

William Prado
07/15/2025
VPN / Remote Access

SSL vs. SSH

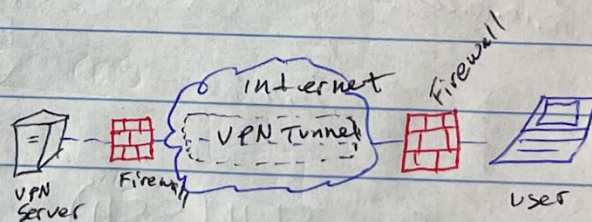
Remote access networking means that the user's device does not make a direct cabled or wireless connection to the network.

Virtual private Network (VPN) setup a secure network inside another network.

- encrypted end to end
- private connection to a remote network
- often called "Tunnel"
- VPN depends on tunneling rule

VPN models

- Client to site
- site to site
- host to host



Sunny Classroom
YTD - Three types of VPN

Transport layer security (TLS) VPN - client connects to the remote access server using digital certificates. The server certificate identifies the VPN gateway to the client.

Internet protocol security (IPsec) - operates at

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* Proton VPN
or
webbrowser SSL/TLS

the network layer of the OSI model (layer 3).

2 core protocols in IPsec - can be applied single or together - depending on the policy:

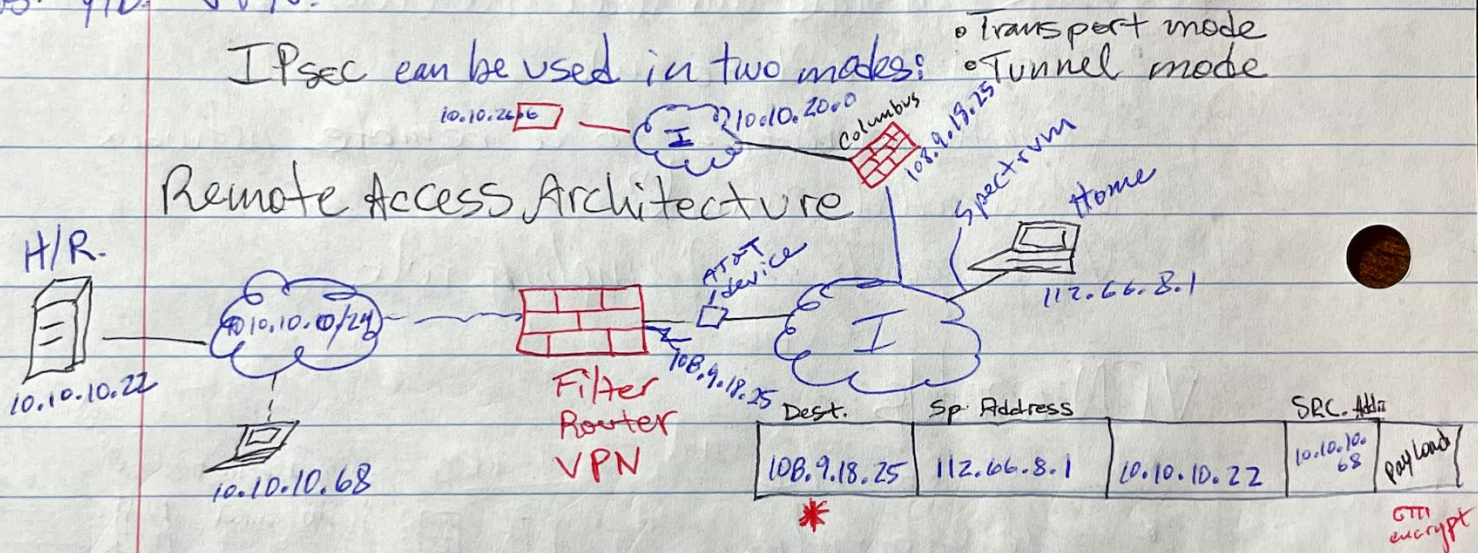
- Authentication Header (AH) - performs a cryptographic hash on the whole packet, including the IP header.
- Encapsulating Security Payload (ESP) - can be used to encrypt the packet rather than simply calculating an ICV.

Power Cert
Videos: YTB.

VPN.

IPsec can be used in two modes:

- Transport mode
- Tunnel mode

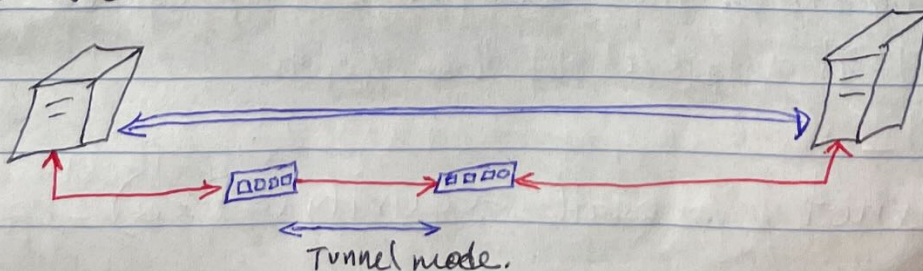


Secure Shell (SSH) - is the principal means of obtaining secure remote access to a command line terminal.

Point to point - chap / mschap.

□ L2TP

□ IKEv2



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VPN's

Tunnel & Encryption

models

client to site
site to site
client to client
commercial

Protocol

PPP

PPTP

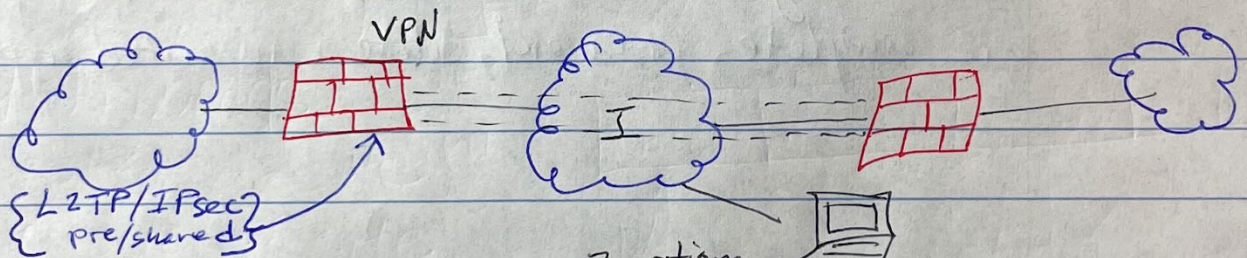
SSTP

~~TLS VPN~~

L2TP / ~~IPsec~~

Ike v2

open VPN
MS SSTP



Cubit Technology

YTB → Remote Desktop Service (RDS) - explained

YTB → Telnet vs SSH Explained

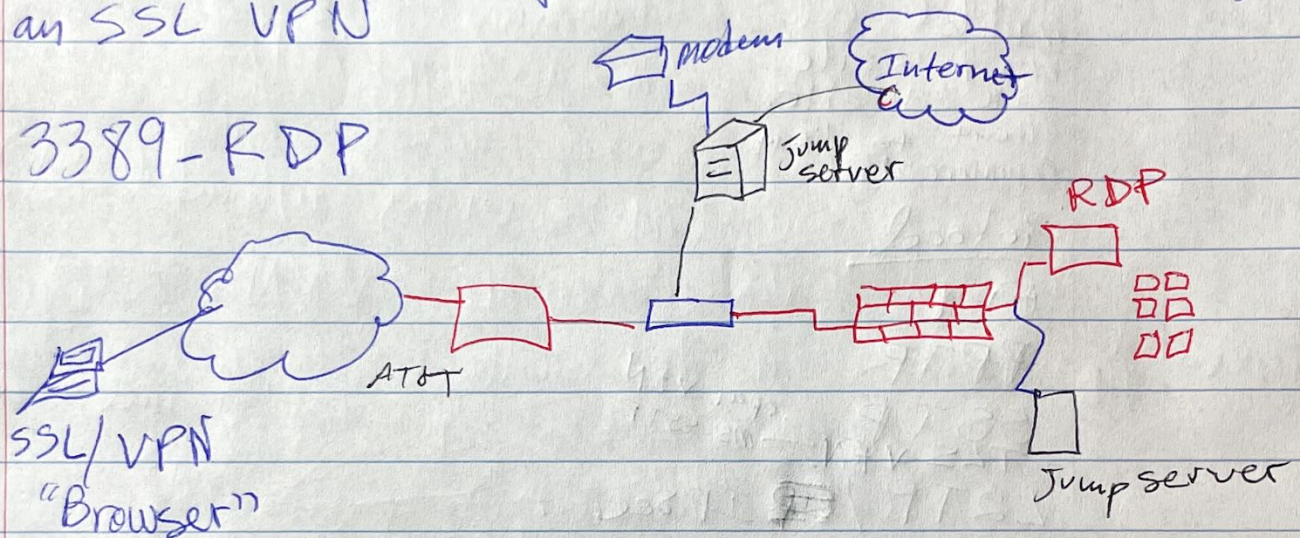
- Note: General Assembly Atlanta - offers workshops & meetups in cybersecurity, data, coding - great for expanding your IT circle.

YTB CCNA Class 1 - Configure a Cisco Switch

YTB - Citrix Jump Server Explained.

Dev. Central
YTB - Remote Desktop Protocol (RDP) using
an SSL VPN

3389-RDP



Hardening - locked down, make sure updates
are complete, password, delete unwanted apps, etc...