

VoIP Security and Audit: Is that you Watson?

Seminar Focus and Features

This one-day seminar is designed to provide professionals with the information and tools they need to protect their voice over internet protocol (VoIP) networks and traffic. The seminar helps you to understand VoIP threats. It presents a practical framework for developing effective VoIP security and audit programs for organizations of any size. Throughout this seminar, you will see demonstrations and samples of useful resources, services, hacker tricks, security tools, and audit techniques. You will cover security issues associated with the different infrastructure devices. You will learn how to protect your organization from these vulnerabilities and exploits. In addition, you will learn how to evaluate built-in and add-on safeguards for VoIP. Finally, you will learn how to define effective policies for the safe use of VoIP.

Who Should Attend

IT Auditors and Managers, Information Security Managers, Analysts and Administrators; Web, LAN and Network Administrators; Information Technology Planners and Strategists.

What You Will Learn

- A. Introducing VoIP Technology
 - 1. VoIP background
 - 2. Overview of circuit and packet switching
 - 3. VoIP equipment
 - 4. Typical topologies
 - 5. VoIP protocol and standard primer

- D. Understanding Call Control
 - 1. H.323
 - 2. H.245 and H.225
 - 3. IPSec
 - 4. Media Gateway Control (MEGACO)
 - 5. MGCP
 - 6. Session Initiation Protocol (SIP)
 - 7. SIP addressing and session control
 - 8. Real-Time Transport Protocol (RTP)
 - 9. RTP Control Protocol (RTCP)
 - 10. QoS networking protocols

- E. Understanding Voice Encoding Standards
 - 1. Analog/digital data/signal
 - 2. Compression codecs
 - 3. Mean opinion score

- F. VoIP Customer Experience and QoS Issues
 - 1. Jitter and delay in Voice over IP
 - 2. Bandwidth

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3. Echo cancellation
 4. Packet loss
 5. Power failure and backup systems
- G. VoIP Security Issues
1. Identifying the Top 10 Wireless Security vulnerabilities
 2. Theft
 3. Default passwords and accounts
 4. Interference
 5. Spoofing
 6. Passive attacks: packet sniffing
 7. Active attacks: insertion attacks
 8. Man-in-the-middle
 9. Message replay
 10. ARP poisoning and flooding
 11. Spit and phone flu
- H. Understanding VoIP Security Controls
1. Firewalls
 2. NAT
 3. Encryption
 4. Secure Real Time Protocol (SRTP)
- I. Testing Your VoIP Security
1. Probes
 2. Footprinting and scanning your network
 3. Using traffic management tools: Wireless sniffing
 4. Vulnerability testing
 5. Denying service
 6. Other review techniques: SNMP, monitoring MAC tables,

Who Will Present

Peter Davis (CISA, CISSP, CSP, CMA, ISP, CNA, CMC, CCNA, CWNA, CISM, COBIT Foundation Certificate, ITIL Foundation Certificate, Accredited COBIT Trainer, ISSPCS, Accredited CISSP Trainer, PMP) is the Principal of Peter Davis+Associates (www.pdaconsulting.com), a management consulting firm specializing in the security, audit and control of information. Prior to founding PDA, Mr. Davis' private sector experience included stints with two large Canadian banks and a manufacturing company. He was formerly a principal in the Information Systems Audit practice of Ernst & Young. In the public sector, Mr. Davis was Director of Information Systems Audit in the Office of the Provincial Auditor (Ontario). A 28-year information systems audit and security veteran, Mr. Davis' career includes positions as security administrator, security planner, consultant, and information systems auditor.

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Mr. Davis also is the past President and founder of the Toronto ISSA chapter, past Recording Secretary of the ISSA's International Board and past Computer Security Institute Advisory Committee member. In addition, he was a member of the international committee formed to develop Generally Accepted System Security Principles (GSSP). Mr. Davis has written or co-written 10 books including "Hacking Wireless Networks for Dummies," "Wireless Networks for Dummies" and "Securing and Controlling Cisco Routers." Peter is listed in the *International Who's Who of Professionals*. He was the Editor of *EDPACS*, a monthly publication for security and audit professionals. And, Mr. Davis teaches data communications at a college.