



# Enumeration

# Course Topic Overview

- + Servers and Services
- + SMB
- + FTP
- + SSH
- + HTTP
- + SQL

- + Basic network concepts
- + Basic Linux familiarity
- + Footprinting and Scanning

## Prerequisites



## Learning Objectives:

- Students will know purpose of service enumeration.
- Students will identify common services and protocols.
- Students will perform service enumeration on common services and protocols.
- Students will understand process for enumerating unfamiliar protocols and services.





## Servers and Services

What are they?

Why are they important?

What do they mean to  
cyber security?

## **Servers and Services**

# What is a server?



# What is a server?



# What is a server?





# What is a server?



# What is a server?



# Windows



macOS  
Server



Why are they important?



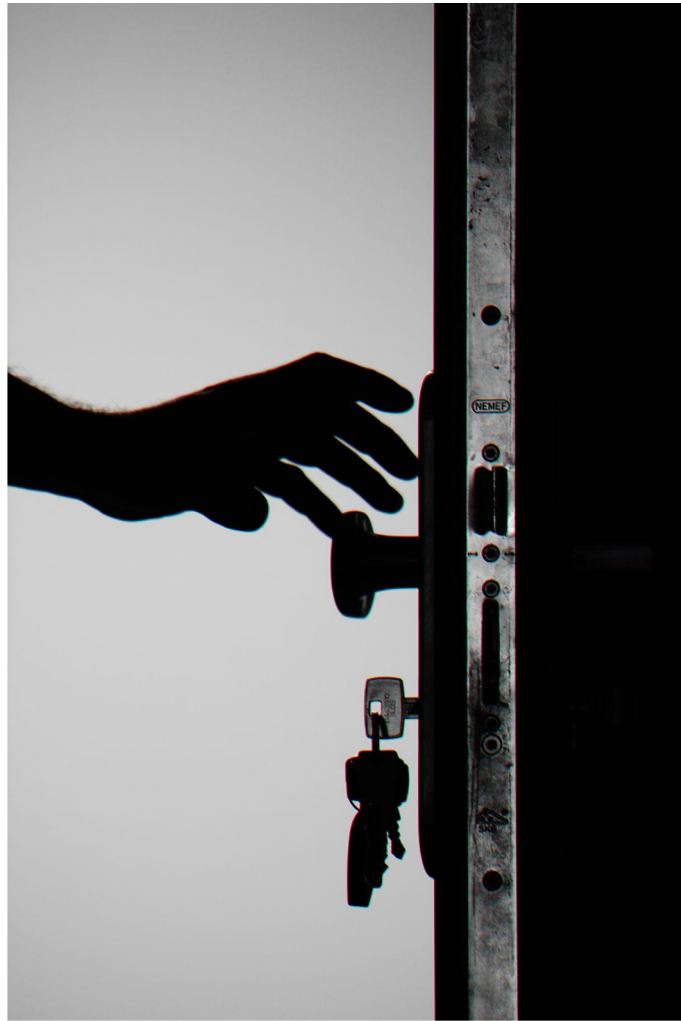
# Openings



## Bugs and Features



I'm in!





**Let's go try it out!**



# SMB

SMB: Windows Discover and Mount



# SMB

SMB: Nmap Scripts





# SMB

SMB: SMBMap



# SMB

SMB: Dictionary Attack





# FTP

Dictionary Attack



# Enumeration

Trailer



# HTTP

Apache



# MSSQL

Metasploit





# Enumeration



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