA Chief Engineer Andrew Gillespie. "Initiatives such as the Energy Optimization Project are key elements in SEPTA's overall Sustainability Program, the success of which is critical to transit agency's ability to serve its riders and the Philadelphia region for both the short- and long-term."

"Recovering energy lost during braking is one of SEPTA's primary energy-saving initiatives," said Jacques Poulin, product manager of Energy Storage, ABB Railway. "Eventually, the industry-wide deployment of these smart grid technologies will deliver substantial economic and environmental benefit to public transit systems."





## **Wheels Announces New Executive Director**

The Livermore Amador Valley Transit Authority (LAVTA), operator of the Wheels bus system in the Tri-Valley in California, announced that Michael Tree will be joining the agency as executive director in November.

"After an extensive search with many qualified candidates to choose from, the LAVTA Board of Directors has selected Mr. Tree to lead LAVTA in providing the best public transportation services to meet the challenges of our growing communities. He has a solid record of achievements and skills that will keep LAVTA moving forward." says Chair of the Board Scott Haggerty.

Tree brings to LAVTA more than 20 years of experience in senior positions in the public sector. He is currently general manager for the Missoula Urban Transportation District in Montana.

# **Gunfire Down 26 Percent** in KC Areas Covered by **ShotSpotter Following Transit-Police Partnership**

Newly released data from the makers of the ShotSpotter aunshot detection system indicates that gunfire has decreased significantly in Kansas City's urban core over the last year.

The ShotSpotter system covers 3.55 square miles in Kansas City near the Troost MAX bus line. In comparing the first half of 2013 to the first half of 2014, gunfire incidents in those areas fell by 25.9 percent. That's 55 fewer incidents.

That keeps with the trend in 31 other cities across the United States and Caribbean that ShotSpotter serves: those cities averaged 25.9



percent fewer gunfire incidents, as well.

The ShotSpotter system went live in Kansas City in October 2012. It is a partnership between the Kansas City Missouri Police Department and Kansas City Area Transportation Authority (KCATA), with federal funding for the project secured by U.S. Rep. Emanuel Cleaver.

The funds became available when KCATA's Troost MAX Green Line was completed under budget. KCATA was the lead agency in the planning and procurement of the ShotSpotter service for the KCPD. This is an effort to support Kansas City's proactive policing strategies and deployments, in its ongoing commitment to improve the safety, security and quality of life for its residents by ridding the city of gun crime and gun violence

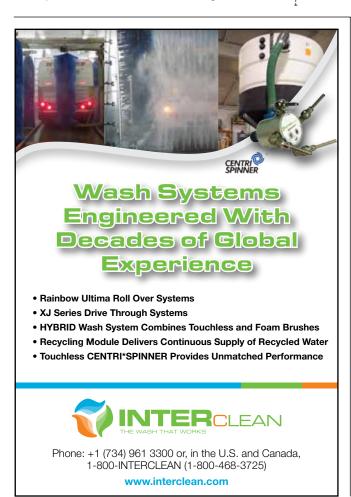
"We have implemented a number of practices to reduce violent crime in Kansas City, including

ShotSpotter," Chief Darryl Forté said. "The reduction in gunfire in some of our hardest-hit neighborhoods is another indication that what we and other segments of the community are doing is making a real difference."

Within the coverage area, the system identifies the address of gunshots, the number of shots fired, the number of weapons used, and all within a few feet of the actual shots. Since its implementation, ShotSpotter has alerted Kansas City Police to 2,738 confirmed gunfire incidents, including 831 so far in 2014.

"With immediate information and situational awareness, police departments can radically speed up their response to gunfire incidents which links directly to this decrease in gun incidents — while keeping officers safer and more effective," said Ralph A. Clark, president and CEO of SST Inc., the maker of ShotSpotter.

**New Product** 





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# Our new space program launches in Houston

Stylish, lighter, more fuel efficient and with 80 passenger seats, the all-new Enviro500 has turned another corner... and is now available at the reduced height of just 13' 6" (4.1m) meaning that it can now operate in virtually every part of the USA and Canada.

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See the new Go-Anywhere Enviro500 double deck on the Alexander Dennis booth (2419), APTA EXPO, Houston, Texas, October 13-15 2014.



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