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CYBERPHOENIX

Securing VoIP Networks Training

This training focuses on the skills, tools, and knowledge essential for evaluating vulnerabilities and risk while implementing security solutions in a VoIP work environment.

Course Overview

Our 3-day, instructor-led course is aimed at IT professionals responsible for designing, deploying and securing VoIP networks. It will teach you how to:

- Evaluate existing voice services & tools
- Determine capability & bandwidth requirements
- Integrate with the Public Switched Telephone Network (PSTN)
- Adapt legacy phones
- Create a Dial Plan
- Optimize Quality of Service (QoS) mechanisms
- Configure & manage Session Initiation Protocol (SIP)
- Integrate voicemail, email & instant messaging

For group training options, please call us at **(240) 667-7757** or email promo@phoenixts.com.

Course Outline

Introduction to VoIP Security

- The switch leaves the basement
- What is VoIP?
- VoIP Benefits
- Protocols

Asterisk Configuration and Features

- What are we trying to accomplish?
- What functions does a typical PBX perform?
- PBX administration
- Gateway interface
- API
- Dial Plans
- Numbering Plans
- Other functions
- Voicemail and Asterisk PBX
- How is VoIP different from Private Telephone Networks?
- What Functionality is gained?

The Hardware Infrastructure

- Traditional PBX systems
- PBX alternatives
- VoIP Telephony and Infrastructure

PSTN Architecture

- PSTN: What it is and how it works
- PSTN: Signal transmission
- PSTN Call Flow
- PSTN protocol security

H.323 Architecture

- The Primary H.323 VoIP Related Protocols
- H235 Security Mechanisms

SIP Architecture

- Understanding SIP
- SIP Functions and Features
- Instant Messaging and SIMPLE

Other VoIP Communication Architectures

- Skype
- Skype Messaging Sequence
- H.248
- H.248
- IAX
- IAX Messaging Sequence
- MS Live Communication Server 2005

Support Protocols

- DNS Architecture
- Operation
- TFTP
- Implications for TFTP
- DHCP Protocol
- Implication for DHCP
- SDP Operation
- Implication for SDP
- Skinny Specification
- Implications for Skinny

Threats to VoIP Communication

- Denial of Service or VoIP Service Disruption
- Call Hijacking and Interception
- H.323-Specific Attacks
- SIP-Specific Attacks

Validate Existing Security Infrastructure

- Security Policies and Procedures
- Physical Security
- Server Hardening

Confirm User Identity

- 802.1x and 802.1 li (WPA2)
- Authentication Server
- Public Key Infrastructure
- Minor Authenticaion Methods

Active Security Monitoring

- Network Intrusion Detection Systems
- Host-Based Intrusion Detection Systems
- Logging
- Penetration and Vulnerability Testing

Logically Segregate Network Traffic

- VLANs QoS and Traffic Shaping
- NAT and IP Addressing
- Firewalls
- Access Control Lists

IETF Encryption Solutions for VoIP

- Suites from the IETF
- S/MIME: Message Authentication
- TLS: Key Exchange and Signaling Packet Security

Securing VoIP Networks Training FAQs

Who should attend this training?

This course is intended for IT and network professionals with VoIP, TCP/IP, and telephony knowledge and experience.

What is the recommended experience for this training?

Students should have an understanding of networking concepts and technologies, security best practices, familiarity with Windows operating systems, and a CompTIA Network+ or Security+ certifications or hold equivalent experience and knowledge.

Starting at **\$1,750**

ATTENTION

For GSA pricing or Contractor quotes call
[240.667.7757](tel:240.667.7757)



Price Match Guarantee

We'll match any competitor's price quote. Call us at 240-667-7757.

Included in this **Securing VoIP Networks Training**

- 3 days instructor-led training
- Securing VoIP Networks Training training book
- Eligible for MyCAA scholarship
- This course follows the NICE framework
- Notepad, pen and highlighter
- Variety of bagels, fruits, doughnuts and cereal available at the start of class*
- Tea, coffee and soda available throughout the day*
- Freshly baked cookies every afternoon*