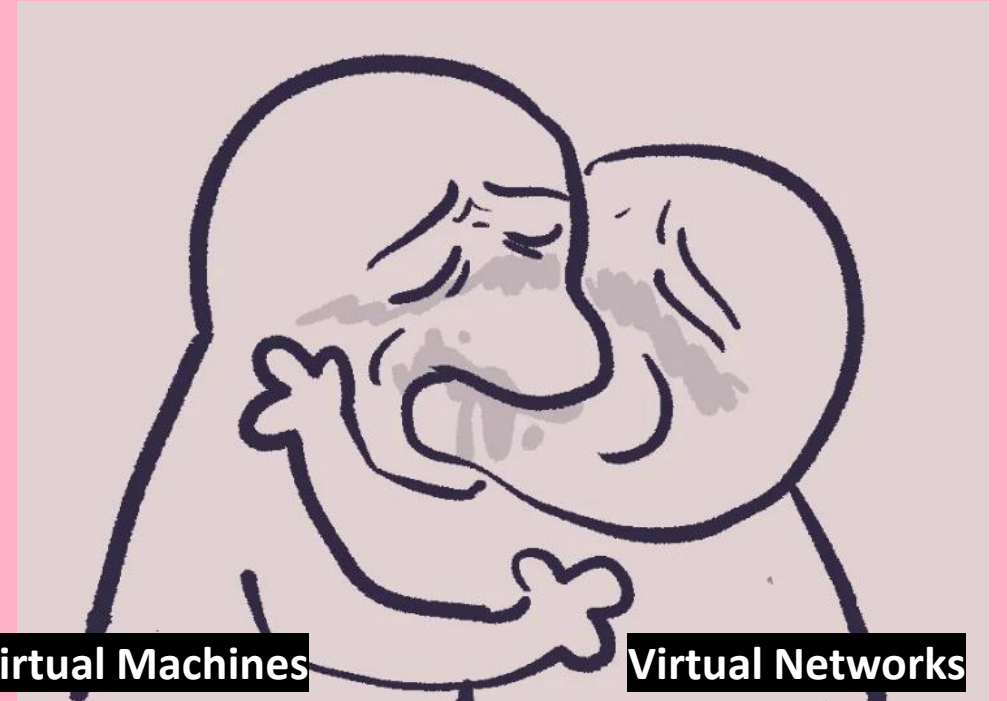




Virtual Networks + Rev Shells



SNITCHES GET STITCHES >:3



Biju Issac



To: floyd.wakefield-wallis; nathalie.coughlan

Mon 10/14/2024 1:57 PM

Cc: Jeyamohan Neera

Hi Floyd and Nathalie,
I hope you are well.

I had feedback from a first NCS student saying even though he liked your session, you could deliver stuff in a more simple manner – not assuming any background knowledge.

I know this can be a challenge – to strike that balance between too simple and too tough. But I hope that helps to know.

Please take some time please you can find email in this we can discuss on cyber linkedIn

Thanks,
Biju

WHO TF SAID THIS?

Please ask questions if needed <3

We Care



All of the guides on Github:

<https://github.com/partiallySecure/CyberClinic>





- . We will not be getting microphones
- . Please read the guides
- . We will try to fill the lessons out more - weren't sure how quick you guys would be
- . Keep us updated with suggestions please - WE LIVE TO PLEASE YOU

We are Disappointed.

What is the name of your first pet?

6 responses

Ant

Would you like my mother's maiden name too?

DROP TABLE;

Puszek

betsy (rip girlie 🍷 🌿)

megatron



Cyber security PowerPoint

PowerPoint template



USER NAME:

• • • • •

PASSWORD:

• • • • •

CLICK



Ethical Hacking (IT)



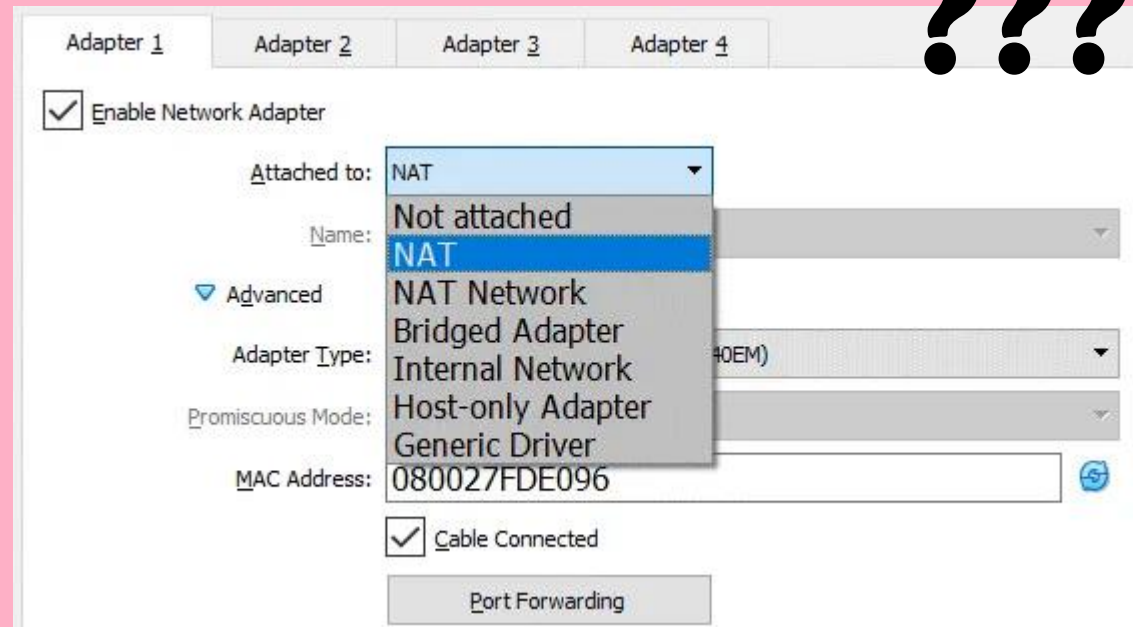
Your Company Name



Why do these exist?????

(AND WHY ARE THERE SO MANY???)

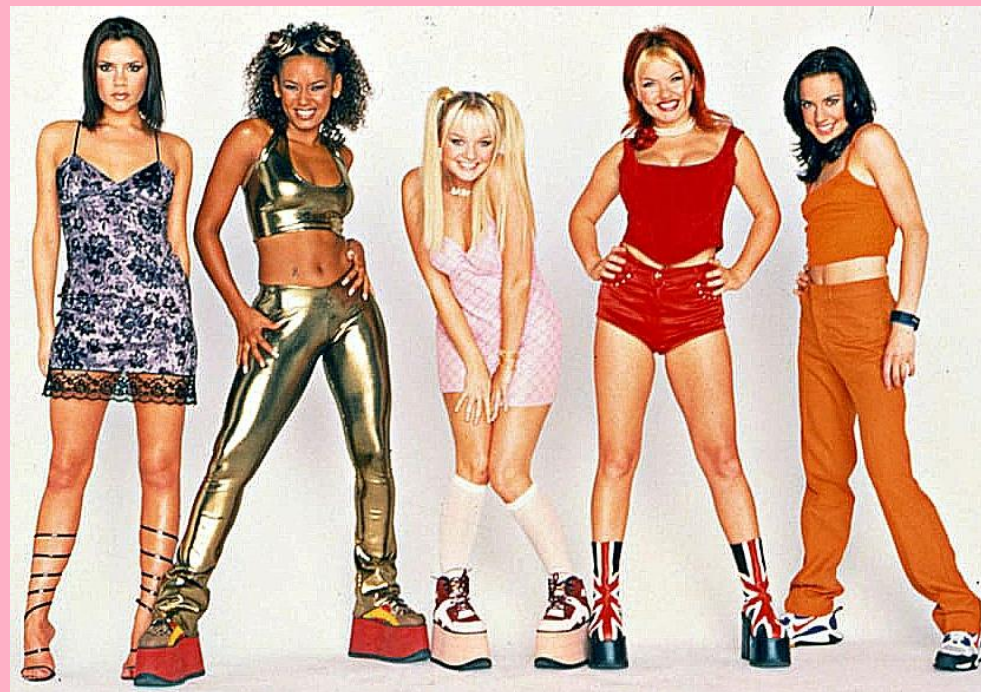
- Virtual Networks simulate a real network (surprising I know)
- Allows for communication between VMs
- Removes the need for expensive hardware costs and maintenance
- Each has a different purpose (I think)



????



THE DIFFERENT FLAVOURS OF NETWORK



NOT ATTACHED



- Basically the virtual network equivalent of unplugging the ethernet cable
- NO NETWORK CONNECTION
- Literally useless because you can just turn off connection on other network types
- F Tier setting

S	
A	
B	
C	
D	
F	Not attached

NAT

(Network Address Translation)



(THE GOAT)

- Default VirtualBox Network Setting
- Allows for communication with the internet
- Operates in a private network and is assigned a virtual IP address
- VM communicates with outside network through the host computer (which acts as a gateway)
- VM is isolated from the external network

S	NAT
A	
B	
C	
D	
F	Not attached

VMs in a NAT network



NAT NETWORK

(yes there is a difference)

- Similar to NAT but provides a shared network between VMs
- VMs connected to the same NAT network can communicate with each other and share resources
- VMs on the NAT network CANNOT communicate with the host OR external networks without additional configuration (so much effort)

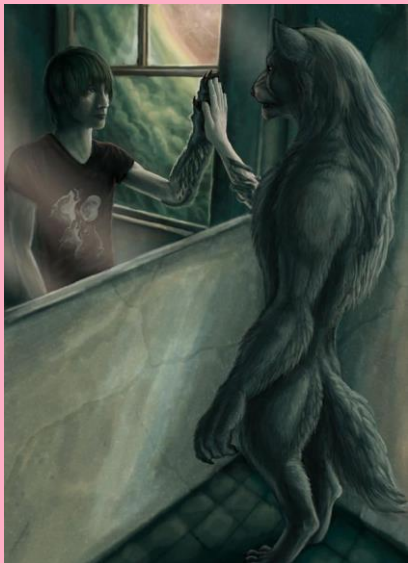
S	NAT
A	
B	NAT Network
C	
D	
F	Not attached



INTERNAL NETWORK



- Isolated virtual Network
- Can communicate with other VMs in the internal network but NOT with the host machine OR external networks
- Can be used for modelling real networks
- Very safe



S	NAT
A	Internal Network
B	NAT Network
C	
D	
F	Not attached

BRIDGED ADAPTER

- VM acts as a standalone device on the network and is assigned a unique IP address
- Provides full access to the network BUT requires manual configuration of the VM's network settings
- Can be used to run servers on VMs that must be fully accessible from a physical local area network



S	NAT
A	Internal Network
B	NAT Network
C	Bridged Adapter
D	
F	Not attached

HOST-ONLY ADAPTER

- VM can communicate with other VMs connected to the host-only network AND the host machine
- Cannot communicate with any other devices outside of the host-only network
- Basically just internal network with access to the host



S	NAT
A	Internal Network
B	NAT Network
C	Bridged Adapter
D	Host-only Adapter
F	Not attached

GENERIC DRIVER

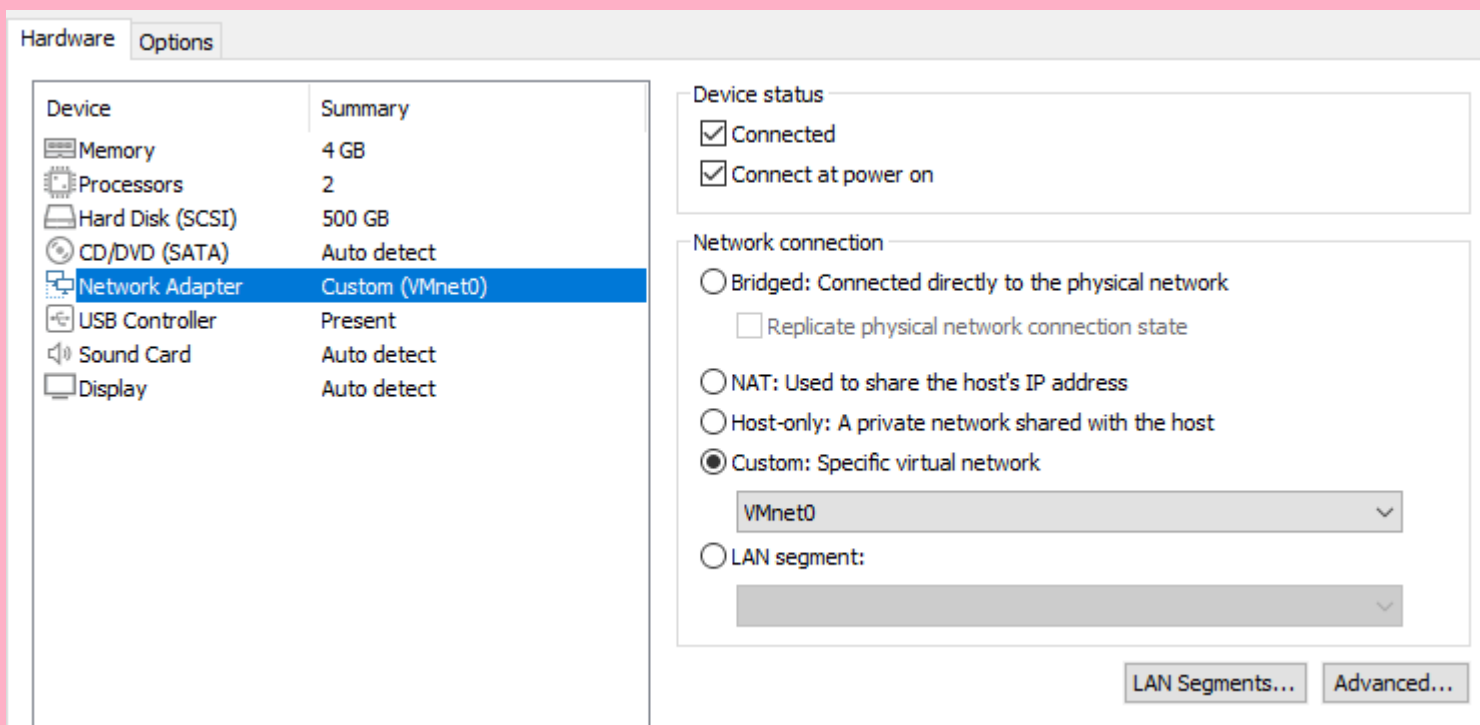
- Kind of confusing IDK
- I'm sure it probably has a use for smart people?
- Sounds generic and boring
- Please don't ask me about this one



S	NAT	
A	Internal Network	
B	NAT Network	
C	Bridged Adapter	
D	Host-only Adapter	Generic Driver
F	Not attached	

STINKY

Custom: unassigned networks have access to each other AND the internet



IDK what a LAN segment is so it's probablyyyy not important?

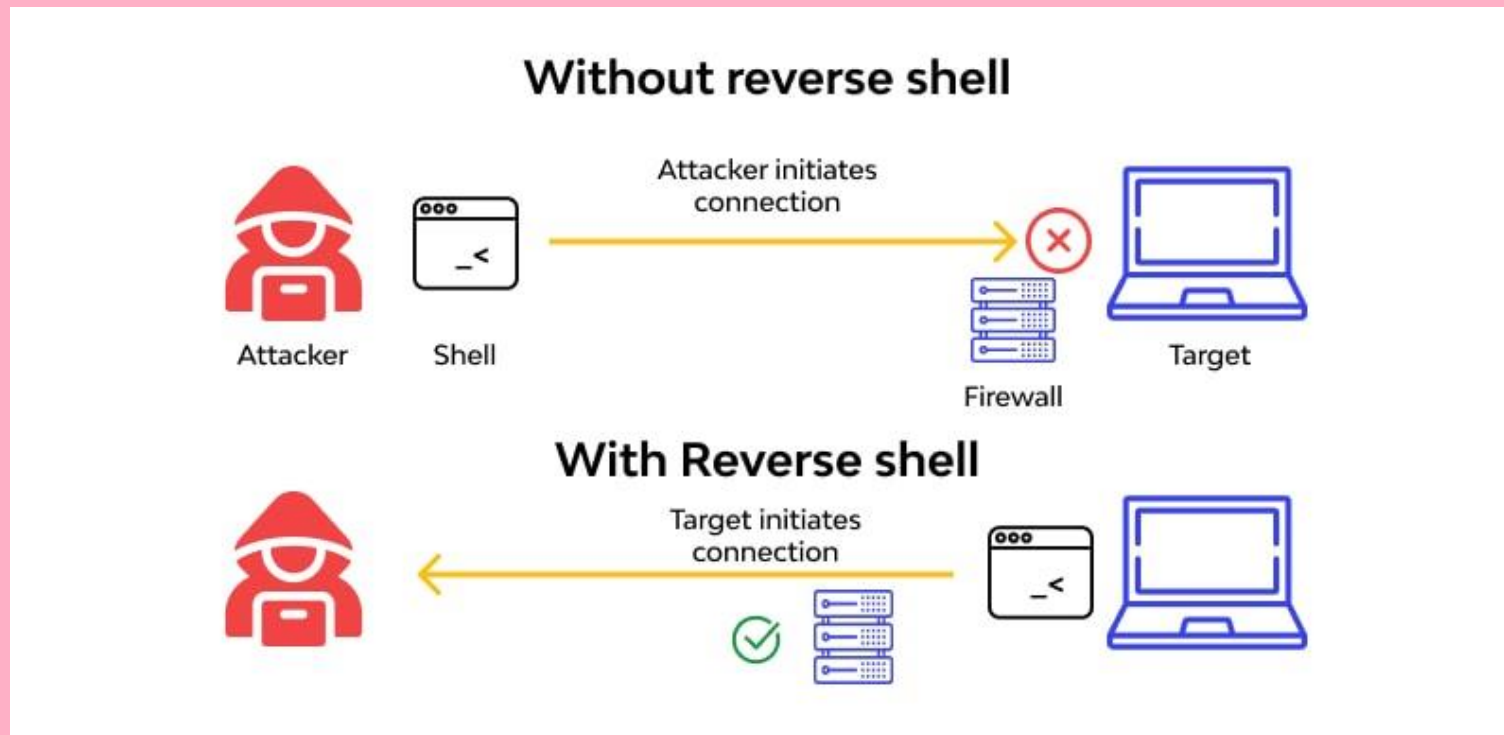


REVERSE SHELLS



WHY ARE THE SHELLS REVERSING??

A reverse shell is a cyber attack that allows an attacker to remotely access a victim's computer
also known as remote shells or "connect-back shells"





Netcat is listening on
port 80

- A computer networking utility for reading from and writing to network connections using TCP or UDP
- Can be used for communication between devices
- Is used for port scanning and port listening



