

NWIT 245 – Defending the Network

Hands-on Labs

Lab 12-VPN

Introduction

In an increasingly interconnected digital landscape, ensuring online privacy and security has become paramount. VPNs serve as powerful tools in safeguarding individuals' and organization's digital footprint by encrypting internet traffic and masking IP addresses. Whether for personal use, professional endeavors, or safeguarding sensitive data of an organization, installing a VPN is a proactive step towards fortifying online security and privacy.

Background

The genesis of VPN technology traces back to the necessity for secure remote access to corporate networks. Initially developed as a means for employees to connect to their workplace networks securely from remote locations, VPNs have since evolved into versatile tools catering to a myriad of needs.

As the internet proliferated and cyber threats burgeoned, individuals and organizations sought ways to fortify their online defenses. VPNs emerged as indispensable allies, offering encrypted tunnels for data transmission, and shielding sensitive information from prying eyes. Consequently, the demand for VPN services began to grow rapidly, prompting the development of a plethora of VPN providers catering to diverse needs and preferences.

Today, VPNs have transcended their original corporate utility, permeating various spheres of digital existence. From anonymizing online activities and circumventing geo-restrictions to enhancing cybersecurity and preserving privacy, VPNs have become ubiquitous companions in navigating the digital realm securely.

Installing a VPN entails a series of straightforward steps, varying slightly depending on the chosen provider and the user's operating system. Remember, you have the option to install and configure any free VPN. Whether opting for established players like OpenVPN, NordVPN, or ExpressVPN, or exploring lesser-known alternatives, the installation process typically involves downloading and configuring the VPN client, selecting preferred settings, and establishing a secure connection to the desired server.

By empowering users with the ability to traverse the internet anonymously and securely, VPN heralds a new era of digital empowerment, where organizations and individuals can navigate the vast expanse of cyberspace with confidence and peace of mind.



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Installing OpenVPN:

1. Download OpenVPN:

- Go to the official OpenVPN website (https://openvpn.net) and navigate to the "Community Downloads" section.
- Select your operating system (Windows, macOS, Linux, etc.) and download the installer.

2. Install OpenVPN:

- Once the download is complete, run the installer.
- Follow the on-screen instructions to complete the installation process.

3. **Download OpenVPN Configuration Files:**

- After installing OpenVPN, you'll need configuration files from your VPN provider.
- Log in to your VPN provider's website and locate the section for OpenVPN configuration files.
- Download the configuration files for the server(s) you want to connect to.

4. Import Configuration Files:

- Launch the OpenVPN client.
- Click on "File" or "Import" and select the downloaded configuration file(s).
- The configuration files will be imported into the OpenVPN client.

5. Connect to VPN:

- Once the configuration files are imported, you can connect to the VPN.
- Click on the server you want to connect to and then click "Connect".
- Enter your VPN username and password if prompted.
- You are now connected to the VPN.

Submission:

Provide a couple of screenshots showing a successful installation and configuration with descriptions.



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