

THE
3rd
ANNUAL



PTC WORLD CONGRESS

17–19 April, 2013 • Orlando Airport Marriott, Florida

TAKE ADVANTAGE
OF OUR DEDICATED
STREAMS AND SEND 4
DELEGATES FOR THE
PRICE OF 3!

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**GAIN BUSINESS CRITICAL PROJECT INSIGHTS AND BUILD BUSINESS RELATIONSHIPS
AT THE ANNUAL MEETING PLACE FOR OVER 250 PTC EXPERTS AND 30 EXHIBITORS**



Matthew Tucker
Executive Director
North County Transit District



Olga Cataldi
Senior Electronics Engineer
FRA



Paul Victor
President
New York and Atlantic
Railway Company



Steve Hooper
Director of Operations
Panama Canal



Wayne Staley
Director, Communications & Signals
MTA Metro North Railroad



Joseph Giulietti
Executive Director
South Florida Regional
Transportation Authority



Keith Holt
Deputy Chief Engineer
Telecommunications
Amtrak



Mark Hartong
Senior Electronics Engineer
FRA

- Learn the latest strategies on successfully operating PTC systems with expert case studies from **Panama Canal** and **Ferromex** (See page 5)
- Enhance testing procedures to accelerate implementation with key strategies from **SEPTA, UTA** and **FRA** (See page 5)
- Improve the cost:benefit ratio of PTC deployments with best practice insight from **NJ Transit, New York and Atlantic Railway** and **DCTA** in our new strategic stream (See page 6)
- Uncover the potential for standardization and develop systems integration with analysis from **NYCT** and **IEEE** in our dedicated technical stream (See Page 6 and 8)
- Acquire the spectrum necessary for PTC and discover the latest spectrum availability with practical presentations from **Metro North Railroad** and the **FCC** (See page 7)
- Ensure interoperability and safety across the whole rail network with **Amtrak, SFRTA**, and **NYCT** offering key solutions (See page 7)



GLOBAL
TRANSPORT
FORUM

“ The conference was informative, passionate and contained industry experts with various positions. The challenges that everyone faces are dynamic but this conference presented many solutions to these issues ”
Patrick Brouard, Director of Start-Up, Testing & Program Integration of Capital Programs, **MTA Harris County**

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THE DEDICATED SHOW FOR THE PTC INDUSTRY

With the deadline for PTC deployment just 2 years away, it is crucial that all the key stakeholders in the railroad industry come together to share challenges, benchmark and develop best practice for PTC implementation and operation. **The PTC World Congress** is the only event focused on the **Railway Safety Improvement Act** that invites the whole value chain to collaborate and overcome the unique financial, strategic and technical challenges the industry is facing.

Following the terrific success of the second annual conference, the leading annual PTC event returns to Orlando with an innovative and improved format for 2013. Our Advisory Board including Olga Cataldi (FRA) and Keith Holt (Amtrak), have developed a cutting-edge agenda including:

- New dedicated technical and strategic streams on improving cost effectiveness and systems integration, providing solutions to business critical challenges.
- Brand new project sessions delivering best practice procurement, testing and operational strategies from the leading industry projects.
- New interactive polls, panels and speed networking to provide a unique learning environment.



“Thank you for accommodating FRA folks into the agenda. I enjoyed it very much and feel that each time we meet it leads us further in depth of this painful for the industry process of implementing PTC. See you in 2013.”

Olga Cataldi, Senior Electronics Engineer, FRA

KEY TOPICS FOR THE 2013 CONGRESS

The conference has been devised with our expert Advisory Board including ADIF, SBB, NS and OBB with FRA, Amtrak and Caltrain to meet the most pressing industry challenges. Key topics includes how to:

- **Optimise PTC operations**
(see page 5)
- **Develop effective testing strategies**
(see page 5)
- **Acquire reliable cost-effective spectrum**
(see pages 7)
- **Improve the cost benefit ratio for PTC**
(see page 6)
- **Ensure system and operational interoperability**
(see page 7)
- **Enhance standardization to reduce cost**
(see page 6)
- **Building a workforce for PTC deployments**
(see page 8)
- **Develop the networks of the future**
(see page 8)

KEY REASONS TO ATTEND THE DEFINITIVE PTC EVENT

1

Gain practical technical takeaways, with our interactive pre-conference workshops

2

Uncover the latest lessons learned from Class I, commuters and shortlines in their PTC deployments

3

Reduce costs and time delays by developing effective testing strategies

4

Acquire spectrum as cost effectively as possible and ensure reliable communications across your network

5

Improve the cost: benefit ratio for PTC deployments and exploit additional functionality

6

Uncover how to ensure interoperability at a system and operational level to reduce cost and ensure reliability

BRAND NEW FOR 2013



LATEST CASE STUDIES ON DEPLOYING PTC AND OPERATING IT SUCCESSFULLY

With the PTC deployment deadline just two years away, the system is already being operated successfully not just in the US but across the globe. Exclusive case studies from Panama Canal Railway, Ferromex, and New York and Atlantic Railroad highlight key strategies to not only implement PTC on time and on budget but to operate it reliably following deployment.



UNCOVER SOLUTIONS TO YOUR PTC SPECTRUM NEEDS; WHAT TO BUY AND HOW TO BUY IT

The Railway Safety Improvement Act did not allocate spectrum for PTC. Railroads must, therefore, consider their PTC spectrum needs early on in any implementation plan. The all new session dedicated to spectrum needs helps solve these challenges with key insight from FCC, Metro North Railroad and the Joint Council on Transit Wireless Communications.



ALL NEW STRATEGIC STREAM TO IMPROVE THE COST:BENEFIT RATIO OF PTC

Safety is obviously paramount but with the predicted cost:benefit analysis of PTC for railroads currently at 20:1, there is a need for railroads to look to the future and evolve the safety system, utilizing advancing technology to improve the current ROI. Hear best practice from NJ Transit and DCTA on minimizing the cost and maximizing the return on PTC deployments.



MAXIMIZE NETWORKING AND BUILD NEW RELATIONSHIPS OVER 3 INTERACTIVE DAYS

With over 250 PTC experts in attendance, take advantage of our innovative conference format offering pre conference workshops, audience polls, streams, expanded exhibition, speed networking and drinks receptions, to maximise your networking, create new business relationships and share challenges with other industry leaders.

KEY SPEAKERS AT PTC WORLD CONGRESS 2013 INCLUDE:

Jon Adams
Chair, IEEE 802.15 Positive Train Control Group
IEEE

Sid Bakker
Committee 39 Positive Train Control
AREMA

John W. Batey IV
Program Manager
NJ Transit

Jack Buckingham
PTC Project Manager
Caltrain

Olga Cataldi
Senior Electronics Engineer
FRA

Patrick Centolanzi
Transportation Program
Engineer
Federal Transit Administration

Jim Cline
President
Denton County Transportation Authority

Rod Diridon
Sr Executive Director
Mineta Transportation Institute

Barry Einsig
Chairman
Joint Council on Transit Wireless Communications

Joseph Giullietti
Executive Director
South Florida Regional Transportation Authority

George Hacken
Senior Director Vital Systems
New York City Transit

Mark Hartong
Senior Electronics Engineer
FRA

Keith Holt
Deputy Chief Engineer
Telecommunications
Amtrak

Steve Hooper
Director of Operations
Panama Canal

Jay Jacobsmeyer
Senior Representative
Joint Council on Transit Wireless Communications

Stephen Klejst
Director of Railroad, Pipeline, and Hazardous Materials Investigations
National Transportation Safety Board

Ron Lindsey
Owner
Communications Architecture

José M. Martín
Chief Marketing and Sales Officer
PowerTrunk

Wilson Milan
Director CBTC & PACIS Applications
NYCT

Juan Carlos Miranda
Planning and Service Design
Vice President
Ferromex

Michael Monastero
Assistant Chief Engineer
SEPTA

Gordon Mott
Policy Project Manager, PTC
AAR

George Newman
Director - PTC Systems,
Engineering Services
Canadian Pacific

Todd Provost
Senior Program Manager – Engineering and Project Development
UTA

Dave Schanoes
Owner
Ten90 Solutions LLC

Wayne Staley
Director, Communications & Signals
MTA – Metro North Railroad

Alan Tilles
Narrowbanding Task Force Chair
Joint Council on Transit Wireless Communications

Matthew Tucker
Executive Director
North County Transit District

Paul Victor
President,
New York and Atlantic Railway Company

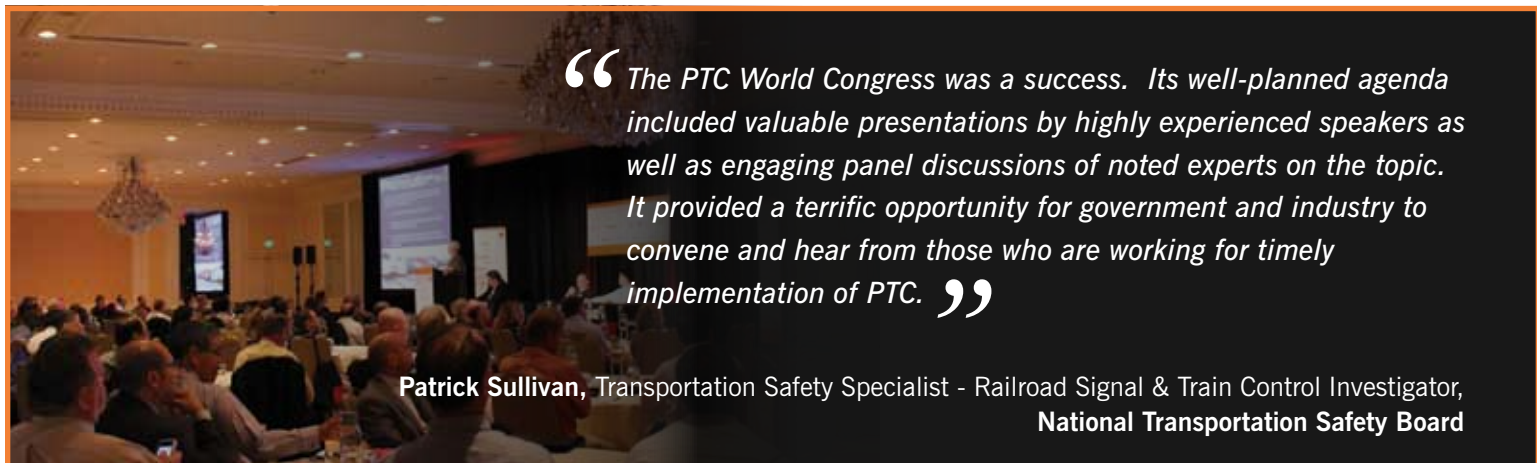
Karl Witbeck
Vice-Chair, Technology Committee
Joint Council on Transit Wireless Communications

Steve Zwart
Director of PTC
Alstom Transportation

WORKSHOPS WEDNESDAY | APRIL 17, 2013

PRE CONFERENCE INTERACTIVE WORKSHOPS AND DRINKS RECEPTION

12:30	Workshop registration and coffee	
	WORKSHOP ONE: FINDING SOLUTIONS TO PTC DEPLOYMENT CHALLENGES	WORKSHOP TWO: RADIO SPECTRUM FOR POSITIVE TRAIN CONTROL
13:00	Session moderator: Mark Hartong , Senior Electronics Engineer, FRA Olga Cataldi , Senior Electronics Engineer, FRA	Session moderator: Alan Tilles , Narrowbanding Task Force Chair, Joint Council on Transit Wireless Communications
14:00	OPENING PRESENTATION: DEVELOPING EFFECTIVE IMPLEMENTATION AND TESTING PLANS TO RECEIVE REGULATORY APPROVAL	OPENING PRESENTATION: AVOIDING POTENTIAL PITFALLS WHEN DEFINING YOUR SPECTRUM REQUIREMENTS FOR PTC
14:15	Open debate and discussion: <ul style="list-style-type: none"> • The key to successfully documenting plans • Collaborating with the FRA to receive approval • Common documentation processes; what is the goal? • Ensuring extensive field testing and safety checks • Testing regulations and following procedures 	Open debate and discussion: <ul style="list-style-type: none"> • Effectively defining what spectrum is required for PTC projects • Overcoming challenges in quantifying spectrum • Successfully planning frequency usage • Building interoperability into your spectrum plan
15:30	Networking coffee break ☕	
	Case study, open debate and concluding remarks: The workshop leader will give a practical presentation demonstrating the theory in action, followed by an open discussion and a final conclusion of the workshop findings.	
16:15	CASE STUDY: OVERCOMING KEY OBSTACLES TO ENSURE EFFICIENT OPERATION OF PTC SYSTEMS	CASE STUDY: ACQUIRING SPECTRUM FOR PTC; WHAT IS AVAILABLE AND AT WHAT COST?
16:30	Open debate and discussion: <ul style="list-style-type: none"> • The FRA role in overcoming PTC challenges • Is an extension to the mandated deadline necessary and what is the caveat? • Ensuring availability of equipment for PTC • Is there a need for outside expertise? • Expanding and continuing collaboration to meet the deadline 	Open debate and discussion: <ul style="list-style-type: none"> • What spectrum has already been taken and what remains available? • Can public safety spectrum provide a cost-effective alternative? • Using the secondary market to meet spectrum needs; is it possible? • The need for spectrum reallocation
17:15	Concluding summary and closing remarks	
17:30	Networking drinks reception 🍷	



“The PTC World Congress was a success. Its well-planned agenda included valuable presentations by highly experienced speakers as well as engaging panel discussions of noted experts on the topic. It provided a terrific opportunity for government and industry to convene and hear from those who are working for timely implementation of PTC.”

Patrick Sullivan, Transportation Safety Specialist - Railroad Signal & Train Control Investigator,
National Transportation Safety Board

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CONFERENCE DAY ONE THURSDAY, APRIL 18, 2013 | MORNING PLENARY SESSION

08:00 Registration and refreshments

CONFERENCE OPENING

08:50 Global Transport Forum welcome and opening remarks: **Dan Loosemore**, Head of Production, **Global Transport Forum**

1. KEYNOTE SESSION: OVERCOMING DEPLOYMENT CHALLENGES

Session moderator: **Steve Bolte**, Publisher, **Progressive Railroading**

09:00 Moderator's introduction to the session:

- Lessons learned from current projects to ensure successful deployment of PTC
- Importance of collaboration to overcome testing and interoperable challenges
- Managing implementation to minimize costs and delays
- Progress in meeting the 2015 implementation deadline
- Integrating PTC with current systems and networks

09:05 **Case study:** Lessons learned in working towards PTC deployment to meet the mandated 2015 deadline


George Newman, Director-PTC Systems, Engineering Services, **Canadian Pacific**

09:20 **Case Study:** Managing implementation plans to reduce costs and avoid delays in deployment

Steve Hooper, Director of Operations, **Panama Canal**

09:35 **Case Study:** Overcoming challenges to ensure timely and effective delivery of PTC

Juan Carlos Miranda, Planning and Service Design Vice President, **Ferromex**

09:50  **Audience poll:** With the current challenges across availability, reliability, cost, telecommunications and interoperability, is the 2015 mandate for PTC deployment achievable?

09:55 **Panel debate:** Managing costs and hitting deadlines when implementing PTC to deliver, timely safe and effective systems

Michael Monastero, Assistant Chief Engineer, **SEPTA**

Steve Hooper, Director of Operations, **Panama Canal**

Juan Carlos Miranda, Planning and Service Design Vice President, **Ferromex**

Jack Buckingham, PTC Project Manager, **Caltrain**

Paul Victor, President, **New York and Atlantic Railway Company**

10:25 Moderator's concluding summary of the session

10:30 Networking coffee break ☕

2. TECHNICAL CASE STUDIES: EFFECTIVE TESTING STRATEGIES

Session moderator: **Stephen Klejst**, Director of Railroad, Pipeline, and Hazardous Materials Investigations, **National Transportation Safety Board**

11:15 Moderator's introduction to the session

- Overcoming challenges to test PTC in a live operating environment
- Effective collaboration to meet PTC requirements and the role of the FRA
- Successful field testing to verify and validate new systems
- What certification, reliability and measurement guidelines should be followed?
- Meeting testing guidelines and gaining approval in a timely manner to reduce costs

11:20 **Case study:** Best practice strategies in installing, testing and receiving regulatory approval for PTC systems


Mark Hartong, Senior Electronics Engineer, **FRA**

11:35 **Case study:** Successfully approving PTC systems to meet projected deadlines and budgetary restrictions

Todd Provost, Senior Program Manager – Engineering and Project Development, **UTA**

11:50 **Case study:** PTC needs on the high speed rail project; developing implementation and testing plans

Rod Diridon Sr, Executive Director, **Mineta Transportation Institute**

12:05  **Audience poll:** As an industry expert, how clear do you feel the current guidelines and regulations are for the submission of implementation plans?

12:10 **Panel debate:** Developing effective testing procedures and successfully documenting plans to gain type approval and certification

Todd Provost, Senior Program Manager-Engineering and Project Development, **UTA**

Steve Hooper, Director of Operations, **Panama Canal**

Mark Hartong, Senior Electronics Engineer, **FRA**

Rod Diridon Sr, Executive Director, **Mineta Transportation Institute**

10:40 Moderator's concluding summary of the session

12:45 Networking lunch 🍴🍷

CONFERENCE DAY ONE THURSDAY, APRIL 18, 2013 | AFTERNOON TECHNICAL SESSION

3. STRATEGIC AND TECHNICAL STREAMED BREAKOUT SESSIONS

Moderated and led by subject experts, the breakout sessions work as an intimate workshop, providing delegates with the opportunity not only to learn from case studies but also, to debate and examine the issues raised in an informal setting, maximizing interaction. Seated in roundtable groups of no more than 10, participants will listen to the case studies and in their groups, discuss the questions set by the moderator. At the end of the session, each table reports back their findings to the whole group, enabling best practice to be shared.

	STRATEGIC STREAM: IMPROVING COST EFFECTIVENESS	TECHNICAL STREAM: ENHANCING STANDARDIZATION
13:00	Session moderator: Paul Victor , President, New York and Atlantic Railway Company	Session moderator: Jon Adams , Chair, IEEE 802.15 Positive Train Control Group, IEEE
14:00	MODERATOR OPENING PRESENTATION: IMPROVING THE COST BENEFIT RATIO FOR PTC DEPLOYMENTS	MODERATOR OPENING PRESENTATION: ARE OPEN STANDARDS FOR PTC POSSIBLE AND HOW CAN THIS BE ACHIEVED?
14:15	Case study: Maximizing cost-effectiveness and exploring the potential of PTC systems beyond the US market. Ron Lindsey , Owner, Communications Architecture Dave Schanoes , Owner, Ten90 Solutions LLC	Case study: Developing standards and working collaboratively to move the industry forward. Jim Cline , President, Denton County Transportation Authority
14:30	Roundtable group discussion on key questions: <ul style="list-style-type: none"> • Can PTC ever be cost-effective? • Managing the costs of deployments during implementation • What can be done to improve the current 20:1 cost/benefit ratio? • Can integration of platforms help to reduce complexity and lower cost? • What additional functionality should be expected from PTC systems? 	Roundtable group discussion on key questions: <ul style="list-style-type: none"> • Will standardization stifle or promote innovation? • The impact of greater standardization on costs • Enhancing collaboration and developing open standards • Who should be responsible for a move towards standardization? • The need for standards to ensure interoperability
	Feedback to moderator on key findings	
15:25	Moderator concluding remarks	
17:30	Networking coffee ☕	

4. INTERACTIVE ROUNDTABLE DEBATE: CAN YOU MEET THE MANDATE? BEST PRACTICES TO RECOVER YOUR IMPLEMENTATION PLAN.

Following on from the streamed breakout sessions, the delegates come back together for a final roundtable session designed to maximize interaction and networking and develop industry consensus on key issues. Led by the session moderator who will give an introductory presentation, delegates will then divide into their respective freight or commuter tables to discuss the questions set by the moderator, before reporting back their conclusions to the whole group.

	Session moderator: Steve Zwart , Director of PTC, Alstom Transportation
16:15	Moderator's opening presentation: Meeting the 2015 mandate for PTC; what are the key obstacles and how do we overcome them?
16:30	Questions for each roundtable group to consider (roundtables to be split into two sections Freight or Commuter): <ul style="list-style-type: none"> • Would a five year extension to the current PTC deadline be <ol style="list-style-type: none"> Too little time Reasonable Too much time and why? • In order of importance, list what you consider to be the five biggest obstacles in meeting the 2015 mandated deadline for PTC • List what you consider to be the top three 'lessons learned' so far in working towards PTC deployment • List what you consider to be the top three achievements so far in working towards PTC deployment
17:00	Roundtable spokesperson feedback to moderator on key findings
17:30	Moderator's concluding summary of the session

CONFERENCE CLOSE

17:45	Global Transport Forum closing remarks and close of day one Dan Loosemore , Head of Production, Global Transport Forum
18:00	Networking drinks reception sponsored by:



CONFERENCE DAY TWO FRIDAY, APRIL 19, 2013 | MORNING PLENARY SESSION

08:00 Registration and networking refreshments

CONFERENCE OPENING

08:50 Global Transport Forum welcome and opening remarks: **Dan Loosemore**, Head of Production, **Global Transport Forum**

5. TECHNICAL CASE STUDIES: ACQUIRING SPECTRUM AND RELIABLE COMMUNICATIONS

Session moderator: Alan Tilles, Narrowbanding Task Force Chair, Joint Council on Transit Wireless Communications


09:00 **Moderator's introduction to the session:**

- Current status of spectrum acquisition; what has been purchased and what remains for those with nothing?
- Ensuring greater coordination of spectrum allocation to reduce costs and meet deadlines
- The role of the FCC in acquiring spectrum and securing reliable communication networks
- The future of commercial spectrum and potential to exploit public safety spectrum
- Key ways to manage equipment capabilities and frequency allocation

09:05 **Case Study:** Obtaining spectrum for PTC networks; what can be purchased and can public safety spectrum provide and alternative?
Alan Tilles, Narrowbanding Task Force Chair, **Joint Council on Transit Wireless Communications**

09:20 **Case Study:** The importance of defining spectrum requirements and enhancing collaboration on PTC spectrum applications
Jack Buckingham, PTC Project Manager, **Caltrain**

09:35 **Case Study:** Effective spectrum planning for PTC deployments and enabling effective communications
Wayne Staley, Director, Communications & Signals, **MTA – Metro North Railroad**

09:50  **Audience poll:** Is dedicated public safety spectrum the best option to ensure reliable, interoperable and fast communication networks?

09:55 **Panel debate:** The importance of spectrum planning; ensuring equipment capabilities are met and frequency is used effectively.
Wayne Staley, Director, Communications & Signals, **MTA – Metro North Railroad**
Jay Jacobsmeyer, Senior Representative, **Joint Council on Transit Wireless Communications**
Karl Witbeck, Vice-Chair, Technology Committee, **Joint Council on Transit Wireless Communication**
Jack Buckingham, PTC Project Manager, **Caltrain**

10:25 **Moderator's concluding summary of the session**

10:30 **Networking coffee break** ☕

6. TECHNICAL CASE STUDIES: OPERATIONAL ASPECTS OF INTEROPERABLE SYSTEMS

Session moderator: Olga Cataldi, Senior Electronics Engineer, **FRA**


11:15 **Moderator's introduction to the session**

- Guaranteeing safety and compatibility across a whole rail network
- Overcoming interoperable challenges with all PTC approved systems from ETMS to ITCS and ACCESS
- Ensuring collaboration between host freight railways and the commuter lines
- Enhancing frequency coordination, unified boundary operations and data management
- Defining interoperability requirements from the outset to reduce costs and network delays

11:20 **Case study:** Achieving interoperable operations and unifying requirements across the whole network
Keith Holt, Deputy Chief Engineer, **Telecommunication, Amtrak**

11:35 **Case study:** Overcoming barriers to ensure efficient operational interoperability
Wilson Milian, Director CBTC & PACIS Applications, **NYCT**

11:50 **Case Study:** Ensuring reliable, interoperable and efficient networks for PTC operations
Joseph Giulietti, Executive Director, **South Florida Regional Transportation Authority**

12:05  **Audience poll:** Who is primarily responsible for ensuring interoperable operations with PTC approved systems?

12:10 **Panel debate:** The importance of defining interoperable requirements with all project stakeholders to ensure efficient and cost-effective PTC operations.
Wilson Milian, Director CBTC & PACIS Applications, **NYCT**
Keith Holt, Deputy Chief Engineer, **Telecommunications, Amtrak**
Joseph Giulietti, Executive Director, **South Florida Regional Transportation Authority**

10:40 **Moderator's concluding summary of the session**

12:45 **Networking lunch** 🍴🕒

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CONFERENCE DAY TWO FRIDAY, APRIL 19, 2013 | AFTERNOON TECHNICAL SESSION

7. STRATEGIC AND TECHNICAL STREAMED BREAKOUT SESSIONS

Moderated and led by subject experts, the breakout sessions work as an intimate workshops, providing delegates with the opportunity not only to learn from case studies but also to debate and examine the issues raised in an informal setting, maximizing interaction. Sat in roundtable groups of no more than 10, participants will listen to the case studies and in their groups, discuss the questions set by the moderator. At the end of the session, each table reports back their findings to the whole group, enabling best practice to be shared.

	STRATEGIC STREAM: TRAINING A WORKFORCE FOR PTC	TECHNICAL STREAM: GREATER SYSTEMS INTEGRATION
13:00	Session moderator: Matthew Tucker , Executive Director, North County Transit District	Session moderator: Sid Bakker , Committee 39 Positive Train Control, AREMA
14:00	MODERATOR OPENING PRESENTATION: THE IMPORTANCE OF WORKFORCE TRAINING TO ENSURE SUCCESSFUL OPERATION OF PTC SYSTEMS	MODERATOR OPENING PRESENTATION: GREATER INTEGRATION OF WIRELESS, CONTROL AND DATA SYSTEMS TO ENABLE SMOOTH AND COST-EFFECTIVE PTC OPERATION
14:15	Case study: Building expertise and overcoming availability issues John W. Batey IV , Program Manager, NJ Transit	Case study: The key to configuration management and effective data systems George Hacken , Senior Director Vital Systems, New York City Transit
14:30	Roundtable group discussion on key questions: <ul style="list-style-type: none"> • Preparing for PTC systems and creating a committed workforce from the beginning. • Retraining your workforce to adapt to PTC systems and ensure smooth operation • Attracting new engineers to your team and overcoming the issue of availability • Effective knowledge transfer and building new expertise into the team • Effective training strategies for PTC deployments 	Roundtable group discussion on key questions: <ul style="list-style-type: none"> • Securing interoperability across wireless and data systems all the way to application levels • Is greater standardization required to enable more efficient integration? • How can data systems to be used to enhance efficiency • Ensuring availability of equipment to reduce costs and enable integration with existing systems
15:00	Feedback to moderator on key findings	
15:25	Moderator concluding remarks	
17:30	Networking coffee ☕	

8. INTERACTIVE ROUNDTABLE DEBATE: INTEGRATED PTC NETWORKS OF THE FUTURE

Session moderator:
Barry Einsig, Chairman, **Joint Council on Transit Wireless Communications**
Patrick Centolanzi, Transportation Program Engineer, **Federal Transit Administration**

16:15	Moderator's opening presentation: Adding functionality to PTC systems; the PTC systems of the future
16:30	Questions for each roundtable group to consider (roundtables to be split into two sections Freight or Commuter): <ul style="list-style-type: none"> • Where do we want to be in 4/8/12 years time and how do we get there? • Providing additional functionality and the potential for revenue generation • Using PTC as a basis for new innovations after implementation • Future PTC networks and delivering maximum efficiency and safety
17:00	Roundtable spokesperson feedback to moderator on key findings
17:30	Moderator's concluding summary of the session

CONFERENCE CLOSE

17:45 **Global Transport Forum closing remarks and close of day one**
Dan Loosemore, Head of Production, **Global Transport Forum**



“The Global Transport Forum’s PTC World Congress is the only event concentrated on the FAA initiative. The focus of the event, and the quality of the attendees, makes it the industry’s only must attend PTC event”

Alan Tilles, Narrowbanding Task Force Chair, Joint Council on Transit Communications

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Alstom is a global leader in rail transportation technology with more than 100 years of experience in the U.S. market and the industry's widest range of equipment, services and technology offerings for transit and freight systems. We offer the first Federal Railroad Administration type-approved Positive Train Control solution in North America, and the only one with over ten years of revenue service on America's busiest rail corridor. Alstom's proven ACSES PTC technology, systems integration capabilities and unwavering commitment to safety make Alstom the provider to help customers meet the mandate for PTC deployment. The microWIU is Alstom's latest PTC innovation. A compact, stand-alone vital Wayside Interface Unit (WIU), the microWIU offers a low-cost, scalable solution for monitoring vital input sources as part of a complete PTC network. The technology behind the microWIU, and Alstom's full suite of PTC wayside solutions, is based on proven safety-focused design principles, which enable Alstom to provide robust, scalable and reliable PTC products. At Alstom, we are shaping the future.



PowerTrunk Inc. is the subsidiary of Teltronic® S.A.U. responsible for business development, distribution and customer support for Teltronic land mobile radio projects in North America. The company is headquartered in New York City. With over 35 years' experience designing, manufacturing, implementing and supporting digital and analog land mobile radio turnkey projects, Teltronic S.A.U. has more than 300 systems installed in 50 countries. Teltronic's LMR solutions are widely deployed in the public safety, oil and gas, transportation, and utilities industries. We own 100% of our LMR technology which includes conventional and trunked infrastructure systems, mobiles, hand portables and dispatching consoles. The company manufactures TETRA, P25 and LTE solutions, with specific products for the transport sector. Headquartered in Spain, Teltronic S.A.U. is one of the fastest-growing TETRA solutions providers today, with a direct commercial presence in over 25 countries throughout Europe, Asia, the Pacific Rim, the Middle East, Latin America and the United States.



Lilee Systems Founded by a team of leaders in the networking and wireless industries and headquartered in California's Silicon Valley, Lilee Systems is a leading communications vendor focused on delivering the most reliable communications products and solutions to the industry. Lilee Systems' leaders have extensive backgrounds in Software Defined Radio (SDR) and network routing and switching, and are active participants in standards bodies defining next generation networking and wireless architectures. Lilee Systems' leaders Chair the 802.15.4p task group, and have been voting members for IEEE 802.11 Wi-Fi, 802.15, 802.16 WIMAX for many years. By leveraging its core competencies in Software Defined Radio systems and networking, Lilee Systems has developed the TransAir PTC-3000 product family of 220 MHz radios, along with the Wayside Messaging Server, Mobility Controllers, and Communications Management Units, to offer a complete end-to-end interoperable radio communications network. For more information, please visit www.lileesystems.com.



For over two decades, Mahindra Satyam (www.mahindrasatyam.com) has been committed to creating exceptional value for its customers, investors, associates and the society at large. As a leading global information, communications, and technology (ICT) company, we are part of the US \$15.9 billion Mahindra Group - a global industrial federation of companies. Our railroad practice has been serving global rail customers in freight, passenger, and OEM segment for over 14 years. Our exclusive focus on railroad industry has enabled us to build core rail domain competencies and attain a unique position in railroad industry. Due to our association with major Class 1 railroads in North America, Mahindra Satyam has been an early adopter in PTC implementation initiative. Today, we are amongst a handful of technology vendors in the railroad industry that have delivered services in all PTC segments. i.e. back office, wayside, loco, communication and on-board segments. Our ongoing work with the rail industry in North America includes back office integration, system management, FRA requirements management and traceability, wayside systems upgrade, end to end system integration / acceptance testing, and program management. For detailed brochure on services or for information to assist in PTC implementation and other railroad technology services, please contact us at Railroad_Practice@mahindrasatyam.com.

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With over 150 years of history and proven success, Ansaldo STS employs more than 4,100 people worldwide to develop the most advanced signalling technologies and related systems and delivers completely integrated Transportation Solutions. As an expert in rail signalling, Ansaldo STS provides design, manufacturing, installation, commissioning and maintenance of a wide range of automation and automatic control systems and equipment. Our goal is to meet the expectations of our clients through outstanding customer service, increased flexibility and greater value, thus optimizing system functionalities and improving operational efficiency.

Our PTC Solution: Ansaldo STS VitalNet™ PTC Solution can overlay on virtually any existing signaling system, or it can be installed standalone. Our PTC applications require little or no adjustments to existing equipment, ensuring a smooth transition to keep your trains moving. Our VitalNet PTC Solution includes:

Wayside

- MicroLok® II VitalNet CPU
- VitalNet Wayside Interface Unit
- VitalNet Point Monitor
- VitalNet Current Sensor
- Transponder

Office

- Radio Block Center

Systems integration and safety certification

The components of the VitalNet PTC Solution are designed for interoperability, providing customers the opportunity to integrate their own custom, optimized system

That's how Ansaldo STS moves the rail industry forward. Move with us www.ansaldo-sts.com

EXHIBITORS



MEDIA PARTNERS



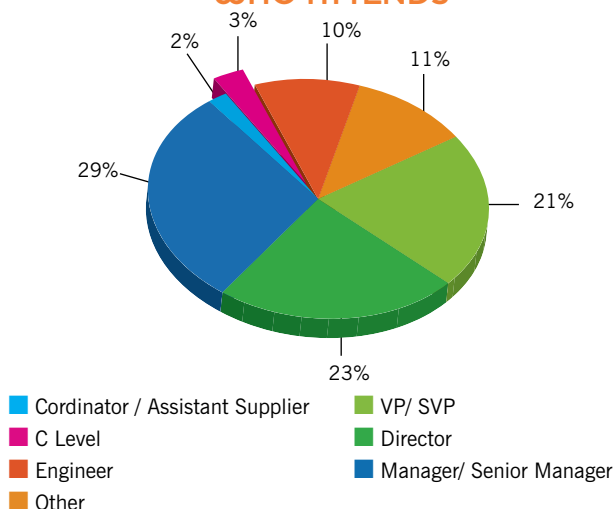
AUDIENCE PROFILE

CREATING VALUE FOR RAILROADS

The PTC World Congress is unique in bringing the whole industry together to benchmark and find best practice solutions to key challenges across testing, interoperability, integration and standardization. Striving to move the industry forward and encourage greater communication and collaboration, we are working with the FRA, FTA, NTSB and AAR, to ensure the key individuals and experts in the industry are in attendance. As such, to meet these goals, Class 1 railroads, commuters and transit agencies across the US can benefit from our exclusive VIP packages enabling them to attend the event and benefit from these discussions at no cost. Please email daniel.loosemore@globaltransportforum.com for more details.

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WHO ATTENDS



WHAT OUR DELEGATES SAY ABOUT US

“The PTC World Congress was a success. Its well-planned agenda included valuable presentations by highly experienced speakers as well as engaging panel discussions of noted experts on the topic. It provided a terrific opportunity for government and industry to convene and hear from those who are working for timely implementation of PTC.”

Patrick Sullivan, Transportation Safety Specialist - Railroad; Signal & Train Control Investigator, **National Transportation Safety Board**

PAST ATTENDING COMPANIES

- | | | | |
|--|--|---|--|
| AECOM | Denton County Transportation Authority | Lockheed Martin | City Council |
| Agence Métropolitaine De Transport | DRS Technologies | Long Island Rail Road | PHW INC |
| Alaska Railroad Corp | E-J Electric Installation Co | Los Alamos Technical Associates (LATA) | Polyphaser/Transtector |
| Alexander Transportation Consultants | Electro-Motive Diesel | MARC Train Service | Power Resorces International, Inc |
| Alstom Transport | Federal Railroad Administration | Mass Electric Construction Company | Railroad Controls Limited |
| América Latina Logística | Ferrocarril Mexicano S.A. de C.V. (Ferromex) | Massachusetts Bay Commuter Rail | Railway Association of Canada |
| Amsted Rail Company, Inc | Florida Dep't of Transportation | Meterorcomm | Railworks |
| Amtrak | FRA | Metro North Railroad | RuggedCom |
| Ansaldo STS | Gannett Fleming | Metrolink | Siemens Industry Inc |
| ARINC | Graham-White Mfg. | Metropolitan Transit Authority, Harris County | Sound Transit |
| Ayer Electronic Systems | Greenman-Pedersen, Inc. | Mineta Transportation Institute | SYSTRA |
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| Booz Allen Hamilton Inc. | Hax Technologies | Network Innovations | TPSC |
| Cad Railway Industries Ltd | Herzog Technology | New York & Atlantic Railway | Transport Canada |
| Caltrain | IBM | New York City Transit | Transportation Safety Board of Canada |
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| Dallas Area Rapid Transit | Lilee Systems | Passenger Rail Task Force for the Raleigh (NC) | |
| | Lindsay Rail Services | | |

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With the deadline for PTC deployment getting closer, railroads, commuters and transits are increasingly seeking solutions across their safety and telecommunications challenges. It is therefore crucial that suppliers position themselves at the forefront of the industry and demonstrate how their innovative solutions will maximize ROI. This industry leading conference enables you to:

Demonstrate thought leadership by presenting in front of your target market

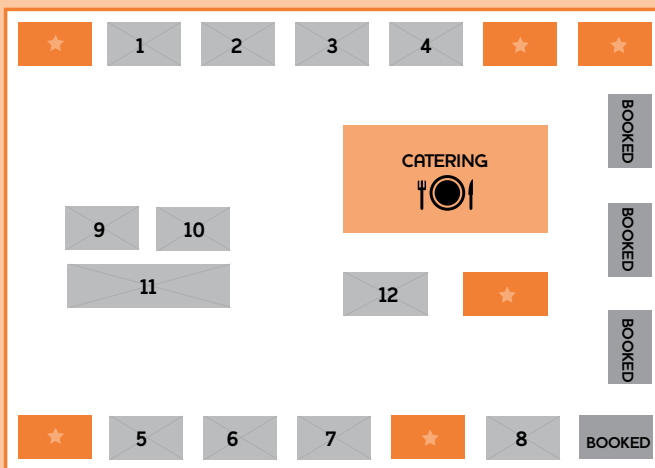
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** Unpaid or unprocessed registration by the time of the event will be charged at this rate, including a \$200 processing fee.

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