Course ID **VOIP-911** Course Duration **2-3 days**	Course Title **VoIP for 911 Administrators, Managers, Directors, and Regulators**

Related Courses

- Voice Communications and Technologies for 911 Call Takers, Supervisors, and Trainers (Voice-911, 2-3 days)
- 911 for IP Professionals (911-IP, 2-3 days)
- IP, Location and Geo-Location Technologies for Law Enforcement, Intelligence and Public Safety (IPGEOLOC, 2-3 days)
- Unified Communications in Public Safety, Law enforcement, and Homeland Security (UNIFIED, 2-3 days)

Aimed At

911 administrators, managers, directors, board members, board attorneys, and regulators.

Group Size

5-25

Prerequisites

You should have a basic understanding of the operation, regulatory and funding mechanisms for the US 911 system (or the equivalent system for your country).

Course in a Nutshell

The men and women who run United State's 911 emergency calling system were virtually unaware of the existence of a new telephone technology when the first VoIP 911 call failed to arrive at its Public Safety Answering Point. Like cellular wireless before it, the service providers who implemented VoIP did not consider emergency calling a part of the new service and the first call for help from a VoIP subscriber went unanswered. Only then did organizations such as APCO and NENA as well as the FCC and state regulators get involved. Even now, with over a decade of VoIP calls from the public behind us and the number of VoIP emergency calls increasing, 911 administrators, managers, directors, board members, board attorneys and regulators do not have the knowledge they need to properly manage VoIP technology, regulation, and funding. This course, delivered in plain English in an easy to understand manner, is designed to fill that gap.

Customize It!

We can adapt this course to your group's requirements at little to no added cost. While the standard course is specific to the US 911 system, Canadian, Australian and New Zealand versions are also available. With adequate advance notice, it is also possible to tailor this course for other countries.

Course Outline

- Four Public Safety Views of VoIP
    - ° Dark Side: VoIP Calls from the Public
    - ° Bright Side: VoIP in Government Networks
    - ° Funding: Changing Views of 911 Funding
    - ° Regulation: Federal, State and Local

- Dark Side: VoIP Calls from the Public
    - ° VoIP Overview
        - Caller Types: Fixed, Nomadic, Mobile/802.x, Hybrid Cellular/802.x, ALI/ANI/Location Issues
        - Transmission of Human Speech
        - Packet Voice vs Conventional Voice
    - ° 9-1-1 Call Processing
        - Conventional Calls
        - Cellular Calls
        - VoIP Calls: NENA I1, NENA I2, NENA I3
    - ° VoIP Problems/Issues
        - Lack of Hand-offs
        - VoIP is *not* Traditional Telephony, Just Cheaper
        - Inconsistent Call Routing
        - Missing or Inaccurate ANI/ALI
        - Voice Quality Ranges Substantially
        - Misinterpretation of Whispers, Soft Sounds and Background Noise
        - Non-transmission of Whispers, Soft Sounds and Background Noise
        - Misinterpretation of Non-Human Sounds
        - Quality Degradation during Heavy Call Volumes
        - Evidentiary Issues Related to Recordings of VoIP Calls
        - Power Failure and Battery-Backup option, Does Not Work during Power Outages
        - Use of Mobile Wireless VoIP and Location Issues
        - Fraudulent and Misleading Use of VoIP - Bombing and SWATing
        - Lack of Clarity in VoIP Standards
        - Training on IP, VoIP and Related Technologies
        - PSAP Best Practices
        - MSAG and Location Issues
        - Jurisdictional Issues

- Bright Side: VoIP in Government Networks
    - ° Enhance Communication with the Public
    - ° Provide a Wider Range of Services for the Same or a Smaller Budget
    - ° Enhance Communication, Collaboration and Productivity Internally and

with other Agencies
- ° Add Text, Video and Audio to Supplement Voice
- ° Inform a Wider Range of Persons with More Information More Quickly

- Funding: Changing Views of 911 Funding
    - ° PSAP Funding Models
        - ▪ Shrinking Wireline
        - ▪ Cellular/Wireless Fees
        - ▪ VoIP Fees
    - ° VoIP Collections/Remittance Status
    - ° VoIP Remittance Regulations
    - ° Federal and State Funding

- Regulation: Federal, State and Local
    - ° Federal: Federal Law, Federal Orders, Court Orders
    - ° State: State Law, State AG and Other Actions, PUC/PSC Orders, Court Orders
    - ° Local: County, Municipal

- Other Issues
    - ° National Funding
    - ° PSAP Consolidation
    - ° IP-enabled PSAPs

- Conclusion

How You Will Learn

- You will be taught by someone who is an expert on the application of communications technologies to public safety and also a great instructor.
- If you already know something about the subject matter, we will build on that knowledge. If your background is less technical, we will employ examples and analogies to make the technical content easier to understand.
- We will provide you with a Participant Handbook that will help you recall and reference what you learned in class.
- You will also receive a complete library of white papers and articles written by the course developer on this topic.

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