**ISS World Americas** is the world's largest gathering of North American Law Enforcement, Intelligence and Homeland Security Analysts as well as Telecom Operators responsible for lawful interception, Hi-Tech Electronic Investigations, Big Data Analytics and Network Intelligence Gathering.

ISS World Programs present the methodologies and tools for Law Enforcement, Public Safety and Government Intelligence Communities in the fight against drug trafficking, cyber money laundering, human trafficking, terrorism and other criminal activities conducted over today's telecommunications network and the Internet.
Track 1: ISS for Lawful Interception and Criminal Investigations
Track 2: ISS for Big Data Analytics and Massive IP Intercept
Track 3: ISS for Social Network Monitoring and Intelligence Gathering
Track 4: ISS for Mobile Location, Surveillance and Intercept
Track 5: New ISS Business and Government Funding Opportunities
Track 6: Encrypted Traffic Monitoring and IT Intrusion Product Training
Track 7: LEA and Intelligence Analyst Training and Product Demonstrations

Pre-Conference Training Seminars (Wednesday, 10 October 2012)
Presented by Charles Cohen, **Cohen Training and Consulting, LLC**
Charles Cohen also holds the position of Commander, Special Investigations and Criminal Intelligence, **Indiana State Police**

8:30-9:30: Session 1 of 6
**What Investigators & Analysts Need to Know about Online Social Media.**

9:45-10:45: Session 2 of 6
**OSINT and Criminal Investigations**

11:00-12:00: Session 3 of 6
**Successful Use of Online Social Media in Criminal Investigations**

1:00-2:00: Session 4 of 6
**Counterintelligence & Liabilities Involving Online Social Media**

2:15-3:15: Session 5 of 6
**Facebook: Tools, Tricks, & Techniques Investigators Need to Know**

3:30-4:30: Session 6 of 6
**What Investigators Need to Know about Hiding on the Internet**

**Seminar #2**
8:30-4:30

**Introduction to Audio, Video and GPS Surveillance: Equipment, Tactics and Management**

Presented by James Deater, President, **T3TECHSYSTEMS**, Joseph Messinese Jr., Training Manager, **T3TECHSYSTEMS**. James Deater and Joseph Messinese Jr. are also officers with the **Maryland State Police, USA**.

This one day course will be an introduction to Audio, Video and GPS Surveillance: Equipment, Tactics and Management. Audio Interception investigations and Electronic Surveillance is comprised of highly advanced investigative techniques/tools used by law enforcement and intelligence agencies throughout
the United States and abroad. These extremely valuable tools are often not used due to misconceptions and lack of understanding. This one-day course will demonstrate the basics for law enforcement/intelligence agencies to overcome the fears of utilizing Electronic Surveillance Equipment such as audio interception equipment, pole cameras, ground base camera systems, covert video, thermal cameras, GPS tracking devices, new body wire technology, audio bugging devices and much more to further investigations and intelligence gathering like never before.

08:30-09:30

Camera Systems
09:45-10:45

GPS Tracking
11:00-12:00

Wireless Technology Considerations
1:00-2:00

Wiretap Technologies, Audio Collection
2:15-3:15

Body Wires and Audio Bugging Devices
3:30-4:30

Management of Intelligence and Other Surveillance Options
( The T3TECHSYSTEMS Seminar is for law enforcement and other government attendees only)

Seminar #3
11:00-12:00

The Dark Side of the Internet - The Hidden TOR and I2P and How they Function

Presented by: Ross Bowerman, Detective Sergeant, Scottish Police College, UK
Seminar #4
1:00-3:15

**Smartphone Application Challenges Encountered and Opportunities Presented to Law Enforcement**

Presented by: *Michael Williamson, Detective Sergeant, Special Operations Division, Scottish Police College, UK*

A users overview of Smartphone applications, what they can do, implications, challenges and opportunities for law enforcement in obtaining results and coordinating our response to the overwhelming new apps appearing daily.

Seminar #5
8:30-4:30

**Understanding ISS Technologies and Products Deployed in Telecommunications Networks and Monitoring Centers for Law Enforcement and Intelligence Analysis**

Presented by: *Dr. Jerry Lucas, President, TeleStrategies*

This one day pre-conference seminar covers the spectrum of ISS Technologies and Products deployed in today's fixed wire, mobile wireless and Internet Service Provider networks and LEA Monitoring and Intelligence Gathering Centers. This all day seminar is ideal for those law enforcement, public safety and intelligence analysts who need an understanding of the ISS technologies to be discussed in the conference sessions and the ISS products displayed at the exhibit hall as well as an understanding of the buzz words and jargon used by telecom operator engineers and their vendors.

08:30-10:45

*Introduction to Telecom Infrastructure, Interception Architectures and ISS Products*
11:00-2:00
Understanding Mobile Wireless Infrastructure, Interception and Related ISS Products
2:15-4:30
Understanding the Internet, Interception and Related ISS Products

Seminar #6
8:30-4:30

Advanced IP Intercept Training

Presented by: Hendrik Schulze, President & CTO, ipoque
08:30-10:45
Understanding TCP/IP for Packet Sniffing and Traffic Analysis
11:00-2:00
Deep Packet Inspection (DPI) Basics for LEA’s, Intelligence Analysts and Telecom Operators
2:15-4:30
Basics of IP Application Decoding

Seminar #7
3:30-4:30

Call Detail Records Analysis and Mapping for Criminal Investigators

Brent Bailey, Director, Cellular Data Resources, LLC
Cell Detail Records are the non-voice records of each call a mobile places or receives. This data can provide a wealth of potential evidence. In this session we will analyze and map a set of CDR's using commonly available software to look for evidence of motive, opportunity or guilt.
Big Data Analytics For Entity Based Representations: Detecting Networks, Connections, and Correlations

Christopher Westphal, CEO, Visual Analytics

(Full Pre-Conference Seminar Agenda Appears After Track 7)

Thursday, October 11, 2012

Welcoming Remarks

8:15-8:30 Tatiana Lucas, ISS World Program Director, TeleStrategies

ISS World Keynote Addresses

8:30-9:00 Top Ten Internet Challenges Facing Law Enforcement and the Intelligence Community and Who at ISS World America has Solutions
Dr. Jerry Lucas, President, TeleStrategies

ISS World Americas Exhibits

October 11, 2012, 10:00 a.m. - 5:00 p.m.
October 12, 2012, 9:30 a.m. - 12:30 p.m.
Track 1: ISS for Lawful Interception

This track is for Telecom Operators and Law Enforcement/Intelligence/Defense Analysts who are responsible for specifying or developing lawful intercept network infrastructure.

Thursday, October 11, 2012

9:00-9:30 Managing a Law Enforcement Relations
Ray Green, Managing Director, Focus Data Services

11:00-11:30 Latest Lawful Interception Technologies for Service Provider Compliance
Presenter TBD, Verint Systems

11:30-12:00 Scaling DPI, LI and Network Security Solutions to 40 Gbps and Beyond
Daniel Proch, Director of Product Management, Netronome

13:30-14:00 Session SIGINT for SONET/SDH/OTN
A Jesse Price, NetQuest

13:30-14:00 Session Discover how Nuance Public Security Solutions Help Government Deliver the Security that Citizens Require and Deserve
B Brett Beranek, Solutions Marketing Manager, Nuance

14:00-14:30 Session FoCC: Filtering of Communication Content
A Rudolf Winschuh, Partner Sales Manager, Utimaco LIMS

14:00-14:30 Session Crime and CDR Analysis - finding Needles in a Billion haystacks - Lessons from the Indian Subcontinent
B Samir Datt, Director – Digital Investigations, Foundation Futuristic Technologies Ltd.

15:00-16:00 Session Programmable DPI engine for active monitoring of control plain
A Michael Sukhar, CEO, Linkbit, Inc.

15:00-16:00 Session Recent Developments and Ongoing Work in US CALEA Standards
B Dr. Glen Myers, CTO, Subsentio, and Chairman, ATIS Subcommittee on Lawfully Authorized Electronic Surveillance
Friday, October 12, 2012

8:30-9:30 Session A  An Inexpensive, Highly-Integrated Solution for Broadband and VoIP Intercepts  
Dr. Glen Myers, CTO, Subsentio  
(LEA and Government Attendees only)

8:30-9:30 Session B  Cloud Lawful Interception and Retained Data Standards Update  
Tony Rutkowski, Yaanatech

10:30-11:30  The Dark Side of the Internet - The Hidden TOR and I2P and How they Function  
Ross Bowerman, Detective Sergeant, Scottish Police College

11:45-12:45 Session A  Nationwide Monitoring Centers in the IP & Mobile Applications Era  
Sharon Rousso, Product Manager, Communications & Cyber Intelligence Solutions, Verint Systems  
(LEA and Government Attendees only)

11:45-12:45 Session B  Smartphone Application Challenges Encountered and Opportunities Presented to Law Enforcement  
Michael Williamson, Detective Sergeant, Special Operations Division, Scottish Police College, UK

Track 2: ISS for Big Data Analytics and Massive IP Intercept

This track is for Intelligence Analysts and Law Enforcement agents who have to “connect the dots” between people, places and other entities by searching through massive amounts of unstructured data from various sources using visual analytics, semantic technologies, data mining, OSINT and other intelligence gathering tools and techniques

Thursday, October 11, 2012

9:00-9:30  Big Data Analytics – Turning massive data sets into critical Intel  
Dave Fellinger, VP, DataDirect Networks
9:30-10:00  Deep Information Inspection – Understanding the Context of Information Embedded in Captured Network Traffic  
Dave Gruber, Vice President – Engineering, Cybertap

11:00-11:30  Reconstructing Suspect Movement through Data Fusion  
Curtis Garton, Oculus Info Inc.

11:00-12:00  Integrating Unmanned Aerial Vehicles and Motion Imagery Analysis into Law Enforcement Operations  
Dr. Robert Tomes and Rachel Stones, BAE Systems

13:30-14:00  Harvesting Big Data from the Deep Web for Analytics  
Learn about the three steps critical in creating “new Intelligence” - Finding, Harvesting and Curating.  
Steve Pederson, CEO, BrightPlanet Corporation

14:00-14:30  ISS Information Assurance – mitigating risk to your critical Intel through every phase of data capture, analysis, storage, and sharing.  
Dave Fellinger, VP, DataDirect Networks

13:30-14:30  The Pivotal Role Open Source Technology Plays in Today’s Analytics Revolution  
Stephen Arnold, Arnold IT

15:00-15:30  Outsmart Big Data: Identify, Extract and Structure Entities and Relations for Intelligence  
Bryan Bell, Vice President, Enterprise Solutions, Expert System

15:00-16:00  Big Data for Network Activity: Powering Effective Cyber Operations and Cyber Intelligence  
Keith Rhodes, Head of Product Management, Cyber Systems, ISC8  
(LEA and Government attendees only)

Track 3: ISS for Social Network Monitoring and Investigations

This track is for Law Enforcement, Intelligence and Public Safety Authorities who are responsible for cyber investigations, monitoring, analysis and creating actionable intelligence from today’s social networks including Facebook and Twitter. Note some of these sessions denoted by “LEA and Intel Only” are only open to Law Enforcement, Public Safety and the Government Intelligence Community.
Thursday, October 11, 2012

9:00-10:00 Session A  Gathering Intelligence in Preparation for High Profile Events: Super Bowl 2012 Case Study  
Charles Cohen, Cohen Training and Consulting, LLC

9:00-9:30 Session B  Open Source Intelligence Revealed - Top Use Cases of Leading OSINT Solutions  
Andrew Lasko, Technical Alliance Manager, Kapow Software

9:30-10:00 Session B  OSINT Made Easy: A Live Demo on How to Tackle Unstructured Data  
Gian Piero Oggero, Director Strategic Accounts EMEA, Expert System

11:00-11:30 Session A  Social Media Monitoring for Law Enforcement  
A new tool designed to track, monitor, geo locate and alert on the “bad guys”  
Steve Pederson, CEO, BrightPlanet Corporation

11:30-12:00 Session A  Codename: Da Vinci. Attack, control and gather intelligence from personal devices.  
David Vincenzetti, Partner, Hacking Team

11:00-12:00 Session B  Exciting or Catastrophic changes in Communications: A Law enforcement perspective

Moderator:
Pamela Warren, Director Solutions. SS8

Panel:
Charles Cohen, Cohen Training and Consulting
Charles Cohen also holds the position of Commander, Special Investigations and Criminal Intelligence, Indiana State Police

James Emerson, VP Anti-Piracy /Fraud/ Counterfeiting Service at ICG, Inc.
James Emerson is also Chair, IACP Computer Crime and Digital Evidence Committee

Glenn Fueston, Program Manager, Investigative Support Center, WB/HIDTA

15:00-15:30  Middle East Open Source Intelligence  
Mohamed Elewa, CEO, ARABIA Inform

Friday, October 12, 2012
8:30-9:30 Session A  Content Injection to Expose Persons of Interest: A Case Study and Training Session  
Stephen E. Arnold,  *Arnold IT*

8:30-9:30 Session B  Open Source Web Intelligence Concepts and Methodologies  
Natan Bandler, Director, Product Management, Open Source Web Intelligence, Communications & Cyber Intelligence,  *Verint Systems*  
(LEA and Government attendees only)

10:30-11:00 Session A  Perceptions and Misperceptions between the Middle East & West  
Jan Diggs,  *ARABIA Inform*

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**Track 4: ISS for Mobile Location, Surveillance and Intercept**

This track is for Law Enforcement, Interior Security and the Intelligence Community Authorities who must work with cellular and mobile satellite operators regarding mobile location, surveillance and intercept as well as analysis of mass geo-location data.

**Thursday, October 11, 2012**

9:00-9:30 Session A  Active, Passive and Hybrid GSM & 3G Monitoring Systems. Practical solutions.  
*NeoSoft AG* Speaker to be Announced

9:30-10:00 Session A  Tactical GSM & 3G off-the-air Intercept and Location Tracking  
Elan Sharon, Chief Sales, Marketing & Operations Officer,  *Septier Communications*

9:00-10:00 Session B  High Accuracy - Cost Effective Location Intelligence Technologies  
Jack Zeitune, Product Manager, Communications & Cyber Intelligence Solutions,  *Verint Systems*  
(LEA and Government attendees only)

11:00-12:00  Cellular Tracking and Localization. Vehicle based and Portable solutions.  
*NeoSoft AG* Speaker to be Announced  
(LEA and Government attendee only)
13:30-14:00  Generating Intelligence from end-to-end Mass and Satellite Interception Solutions  
Monique Lance, Marketing Manager, Communications & Cyber Intelligence Solutions, Verint Systems  
(LEA and Government attendee only)  

14:00-14:30  Tactical Intelligence in Action  
Monique Lance, Marketing Manager, Communications & Cyber Intelligence Solutions, Verint Systems  
(LEA and Government attendees Only)  

Friday, October 12, 2012  

Gunter Knall, Technical Project Manager, Neosoft AG  
(LEA and Government attendees only)  

Track 5: New ISS Business and Government Funding Opportunities  
This track is for ISS Vendors who want to understand how to market the Federal Law Enforcement Agencies and Intelligence Organizations and for Local Law Enforcement Agencies who need to understand what federal grants are available for ISS Product funding and how to prepare successful grant applications.  

Thursday, October 11, 2012  

13:30-14:30  Best Practices for Partnering with Large Scale Technology Integrators  
Panel Moderator:  
Geroge Meyers, The Meyers Group  
Panel:
Barbara George, TASC  
Alex Martinez, Lockheed Martin  
Lee Vorthman, NetApp

15:00-16:00  **Best Federal Law Enforcement and Intelligence Community Marketing and Partnering Strategies for ISS Product Vendors**  
*Panel:*  
George Meyers and J. Patrick Enderson, The Meyers Group  
Joe Foley, Foley Federal Government Public Affairs

**Friday, October 12, 2012**

10:30-11:30  **Federal Funding Available to Local Police Departments and Understanding the Grant Application Process**  
Lisa Wiederlight, Program Manager, Public Safety Training and Technical Assistance Program, University of Maryland

11:45-12:45  **US Export Regulations Regarding Communications Intercept Equipment Software and Technology**  
*Moderator:*  
Dr. Glen Myers, CEO, Counterlink  
*Panel:*  
Michael J. Pender, M.S., J.D., Information Technology Controls Division Office of National Security and Technology Transfer Controls, U.S. Dept. of Commerce  
Rick Shimon, Supervisory Special Agent, Enforcement Division, Dept of Commerce  
Roszel C. Thomsen II, Partner, Thomsen and Burke, LLP  
Kay C. Georgi, Partner, Arent Fox, LLP

**Track 6: Encrypted Traffic Monitoring and IT Intrusion Product Training**

This track is only open to Law Enforcement, Public Safety and Government Intelligence Community Attendees
Thursday, October 11, 2012

9:00-10:00  FinFisher - Actively Monitoring Networks, Computers and Mobile Phones  
            MJM, Gamma Group

11:00-12:00  VUPEN Sophisticated Exploits for IT intrusion and Offensive Security  
             Chaouki Bekrar, CEO & Director of Vulnerability Research, VUPEN Security S.A

13:30-14:30  Governmental IT Intrusion: Applied Hacking Techniques used by Governments  
             MJM, Gamma Group

15:00-16:00  Codename: Da Vinci. Stealth data collection. Massive target scalability. And an artificial intelligence engine to adapt to hostile environments.  
             Marco Valleri, Head of R&D, Daniele Milan, Operations Manager, and Alberto Ornaghi, Senior Software Developer, Hacking Team

Friday, October 12, 2012

             Marco Valleri, Head of R&D, Daniele Milan, Operations Manager, and Alberto Ornaghi, Senior Software Developer, Hacking Team

Track 7: LEA, Intelligence and Defense Analyst Training and Product Demonstration Track

This training is only open to Law Enforcement, Public Safety and Government Intelligence Community Attendees.

Thursday, October 11, 2012
9:00-10:00  High Accuracy - Cost Effective Location Intelligence Technologies  
Jack Zeitune, Product Manager, Communications & Cyber Intelligence Solutions, Verint Systems

11:00-12:00  Cellular Tracking and Localization. Vehicle based and Portable solutions.  
NeoSoft AG Speaker to be Announced

13:30-14:00 Session A  Generating Intelligence from end-to-end Mass and Satellite Interception Solutions  
Monique Lance, Marketing Manager, Communications & Cyber Intelligence Solutions, Verint Systems

14:00-14:30 Session A  Tactical Intelligence in Action  
Monique Lance, Marketing Manager, Communications & Cyber Intelligence Solutions, Verint Systems

13:30-14:30 Session B  Massive, usable data or next generation intelligence? New sources and effective intelligence correlation  
SS8 Presenter to be Announced.

15:00-16:00 Session A  Effective reconstruction and correlation of multi-source intelligence  
SS8 presenter to be announced

15:00-16:00 Session B  IMSI/IMEI Catcher. InPoint SMS system – Mass Emergency Notification. Tactical experience, challenges and solutions.  
Gunter Knall, Technical Project Manager, NeoSoft AG

15:00-16:00 Session C  Big Data for Network Activity: Powering Effective Cyber Operations and Cyber Intelligence  
Keith Rhodes, Head of Product Management, Cyber Systems, ISC8

Friday, October 12, 2012

8:30-9:30 Session A  Open Source Web Intelligence Concepts and Methodologies  
Natan Bandler, Director, Product Management, Open Source Web Intelligence, Communications & Cyber Intelligence, Verint Systems

8:30-9:30 Session C  An Inexpensive, Highly-Integrated Solution for Broadband and VoIP Intercepts  
Dr. Glen Myers, CTO, Subsentio

Gunter Knall, Technical Project Manager, NeoSoft AG
Pre-Conference Seminars and Tutorials

Wednesday, October 10, 2012

Pre-Conference Training Seminars

Seminar #1
8:30-4:30

Online Social Media and Internet Investigations

Presented by Charles Cohen, Cohen Training and Consulting, LLC
Charles Cohen also holds the position of Commander, Special Investigations and Criminal Intelligence, Indiana State Police
8:30-9:30: Session 1 of 6
What Investigators & Analysts Need to Know about Online Social Media.
This session is for criminal investigators and intelligence analysts who need to understand the impact of online social networking on how criminals communicate, train, interact with victims, and facilitate their criminality.

9:45-10:45: Session 2 of 6

**OSINT and Criminal Investigations**

Now that the Internet is dominated by Online Social Media, OSINT is a critical component of criminal investigations. This session will demonstrate, through case studies, how OSINT can and should be integrated into traditional criminal investigations.

11:00-12:00: Session 3 of 6

**Successful Use of Online Social Media in Criminal Investigations**

This session is for investigators who need to understand social network communities along with the tools, tricks, and techniques to prevent, track, and solve crimes.

1:00-2:00: Session 4 of 6

**Counterintelligence & Liabilities Involving Online Social Media**

Current and future undercover officers must now face a world in which facial recognition and Internet caching make it possible to locate an online image posted years or decades before. There are risks posed for undercover associated with online social media and online social networking Investigations. This session presents guidelines for dealing with these risks.

2:15-3:15: Session 5 of 6

**Facebook: Tools, Tricks, & Techniques Investigators Need to Know**

While there are over 300 social networking sites on the Internet, Facebook is by far the most populous, with over 800 million profiles. It has roughly the same population as the US and UK combined, making it the third largest country by population. There are over 250 million images and 170 million status updates loaded on Facebook every day. This session will cover topics including Facebook security and account settings, Facebook data retention and interaction with law enforcement, and common fraud schemes involving Facebook.

3:30-4:30: Session 6 of 6

**What Investigators Need to Know about Hiding on the Internet**

Criminal investigators and analysts need to understand how people conceal their identity on the Internet. Technology may be neutral, but the ability to hide ones identity and location on the Internet can be both a challenge and an opportunity. Various methods of hiding ones identity and location while
engaged in activates on the Internet, provides an opportunity for investigators to engage in covert online research while also providing a means for criminals to engage in surreptitious communication in furtherance of nefarious activities. As technologies, such as digital device fingerprinting, emerge as ways to attribute identity this becomes a topic about which every investigator and analyst may become familiar.

**Seminar #2**
8:30-4:30

**Introduction to Audio, Video and GPS Surveillance: Equipment, Tactics and Management**

Presented by James Deater, President, **T3TECHSYSTEMS**, Joseph Messinese Jr., Training Manager, **T3TECHSYSTEMS**. James Deater and Joseph Messinese Jr. are also officers with the **Maryland State Police**, USA.

This one day course will be an introduction to Audio, Video and GPS Surveillance: Equipment, Tactics and Management. Audio Interception investigations and Electronic Surveillance is comprised of highly advanced investigative techniques/tools used by law enforcement and intelligence agencies throughout the United States and abroad. These extremely valuable tools are often not used due to misconceptions and lack of understanding. This one-day course will demonstrate the basics for law enforcement/intelligence agencies to overcome the fears of utilizing Electronic Surveillance Equipment such as audio interception equipment, pole cameras, ground base camera systems, covert video, thermal cameras, GPS tracking devices, new body wire technology, audio bugging devices and much more to further investigations and intelligence gathering like never before.

**08:30-09:30**

**Camera Systems**

Introduction to Miniature Video Surveillance, Covert Video Operational Consideration, Working with IP Video Systems and Transmission Across Internet, Covert Enclosures, Simple Image Only vs. Full Motion Video Systems, Thermal Imaging and Infrared Cameras (FLIR), Pole Mount Cameras and Power Considerations and Motion Sensing Cameras

**09:45-10:45**

**GPS Tracking**
Introduction to GPS Tracking Technologies, GPS Tracking and Device Placement, Integration with Cellular Operator Infrastructure and Operations, GPS Unit Cost Considerations, GPS Geofensing and Geolocation and Monitoring Consideration
11:00-12:00

**Wireless Technology Considerations**
Introduction to Wireless Technologies and Surveillance Considerations, Intelligence Gathering Consideration, Covert Operation and the use of Two Way Radios, Cellular Listening Devices/Audio Bugging Devices: Size and Control and Off Air Monitoring Systems
1:00-2:00

**Wiretap Technologies, Audio Collection**
Introduction to Wiretap Technologies, Audio Collection devices, PEN Registers, Case Management, Recording Media considerations and Audio/Video evidence procedures and considerations
2:15-3:15

**Body Wires and Audio Bugging Devices**
Introduction to Audio/Video Transmitter Considerations – Including New Body Worn Cameras, Covert Operation Consideration, Short vs. Long Range Consideration – Choosing the Correct Technology, Cell Phone Body Wire Considerations – New Technology and Special Accessories for Covert Operations
3:30-4:30

**Management of Intelligence and Other Surveillance Options**

( The T3TECHSYSTEMS Seminar is for law enforcement and other government attendees only)

**Seminar #3**
11:00-12:00
The Dark Side of the Internet - The Hidden TOR and I2P and How they Function

Presented by: Ross Bowerman, Detective Sergeant, Scottish Police College, UK

Seminar #4
1:00-3:15

Smartphone Application Challenges Encountered and Opportunities Presented to Law Enforcement

Presented by: Michael Williamson, Detective Sergeant, Special Operations Division, Scottish Police College, UK
A user overview of Smartphone applications, what they can do, implications, challenges and opportunities for law enforcement in obtaining results and coordinating our response to the overwhelming new apps appearing daily.

Seminar #5
8:30-4:30

Understanding ISS Technologies and Products Deployed in Telecommunications Networks and Monitoring Centers for Law Enforcement and Intelligence Analysis

Presented by: Dr. Jerry Lucas, President, TeleStrategies
This one day pre-conference seminar covers the spectrum of ISS Technologies and Products deployed in today's fixed wire, mobile wireless and Internet Service Provider networks and LEA Monitoring and Intelligence Gathering Centers. This all day seminar is ideal for those law enforcement, public safety
and intelligence analysts who need an understanding of the ISS technologies to be discussed in the conference sessions and the ISS products displayed at the exhibit hall as well as an understanding of the buzz words and jargon used by telecom operator engineers and their vendors.

08:30-10:45

**Introduction to Telecom Infrastructure, Interception Architectures and ISS Products**

What do LEAs need to know about the public switched telecommunications networks, circuit switching, fiber optics, SONET/SDH, Broadband Access (DSL, ADSL, Cable Modems, etc.), billing systems and call detail records, standards for lawful intercept, basic LI elements (access, delivery and collection function), LEA Monitoring Center Functions (call information and call content data collection) and where are ISS products deployed for monitoring and intercept.

11:00-2:00

**Understanding Mobile Wireless Infrastructure, Interception and Related ISS Products**

Infrastructure basics (GSM, GPRS, EDGE, UMTS, HSPA and LTE), Wi-Fi, WiMax and Femtocells, How a cellular call is processed, back office infrastructure, HLR, VLR, Backhaul and PSTN interconnection, data services, SMS, MMS, IM, data services, fixed mobile convergence, Smartphone challenges for LEA, intrusion techniques, gathering Geolocation data, location technologies (A-GPS and RF finger printing) and where are ISS products deployed for monitoring and intercept.

2:15-4:30

**Understanding the Internet, Interception and Related ISS Products**

What Investigators Have To Know about IP call Identifying Information, Radius, DHCP, DNS, etc., Tracking an Internet Address to a Source, Investigations Involving E-Mail, Facebook, Twitter, Skype, Instant Messaging, Chat Rooms and Message Boards, IMS, P2P Networks and Deep Packet Inspection, Big Data Analytics, defeating encryption, emerging IPv6 Challenges and what can be done to address Internet intercept deploying ISS infrastructure and where are ISS products deployed for monitoring and intercept.

Seminar #6

8:30-4:30

**Advanced IP Intercept Training**
Understanding TCP/IP for Packet Sniffing and Traffic Analysis
A brief introduction into network technology and the basics of TCP/IP needed for interception and the impact on proper network analysis. Based on this, the workshop reflects the technical options for LEA's to investigate in networks.

Deep Packet Inspection (DPI) Basics for LEA's, Intelligence Analysts and Telecom Operators
An overview on deep packet inspection technology (DPI) and its basic operations down to the application level. Skype is used as example to show the implications of complex network behavior on DPI.

Basics of IP Application Decoding
From Packets to Structured Data
The workshop is a high-level introduction on building decoder software starting from requirements on an example of software architecture. After an overview of all parts of the introduction the building blocks are elaborated.

Call Detail Records Analysis and Mapping for Criminal Investigators

Brent Bailey, Director, Cellular Data Resources, LLC
Cell Detail Records are the non-voice records of each call a mobile places or receives. This data can provide a wealth of potential evidence. In this session we will analyze and map a set of CDR's using commonly available software to look for evidence of motive, opportunity or guilt.
Seminar #8
1:00-3:00

Big Data Analytics For Entity Based Representations: Detecting Networks, Connections, and Correlations

Christopher Westphal, CEO, Visual Analytics

The goal of many organizations is to find efficient ways to harmonize big data using federated access models to deliver contextual analytics while remaining agile, adaptable, and scalable to aggregate high-quality content. Using a data-centric framework that separates the data from the applications enables organizations to elevate insight, expand knowledge, measure risk, and continually identify opportunities and suspicious entities. This presentation will discuss the use of proactive methods to discover identity-based patterns, trends, anomalies, and inconsistencies in big data such as CDR, LPR, social media, and open-source content to help improve the fundamental analytical processes. Using advanced entity-based representation techniques to represent multiple-dimensions is an effective way to help expose high-value targets. It's not necessarily the size of the data, but in how you use it.