

2015 Program



# ITS Heartland 2015 Annual Meeting April 27<sup>th</sup> – 29<sup>th</sup>, 2015

Embassy Suites  
Omaha-La Vista Hotel/Conference Center



*Celebrating 15 years of Improving  
ITS in the Heartland!*



*In Omaha* we don't coast

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## Did you know?

- Omaha is home of five (5) **Fortune 500** Headquarters.
- The **Reuben sandwich** was invented in Omaha.
- Omaha's **Henry Doorly Zoo** has the world's largest geodesic dome and indoor rainforest.
- **Borsheims** in Omaha is the largest jewelry store in the nation.
- **Nebraska Furniture Mart** in Omaha is the largest furniture store in the nation.
- The **Mutual of Omaha** Corporate headquarters has (7) seven underground floors.
- Father Edward Flanagan founded **Boys Town** in Omaha in 1917.
- In 1950, Omaha became the home of the **College World Series**.



# Welcome



As the President of ITS Heartland and on behalf of the Board of Directors, I want to welcome you to Omaha! On this momentous anniversary celebrating our 15th year as a Chapter, we have a great meeting planned for your education and enjoyment.

We had an outstanding turnout in abstracts this year, and had a difficult time narrowing them down to fit within our 2-day schedule. The Board cannot express how grateful we are to those who continue to support the Chapter through volunteering their time and energy, especially each vendor and sponsor whom graciously support and participate in our conference each year. This support makes this conference possible.

ITS America recognized ITS Heartland as a **2014 Outstanding State Chapter**

The Chapter has also had two great achievements this past year. First, upon the award of the MCOMP Grant, an Executive Committee has been created with one representative from each of the five Heartland States. This committee has coordinated with the FHWA and the ITS Heartland Board to select a Grant Administrator via competitive bid, and is getting close to signing an agreement with Athey Creek Consultants.

Second, at the 21st Annual World Congress on ITS in Detroit, Michigan, in September, ITS Heartland was announced as Outstanding State Chapter by ITS America! This prestigious award is due to everyone's hard work and dedication to the Chapter. Thank you for making ITS Heartland what it is today!!



I hope you enjoy your time in Omaha this year, and wish I could be with you all enjoying the events and presentations. This will be my last year participating in ITS Heartland due to my career change this past year. I have truly enjoyed the many years spent on the ITS Heartland board, and will miss seeing you all each year at the conference. I wish you all the best in your future endeavors!

Sincerely,

Julie L. Theisen  
ITS Heartland President, 2014-2015

*Celebrating 15 years of Improving  
ITS in the Heartland!*

# Mission Driven

Join or Renew your Membership today!  
♥ [itsheartlandmembership.org](http://itsheartlandmembership.org)

## *Our Mission:*

To improve the quality of life for those transportation users who live and invest in America's Heartland Region through advanced transportation technologies and communications.



**Barbara (Barb) Blue**  
1954 - 2015

## *In Memoriam*

On February 26th, ITS Heartland lost one of its most devoted and influential members. Please take a moment to remember Barb Blue, President of ITS Heartland from 2012 to 2013, and employee of the Kansas Department of Transportation.

Barb joined KDOT as a full time employee in 2001 as the ATIS coordinator and 511 program manager. She was instrumental in creating the 511 telephone traveler information system in Kansas. During her tenure with KDOT, Barb served on the National Committee for Traveler Information and was a Board Member and Past President of ITS Heartland. Barb became a recognized authority on traveler information/511 systems and was often contacted by other states for assistance. At the time of her passing, Barb was in a new position at KDOT, involved in multiple projects, respected for her excellent project management skills and as always, impressive in her ability to make things happen one way or another. Barb was a constant presence at ITS Heartland annual meetings. **She will be missed.**



# Meeting at-a-glance

## Monday, April 27th - Pre-meeting Events

Registration.....	7:30 am - 6:30 pm
Emergency Responder Day.....	8:30 am - 2:30 pm
Lunch.....	12:30 - 1:30 pm
7 <sup>th</sup> Annual ITS Heartland Operations Symposium.....	1:30 - 4:00 pm
Break.....	4:00 - 4:30 pm
ITS Heartland Board Meeting.....	4:30 - 5:30 pm
Social Event at Houston's.....	6:00 - 9:00 pm

## Tuesday, April 28<sup>th</sup> - ITS Heartland Annual Meeting

Registration.....	7:00 am - 5:30 pm
Vendor Breakfast.....	7:30 - 8:30 am
Opening Session.....	8:30 - 9:30 am
Vendor Showcase.....	9:30 - 10:00 am
Student Poster Session and Refreshments.....	10:00 - 10:30 am
State ITS Updates.....	10:30 am - 12:00 pm
Lunch/Award Ceremony.....	12:00 - 1:00 pm
<b>CONCURRENT SESSIONS.....</b>	<b>1:00 - 2:30 pm</b>
<b>Session 1 - Real-Time, Crowd-Sourced, Social Media - The Future of Traffic Operations</b>	
<b>Session 1A - Communication Networks - What's Next</b>	
Break.....	2:30 - 3:00 pm
<b>CONCURRENT SESSIONS / DEMOS.....</b>	<b>3:00 - 4:30 pm</b>
<b>Session 2 - Safety and Traveler Information - Real-Time Technologies and Applications</b>	
<b>Session 2A - Planning, Implementing and Documenting Future ITS Systems</b>	
<b>Session 2B - Vendor Demonstrations</b>	
Reception Celebrating 15 years of ITS in the Heartland.....	4:30 - 5:30 pm

## Wednesday, April 29<sup>th</sup> - ITS Heartland Annual Meeting

Registration.....	7:30 am - 12:00 pm
Continental (Business Meeting) Breakfast.....	8:00 - 9:00 am
<b>CONCURRENT SESSIONS.....</b>	<b>9:00 - 10:30 am</b>
<b>Session 3 - RWIS - Using Technology to Improve Road Safety</b>	
<b>Session 3A - Maintaining Evolving ITS Technology - A Challenge for all Transportation Agencies</b>	
Break.....	10:30 - 10:45 am
<b>CLOSING SESSIONS.....</b>	<b>10:45 am - 12:00 pm</b>
<b>Session 4 - Omaha Traffic Signal System Master Plan and Deployment</b>	
<b>Special Session - A Mid-Westerner's Guide to Working in the Middle East</b>	
<b>Annual Meeting Closing Remarks</b>	

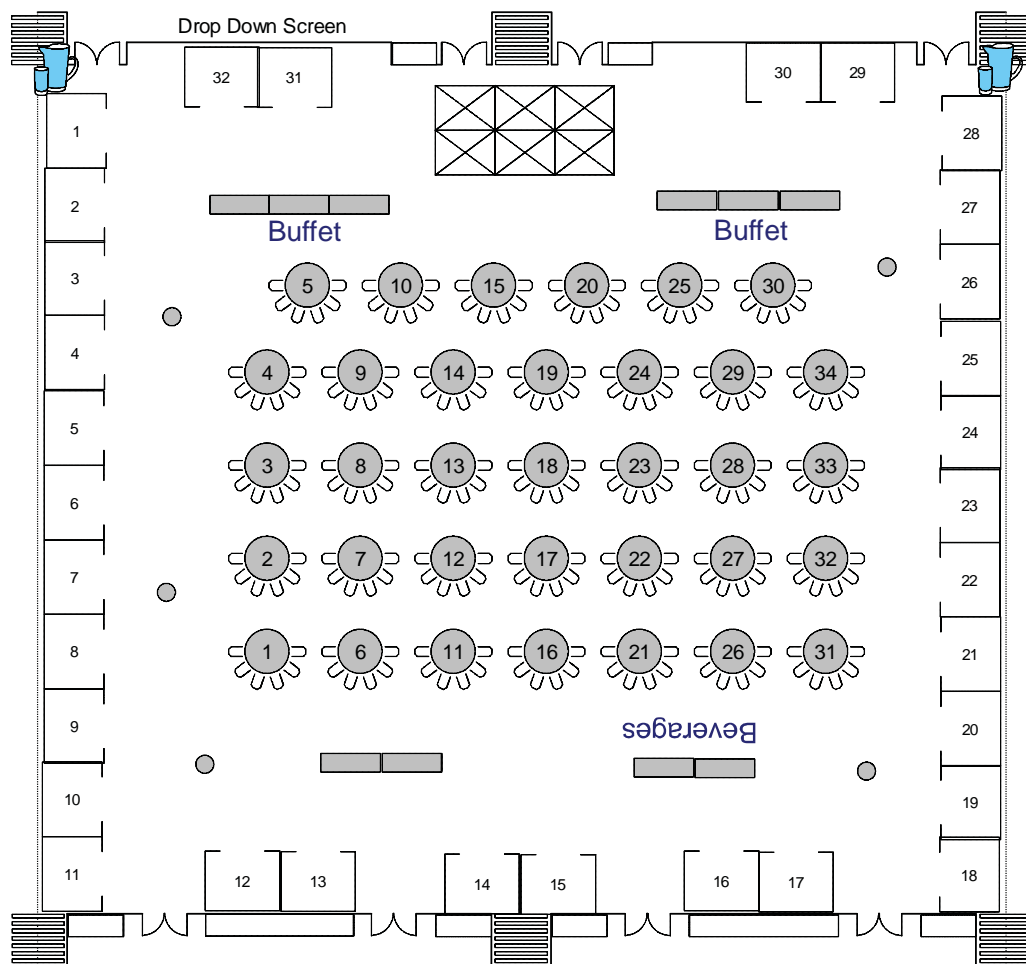
Celebrating 15 Years of Improving Transportation Systems in America's Heartland, and we are only getting started . . .

# Vendor exhibits

Use your QR Code Reader to find links for all of our sponsors & vendors.



**Please take a moment to stop by and visit your vendors.** The vendors will have displays in the Windsor Ballroom V-VI beginning Tuesday, April 28th and continuing through Wednesday, April 29th.



## WINDSOR BALLROOM V - VI

- |   |                                     |                               |
|---|-------------------------------------|-------------------------------|
| 1 ComNet                                | 12 General Traffic Controls         | 24 Emerson Network Power      |
| 2 Daktronics                            | 13 Live View Technologies           | Surge Protection              |
| 3 American Signal Company               | 14 Traffic Control Corporation      | 25 SRF Consulting Group, Inc. |
| 4 Brown Traffic Products, Inc           | 15 Olsson Associates                | 26 Black and McDonald         |
| 5 Swarco Traffic Americas               | 16 Iteris, Inc.                     | 27 Gades Sales Co             |
| 6 CohuHD Costar                         | 17 Mid American Signal, Inc.        | 28 Wanco                      |
| 7 TrafficVision                         | 18 Larson Data Communications, Inc. | 29 Sensys Networks, Inc.      |
| 8 GBA                                   | 19 Skyline Products                 | 30 Control Corporation        |
| 9 ADDCO                                 | 20 TransCore                        | 31 Information Logistics      |
| 10 Wireless Technology, Inc.            | 21 SES America                      | 32 Vaisala                    |
| 11 Siemens Industry, Inc./<br>RUGGEDCOM | 22 Boschung America, LLC            |                               |
|   | 23 Southern Manufacturing           |                               |



# Detailed Schedule

## Monday, April 27th - Pre-meeting Events

**Registration (Conference Foyer)..... 7:30 am - 6:30 pm**

Attendees are invited to stop by and pick up their registration packets prior to attending Monday's events.

**Emergency Responder Day..... 8:30 am - 2:30 pm**

**TIM Training (Dapper I) ..... 8:30 am - 12:30 pm**

A coordinated, multi-disciplinary training program developed through the second Strategic Highway Research Program (SHRP2) for emergency responders and those supporting Traffic Incident Management operations.

**Lunch (Dapper II) ..... 12:30 - 1:30 pm**

TIM Training and Operations Working Group attendees are invited to lunch.

**7th Annual ITS Heartland Operations Symposium..... 1:30 - 4:00 pm**

**Joint TIM & Operations Working Group Panel Discussion (Dapper I)..... 1:30 - 2:30 pm**

Regional speakers and Heartland representatives share TIM coordination programs, successes and initiatives.

- *Michael Jackson, State Traffic Operations Engineer, Iowa Department of Transportation*
- *Jason Sims, Operations Program Manager, Schneider Electric*
- *Jeff Gardner, Incident Management Officer, KC Scout*
- *Lt. Kevin Bridges, Nebraska State Patrol*

**Operations Working Group (Dapper I)..... 2:30 - 4:00 pm**

Discussion of the future of the ITS Heartland Operations Working Group.

**Break (Dapper Foyer) ..... 4:00 - 4:30 pm**

**ITS Heartland Board Meeting (Fedora II)..... 4:30 - 5:30 pm**

**Social Event at Houston's..... 6:00 - 9:00 pm**

Just a short walk from the Conference Center, you will not want to miss the exciting kick-off to the 2015 Heartland Meeting. This networking event will include two drink tickets per attendee, appetizers and pizza from nearby Pizza West and a strolling magician with lots of tricks up his sleeve. Come enjoy the event with friends and colleagues.

## Tuesday, April 28th - ITS Heartland Annual Meeting

**Registration (Conference Foyer)..... 7:00 am - 5:30 pm**

Attendees are invited to stop by and pick up their registration packets prior to attending any sessions.

**Vendor Breakfast (Windsor Ballroom V-VI) ..... 7:30 - 8:30 am**

Enjoy a nice breakfast buffet with the vendors.

**Opening Session (Windsor Ballroom V-VI) ..... 8:30 - 9:30 am**

The opening session will feature welcoming remarks by dignitaries who will extend a welcome to attendees and set the stage for the meeting.

*Moderator: Sarah Tracy, Nebraska Department of Roads*

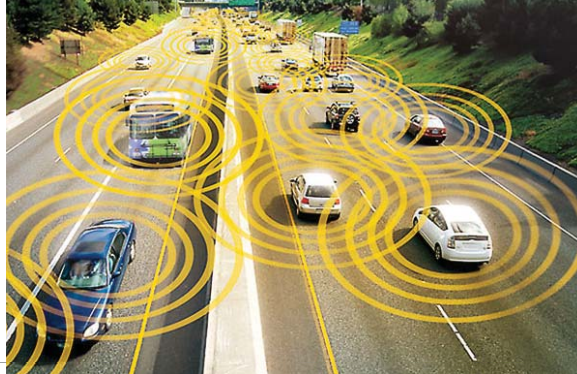
- *Julie Theisen, Current ITS Heartland President*
- *Randall Peters, Director, Nebraska Department of Roads*
- *Todd Pfitzer, City Engineer, City of Omaha*
- *Steve Bayless, Senior Director - Technical Programs, Telecommunications and Telematics, ITS America*

**Vendor Showcase (Windsor Ballroom V-VI) ..... 9:30 - 10:00 am**

During this session, vendors have one minute to introduce their product/service to the entire group.

**Tuesday, April 28th continued on next page ►**

# Schedule continued



## **Student Poster Session and Refreshments (Windsor Ballroom V-VI)..... 10:00 - 10:30 am**

Use your break to learn from students. View their posters and visit one-on-one with the future of ITS.

## **State ITS Updates (Windsor Ballroom V-VI) ..... 10:30 am - 12:00 pm**

Each state will provide an update regarding ITS accomplishments during the past year and planned deployments/ products/operations in the near future.

*Moderator: Mandy Anderson, Incoming ITS Heartland President, GBA*

- Sarah Tracy, Nebraska Department of Roads
- Leslie Fowler, Kansas Department of Transportation
- Alan Stevenson, Oklahoma Department of Transportation
- Jon Nelson, Missouri Department of Transportation
- Tim Simodynes, Iowa Department of Transportation

## **Lunch/Award Ceremony (Windsor Ballroom V-VI)..... 12:00 - 1:00 pm**

*Moderator: Matt Volz, Transpo Group*

Awards Ceremony - Student Competition and 3rd Annual Best of ITS Project Award

## **CONCURRENT SESSIONS..... 1:00 - 2:30 pm**

### **Session 1 - Real-Time, Crowd-Sourced, Social Media - The Future of Traffic Operations (Dapper I)**

*Moderator: Jessica Sherwood, Nebraska Department of Roads*

- *Improving Road Safety in Adverse Weather While Saving Costs in Road Maintenance - Brad Schaefermeyer, High Sierra Electronics*
- *Look Who's Talking - Iowa Partners with WAZE to Improve ATIS - Sinclair Stolle, Iowa DOT*
- *Crowdsourced Data from Social Media - Jeffrey Adler, Open Roads Consulting*

### **Session 1A - Communication Networks - What's Next (The Dapper II)**

*Moderator: Rusty James, Gannett Fleming*

- *Resolving the Practical Problems Associated With Advancements & Trends in Wireless Systems*
- *Technology - Mike Larson, Larson Communications*
- *Fiber Tips & Tricks - Steve Ingracia, Olsson Associates*
- *Carrier-grade Technology for Iowa DOT's Communication Network - Tony Taylor, Iowa DOT*

## **Break (Windsor Ballroom V-VI) ..... 2:30 - 3:00 pm**

## **CONCURRENT SESSIONS / VENDOR DEMOS..... 3:00 - 4:30 pm**

### **Session 2 - Safety and Traveler Information - Real-Time Technologies and Applications (Dapper I)**

*Moderator: Tyler Wiles, HR Green*

- *Truck Parking Information and Management System - Charles Miller, HNTB Corporation*
- *Work Zone ITS and Traffic Critical Projects - Tim Simodynes, Iowa DOT*
- *Leverage Real-Time Data to Improve Road Network Performance & Incident Detection - Pete Costello, Inrix, Inc.*

### **Session 2A - Planning, Implementing and Documenting Future ITS Systems (Dapper II)**

*Moderator: Kurt Rotering, Iteris*

- *Transportation Operations Performance Measurement & Management - Matthew Schiemer, Gannett Fleming, Inc.*
- *ENTERPRISE AND SCOTE Collaboration on ITS Planning Guidance (Warrants) - Dean Deeter, Athey Creek Consultants*
- *Road Closure and Advisory Message Systems for Rural Highways: Planning for Future Minnesota DOT Deployments - Linda Preisen, Athey Creek Consultants*

**Tuesday, April 28<sup>th</sup> continued on next page ►**





# Schedule continued

## Session 2B - Vendor Demonstrations (Fedora I)

Moderator: Mandy Anderson, GBA

- ITS Commander - Remote Power Management and Monitoring System - Southern Manufacturing
- Live Video Sharing Between Agencies in Missouri - Skyline Technology Solutions

**Reception Celebrating 15 years of ITS in the Heartland (Windsor Ballroom V-VI) ..... 4:30 - 5:30 pm**

Relax and toast the innovation of the past 15 years with your ITS Heartland friends and colleagues.

## Wednesday, April 29th - ITS Heartland Annual Meeting

**Registration (Conference Foyer)..... 7:00 am - 12:00 pm**

Attendees are invited to stop by and pick up their registration packets prior to attending any sessions.

**Deluxe Breakfast & ITS Business Meeting (Windsor Ballroom V-VI) ..... 8:00 - 9:00 am**

The ITS Heartland Business meeting is scheduled during breakfast starting at 8:15 am followed by an interactive discussion led by Dennis Motiani, Director of the National Operations Center of Excellence.

**CONCURRENT SESSIONS.....9:00 - 10:30 am**

### Session 3 - RWIS - Using Technology to Improve Road Safety (Dapper I)

Moderator: Ron Hall, Kansas Department of Transportation

- Incorporating TSMO into TMC Weather Integration Planning and Operations - Nancy Powell, KC Scout
- NDOR's Fixed Automated Anti-Icing Program: Using Technology to Improve Traveler Safety - Eric Cottone, Boschung America, LLC
- NDOR's Internet Kiosks - Steve Ingracia, Olsson Associates

### Session 3A - Maintaining Evolving ITS Technology - A Challenge for all Transportation Agencies (Dapper II)

Moderator: Tom Hein, Kansas Department of Transportation

- Managing Maturing ITS Infrastructure in Kansas - Andrew Reid, Burns & McDonnell
- NDOR's "Year of Living Dangerously" and IRIS: a New Way to Look at ATMS - Sarah Tracy, NDOR
- Upgrades and Implementation of KC Scout's Video Distribution System - Gary Covey, KC Scout

**Break (Windsor Ballroom V-VI) .....10:30 - 10:45 am**

**CLOSING SESSIONS (Windsor Ballroom V-VI) ..... 10:45 am - 12:00 pm**

Moderator: Sarah Tracy, Nebraska Department of Roads

- **Session 4 - Omaha Traffic Signal System Master Plan and Deployment**  
Mike Malone, Iteris..... 10:45 - 11:15 am
- **Special Session - A Mid-Westerner's Guide to Working in the Middle East**  
Matt Volz, Transpo Group..... 11:15 - 11:50 am
- **Annual Meeting Closing Remarks**  
Mandy Anderson, Incoming ITS Heartland President, GBA..... 11:50 am - 12:00 pm



# Board of Directors



## President

Julie Theisen, University of North Dakota  
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Email: jltheisen@nd.gov

## Past President

Sarah Tracy, Nebraska Department of Roads  
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Email: sarah.tracy@nebraska.gov

## Vice President - President Elect

Mandy Anderson, GBA  
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Email: manderson@gbateam.com

## Secretary

Kurt Roterling, Iteris  
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## Treasurer

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## Kansas State Director

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## Vendor Sector Director

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## Communications Director

Tom Hein, Kansas Department of Transportation  
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## 2014-2015 Ex-Officio Board Members

### Ex-Officio FHWA Representative

John Perry, FHWA-Nebraska Division  
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Email: john.j.perry@dot.gov

### Ex-Officio Chapter Administrator

Amy Lucke, Meetings Northwest, LLC  
Phone: (866) 633-8110  
Email: alucke@meetingsnorthwest.com



Treasurer Matt Volz, President Julie Theisen, Secretary Kurt Roterling, Vice President Mandy Anderson and Past President Sarah Tracy.



# Awards

## Student Contest

The ITS Heartland Student Contest will take place during the Annual Meeting. Attendees are invited to view student entries during breakfast and the morning break on Tuesday. A committee of ITS Heartland Board Members will judge the entries based on their abstracts submitted prior to the conference and their poster presentations during the conference. Prizes will be awarded for first, second and third place during lunch on Tuesday. Thank you to the following students for sharing their research.

**Ahmed Subhi Abdaljabbar, University of Missouri-Columbia** - *Future Sharable Transportation Cities*

**Boris Claros, University of Missouri-Columbia** - *Evaluation of Red Light Cameras in Missouri: Safety Effectiveness, Economic Benefit, and Lessons Learned*

**Tingting Huang, Iowa State University** - *Intelligent Sensor Health Monitoring Exploratory Analysis*

**Chenhui (Sunny) Liu, Iowa State University** - *Bayesian Inference for Urban Arterial Segment Safety Analysis: the Zero-Inflated Negative Binomial Regression Model*

**Sean McCartney, Pittsburg State University** - *The Creation of Intelligent Transportation Systems by Utilizing Existing Building Information Modeling and Intelligent Municipalities Mapping*

**Hemin J. Mohammed, The University of Kansas** - *Evaluation of the iCone as a Portable Traffic Data Collection Device*

**Zhu Qing, University of Missouri-Columbia** - *The Change Interval Driving Advisory System (CIDAS) using In-vehicle ITS*

**Roozbeh Rahmani, University of Missouri-Columbia** - *Arterial Travel Time Estimation Using License Plate Recognition Technology*

**Shuo Wang, Iowa State University** - *Traffic Crash Likelihood Monitoring on Urban Freeways*



**Best of ITS Awards**  
The 3rd Annual Best of ITS Awards recognized the ITS Heartland Regions' **City of West Des Moines, Iowa**, for its **Adaptive Signal Control System**.

# Thank You

ITS Heartland would like to express our appreciation to the state transportation agencies for their continued support.



*We also wish to thank the City of Omaha for their support.*

# THANK YOU

## PLATINUM Sponsors

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## GOLD Sponsors

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A special thanks to all of our sponsors and vendors.

Your generous support makes not only this meeting possible, but all other ITS Heartland activities and accomplishments. We greatly appreciate the partnerships that further the mission of ITS Heartland.