



Description

In this program, learners will explore various network and organizational domain security weaknesses using diverse network hacking strategies. This exploration helps them understand potential vulnerabilities and how to counteract them.

NETWORK SECURITY

Module 1: Advanced Networking

This module explores various attacking frameworks, providing an invaluable perspective on potential cyber threats. This knowledge helps learners to identify and address network vulnerabilities effectively.

Network Security Fundamentals

- Principles of Network Security
- Packet Tracer
- Subnetting

Network Protocols

- DHCP
- SMB, SMB2
- LLMNR
- NBNS

Frameworks

- Enumeration
- Exploitation
- Pass-The-Hash (PTH)

Responder

- Collecting Information
- Cracking Passwords

Module 2: Active Directory

In this module, learners gain a comprehensive understanding of domain setup, including critical domain protocols and how they function. Moreover, it also covers domain events, providing insights into the various activities that can occur within a domain. This knowledge equips learners to manage and secure network domains effectively.

Domain Setup

- Domain Installation
- Domain Services

Domain Protocols

- Kerberos
- LDAP

Domain Events

Module 3: PowerShell

This module focuses on the extensive capabilities of PowerShell in managing a Windows environment. It guides learners through essential PowerShell commands and illustrates methods for efficient enumeration.

PowerShell Commands

- PowerShell Text Manipulation
- PowerShell Event Logs
- PowerShell Enumeration

Module 4: Domain Exploitation

This module begins by scanning techniques to identify vulnerabilities, followed by enumeration methods for further probing. The course then delves into exploitation techniques to leverage these vulnerabilities and finally explores post-exploitation tactics.

Scanning

Enumerating

- Rpcclient

Exploitation

- Msfconsole

- Impacket

- CrackMapExec

Post Exploitation

- Mimikatz

- PSEXEC

- Golden Tickets

Domain Security

Module 5: Cryptography

This module imparts knowledge of encryption techniques used in cybersecurity.

Encryptions

- Classic Encryptions
- Modern Encryptions