



**APCO**  
Canada

NOV 4-7  
**2019**

**HALIFAX, NOVA SCOTIA  
CONFERENCE & TRADESHOW**



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# Canada's PREMIER FORUM

**FOR PUBLIC-SAFETY COMMUNICATIONS  
PROFESSIONALS**



**HEXAGON**  
SAFETY & INFRASTRUCTURE



## MAKE THE SMART FIRST STEP TOWARD NG9-1-1

With VESTA® 9-1-1, the benchmark for Next Generation 9-1-1 Call Handling

VESTA® 9-1-1 is our trusted NG9-1-1 solution, helping PSAPs be more efficient in the most critical moments. By combining powerful, new technology with our experience and deep commitment to the PSAPs we serve, it is our mission to ensure call takers gain the functionality they need to save seconds and save lives.

**Visit the Motorola Solutions booth to learn why so many PSAPs trust this powerful and flexible VESTA® offering for a smooth transition to NG9-1-1.**

Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. [motorolasolutions.com](http://motorolasolutions.com)  
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## FROM THE PRESIDENT

It is my great pleasure, on behalf of the Association of Public-Safety Communications Officials (APCO) Canada Board of Directors, to welcome you to our national 2019 Conference and Tradeshow. We make a return to the east coast of Canada for the first time in many years! This year's event will offer you a conference featuring a first-class selection of educational sessions, professional development opportunities, a full tradeshow floor with leading exhibitors from across North America, and new networking opportunities for our delegates.

We know you will enjoy your time here in Halifax. APCO Canada is proud to represent and honour all of you who give your time in service to the public. Public-safety communicators are committed to supporting Law Enforcement Officers, Paramedics and Emergency Medical Service Responders, Firefighters, Military, and other critical infrastructure front line personnel. You field numerous public phone calls, use multiple communications and computer systems, and coordinate responses to incidents, while keeping constant vigil over our front-line members. Our awards this year recognize some of you who have overcome great challenges to ensure the safety of the public



& responders, as well as the effectiveness of public-safety communications systems. We are excited to acknowledge your achievements, successes, and great sacrifices.

During this year's event, I encourage you to take full advantage of the APCO Canada conference experience by participating in the many educational sessions, attending the dynamic keynote presentations and engaging with fellow delegates at one of our many networking events.

Sharing and learning from our industry brothers and sisters is unquestioningly a key component of APCO Canada's annual conference. The Board and I hope that this year's conference will help you set some goals for where you would like your organization to head and provide you with some tools to get there.

**Welcome to APCO Canada 2019 and welcome to Halifax!**

Kind Regards,  
CINDY SPARROW  
President, APCO Canada

## FROM THE NATIONAL EVENTS COMMITTEE

On behalf of the Association of Public-Safety Communications Officials, Canada, Inc. (APCO Canada) Board of Directors, thank you for joining us for our national conference and tradeshow in Halifax, Nova Scotia. We have been working diligently to put together a world-class line-up of both keynote and concurrent speakers that will provide both professional and personal development.

The Association of Public-Safety Communications Officials, Canada, Inc. is a voluntary, not-for-profit organization dedicated to the enhancement of public safety communications. It serves the people who supply, install and operate the emergency communications systems used around Canada from coast to coast to coast.

This year's vibrant and informative conference and tradeshow has been produced for APCO Canada's valued members, who are involved in public safety communications in Canada. From the front-line staff who are the "first, first responders" to corporate decision-makers, our 2019 event will include something for everyone.



Over the course of the four-day event, I encourage you to take advantage of the conference experience and take the time to be inspired by the line-up of extraordinary keynotes, to learn from industry-leading experts, and to network with your peers – your best source of information.

This year's conference is an important opportunity to discuss the safety of human life, the protection of property and public welfare. These conversations will enable attendees to benefit to the utmost degree and better assist those who are in need.

We hope you will be able to take away innovative ideas from the APCO Canada 2019 Conference & Tradeshow and apply them to your own communities and organizations.

**Welcome to Halifax!**

GAVIN R. HAYES  
Director/National Events  
Coordinator APCO Canada



PRIME MINISTER - PREMIER MINISTRE

November 4-7, 2019



Dear Friends:

I am pleased to extend my warmest greetings to everyone attending the 2019 Association of Public-Safety Communications Officials (APCO) Canada Conference and Tradeshow.

This event brings together public safety professionals from across the country to share their experiences and exchange ideas. I am certain that everyone in attendance will benefit from the educational sessions planned for this conference, as well as the opportunity to network and collaborate with their peers.

I would like to thank APCO Canada for hosting this event, and for their commitment to professionalism and excellence in public safety. You can take pride in your efforts to ensure the well-being of your fellow citizens.

Please accept my best wishes for an enjoyable and productive conference.

Sincerely,

The Rt. Hon. Justin P. J. Trudeau, P.C., M.P.  
Prime Minister of Canada

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## CITADEL HILL GHOST WALK

TUESDAY, NOVEMBER 5 5:30PM - 6:30PM

On this tour, participants will encounter a haunted restaurant, a troubled Titanic victim, the spirit of a famous British general and much more. Our Halifax ghost walk is filled with intriguing stories, eerie tales and lots of little known facts. If open to the public at the time of your tour, you will visit the Old Burying Ground, the oldest cemetery in Halifax.



Sign-up available at Registration on-site,  
first come first served.

## Delegate Reception

November 5 | 6:30PM - 8:30PM

The Stubborn Goat Gastropub  
1579 Grafton Street

Sponsored by:



No Vendors Please

TOURS TAKE PLACE ON THURSDAY NOVEMBER 7, 2019

PLEASE SIGN UP ON-SITE AT REGISTRATION  
\*SPACE IS LIMITED

### TECHNICAL TOUR



Time: 11:30 AM

Pick Up Location: Halifax Convention Centre  
Grafton Street/ Rogers Square

### COMMUNICATION CENTRE TOUR

JOINT EMERGENCY OPERATIONS CENTRE TOUR

Time: 12:30 AM

Pick Up Location: Halifax Convention Centre  
Grafton Street/ Rogers Square

Buses will drop delegates off at either the Cambridge Suites Hotel Halifax  
or the Halifax Marriott Harbourfront Hotel after the tours.



## VENUE MAP



APCO  
Canada | NOV 4-7  
**2019**

HALIFAX, NOVA SCOTIA  
CONFERENCE & TRADESHOW

**AWARDS**

**Gala**

**BLACK TIE FORMAL**

◇ WEDNESDAY, NOVEMBER 6TH ◇

◇ 6:30PM - 11:00PM ◇

# KEYNOTE SPEAKERS

Tuesday, November 5 | 9:00 am - 10:15 am



## Mark Henick

Mental Health Advocate

Principal and CEO of  
Strategic Mental Health  
Solutions

With over five million views, Mark Henick's TEDx talk, "Why We Choose Suicide," is among the most watched in the world. His story of searching for "the man in the light brown jacket" who saved his life from a teenage suicide attempt captured global attention, and when he learned of products being sold on Amazon that promoted suicide, his successful online petition to have them removed garnered tens of thousands of signatures.

#APCOCAN2019

Mark has dedicated his life from an early age to opening minds and creating change. His talks are informed by his direct experience with stigma and the mental health care system, and he brings his diverse and unique perspective to every audience as someone who has been a patient, a professional, a policy influencer, and a public figure in the mental health system.

Mark is currently the Principal and CEO of a boutique consulting firm that helps individuals, companies, and governments to move strategically from awareness to action in improving mental

health and wellness. He was previously the National Director of Strategic Initiatives for the Canadian Mental Health Association (CMHA), and, prior to that, served as the youngest president of a provincial CMHA division in history, the youngest ever member of the board of directors for the Mental Health Commission of Canada, and as a national spokesperson for the Faces of Mental Illness campaign. He has also worked as a frontline mental health counsellor, and as the manager of a national workplace mental health training program.

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# KEYNOTE SPEAKERS

Thursday, November 7 | 8:00 am - 9:00 am



## Dr. Greg Wells

In high performance business situations, the human mind and body have to work together for ultimate results. Dr. Greg Wells is a health and high performance expert who, as a scientist and physiologist, has dedicated his career to making the science of human limits understandable and actionable.

#APCOCAN2019

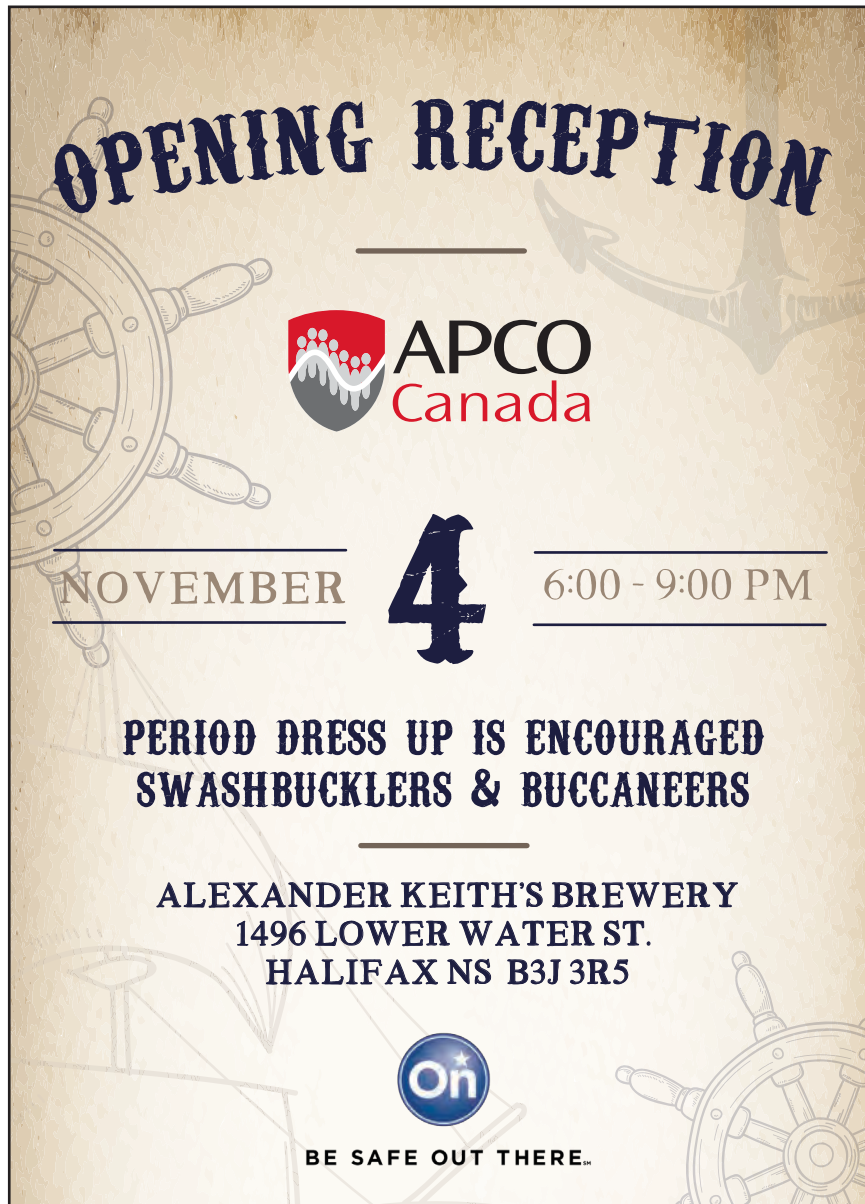
For more than 25 years, Dr. Wells has worked with some of the highest-performing individuals on the planet, including Olympic and World champions, as well as organizations ranging from General Electric to BMO, Deloitte, KPMG, BMW, Audi, Sysco Foods, YPO, and Air Canada. He is also committed to inspiring children and young adults through his close working relationship with several school boards and independent schools.

A veteran endurance athlete himself, Dr. Wells has participated in the grueling Nanisivik Marathon 600 miles north of the Arctic Circle; Ironman Canada; and the Tour D'Afrique, an 11,000 km cycling race that is the longest in the world. He is also a travel and expedition adventurer who has journeyed through every imaginable terrain and conditions in more than 50 countries.


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APCO CANADA 2019  
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**OPENING RECEPTION**

 **APCO**  
Canada

NOVEMBER **4** 6:00 - 9:00 PM

**PERIOD DRESS UP IS ENCOURAGED  
SWASHBUCKLERS & BUCCANEERS**

**ALEXANDER KEITH'S BREWERY  
1496 LOWER WATER ST.  
HALIFAX NS B3J 3R5**

 **On**

**BE SAFE OUT THERE.**

7:00 - 8:00	REGISTRATION & BREAKFAST SPONSORED BY HEXAGON SAFETY & INFRASTRUCTURE	BALLROOM LEVEL/ BALLROOM B1
8:00 - 9:00	OPENING CEREMONY & WELCOME REMARKS	BALLROOM B1
9:00 - 10:15	OPENING KEYNOTE SPEAKER - MARK HENICK SPONSORED BY JVC KENWOOD CORPORATION	BALLROOM B1
10:15 - 4:00	TRADESHOW   REFRESHMENT BREAK & LUNCH SPONSORED BY MOTOROLA	BALLROOM B2/B3
1:00 - 2:00	AI: 101 (PUBLIC SAFETY USE OF AI - AN OVERVIEW: JASON HUTCHENS MOTOROLA	ROOM 501
	7 SKILLS OF A SUCCESSFUL HIRE OR LIFE AFTER THE COMM CENTRE HOLLY BARKWELL, ENP	ROOM 502
	DISPOSING OF THE INFORMATION CLUTTER AND DISPATCHING IN A WORLD OF INFORMATION LARRY HICKS INTERTALK	ROOM 508
	DON'T BE A DINOSAUR; LMR TO LTE TRANSITIONS : Terry Burnworth	ROOM 504
	MOBILE COMMUNICATIONS SUPPORT AS AN INTERGOVERNMENTAL SHARED SERVICE MATTHEW BOYLE	ROOM 506/507
2:00 - 2:15	REFRESHMENT BREAK SPONSORED BY SOLACOM	
2:15 - 3:15	LESSONS LEARNED IN DEPLOYING REAL TIME OPERATION CENTRES: JASON HUTCHENS MOTOROLA	ROOM 501
	FRONT-LINE AND FORGOTTEN: THE IMPACT OF STRESS, BURNOUT, AND SOCIAL SUPPORT ON 911/DISPATCH EMPLOYEES: Emily Kearns, BA	ROOM 502
	DISPATCHER ROLE IN FIREFIGHTER SAFETY & SURVIVAL: Stephan M. Bunker	ROOM 503
	DIGITAL TRANSFORMATION IN UK POLICING: Paul Kennedy	ROOM 504
	ENGAGING PUBLIC COMMUNICATIONS OFFICIALS IN RESEARCH: DEVELOPMENT OF A NATIONAL REGISTRY Stephen Czarnuch, P. Eng., PhD, Renee MacPhee, PhD & Robert Stewart	ROOM 506/507
3:15 - 3:30	REFRESHMENT BREAK SPONSORED BY SOLACOM	
3:30 - 4:30	CHANGES AHEAD - NG911, THE CAD PERSPECTIVE: ROD MARTINSEN & SHANE MCMASTER SPONSORED BY HEXAGON SAFETY & INFRASTRUCTURE	ROOM 501
	TAIL WAGGING THE DOG: THE HIDDEN APPROACH TO PUBLIC SAFETY COMMUNICATION PROCUREMENT: Terry Burnworth	ROOM 502
	RESILIENCY AND SECURITY FOR RADIO SYSTEMS AND IT NETWORKS: Cheryl Giggetts & Jeremiah Knowles	ROOM 503
	YOU CAN SPELL GIS, BUT WHAT IS IT AND WHY SHOULD YOU CARE? Diane Pelletier & David Hamilton	ROOM 504
	IMPACT: A LIFE JOURNEY: Mike Reschny	ROOM 506/507
5:30 - 6:30	SOCIAL ACTIVITY TOUR: GHOST TOUR	HCC MAIN Entrance
6:30 - 8:30	DELEGATE RECEPTION SPONSORED BY INTERTALK	THE STUBBORN GOAT



## SESSION DETAILS

1:00 PM – 2:00 PM

ROOM: 501

### AI: 101 (Public Safety use of AI - an overview)

What exactly is artificial intelligence (AI) and how does it apply to the public safety sector? Today, more and more agencies are adopting emerging technologies to deliver new levels of public safety by extracting greater insights from newly collected data while improving process efficiencies. Interwoven in discussions of these emerging technologies is the concept of artificial intelligence, where there often lies many questions or misconceptions - from legal and policy concerns, to the use of AI and big data. This presentation will address these questions and common customer concerns head-on in a detailed overview of artificial intelligence as it relates to the public sector and the influx of new data from various emerging technologies. The session will uncover key benefits of AI, both now and in the future, public safety use cases, applications, and how AI differentiates from similar concepts (such as analytics

or machine learning) - giving listeners an educational and immersive overview of AI and how it applies to them.

#### SPEAKER: JASON HUTCHENS SOLUTION ENGAGEMENT MANAGER

Jason began his career with the Hudson Institute as a partner with the city of Indianapolis working to combat violent crime with the use of data driven strategies for law enforcement. Jason then held executive roles within public safety by helping lead the State of Indiana in the areas of law enforcement and criminal justice issues including his tenure as Chief Deputy Director of the Indiana Criminal Justice Institute (ICJI). ICJI is the primary planning agency for the state's criminal and juvenile justice, traffic safety, and victim services endeavors. Additionally, Jason served as the Director of the Planning and Assessment Division at the Indiana Department of Homeland Security in his current role as a member of Motorola's Smart Public Safety Solutions team, Jason helps law enforcement agencies identify their problems, prioritize their goals and maximize their investment.

1:00 PM – 2:00 PM

ROOM: 502

### 7 Skills of a Successful Hire or Life After the Comm Centre

The traditional skillset for telecommunicators is based on hard skills such as typing speed, multi-tasking, customer service skills, language, etc. As agencies transition to Next Generation environments I think we can all agree these traditional skill sets are not sufficient to meet demands of an ECC in the future.

The new telecommunicator must bring rationality and reason into situations escalating out of control and evaluate information quickly and continuously. Most centres are running understaffed so there is less time for formal training. What are we missing? Come and join the dialogue.

#### SPEAKER: HOLLY BARKWELL, ENP

Holly Barkwell is a strong long-time advocate of interoperability and actionable situational intelligence for public safety. With more than 25 years invested in public safety, Holly has made presentations to international audiences on public safety policy, governance, and technology best practices. Her

passion for evolving the industry is clear with memberships in several leading associations including NENA and APCO and participation on multiple technical development committees for various associations. Holly also serves as the current NENA Canadian Region Director. Holly's experience in multiple areas such as CAD/RMS software and product design, system development & implementation, system integration, operational assessments, and change management provide a robust base of subject matter expertise.

A firm believer in information sharing between agencies led to a number of early adopter projects including cross border initiatives with the Department of Homeland Security. Holly advises governments, public safety agencies, and private partners regarding policy, security, and the role of technology in delivery of efficient, economical, and fast emergency response service.

Holly is also the President & CEO of Barkwell Holland Group Inc., a successful Canadian based business advisory group. BH Group Inc. provides a range of professional and technical services to public safety and associated partners.





1:00 PM – 2:00 PM

ROOM: 503

### Disposing of the Information Clutter and Dispatching in a World of Information

Dispatch today is reactive, and with greater situational data being made available, it is becoming overwhelming. Dispatch should be about more than taking calls and dispatching units – it needs to be about having the right information, at the right time in the right format. Dispatchers need tools that empower them to address the complex environments they face.

As a result of the amount of information available to dispatchers growing exponentially, emergency response times in some areas have increased, rather than decreased.

Dispatchers now have multiple systems to operate, along with a growing list of available information sources to use to coordinate and support field units. How can social media, recorders, dynamic mapping, video feeds, weather, CAD and other inputs make them more aware without being a distraction? What tools do they need to coordinate and support field units, increasing

their situational awareness and usage efficiency? In a world of information, where every second counts, how do we empower dispatchers save as many lives as possible? In this session, Chris will elaborate on how these next generation data sources and tools can help dispatchers conduct operations effectively, whether they are dispatching from a traditional control room or in a dynamic, mobile environment.

**SPEAKER: LARRY HICKS**

Mr. Hicks has been active in the field of radio communications for more than 40 years. Early in his career, he was a member of



the Royal Canadian Mounted Police. Later he worked for Motorola and Philips Electronics before founding InterTalk in 1997 with his partner, Eamonn Oldham. Mr. Hicks, who has an academic background in Physics and Applied Mathematics, holds patents in IP technology

1:00 PM – 2:00 PM

ROOM: 504

### Don't be a Dinosaur; LMR to LTE Transitions

With public safety broadband systems being developed, vendors are vying for position for public safety LTE. This session will explore the next steps for possible transitional issues of LMR-to-LTE, including hybrid solutions. Voice will always be priority for first responders, but what does LTE bring to enhance the current LMR systems? This session will provide attendees examples of transitional deployments for first responders and control centers. The unique aspect of this session is that it is not vendor specific and will provide information of LMR-to-LTE vendor devices and deployments as case studies for end users to evaluate.

**SPEAKER:**

**TERRY BURNWORTH**

Terry is an architect and owner of Pyramid Consulting. Terry has been involved in hundreds of control center-PSAP consolidations and procurements. He has presented at APCO international, APCO Canada, various State APCO's, and IWCE on public safety communication (PSC) procurement methodologies. Before starting his own AE + Consulting firm, Terry was an instructor and professor at two universities. Terry has a BS in psychology, BArch, and MS. In his limited spare time, Terry owns a farm that has become a zoo with over sixty assorted and unique animals.

1:00 PM – 2:00 PM

ROOM: 506/507

### Mobile Communications Support as an Intergovernmental Shared Service

The Province of Nova Scotia operates a province wide trunked radio system, which supports all public safety and public works users across the municipal, provincial, and federal governments. While this shared system covers most of Nova Scotia, sometimes large incidents happen in poor coverage areas. Additionally, since all levels of public safety are sharing a single radio system, large incidents



can overwhelm capacity. To address these concerns, PNS provides a unique mobile communications support service, providing deployable, on-site telecommunications support services to first responders across Nova Scotia. While this is a provincial service, it is also offered to municipalities and federal government users, at no charge. This shared services initiative provides both communications planning services, as well as deployable technology, to meet the needs of emergencies of almost any scale. The MCS service can provide a fully-equipped communications unit with personnel to operate within an ICS environment. This presentation would outline the training, technology, and personnel providing these services, and describe the benefits of such a provincial service for first responders and provinces alike, and will also delve into a how a communications unit such as this can be critical to the success of incidents run under the Incident Command System (ICS) where a communications unit plays an integral role in operations.

**SPEAKER: MATTHEW BOYLE**

Matthew Boyle is the Manager of Field Operations with Public Safety and Field Communications for

the Nova Scotia Government. The organization supports public safety and public works communications for over 20,000 mobile radio users at all three levels of government in Nova Scotia. Mr. Boyle has 15 years' experience in the field of public safety telecommunications, with both technical and operational experience. In his current role, he supports a staff of 23 people and several large contracts to deliver effective telecommunications services across the Province. Mr. Boyle has supported many large emergency events such as forest fires and ground search and rescue events, and is a licensed aeronautical, marine, and amateur radio operator.

**2:15 PM – 3:15 PM**

**ROOM: 501**

**Lessons Learned in Deploying Real Time Operation Centres**

In this session, Lessons Learned in Deploying Real-Time Operations Centers (RTOC), learn best practices as to how law enforcement agencies now have the ability to capitalize on a wide and expanding range of technologies for efficient and effective policing. During this session, key concepts will discuss going from procurement to operationalizing an RTOC, policy considerations and staffing models.

**SPEAKER: JASON HUTCHENS**  
**SOLUTION ENGAGEMENT**  
**MANAGER**

Jason began his career with the Hudson Institute as a partner with the city of Indianapolis working to combat violent crime with the use of data driven strategies for law enforcement. Jason then held executive roles within public safety by helping lead the State of Indiana in the areas of law enforcement and criminal justice issues including his tenure as Chief Deputy Director of the Indiana Criminal Justice Institute (ICJI). ICJI is the primary planning agency for the state's criminal and juvenile justice, traffic safety, and victim services endeavors. Additionally, Jason served as the Director of the Planning and Assessment Division at the Indiana Department of Homeland Security in his current role as a member of Motorola's Smart Public Safety Solutions team, Jason helps law enforcement agencies identify their problems, prioritize their goals and maximize their investment.

**2:15 PM – 3:15 PM**

**ROOM: 502**

**Front-line and Forgotten: The Impact of Stress, Burnout, and Social Support on 911/Dispatch Employees**

Mental health research, in the field of 9-1-1 call taking and dispatching, in Canada, is limited compared to other first responder communities (fire, EMS, and police). The purpose of this presentation is to share the preliminary findings and subsequent recommendations of a provincial study, conducted in Alberta, amongst 9-1-1 and dispatch centre employees. The presentation highlights the relationship between stress, burnout, and social support for these industry workers. The initial findings have uncovered some barriers to accessing mental health resources. The discussion will include an overview of the mental health programs currently being utilized, and their success rate. The unmet mental health needs of 9-1-1 and dispatch centre employees will also be covered in the session. This presentation will help managers, supervisors, and communications specialists understand the psychological needs of the industry and how to support 9-1-1 call-takers and dispatchers



#### **SPEAKER: EMILY KEARNS, BA**

Emily Kearns is a young academic from Lethbridge Alberta. She is currently working on a Master's degree in clinical psychology from Pacific University in Hillsboro Oregon. Her practicum placement is at the Washington County Jail, working with inmates. Emily has prior experience working with survivors of domestic violence and is a Disaster Management Volunteer with the Canadian Red Cross. The lack of research and resources, in terms of mental health supports for emergency communications operators, sparked Emily's interest in this field. Emily hopes to continue her research and share her findings with the goal of improving working conditions for the 9-1-1 and emergency dispatch industry.

**2:15 PM – 3:15 PM**

**ROOM: 503**

#### **Dispatcher Role in Firefighter Safety & Survival**

This presentation will emphasize the positive impact of dispatchers in improved safety & survival of firefighters. Hear the views of firefighters in what makes a great dispatcher. Learn how dispatch info translates into improved fire-ground tactics & strategies. Consider the most dangerous calls & what to look/

listen for, size-ups, exposures, rail incidents, unknown odor calls, Haz-Mat, time checks. Prepare for May-Day calls. Tips on dispatcher "ride-along" visits & continuing education. Lessons learned from NIOSH fatality reports.

#### **SPEAKER: STEPHAN BUNKER**

Mr. Bunker is a 40 year volunteer firefighter, 30 of those years as an adjunct instructor with the Maine Fire Service Institute, Community College System. Retired from the Maine 911 Bureau as Training & Certification Manager, he now delivers advanced fire dispatch protocol training throughout the US & Canada. A frequent presenter at Navigator, NENA & APCO Intl. conferences. He is also qualified as an expert witness in 911 call litigation. He is retired as LCDR from US Coast Guard and serves on his community board of selectmen.

**2:15 PM – 3:15 PM**

**ROOM: 504**

#### **Digital Transformation in UK Policing**

The presentation will cover the progress made to date by police forces in the UK, particularly related to the exponential rise in the volume and variety of digital evidence. The presentation will

discuss the challenges and opportunities from the availability of digital evidence.

An overview will be given on current national police tech programs, and an independent view of what has worked and what has not worked.

The main body of the presentation will discuss how UK policing is now embracing technologies such as digital evidence management solutions, cloud computing, artificial intelligence, data analytics and robotics process automation.

Finally, the presentation will explain how the digital transformation of UK policing can be 'exported' for the benefit of other countries and also how technology suppliers from overseas can engage with the UK law enforcement community.

#### **SPEAKER: PAUL KENNEDY**

Paul enjoyed a 30 year career in the UK police service, having served in four UK police forces and latterly performing the role of Deputy Chief Constable. His earlier career centred on serious crime investigation, having led over 70 enquiries into cases of murder, kidnap, abduction and extortion. Amongst those were a number of high profile criminal investigations.

In 2010 Paul was seconded to Her Majesty's Inspectorate of Constabulary where he led a value for money inspection of criminal justice reforms in the Metropolitan Police, leading a team of senior police officers, barristers and civil servants.

Having successfully completed the College of Policing's Strategic Command Course in 2013, Paul then became a chief police officer for North Yorkshire Police, responsible for all aspects of operational policing in the county.

He was subsequently appointed the National Police Chief Council's (NPCC) lead for Automatic Number Plate Recognition (ANPR) in which he led the project with the UK Home Office to deliver a new £30million National ANPR Service, the world's largest ANPR database, based on cutting edge cloud technology and software applications.

Paul returned to the College of Policing in 2016 as a Director on the Strategic Command Course, enjoying the opportunity to support the professional development of other chief officers.

As Deputy Chief Constable for North Yorkshire Police and in the final chapter of his service, Paul led on information technology which included a multimillion pound investment into mobile police technologies and substantial engagement with the Police ICT Company.

Paul retired from policing in





March, 2017. Paul now works as an independent strategic advisor between police and the tech community to support meaningful transformation and digitally enabling the UK's Police".

**2:15 PM – 3:15 PM**

**ROOM: 506/507**

### **Engaging Public Communications Officials in Research: Development of a National Registry**

The term "first responders" typically refers to paramedics, firefighters, and police officers; however, rarely are public safety communications officials (PSCO) (e.g., 911 call takers, emergency telecommunications officials) included in that description. More recently, the term Public Safety Personnel (PSP) has emerged to encompass all persons serving the Canadian public, including PSCO. In a recent prevalence study (Carleton et al. 2018), 33.2% of PSCO screened positive for major depressive disorders (general population: 7%), and 48.4% screened positive for any mental disorder (general population: 10.1%). Unfortunately, apart from this recent study, research of Canadian PSCO remains sparse. One significant

challenge in reaching out to this PSP sector is the lack of a comprehensive registry detailing the locations of public-safety answering points (PSAPs) (i.e., call centres), and the absence of a roster and workplace profile detailing the individuals employed or volunteering as PSCO. The current study presents our work toward developing a national registry of PSAPs, which will provide the foundation for conducting research that addresses the mental health, physical health, and technological needs within this sector.

#### **SPEAKERS:**

**STEPHEN CZARNUCH,  
RENEE MACPHEE, PHD,  
ROBERT STEWART**

**3:30 PM – 4:30 PM**

**ROOM: 501**

### **Changes Ahead – NG911, the CAD Perspective**

Join Hexagon Safety and Infrastructure to discuss the changing environment that NG911 will present to Communication Centers. Hexagon will share how customers can prepare for NG911 and how it will enhance the call taking and dispatch process. We will also lead

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a discussion on how the dispatch function will change given the new data sharing paradigm and things that should be considered as it relates to NG911

#### **SPEAKER: SHANE MCMASTER**

Shane is currently an Application Consultant in the Hexagon Safety and Infrastructure division and has held various positions since 1999. He is a graduate of the Cartographic Technician program at Sir Sanford Fleming College and has been involved with many public safety sites across Canada and the United States providing training, implementation, product demonstrations and consulting skills.

#### **ROD MARTINSEN**

Rod is currently Managing Consultant in the Hexagon Safety and Infrastructure division and has held various positions since 1985. He holds a degree in Computer science from the University of Calgary and has been involved with many public safety site across Canada and the United States providing training, implementation, product demonstrations and consulting skills

**3:30 PM – 4:30 PM**

**ROOM: 502**

### **Tail Wagging the Dog: The Hidden Approach to Public Safety Communication Procurement**

In the past, an agency typically chooses a vendor to provide a product or service related to public safety communications. With the advent of more open architectures, public safety broadband systems, IP based PSAP's, the market has opened up to multiple vendors with similar and differing equipment and services. This has allowed for more competition and better pricing for the public safety agencies, but it is important to know the differences between them. This session will provide three approaches to public safety equipment



procurement and the pros and cons of each approach. Real-world examples are provided of the various approaches.

**SPEAKER:**  
**TERRY BURNWORTH**

Terry is an architect and owner of Pyramid Consulting. Terry has been involved in hundreds of control center-PSAP consolidations and procurements. He has presented at APCO international, APCO Canada, various State APCO's, and IWCE on public safety communication (PSC) procurement methodologies. Before starting his own AE + Consulting firm, Terry was an instructor and professor at two universities. Terry has a BS in psychology, BArch, and MS. In his limited spare time, Terry owns a farm that has become a zoo with over sixty assorted and unique animals.

**3:30 PM – 4:30 PM**  
**ROOM: 503**

**Resiliency and Security  
For Radio Systems and IT  
Networks**

With the recent increase in cyberattacks, the need for resilient IT security has become a major factor in all public safety technology departments. Can you recover from a cyberattack, or other unexpected security

breach? All security threats must be considered when planning IT systems to ensure continuity of service and reliable communications for public safety radio systems. This presentation will provide key information on designing, planning, and implementing security and resiliency throughout your technology infrastructure.

**SPEAKER: CHERYL GIGGETTS**

Ms. Giggetts is Principal Consultant at CTA Consultants. She has over 34 years of experience in management, and 29 years in the Wireless Telecommunications Industry, specializing in Public Safety Communications and E9-1-1 Services for local, state, and the federal government. Cheryl serves as principal consultant on large and complex critical communications programs. She focuses on program integration, project management, and coordinating technical and non-technical disciplines. Her expertise also includes developing synergistic strategies for funding, sustainability, and governance.

**JEREMIAH KNOWLES**

Mr. Knowles is a Senior Communications Specialist at CTA Consultants. He has over 21 years of experience with two-way radio communications systems, point-to-multipoint two-way systems, point-to-point microwave links, RF propagation, and BDA/DAS

design, with a focus on wireless communication in LMR and point-to-point microwave links. Mr. Knowles has used his extensive wireless knowledge to help clients around the world design and implement reliable and resilient critical communications systems.

**3:30 PM – 4:30 PM**  
**ROOM: 504**

**You can spell GIS, but  
what is it and why  
should you care?**

The CRTC has mandated a modernization of 911 networks to be completed over the next few years. Tabular-based 911 location databases will transition to using geographic information systems (GIS) services to deliver more accurate maps, event location data and eventually routing of emergency calls to the appropriate Public Safety Answering Points. Currently, in most provinces, there is no single authoritative civic address database, or standardized process for maintaining geographic information for NG911. Multiple organizations are collecting and aggregating the same data for the same geographic area, resulting in significant duplication of effort, while ending up with inconsistent and potentially erroneous data which

introduces risk and creates liabilities for emergency response authorities. This situation will have to change in NG9-1-1, and standardized GIS data management approaches along with defined processes will help bring that change forward.

This presentation will provide you with a basic understanding of GIS, and how it will play a significant role in NG9-1-1. We will discuss the work that is currently underway on several related fronts, such as the creation of a Canadian NG9-1-1 GIS data standard including the identification of mandatory, strongly recommended and recommended data layers, along with the identification of regional (Provincial) aggregators to ensure those standards are adhered to. Specific topics covered in this presentation will be:

- What is GIS and why should you care
- What is happening on the national stage
- Aggregation of GIS data and why
- Tools to simplify the task
- What GIS data will be presented to the PSAPs
- What do you need to know now to prepare for the future
- How will this impact your day to day work



#### SPEAKER: DIANE PELLETIER & DAVID HAMILTON

Diane Pelletier - Diane is a 35-year career civic servant with the Province of New Brunswick. She has been with the New Brunswick 911 Bureau for 20 years, and its Director for the past 10 years.

Diane is a leading expert in 9-1-1 service delivery in Canada, and since 2013 has chaired the Canadian NG9-1-1 Coalition, which developed both the NG9-1-1 Strategy for Canada, and the NG9-1-1 Transition Roadmap for Canadian PSAPs.

David Hamilton - David is in his 9th year as the Public Safety Industry Manager for Esri Canada. His efforts are focused on advising customers how to use GIS technology to improve all areas of public safety, specifically (NG)9-1-1, law enforcement, fire services, emergency medical services, emergency management.

**3:30 PM – 4:30 PM**

**ROOM: 506/507**

#### **Impact: A Life Journey**

The speaker will share a personal look into a life of unique challenges and how decisions impact us. We to shed the decisions of others in order to move on and live the lives are destined to live. We are not designed or expected to live a life of FEAR. We are designed for more than we know, maybe it's time to realize it, and act on it.

Mike has survived and flourished even given the obstacles he's faced. He has come out the other side with a smile and a genuine gratitude for life and the people around him.... Good or not so good!

This powerful session will remind us that we have a life to live on our own terms and to make the moments count. We will take a peek at unique challenges:

- Who are we?
- How did we get here?
- How other people decisions impact us?
- Why we allow others to treat us in unacceptable ways?
- Surviving medical challenges (physical & mental)

#### SPEAKER: MIKE RESCHNY

Mike Reschny has been in public safety for 38 years, starting as an EMS volunteer in Unity Saskatchewan. He completed his paramedic training in North Dakota and Connecticut, worked as an Advanced Care Paramedic and EMT Instructor.

Mike has been involved in Emergency Communications for over 20 years as a Dispatcher, Trainer and Supervisor with the Saskatoon Fire Dept. He is a conference speaker and trainer, and was the first Public Safety Telecommunicator from Canada to become an APCO Adjunct Instructor.

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## RISE & SHINE WELLNESS SOCIAL MORNING YOGA & MEDITATION

7:00 AM - 8:00 AM ROOM: MARIOTT HARBOUR FRONT- ATLANTIC SUITE

This morning yoga session is the perfect way to start your day. Gentle stretches, beginner yoga poses and guided relaxation meditation will help you to feel stronger in your body and more focused in the mind. This class is perfect for new students.

## BREAKFAST WITH THE BOARD

7:00 AM - 8:00 AM ROOM: BALLROOM 1

Join the APCO Canada Board of Directors for breakfast, where they will be serving you fresh pancakes with all of the toppings!

7:00 - 8:00	RISE & SHINE WELLNESS SOCIAL ACTIVITY	HALIFAX MARRIOTT HARBOURFRONT HOTEL
8:00 - 9:00	Registration & BOD Pancake Breakfast SPONSORED BY HEXAGON SAFETY & INFRASTRUCTURE	BALLROOM LEVEL/ BALLROOM B1
9:00 - 10:00	GIVING BACK SESSION SPONSORED BY CRADLEPOINT	BALLROOM B1
10:00 - 4:00	TRADESHOW   REFRESHMENT BREAK & LUNCH SPONSORED BY MOTOROLA	BALLROOM B2/B3
1:00 - 2:00	INDUSTRY'S ROLE IN SMOOTHING THE MIGRATION TO NG9-1-1: KEN REY <a href="#">MOTOROLA</a>	ROOM 501
	SUPPORTING EMERGENCY TELECOMMUNICATORS THROUGH NEXT GENERATION 911 USING ARTIFICIAL INTELLIGENCE: STEPHEN CZARNUCH, P. ENG., PHD, RENEE MACPHEE, PHD & ROBERT STEWART	ROOM 502
	HOW MOBILE TECHNOLOGY IS SHAPING THE FUTURE OF PUBLIC SAFETY: CHRIS MACPHERSON <a href="#">BELL</a>	ROOM 503
	ARE YOU STRESSING: PAM STECIUK	ROOM 504
	DEVELOPMENT OF THE MOST INTEROPERABLE VOICE RADIO SYSTEM IN CANADA - A CASE STUDY: TODD BROWN & BRUCE GRANDY	ROOM 506/507
2:00 - 2:15	REFRESHMENT BREAK SPONSORED BY SOLACOM	
2:15 - 3:15	CONNECTED COMMAND CENTER: IMPROVING SITUATIONAL AWARENESS WITH DATA IN THE PSAP STEVE ALVEY <a href="#">MOTOROLA</a>	ROOM 501
	INFERNO @ LAC MEGANTIC: STEPHAN BUNKER	ROOM 502
	KENWOOD INDOOR/OUTDOOR POSITIONING AND TRACKING: JOSH HARVEY <a href="#">JVC KENWOOD</a>	ROOM 503
	THE IMPORTANCE OF CONTROLLING YOUR OWN QOS: ROBERT KWAPISZ	ROOM 504
	SUSTAINABLE DISPATCH; PSAP FACILITY DESIGN & ENGINEERING - PART 1 OF 2: TERRY BURNWORTH	ROOM 506/507
3:15 - 3:30	REFRESHMENT BREAK SPONSORED BY SOLACOM	
3:30 - 4:30	ONSTAR EMERGENCY SERVICES CHARLENE PORANGANEL <a href="#">ONSTAR</a>	ROOM 501
	THE TRAGIC LOSS OF ONE OF OUR EMDS: DEPLOYMENT OF OUR PEER SUPPORT NETWORK IN A TIME OF TRAGEDY: JEAN-FRANÇOIS POULIN & VINCENT BROUILLARD	ROOM 502
	THE UK'S EMERGENCY SERVICES NETWORK/EMERGENCY SERVICES MOBILE COMMUNICATIONS PROGRAMME (ESN/ESMCP): CHRIS LUCAS, VICE PRESIDENT, BRITISH APCO	ROOM 503
	PSAP PERFORMANCE METRICS: HOW DOES YOUR PSAP MEASURE UP? JOHN WYNIA	ROOM 504
	SUSTAINABLE DISPATCH; PSAP FACILITY DESIGN & ENGINEERING - PART 2 OF 2: TERRY BURNWORTH	ROOM 506/507
6:30 - 11:00	APCO CANADA 2019 AWARDS GALA DINNER	BALLROOM B1



## SESSION DETAILS

9:00 AM – 10:00AM

ROOM: BALLROOM B1

### Giving Back Session The Shoebox Project

Join us as we engage in a session of giving back to the community we are in. We will be creating toiletries kits for those in the Shelter Nova Scotia Program's. Shelter Nova Scotia believes that everyone deserves a safe and affordable home. They support people in times of crisis and transition through residential, trustee and outreach programs. To this end, we operate 6 facilities in HRM providing a night of rest to 134 people each night. We offer far more than shelter; utilizing client and housing support workers in tandem with our colleagues working in mental health and addiction services we support 1300 people annually.

In pursuit of their goals, Shelter Nova Scotia oversees the operation of:

- (2) Two emergency shelters that serve men and women experiencing homelessness
- a supportive housing program for men and women moving from

shelter living to community living

- an apartment complex for men transitioning out of shelter life
- an affordable, supportive living environment dedicated to individuals who have experienced chronic homelessness and who have a long history of alcohol dependency,
- a Community Trustee Program for individuals in the community
- (2) Two Community Residential Facilities that help men and women make the change from correctional facilities to community living

1:00 PM – 2:00 PM

ROOM: 501

### Industry's role in smoothing the migration to NG9-1-1

Industry's role in smoothing the migration to NG9-1-1 PSAPs are facing the chronic challenge of maintaining staffing levels. In the not too distant future, Call Takers and Dispatchers will be expected to managed additional data and multi-media associated

with NG9-1-1. In this session, we will cover the CRTC NG9-1-1 guidelines along with a view to emerging technology and solutions to help manage the transition to NG9-1-1.

#### SPEAKER: KEN RAY

Ken has 15 years' experience in public safety including: Crime Analysis, Systems Analyst, Product Management and Sales. His career in public safety began at the Boulder Police Department followed by roles with Printrak, Inc, AT&T Wireless, and finally Motorola Solutions. Ken's experience spans both the customer and industry perspectives and observations. 1:00 pm – 2:00 pm

ROOM: 502

### Supporting Emergency Telecommunicators through Next Generation 911 Using Artificial Intelligence

In 2017 the Canadian Radio-television and Telecommunications Commission directed all Canadian telephone companies upgrade their infrastructure and networks to support next-generation 911 (NG-911). Specifically, the upgrades must support NG-911 voice communication and text messaging by June and December, 2020 respectively,

with provision for video streaming and images. Canadian telecommunications operators (e.g., 911, dispatch) are already exposed to high levels of occupational trauma, with recent data showing that 48.4% screen positive for a mental disorder compared to diagnostic rates of 10.1% (general population). The effects NG-911 will have on mental health in telecommunications are not known; however, the new modalities of information (i.e., text, images and video) offer a unique opportunity to use artificial intelligence (AI)

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within call centres. We present our preliminary work toward using AI to reduce the effects of traumatic exposures within Canadian call centres.

The research team spent three days in two call centres in, Manitoba in spring 2019. During this time we shadowed emergency telecommunications officials through tasks including call-taking and dispatching for police, fire, and paramedics. We documented our procedural observations, including interactions with callers, existing systems and technologies. We focused on the communications between 911 operators and callers, particularly during initial contact, in order to conceptualize how new NG modalities could impact the telecommunications officials. Following the site visits, system and caller interactions were decomposed into data exchange transactions, identifying types of information that are exchanged through each interaction. From these transactions, we considered ways AI could be used to pre-processing the new NG-911 data, reducing the anticipated exposure.

Based on our experience, we identified three ways that AI could be used in call centres:

- 1) pre-processing NG-911 text, images and video to identify the type of content (e.g., fire, bleeding, child involved);
- 2) dynamically processing audio while operators execute existing protocols (primarily for paramedic calls) to rapidly identify critical conditions (e.g., agonal breathing);
- 3) dynamically processing audio, text, images and video to automatically pre-populate operator data entry fields.

Our results suggest that artificial intelligence may play a functional role in supporting telecommunications operators, both with their existing systems and through changes brought forward by NG-911. In particular, the impact new modalities of information (e.g., images) have on the mental health of operators may be reduced. For example, by pre-processing these data, operators can be notified ahead of time such that they can be prepared for what they are about to see or hear. performing with excellence. The second time she was coordinating and writing the twenty points of accreditation for submission to the Academy. Today, she keeps busy coordinating training activities as well as overseeing the quality assurance units call reviews and activities as an EMD Planning and Programming Officer.

**SPEAKER:**  
**STEPHEN CZARNUCH,**  
**RENEE MACPHEE, PHD,**  
**ROBERT STEWART**

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**1:00 PM – 2:00 PM**  
**ROOM: 503**

**HOW MOBILE TECHNOLOGY IS SHAPING THE FUTURE OF PUBLIC SAFETY**

In this session led by Chris Macpherson, National Director for Public Safety and Government, you will learn about the now, the coming soon, and the future of wireless technology in the public safety sector. As Canada's leading carrier for first responder networks, Bell is focused on bringing to market new technologies like Mobile Broadband for First Responders to put data-rich applications in the hands of those on the front lines, keeping them and citizens safer. We will also touch on our vision of the future with emerging technologies like NG911, Mission Critical Push-to-Talk, and 5G

**SPEAKER: CHRIS**  
**MACPHERSON - NATIONAL**  
**DIRECTOR OF SALES,**  
**PUBLIC SAFETY & FEDERAL**  
**GOVERNMENT**

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Chris MacPherson, National Director, Government and Public Safety has the responsibility of supporting Government and First Responders' Instant Communications, Public Safety and Core Mobility needs. Prior to his current role, Chris was the Director of Business and Radio Sales, Ontario. Prior to joining Bell Chris has held a number of Senior sales roles in the Services and Managed Services business supporting some of Canada's largest Government, Retail and High Tech companies.

**1:00 PM – 2:00 PM**  
**ROOM: 504**

**Are you STRESSING**

Some days, working in the telecommunications field can feel like you're walking into a hurricane and by the time the end of shift arrives, you feel lucky to have survived. This interactive presentation will have participants talk about what type of calls/events cause them stress and how this manifests differently in each of them. Recognizing these triggers is the first step to their mental wellbeing. It will also help to bring awareness of these stressors



for their co-workers. Several tips and strategies on how to alleviate this stress (while at work or at home) will be presented - bringing the calm after the storm. Having an open discussion with peers is a way to show support for other telecommunicators and to say You Are Not Alone in this journey.

#### **SPEAKERS: PAM STECIUK**

As a former Senior Communications Operator with the Winnipeg Police Service, Pam spent over 20 years in the 911 Police Communications Center. Having worked her way from Call Taker to Dispatcher to a Supervisor, she has intimate knowledge of how a center works - the good and the bad. She has seen the toll that the constant barrage or highly intense and emotional calls can take on a 911 Operator, and has experienced some effects herself. She is honored to have been a presenter at 4 previous APCO Canada conferences.

1:00 PM – 2:00 PM

ROOM: 506/507

### **Development of the Most Interoperable Voice Radio System in Canada - A Case Study**

Bruce and Todd will present and take questions on their ten-year effort to establish the first shared, interoperable, multi-jurisdictional, regional, public safety grade voice radio system in North America.

The Maritime Public Safety Network (MPSN), which came into service between 2015 and 2018, provides a single, P-25 compliant, highly interoperable voice radio network to over 80 provincial, municipal, federal, and non-profit public safety agencies with over 30,000 users.

#### **SPEAKER: TODD BROWN & BRUCE GRANDY**

Todd Brown - Director-Public Safety and Field Communications Services Nova Scotia Department of Internal Services

Todd has worked as a journalist, a public-school teacher, and for the past 25 years as a senior public policy analyst, large scale IT Project Manager, and senior program manager for the Government of the Province of Nova Scotia. In

2017, Todd was nominated by the Institute for Public Administration in Canada (IPAC) for the 2017 Governor General's Award for Innovation.

Bruce Grady - Director-NBTMR Government of New Brunswick Department of Transportation

Bruce has been a leader for years in the development, implementation, and long-term management of public safety communications systems for first responders. Bruce led the development and implementation of NBTMR, a province wide, state of the art, mission critical voice radio system for public safety and public works organizations across the Province. Bruce has worked in public safety communications for over 40 years, and he currently represents the Province of New Brunswick on multiple regional and national public safety communications initiatives such as the Public Safety Broadband Network project, and the establishment of the Maritime Public Safety Network, the first shared, multi-jurisdictional public safety radio system in North America.

2:15 PM – 3:15 PM

ROOM: 501

### **Connected Command Center: Improving Situational Awareness with Data in The PSAP**

More data means more information. Join our session to make sure your agency recognizes the critical benefits of context-enriched services that push the right content to the user at the moment of need. We will cover how your agency can leverage the overwhelming data it receives and how to use it to improve situational awareness.

#### **SPEAKER: STEVE ALVEY**

Steve Alvey has more than thirty years of telecommunications experience serving in various roles spanning market development, workflow assessment, requirements verification and solution design. Mr. Alvey began his career as a solution specialist focusing on advanced public safety, commercial and enterprise solutions for Motorola's voice, data and infrastructure products. He has held various positions within Motorola's Government Solutions business. Currently, Steve is a public safety software solution specialist within the Software Enterprise business unit.





2:15 PM – 3:15 PM

ROOM: 502

### Inferno @ Lac Megantic

This presentation will detail the tragic rail derailment and fire storm that devastated the town of Lac Megantic, Quebec, Canada on July 6, 2013. The story will highlight what has been called the perfect storm of issues that led to the death of 47 citizens, destruction of the historic community downtown and long-term environmental impact. The study will highlight issues of faulty engine repairs, lack of sufficient brakes, poor track maintenance, staffing levels, weak safety precautions, poor government oversight, Also discussed will be the response

by fire departments and public safety personnel, the role of emergency response assistance planning. Other lessons learned will include the communications systems used by rail services, their response methods. Final notes will be the resulting civil and criminal investigations, and changes to rail practices.

#### SPEAKER: STEPHAN BUNKER

Stephan Bunker is a 25 year elected member of the Board of Selectmen for his community, which is the USA Sister-City with Lac Megantic, Quebec, Canada. He is a 40 year member of the Fire-Rescue Department, with 30 years as a state fire instructor with the Maine Community College System.. His department was one of 5 Maine fire departments who responded to their Canadian sister-city of Lac Megantic on July 6, 2013 to help fight one of the largest rail disasters in Canadian history. He is a certified NFPA Fire Instructor III, Fire Officer II He has a BS in Criminal Justice Sciences and an MEd in Adult Education from the University of Maine. He is a member of NENA, APCO International (Senior member)and IAED. He was selected as APCO Intl. Trainer of the Year in 2009 He is a frequent presenter at national conferences. Retired from the state 911 program in his home state, he now travels throughout the US & Canada teaches advanced

fire dispatch courses. He is a consultant and expert witness in 911 civil & criminal litigation.

2:15 PM – 3:15 PM

ROOM: 503

### Kenwood Indoor/ Outdoor Positioning and Tracking

In our fast-moving world, knowing the locations of the people you rely on is critical. GPS can pinpoint them outdoors, but satellite signals are often unreliable indoors, blocked by walls or other structures. Something else is needed: the Kenwood Indoor/Outdoor Positioning and Tracking solution.

A positioning and tracking system helps you to get the right resource to the right place at the right time – all fully visible from your office. Indoor Bluetooth beacons combined with GPS enable the real-time tracking, reporting and recording of each person's location and status.

#### SPEAKER: JOSH HARVEY

A sales rep for the Public Safety and Government Services sector at JVCKENWOOD Canada, Josh has taken the lead on an exciting new initiative from Kenwood that ensures you will always have support at the right place at the right time.

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2:15 PM - 3:15 PM

ROOM: 504

### The Importance of Controlling your own QoS

When fighting fires or attending to an emergency, the last thing you want to worry about is whether your backhaul provider is going to throttle your networks or control your connections. Furthermore, you need to make sure that the voice and data you are sending via your backhaul gets through without error or delay.

This session will discuss the importance of setting the correct Quality of Service (QoS) and defining who makes the decisions for your network's control from end to end. Real-life examples will be referenced. The protocols used in this program have managed tens of millions of calls on multiple continents for nearly 20 years.



#### **SPEAKER: ROBERT KWAPISZ**

Robert is a APEGA-registered professional engineer with hands-on, in the field systems engineering and IP architecture experience across the federal and public safety sectors. He has supported these agencies in Canada and the United States with a base of network design, backhaul QoS and control, as well as endpoint security expertise.

**2:15 PM - 3:15 PM**

**ROOM: 506/507**

#### **Sustainable Dispatch; PSAP Facility Design & Engineering - Part 1 of 2**

This session is about the design and engineering required for a sustainable PSAP. Most published materials concerned with sustainable PSAP's are focused around the technology, routing, call-taking, and deployment of resources. This session will cover the "bricks-and-mortar" issues for a sustainable facility; location, survivability, hardened concepts, electrical, HVAC, lighting, layouts, workflows, sustainability, adaptability, cost issues, procurements, and project scheduling. There will be a checklist for review of existing facilities as well as criteria for new facility development. The session will review real-

world PSAP designs including remodeling existing facilities and "ground-up" new structures. This is a 2-hour session due to the complexity of the materials involved.

#### **SPEAKER: TERRY BURNWORTH**

Terry is an architect and owner of Pyramid Consulting. Terry has been involved in hundreds of control center-PSAP consolidations and procurements. He has presented at APCO international, APCO Canada, various State APCO's, and IWCE on public safety communication (PSC) procurement methodologies. Before starting his own AE + Consulting firm, Terry was an instructor and professor at two universities. Terry has a BS in psychology, BArch, and MS. In his limited spare time, Terry owns a farm that has become a zoo with over sixty assorted and unique animals.

**3:30 PM – 4:30 PM**

**ROOM: 501**

#### **OnStar Emergency Services**

OnStar's Emergency Services are best known for their role as a vital link between motorists and 9-1-1 centers during emergencies such as Automatic Crash Response and vehicle location assistance technologies. But are you

up to date on their latest technologies and innovations to help public safety?

#### **SPEAKER: CHARLENE PORANGANEL**

Charlene Poranganel has been with General Motors OnStar for over 11 years working with Emergency Services. Charlene has been instrumental in the development of OnStar's emergency program as well as stolen vehicle assistance services working directly with law enforcement. She has represented OnStar Emergency services in many radio and TV interviews as part of Outreach efforts to help educate the public and Public Safety about the emergency services assistance provided to members and first responders.

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**3:30 PM – 4:30 PM**

**ROOM: 502**

#### **The Tragic Loss Of One Of Our EMDs: Deployment Of Our Peer Support Network In A Time Of Tragedy**

As emergency responders, we are trained to help people, mostly strangers, in multiple types of situations. We are trained professionals that know what to do, how to do it and what to say to help people in need. As an EMD, have you ever wondered how you would react and what you would do if confronted with the loss of one of your peers in a tragic event? As a supervisor, have you ever asked yourself what tools and plans are in place to help you help your EMD's during a tragic situation? The loss of one of your employees? One of your own?

In this conference, we will share the specifics of our project, the peer supporter selection process, the role of a peer supporter, their training, how and when they intervene, and the tragic loss of an EMD that precipitated the deployment of the project.

Our Peer Support Project started in 2017 as part of a psychological health and safety program. The objective of the project was to provide in house groups of peer



supporters for paramedics and EMDs. Their role is to detect, support and follow up with coworkers in need during different circumstances.

First, we will elaborate the collaborative selection process of our peer supporters. The candidacies were proposed by peers in order to certify a high amount of credibility and trust. One could not apply directly to become a peer supporter.

Second, we will talk about the peer supporter training. This training includes the following topics: “immediate intervention” in high in stress situations and detecting distress amongst peers. It includes a detailed protocol and includes follow ups with our in-house psychologist. Furthermore, we will elaborate on the logistics surrounding the interventions of our peer supporters.

We will then detail the role of a peer supporter. The role of the peer supporter is one of trust, care and communication. But specifically... what do they do? Also, we will share with the audience the circumstances of the tragic loss of one of our EMDs. This event triggered the anticipated use of our peer support network and multiple interventions.

**SPEAKERS:**  
**JEAN-FRANÇOIS POULIN & VINCENT BROUILLARD**

Jean- Jean-François - Jean-François Poulin is Commander performance and quality standards at Corporation Urgences-santé, Quebec’s largest Health Communication Center. He has been certified as an Emergency Medical Dispatcher since 2008 and an Emergency Fire Dispatcher since 2016. He is also an Emergency Telecommunicator Course (ETC) instructor. Furthermore he was an ED-Q and in-house trainer from 2010 to 2015.

Jean-François recently actively participated in coordinating the relocation of his Health Communication Center. He was assigned to the project for a period of 5 months between 2016 and 2017. Jean-François is completes his second certificate in Change management at University Laval. He is an active member on our research board.

**3:30 PM – 4:30 PM**

**ROOM: 504**

**PSAP Performance Metrics: How Does Your PSAP Measure up?**

We’ve all heard the saying “You can’t manage what you can’t measure.” This especially rings true in 911, where seconds can mean the difference between life and death. All 911 centers have performance targets – but how do you know if you’re measuring the right things? And is there an easier way to track metrics than spending countless hours manually compiling spreadsheets and data? In this session, we’ll share best practices on the ‘what, why and how’ of creating and measuring PSAP KPIs and reveal results from the recent PSAP Performance Metrics benchmarking survey.

**SPEAKER: JOHN WYNIA**

John Wynia is Public Safety Manager for Canada for NICE’s Public Safety Division. In his 25+ years in the voice recording industry, John has been involved in many successful recording solution implementations throughout Canada and the U.S. John consults with 911 centers throughout Canada and seven U.S. States to design and implement Next Gen-ready recording solutions, and effective Quality Assurance Programs. He holds a Diploma

in Marketing Management from the Northern Alberta Institute. of Technology in Edmonton, Alberta.

**3:30 PM – 4:30 PM**

**ROOM: 503**

**The UK’s Emergency Services Network/ Emergency Services**

The UK Home Office is leading a pan departmental, cross government programme to deliver the new Emergency Services Network (ESN) critical communications system. This will replace the current Airwave Tetra service used by the emergency services in Great Britain.

Users for the ESN include the police, fire and rescue, and ambulance services as well as a range of other public safety users There are 300,000 frontline emergency service users who will depend on ESN, using handheld devices or operating equipment across 50,000 vehicles, 115 aircraft and 200 control rooms.

The strategic aim of the emergency services mobile communications programme (ESMCP) is to deliver a much better voice and data service to the emergency services. It will replace the reliable but limited and ageing Airwave Tetra system.



ESN will transform emergency services' mobile working, especially in remote areas and at times of network congestion. It will create a single platform for sharing data and imagery and enable faster adoption of successful mobile applications.

ESN represents cutting edge technology and will be the future platform for communications in the emergency services. Delivering this world leading network has presented some challenges as the UK will be the first country to deliver LTE Mission Critical functionality on a national scale.

**SPEAKER: CHRIS LUCAS,  
VP BAPCO**

Chris is one of the Vice Presidents of British APCO. He is currently the Ambulance Senior for the National Health Services (NHS) Ambulance Radio Programme (ARP). ARP delivers both the current Airwave Tetra service to the English NHS Ambulance Trusts and is supporting the delivery of the Emergency Services Mobile Communications Programme (ESMCP) and related procurements to ensure an end to end service providing critical voice and data communications. He has been heavily involved in assuring operational communications best practice in Ambulance Trusts. He is the current chair of the UKs

Emergency Services Airwave User Group (ESAUG) and represents the UK on the European Public Safety Radio Group (PSRG).

**3:30 PM – 4:30 PM**

**ROOM: 506/507**

**Sustainable Dispatch;  
PSAP Facility Design &  
Engineering - Part 2 of 2**

This session is about the design and engineering required for a sustainable PSAP. Most published materials concerned with sustainable PSAP's are focused around the technology, routing, call-taking, and deployment of resources. This session will cover the "bricks-and-mortar" issues for a sustainable facility; location, survivability, hardened concepts, electrical, HVAC, lighting, layouts, workflows, sustainability, adaptability, cost issues, procurements, and project scheduling. There will be a checklist for review of existing facilities as well as criteria for new facility development. The session will review real-world PSAP designs including remodeling existing facilities and "ground-up" new structures. This is a 2-hour session due to the complexity of the materials involved.

**SPEAKER: TERRY BURNWORTH**

Terry is an architect and owner of Pyramid Consulting. Terry has been involved in hundreds of control center-PSAP consolidations and procurements. He has presented at APCO international, APCO Canada, various State APCO's, and IWCE on public safety communication (PSC) procurement methodologies. Before starting his own AE + Consulting firm, Terry was an instructor and professor at two universities. Terry has a BS in psychology, BArch, and MS. In his limited spare time, Terry owns a farm that has become a zoo with over sixty assorted and unique animals. n Marketing Management from the Northern Alberta Institute. of Technology in Edmonton, Alberta.



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7:00 - 8:00	Registration & Breakfast SPONSORED BY HEXAGON SAFETY & INFRASTRUCTURE	BALLROOM LEVEL/ BALLROOM B1
8:00 - 9:00	KEYNOTE SPEAKER - DR. GREG WELLS SPONSORED BY BELL	BALLROOM B1
9:00 - 10:00	APCO 2019 ANNUAL GENERAL MEETING	BALLROOM B1
10:00 - 11:00	BEYOND LOCATION: TRENDS IN ADDITIONAL EMERGENCY DATA: JEFF ROBERTSON	ROOM 501
	ASSURING PUBLIC SAFETY COMMUNICATIONS: SUPPORTING THE EFFORT TO VERIFY INDOOR NETWORK PERFORMANCE: DAVID ADAMS	ROOM 502
	HOW THE EMERGENCY SERVICES IN THE UK ARE USING WHAT3WORDS TO GET ACCURATE LOCATIONS FOR INCIDENTS: GEORDIE PALMER	ROOM 503
	STATE OF INTEROPERABILITY IN CANADA & CHANGES TO ICS COMMUNICATIONS STRUCTURE: CRAIG MAREK & RONALD E. WILLISCROFT, ENP, COMLT(T)	ROOM 504
	REVOLUTIONIZING PUBLIC SAFETY RECRUITMENT AND TRAINING BY LEVERAGING OUR PEOPLE: CARLY TAYLOR & COLIN BRITAIN	ROOM 506/507
11:00 - 12:30	REFRESHMENT BREAK & LUNCH TO GO	BALLROOM LEVEL
11:30 - 1:00	TECHNICAL TOUR - INTERTALK	Meet at the HCC for Bus Pick Up: Grafton Street/ Rogers Square
12:30 - 2:15	JOINT EMERGENCY OPERATIONS CENTRE TOUR	Meet at the HCC for Bus Pick Up: Grafton Street/ Rogers Square



## SESSION DETAILS

8:00 AM – 9:00 AM  
ROOM: BALLROOM B1  
AGM

JOIN US FOR BREAKFAST AT  
THE APCO CANADA AGM!

The APCO Canada Annual General Meeting will be held on Thursday, November 7th

Join your peers and the APCO Canada Board to hear the latest updates and contribute to meaningful conversation about our industry and your association.

8:00 AM – 9:00 AM  
Dr. Greg Wells

10:00 AM – 11:00 AM  
ROOM: 501

### Beyond Location: Trends in Additional Emergency Data

Over the past year, thousands of ECCs have begun taking advantage of more accurate caller location and additional data during 9-1-1 calls. By receiving real-time information from connected devices and medical databases, public safety agencies have the opportunity to provide data-driven, personalized emergency response. This session will share how public safety leaders across the country are approaching life-saving data sources beyond caller location. This session looks at how ECC managers, supervisors and telecommunicators can utilize data from sources such as Apple, Google, Uber, and MedicAlert to enhance emergency response. 9-1-1 professionals will leave with a clearer understanding of how to receive, train and utilize this life-saving data.

### SPEAKER: JEFF ROBERTSON

Jeff has spent over 19 years in the public safety industry, both in the field as a first responder and as a leader of technology providers serving the 9-1-1 community.

Most recently, Jeff served as the CEO of the Airbus DS Communications 9-1-1 business, leading the effort to provide thousands of public safety answering points (PSAPs) across the country with next-generation 9-1-1 technology. Jeff originally entered Public Safety as an Aux. Constable with the Peel Regional Police. He subsequently served the citizens of Jackson County, Alabama as a reserve Deputy Sheriff.

10:00 AM – 11:00 AM  
ROOM: 502

### Assuring Public Safety Communications: Supporting the Effort to Verify Indoor Network Performance

Demands for assuring Public Safety “in building” network coverage is growing rapidly. The leading PS agencies have strict requirements for testing and demonstrating satisfactory performance. New cost-effective tools are required to enable organizations to meet these requirements.

### SPEAKER: DAVID ADAMS

His Career had focused on solutions for Service Quality and Performance Management of Mobile Networks. Working closely with the leading US mobile operators to understand their unique needs and requirements led to the creation of patented concepts and approaches. As solutions architect and product manager, I managed the design and deployment of a number of ground breaking solutions, continuing close cooperation with the operators to determine effective application of the solutions, thus driving high penetration rates of the solutions across the industry.

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Recent concentration has been on the Public Safety Networks, both legacy P25 and FirstNet LTE technologies. The critical nature of properly performing service to first responders means test solution in new and more rigorous requirements. A special focus is on in building coverage and performance, delivering a cost effective solution to ensure buildings comply with national and AHJ standards.

10:00 AM – 11:00 AM  
ROOM: 503

### How the emergency services in the UK are using what3words to get accurate locations for incidents

what3words has assigned every 3m square on the planet a unique 3 word address to give members of the public a very simple way to communicate a precise location. So rather than having to read out a long string of GPS coordinates, you can simply say ///fixated.spring.vouch and that will uniquely describe a 3m square in the middle of Long Lake Park in Nova Scotia. In the UK, over 70 Fire, Police, Ambulance and Coastguard services are using and promoting the free what3words app to be able to share and receive the exact location of incidents as quickly as possible. The

session will present a variety of case studies in the UK, on everything from how what3words has been used to coordinate police search operations to find missing or vulnerable people, to get the precise location off a family trapped in a shipping container, and share locations between multiple different emergency services all responding to the same incident.

**SPEAKER: GEORDIE PALMER  
BUSINESS DEVELOPMENT  
DIRECTOR**

Prior to what3words, Geordie founded and sold a travel tech company. He joined what3words and lead their international expansion into Mongolia and South Africa. As Business Development Director he is responsible for partnerships in the emergency services sector.

10:00 AM – 11:00 AM  
ROOM: 504

### State of Interoperability in Canada & Changes to ICS Communications Structure

This session will provide the attendees with an oversight on both Inter-provincial and Cross Border Interoperability in Canada, review available frequency and interoperability allocations and current Industry Science and Economic Development Canada enabling regulations (handouts will be provided).

References to current ongoing Interoperability working groups will also be highlighted and provided. We will also review current Incident Command System structure as it applies to the Communications Unit and review proposed changes, discuss potential impacts and outline issues affecting Communications Unit training in Canada.

We hope to start an ongoing dialogue on ICS Communications and Interoperability in general, how it applies to the Emergency Telecommunicator and support staff and look at future opportunities for education and growth across Canada.

**SPEAKER: CRAIG MAREK &  
RONALD E. WILLISCROFT,  
ENP, COML(T)**

Craig Marek - Craig has worked through the last 35 years of rapid growth of EMS in Ontario. Starting as a Paramedic he kept close to the change process accepting a Leadership role in 1992. The portfolio expanded to include Emergency Communications, building a regional Fire/EMS Centre that services 70,000 square miles of Northwestern Ontario and borders Minnesota for almost 200 miles. Projects include Public Safety Radio Network (Ontario), Quality Assurance/Audit, Leadership development.

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tRonald E. Williscroft - Currently working with the City of Winnipeg Fire Paramedic Service Communications Branch, Ron started his emergency services career in the mid 1980's as a search and rescue volunteer in Ontario. Trained in Communications Technology at the National Radio Institute, Ron has worked as a Sr. Field Technician, Subject Matter Expert and Systems Trainer in telecommunications with Bell Cellular, Motorola, Unitel and AT&T. Moving to Manitoba in 1989; he worked as a Paramedic in North Eastman and Interlake Regional Health Authorities.

Ron is an NFPA/IFSTA certified Emergency Services Instructor, Emergency Telecommunications Course Master Instructor, ED-Q and graduate of the Communications Centre Manager program with Fitch & Associates/IAED. Ron is also an active member of NENA, CITIG, and The Canadian NG9-1-1 Coalition. He is currently a co-chair of the CRTC-ESWG TIF91 Working Group on NG9-1-1 Additional Data. His hobbies include being an active Amateur Radio operator and a volunteer in government with the Province of Manitoba and within his home community.

10:00 AM – 11:00 AM

ROOM: 506/507

### Revolutionizing Public Safety Recruitment and Training by Leveraging our People

Using a data driven approach to understand key success factors and imbedding them into the hiring and training process. Utilizing a "strength" based approach that focuses on leveraging the strengths of new hires and incorporating a student lead approach vs a facilitator approach.

We will share our learnings from how we; obtained clarity on what we need from soft skills, competency and knowledge. We obtained clarity on what we need and we help people identify with who they are with a view to "screen in" vs screen out". We revamped our call taker learning program with a view to providing "foundational" training and enhanced training. We leveraged mentoring, creating a pilot program, we will share our learnings and next steps.

**SPEAKER: COLIN BRITTAIN  
& CARLY TAYLOR**

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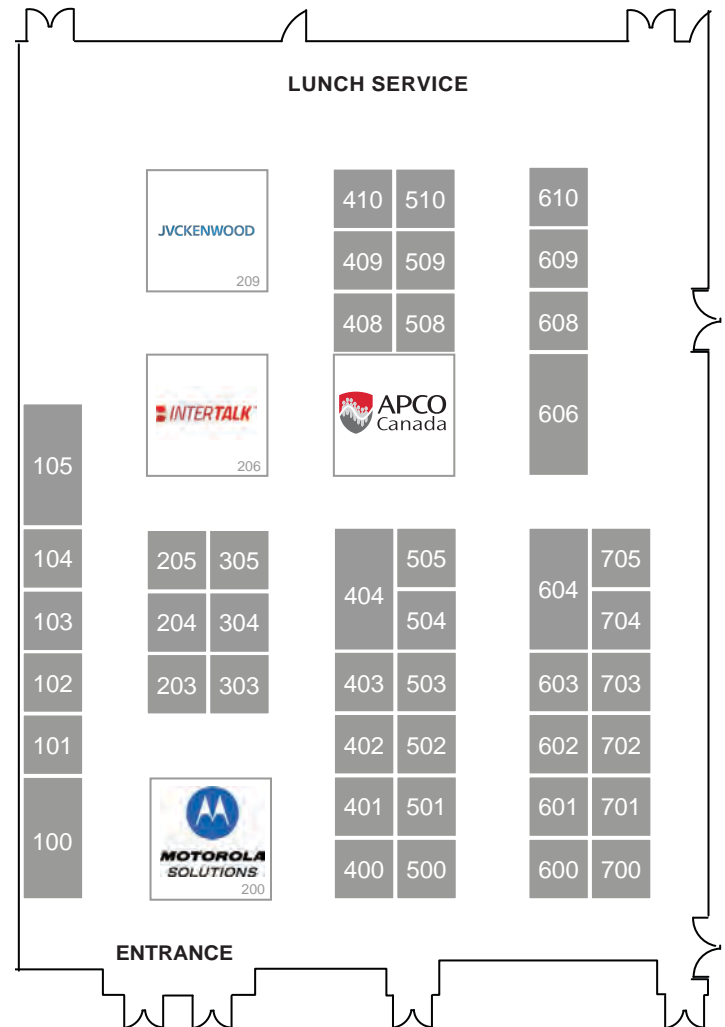
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