

Certified Security Engineer FOR IPv6 (CSE6) Silver

Duration: 4 Days

COURSE DESCRIPTION

Certified Security Engineer for IPv6 (CSE6) Silver course is a specialized training program focused on advanced IPv6 security challenges and solutions. Designed for cybersecurity professionals and network security engineers, this comprehensive course delves into the unique security complexities of IPv6 network infrastructures. Participants will learn cutting-edge techniques for securing IPv6 networks, including threat mitigation, vulnerability assessment, and robust defense strategies specific to next-generation network protocols. Through a blend of theoretical insights and practical hands-on training, students will develop critical skills to protect and defend complex IPv6 network systems. By completing this course, professionals will be fully prepared to obtain the CSE6 Silver certification and become expert security engineers in the evolving landscape of IPv6 networking.

COURSE OUTLINE

1. IPv6 Revisited

- Introduction to IPv6
- Packet Structure & Header Format
- IPv6 Addressing Architecture
- Understanding ICMPv6 & Neighbour Discovery

2. IPv6 Security Issues

- Security Advantages of IPv6 over IPv4
- IPv6 Security- Areas of Concern
- IPv6 Security- Similarities to IPv4 Security
- IPv6 Security- Differences from IPv4 Security
- Threats Countered by SeND

3. IPv6 Security Features

- General Security Concepts
- Encryption- Secret Key Cryptography
- IPSec
- Secure Neighbour Discovery (SeND)
- Cryptographically Generated Addresses (CGA)
- Unique Local Address

4. IPv6 Attacks and Tool Kits

- IPv6 Attacks
- Man in Middle Attacks
- Known ICMPv4 Attacks
- Unique ICMPv4 Attacks
- Unique ICMPv6 Attacks
- IPv6 Hacking Tools

5. Hands-on Lab

- Preparing for the Hands-on Lab
- Initial Setup
- Server Installation
- Server Configuration
- Connecting Kali server to GNS3
- Demonstration of several IPv6 attacks

PREREQUISITES

- A good knowledge of general network security concepts
- Knowledge of IPv4 security

WHO SHOULD ATTEND

Network/Security Architect, IT administrator and Network/IT support technicians