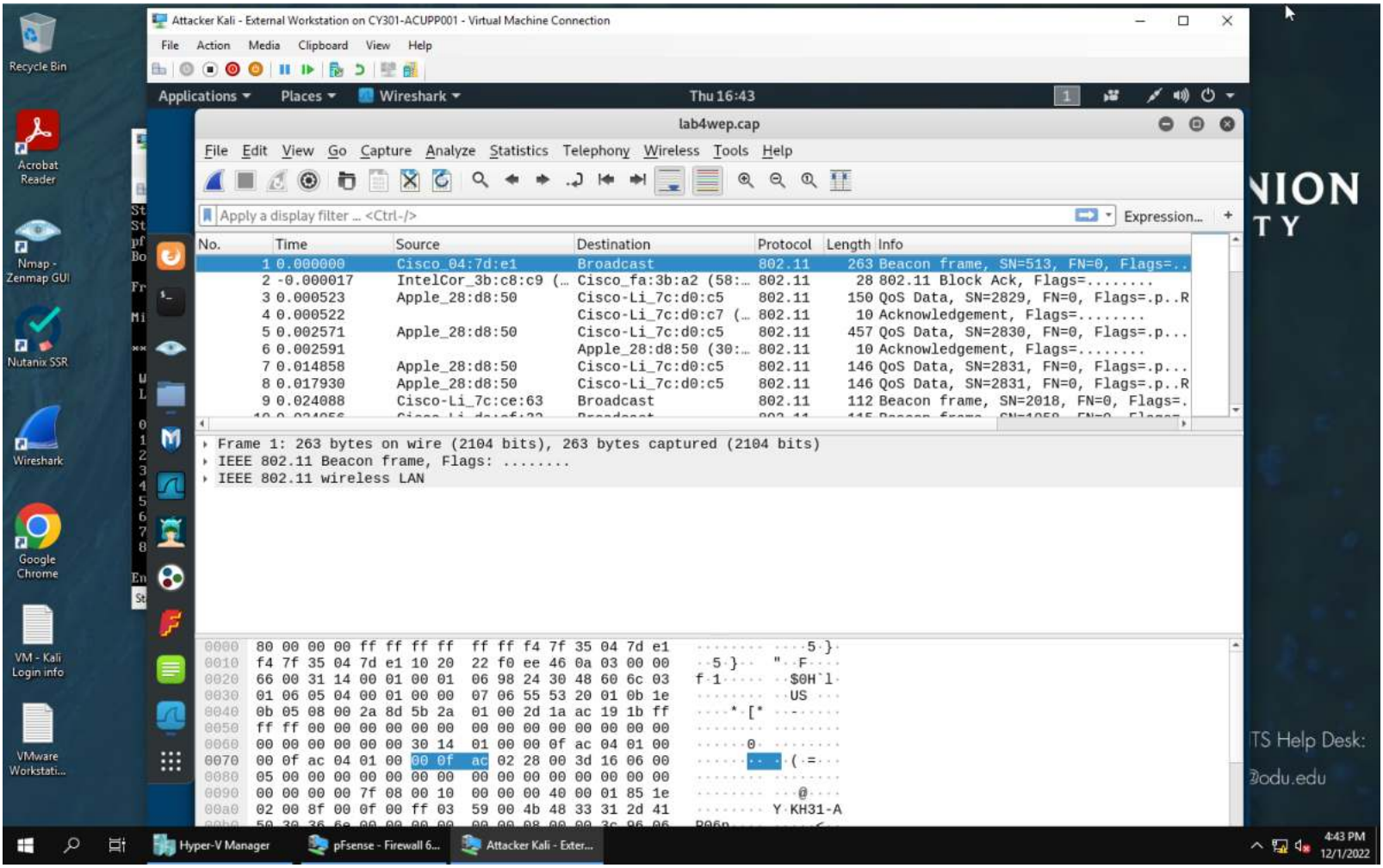
OLD DOMINION

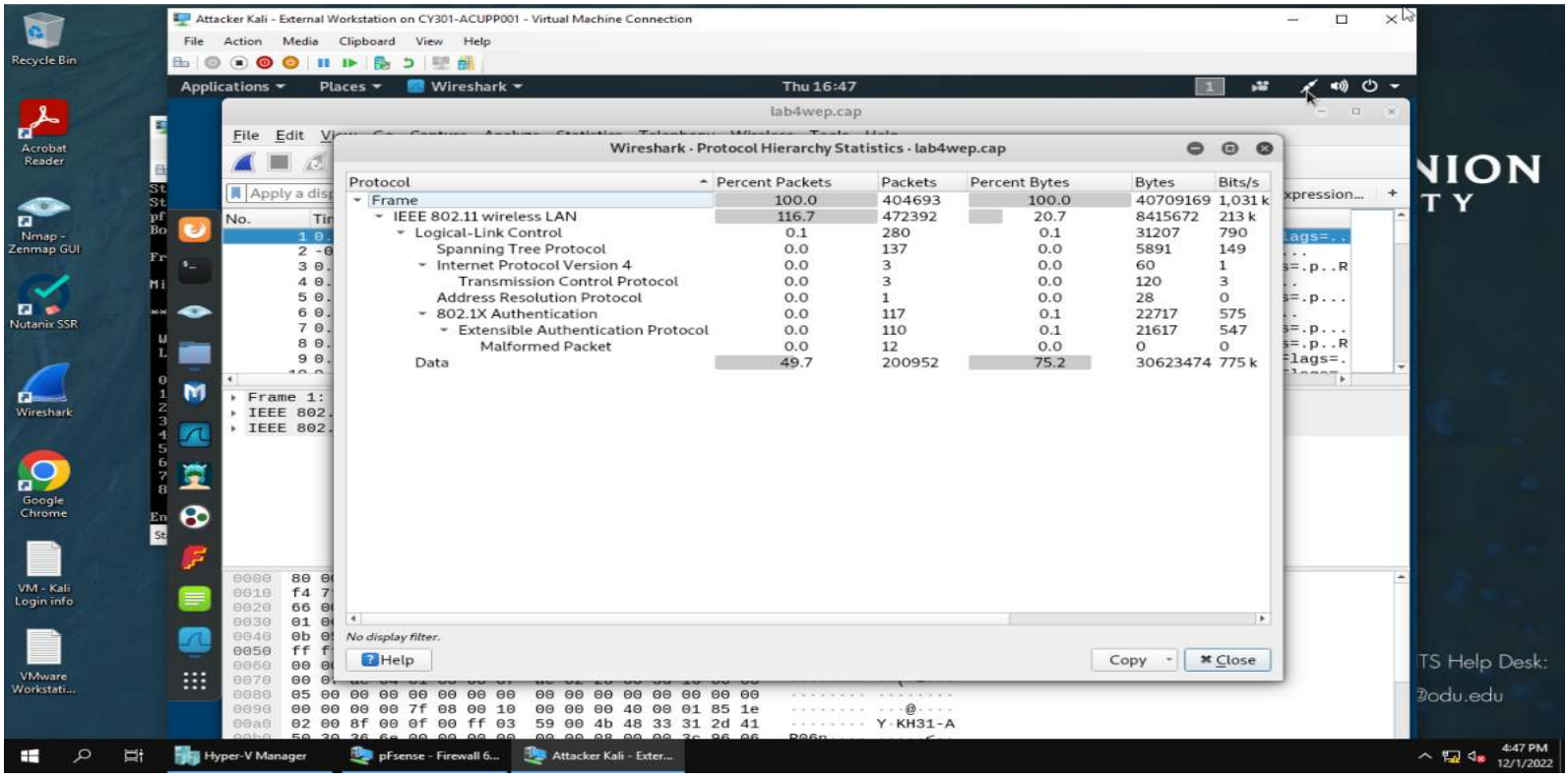
CYSE301 CYBERSECURITY TECHNIQUES AND OPERATIONS

Assignment #6 – Wifi password cracking

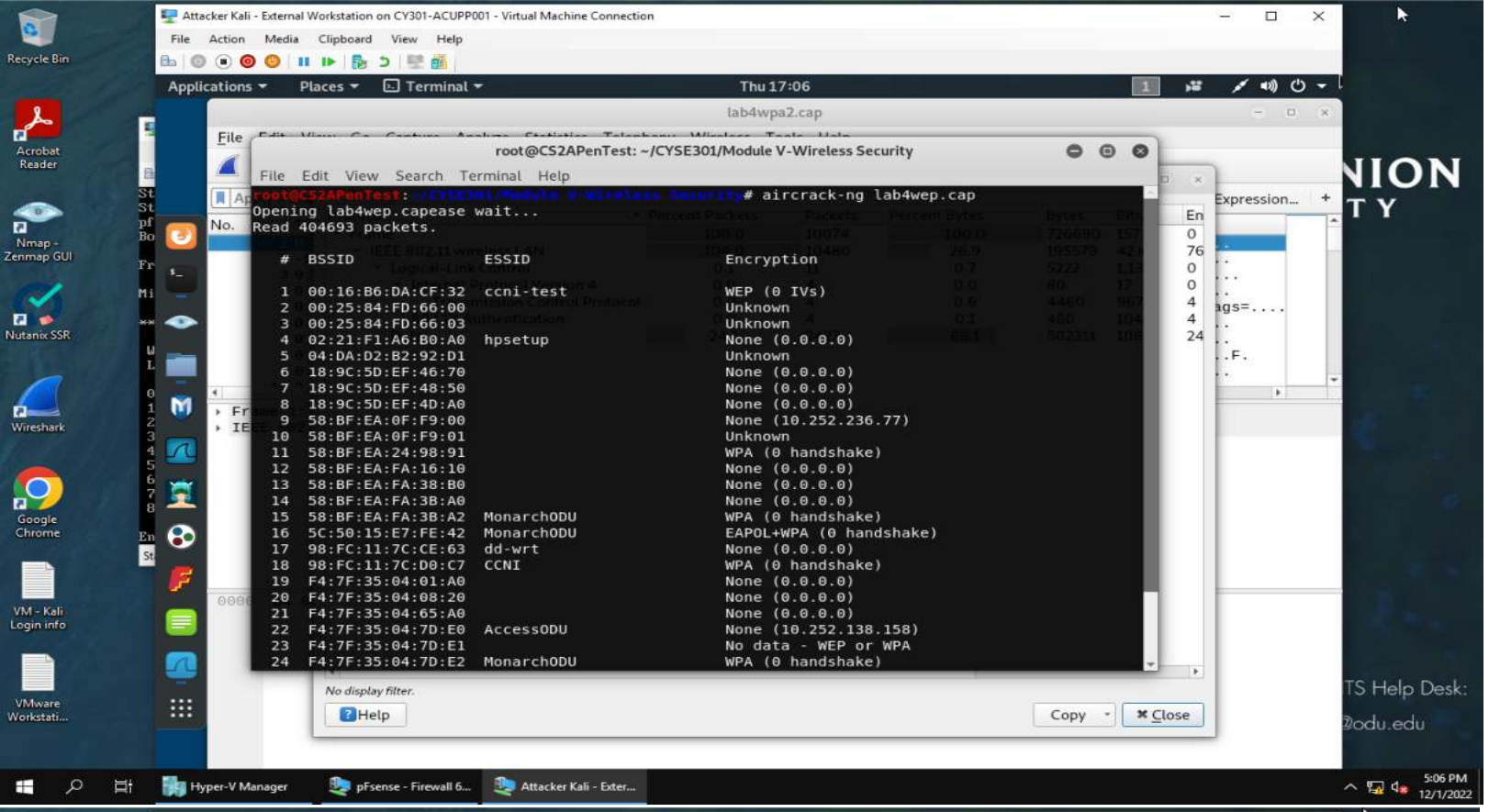
AUSTIN CUPP

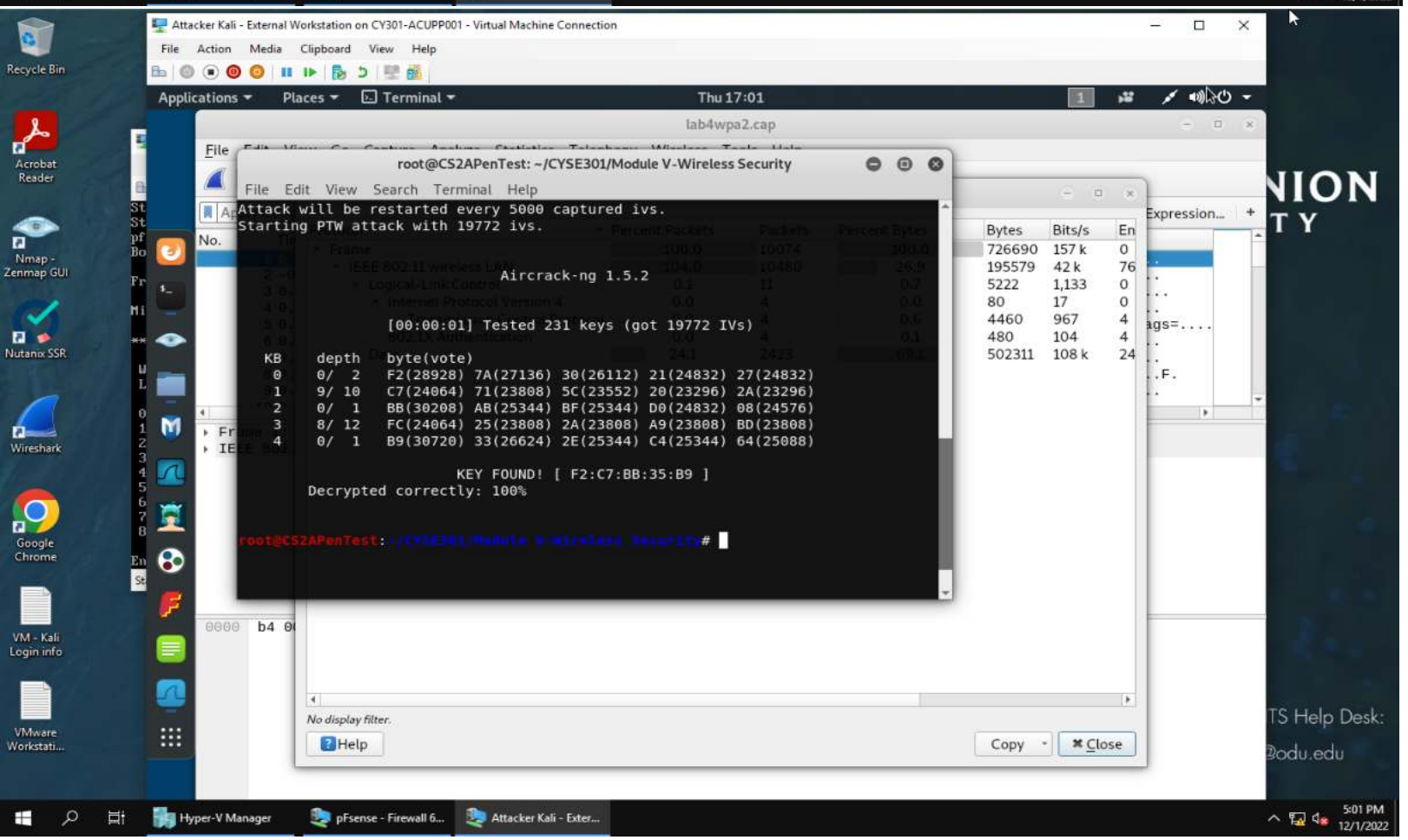
01183567



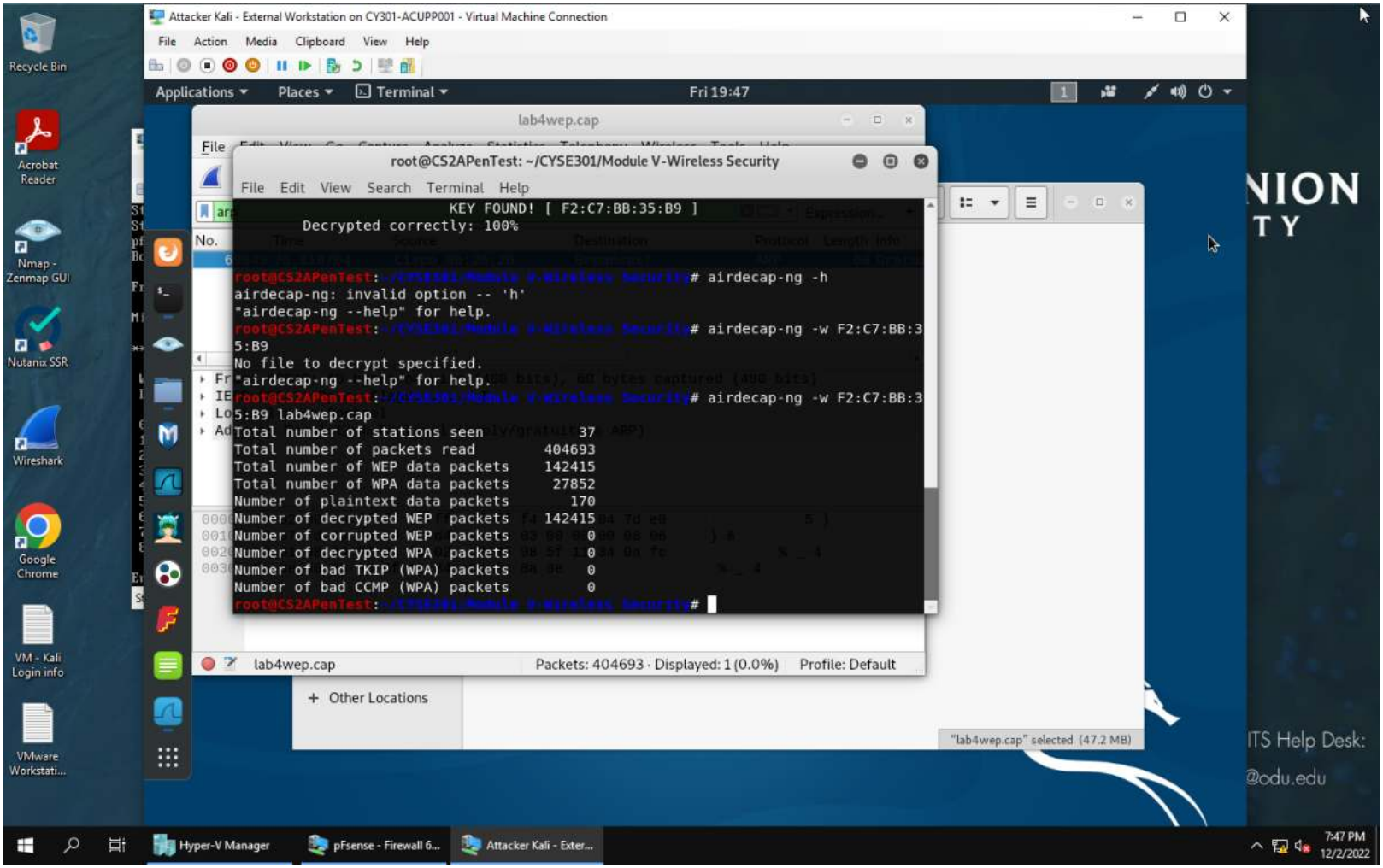


A1. Traffic and heirarchy of lab4wep.cap before decryption

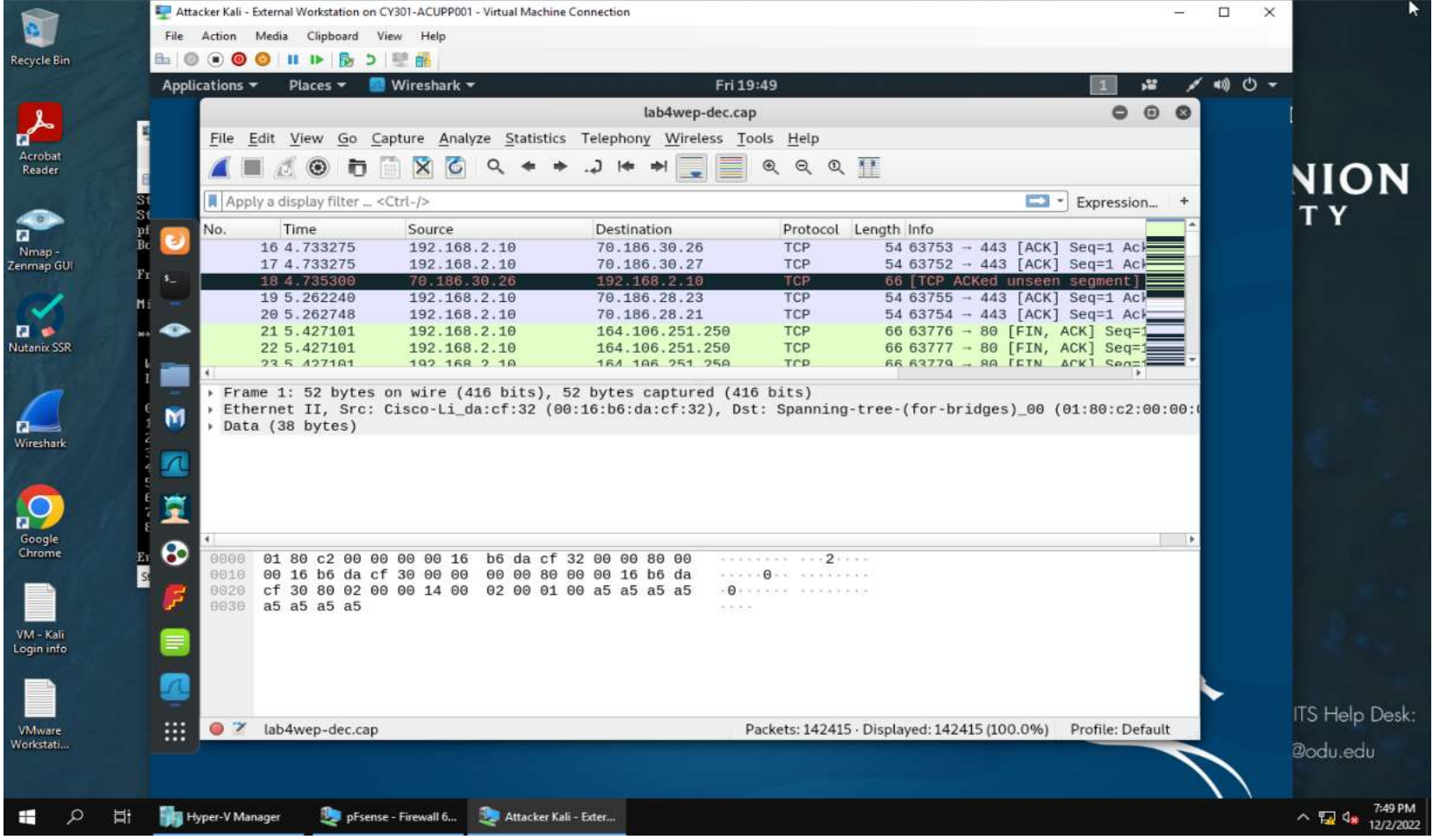


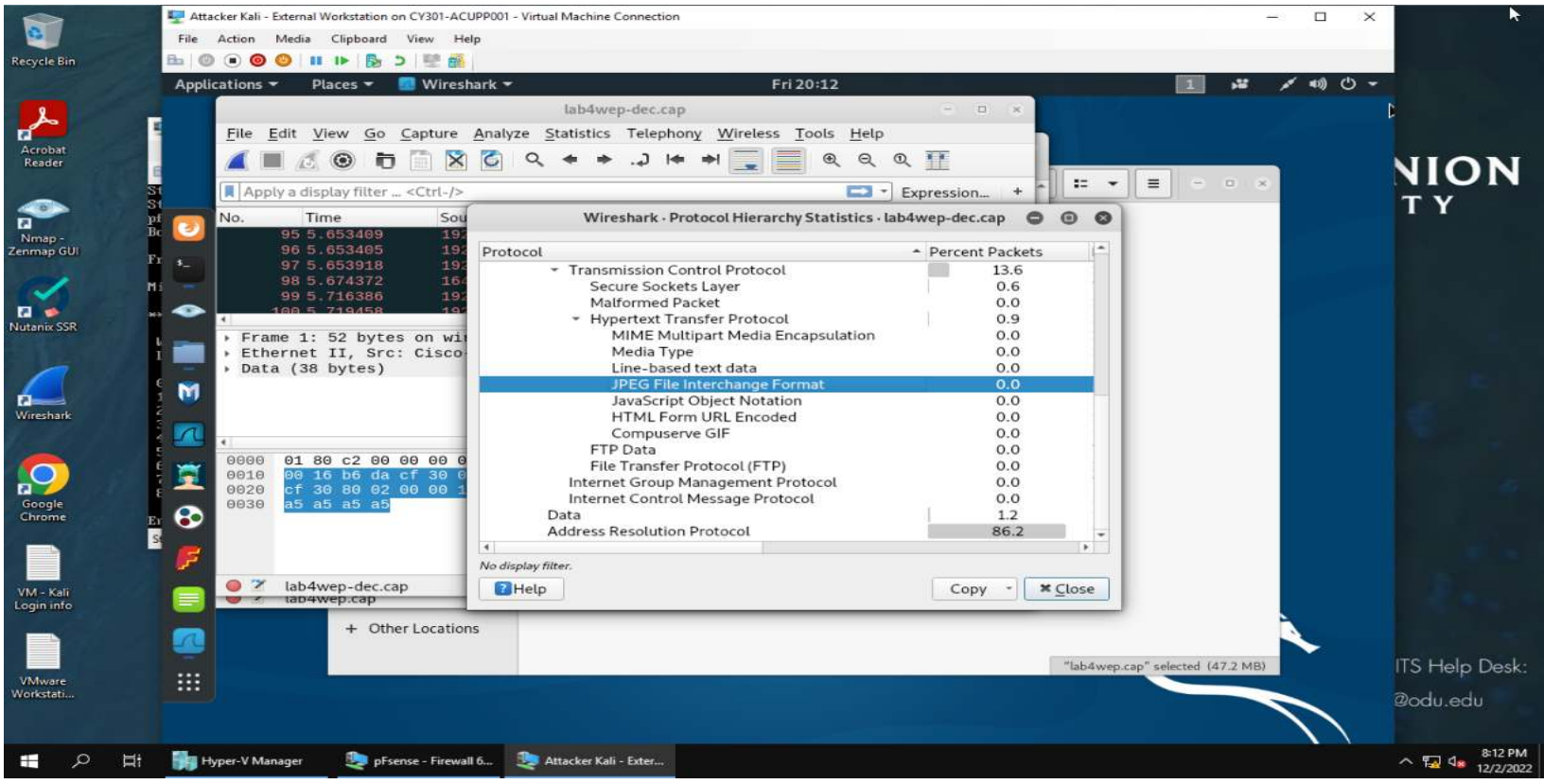


A1. The file is decrypted

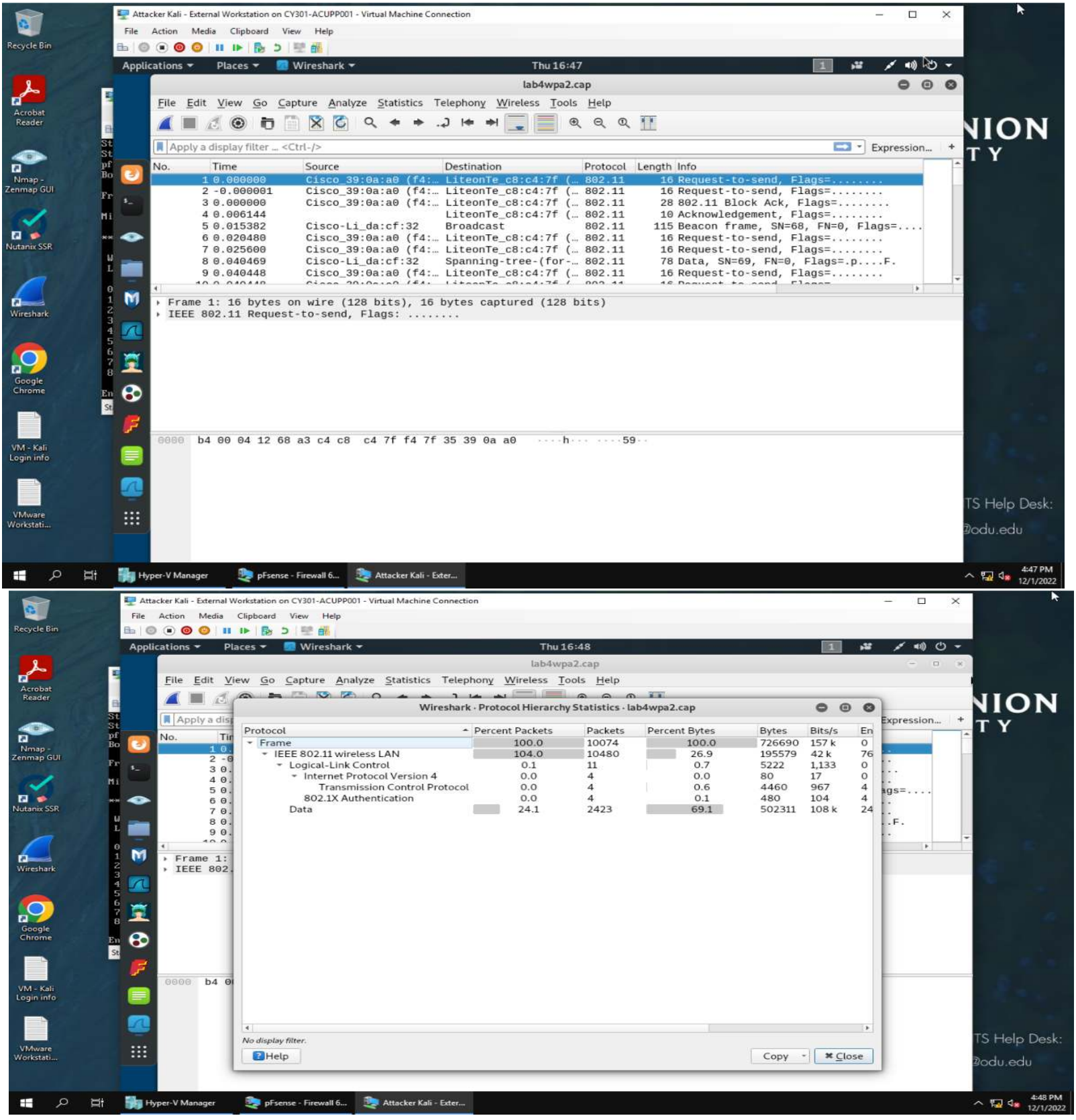


A1. The key is used to prove decryption

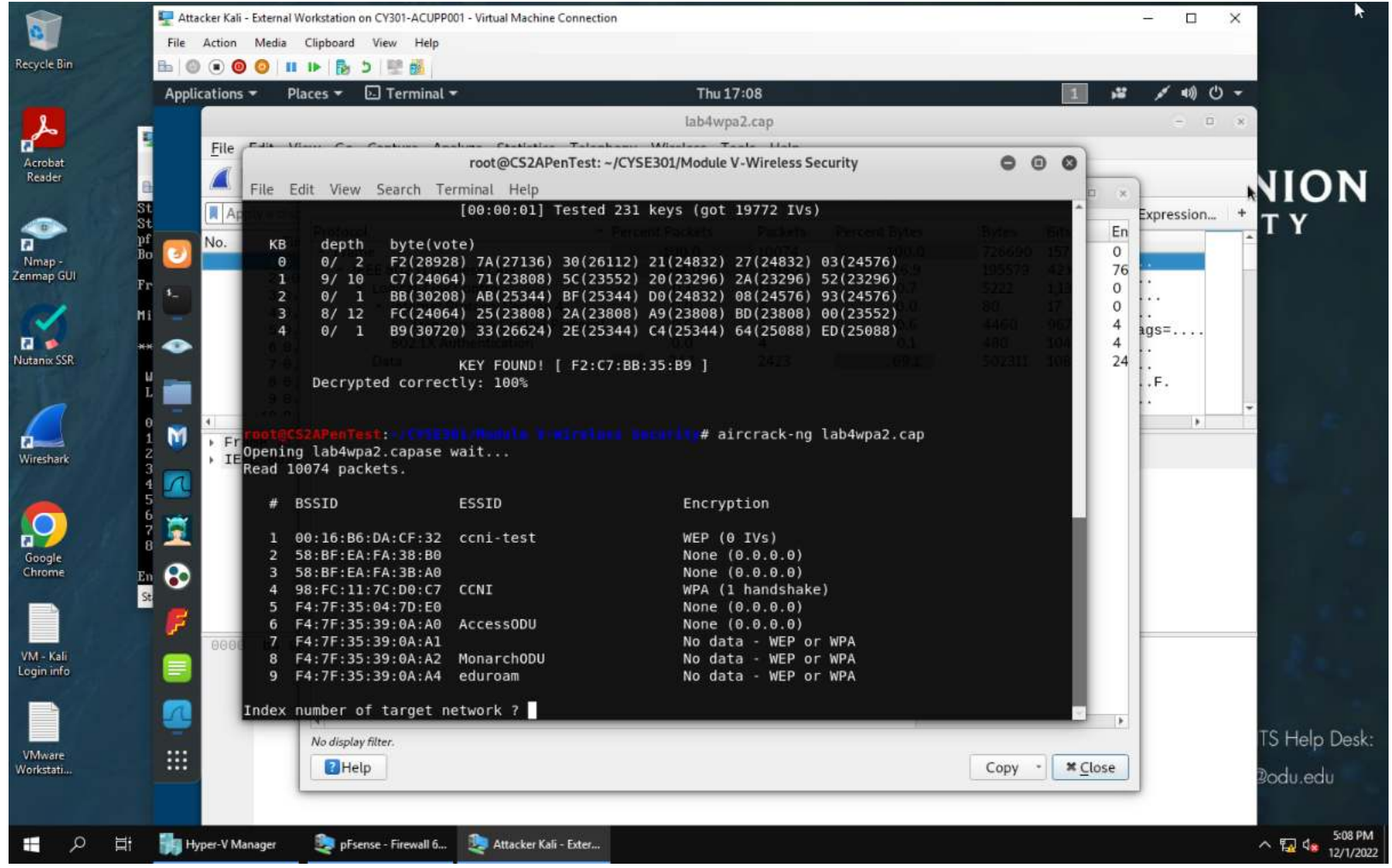


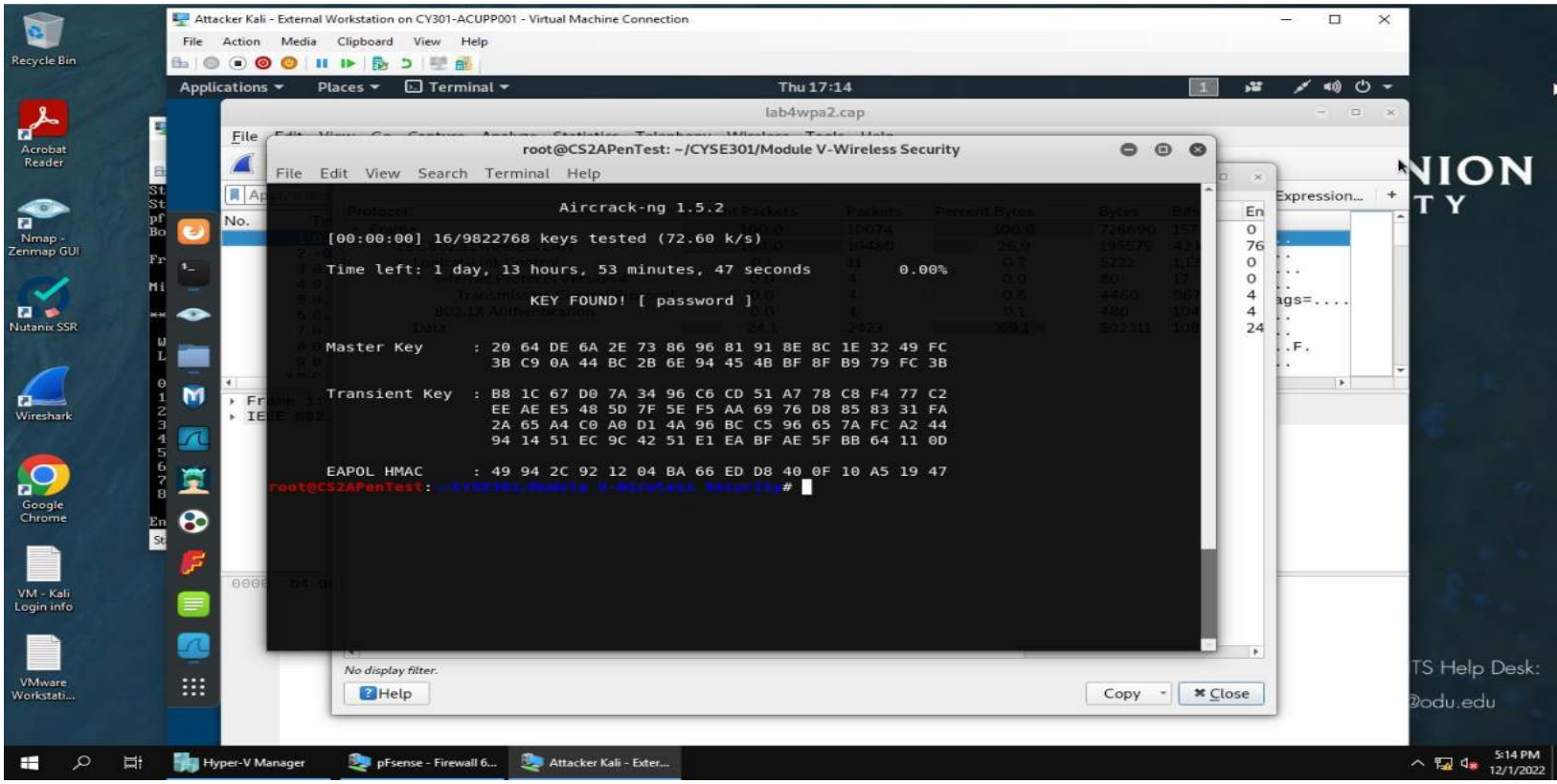


A1. There are a large number of ARP packets present for ARP broadcasts to discover the address.

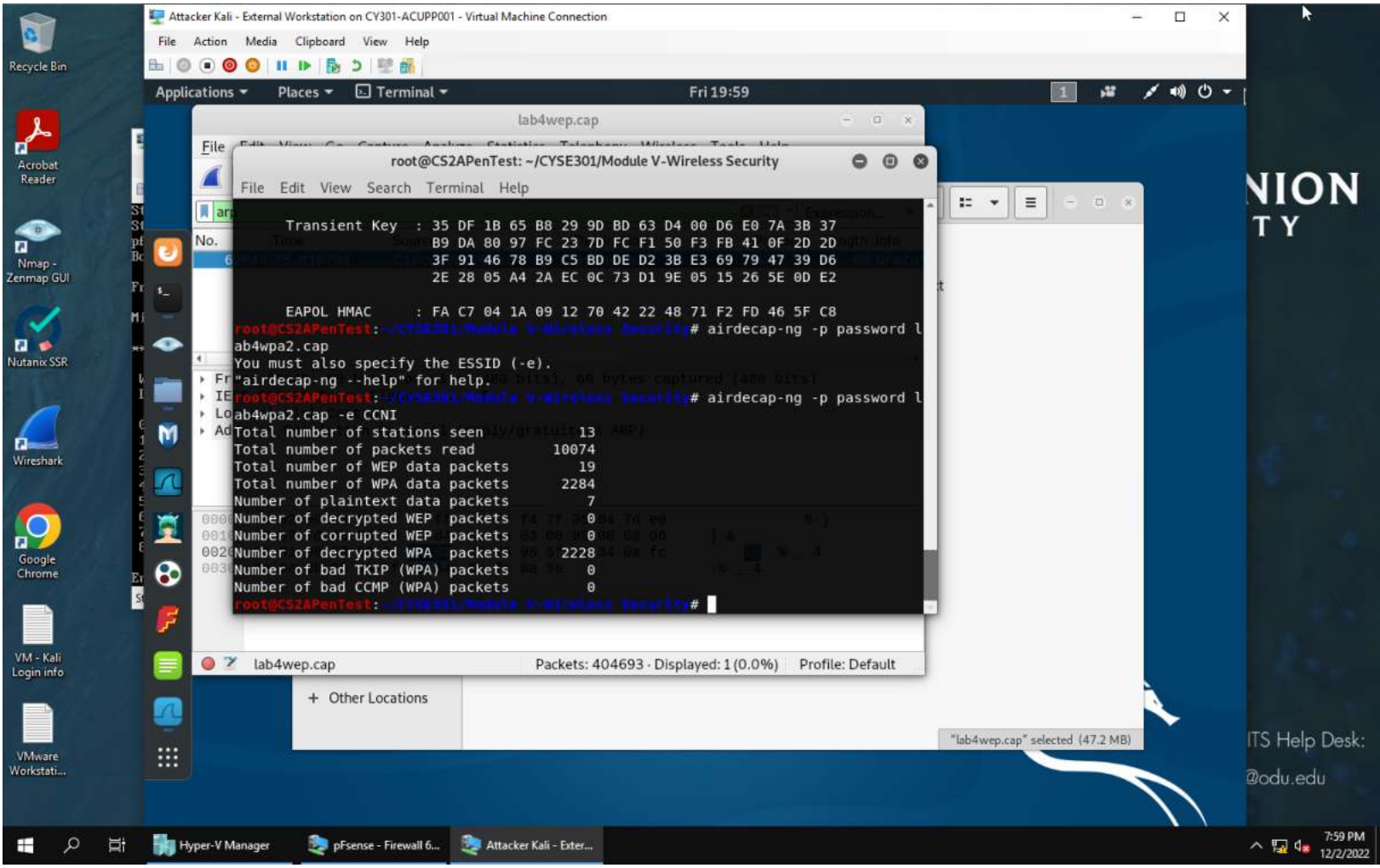


A2. Traffic and hierarchy of lab4wpa2.cap before decryption

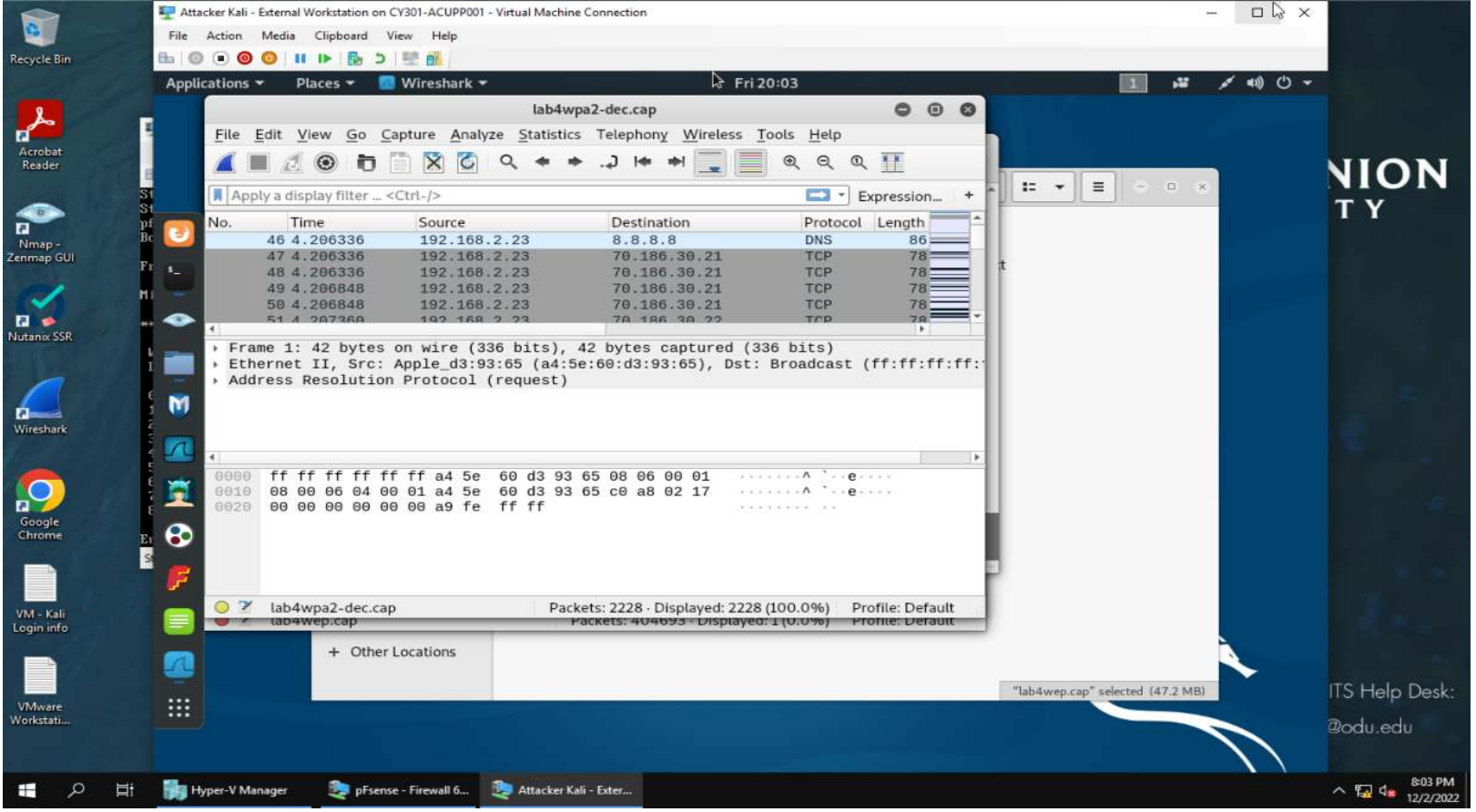


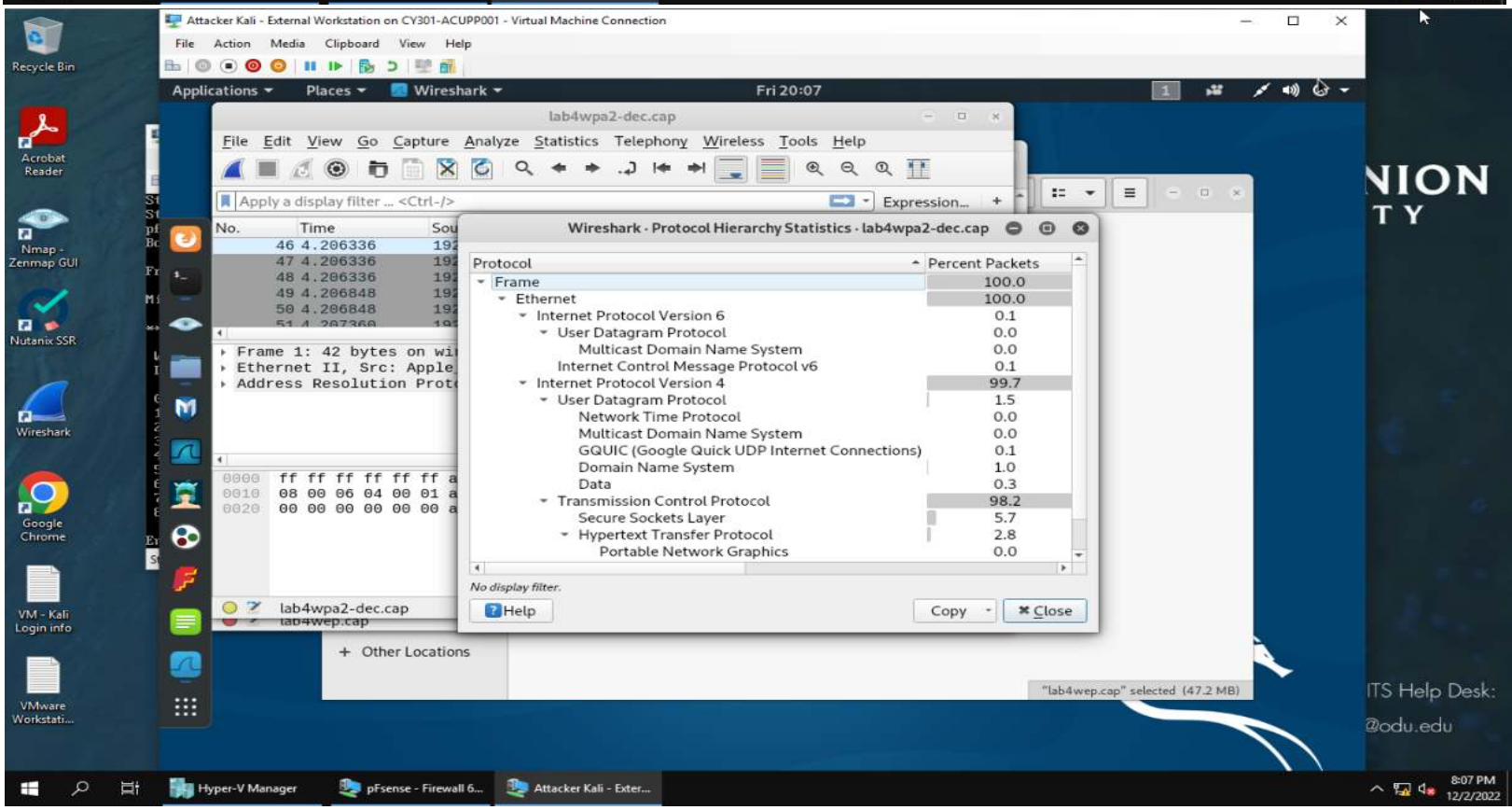


A2. The file is decrypted

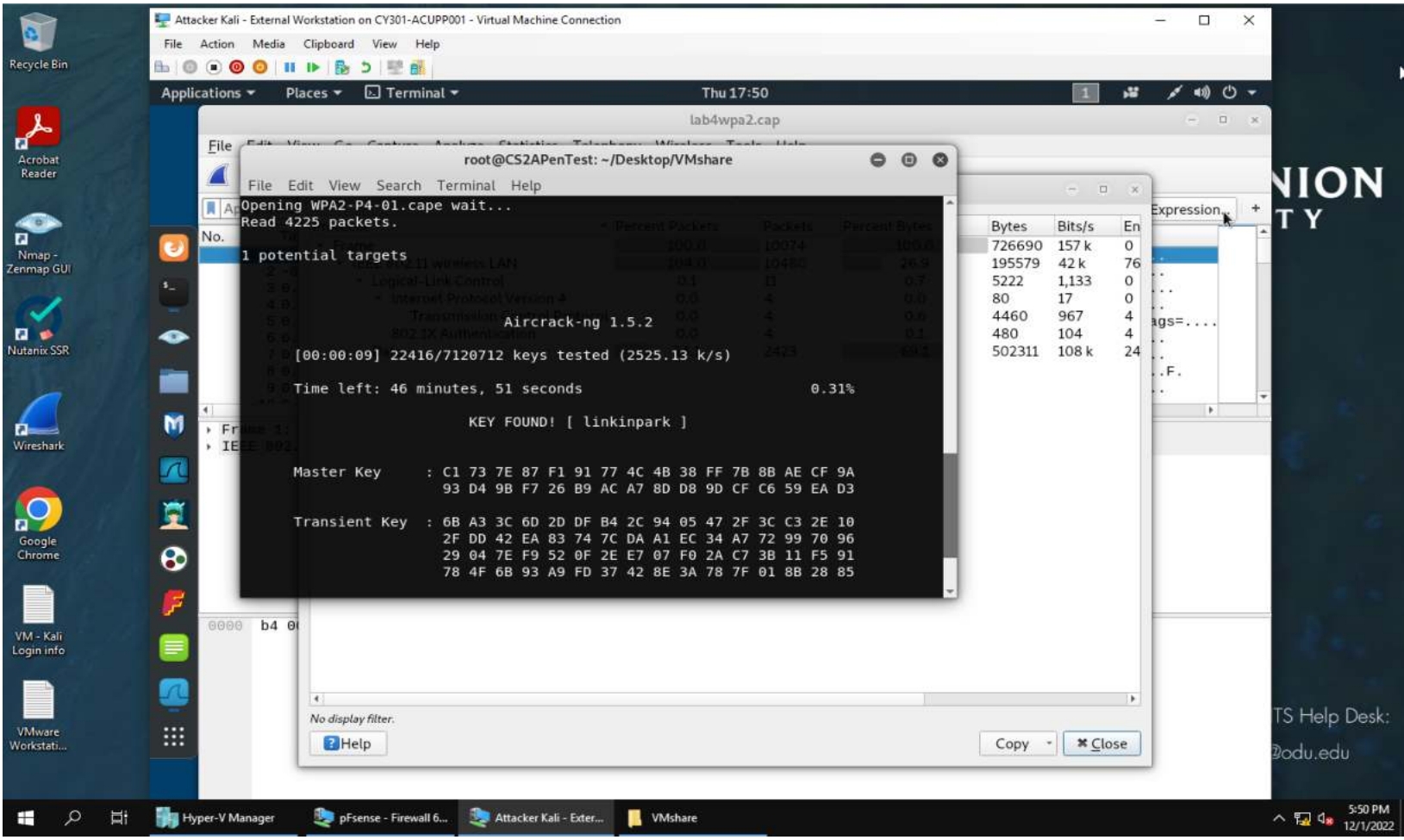


A2. The key is used to prove decrpytion, screenshot shows commands used

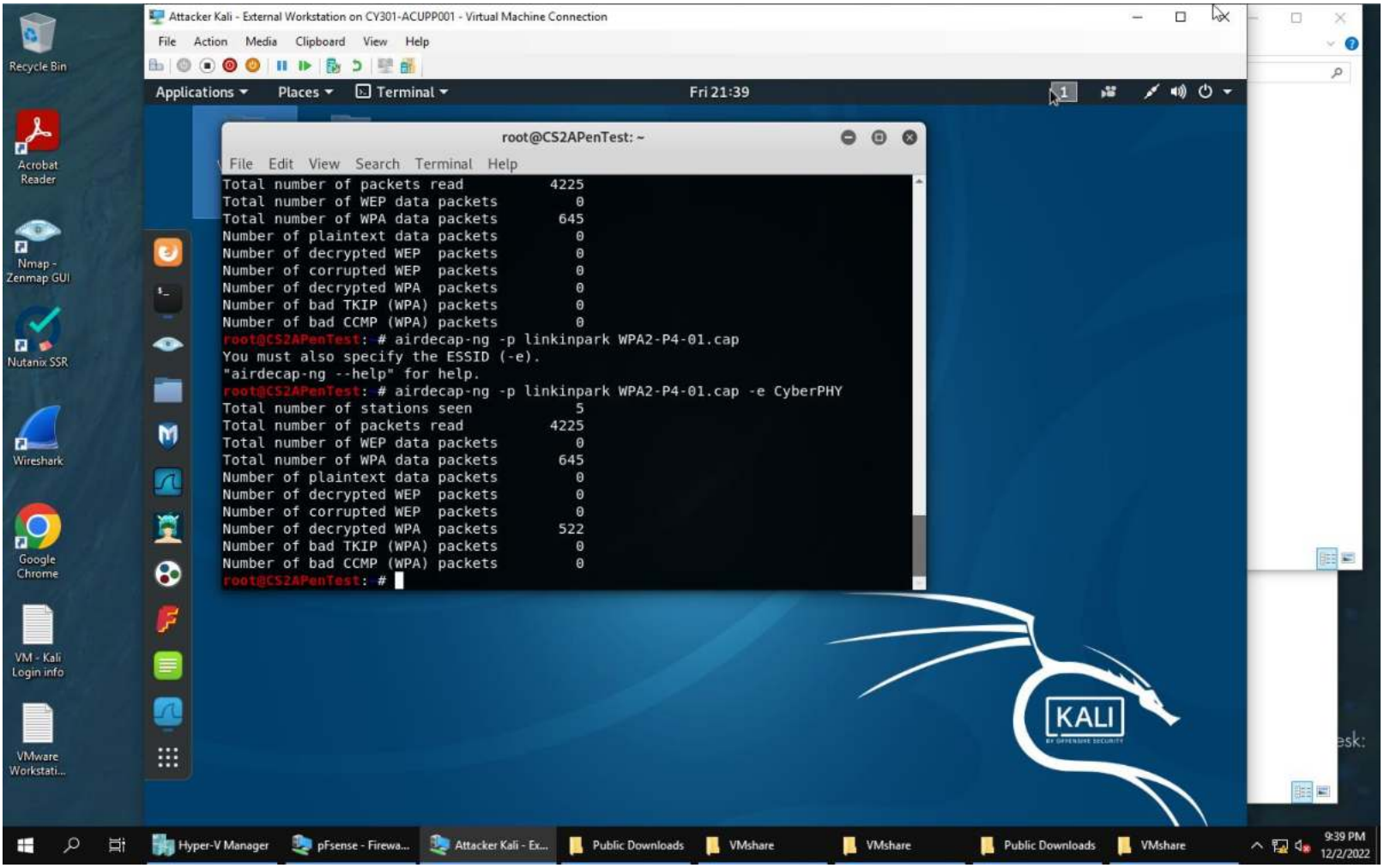




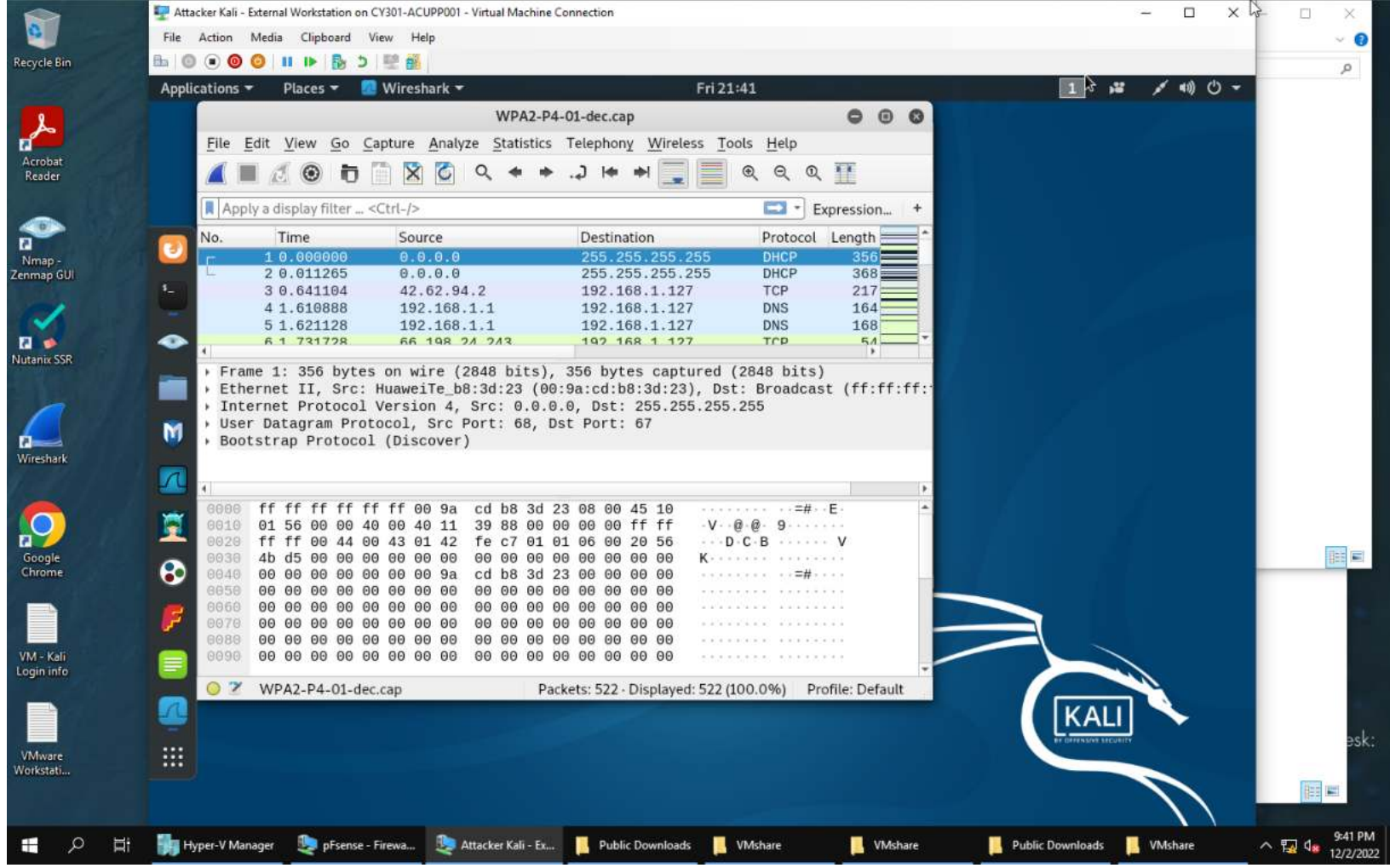
A2. There are a large number of TCP packets present appearing to be a syn-ack flood.

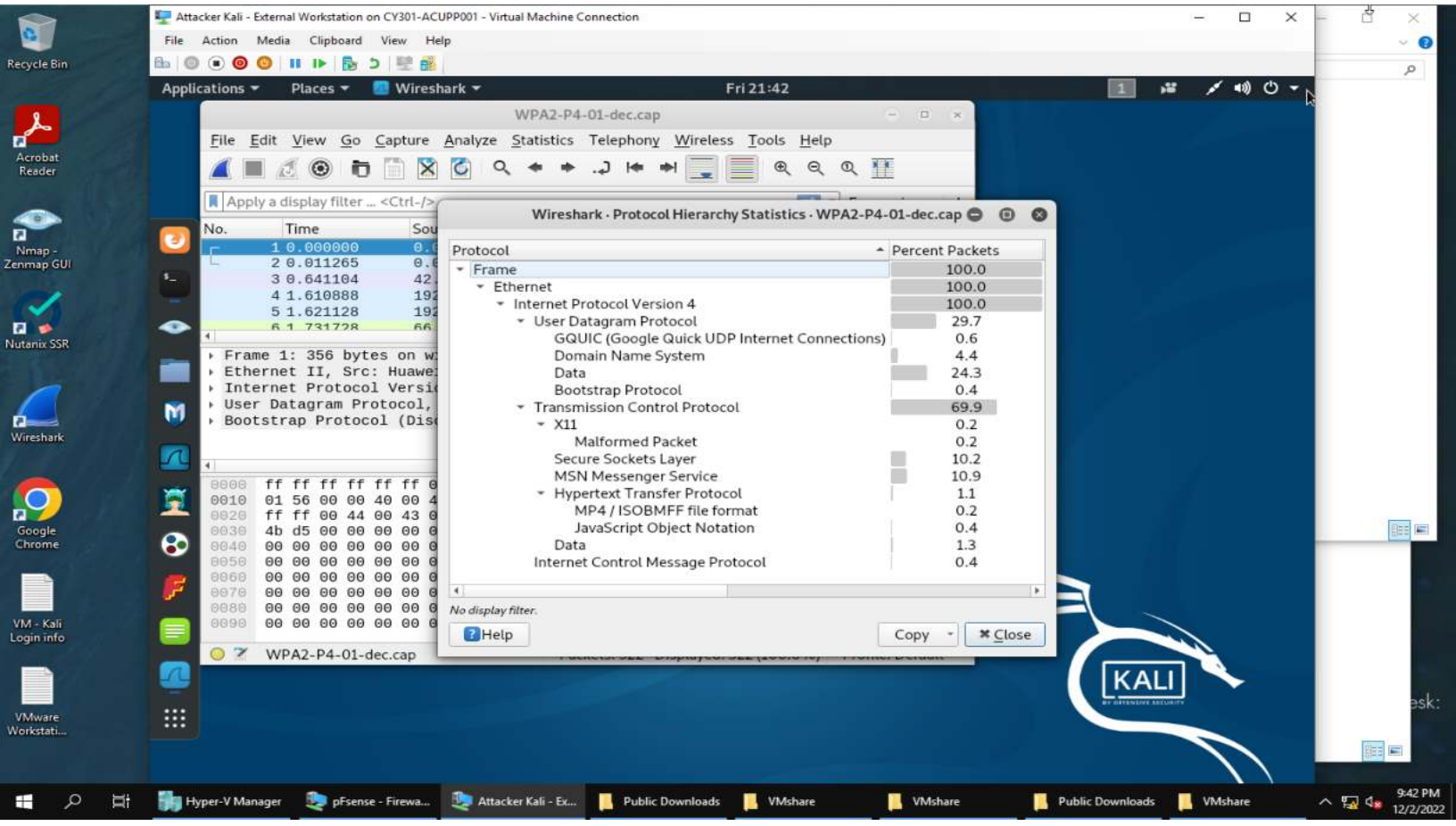


B1. A dictionary attack is implemented, and the password is found, linkinpark



B2. The key is used to prove decryption, screenshot shows command


Attacker Kali - External Workstation on CY301-ACUPP001 - Virtual Machine Connection
File Action Media Clipboard View Help
Applications Places Wireshark Fri 21:41
WPA2-P4-01-dec.cap
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
Apply a display filter ... <Ctrl-/>
Expression...
No. Time Source Destination Protocol Length
1 0.000000 0.0.0.0 255.255.255.255 DHCP 356
2 0.011265 0.0.0.0 255.255.255.255 DHCP 368
3 0.641104 42.62.94.2 192.168.1.127 TCP 217
4 1.610888 192.168.1.1 192.168.1.127 DNS 164
5 1.621128 192.168.1.1 192.168.1.127 DNS 168
Frame 1: 356 bytes on wire (2848 bits), 356 bytes captured (2848 bits)
Ethernet II, Src: HuaweiTe_b8:3d:23 (00:9a:cd:b8:3d:23), Dst: Broadcast (ff:ff:ff:
Internet Protocol Version 4, Src: 0.0.0.0, Dst: 255.255.255.255
User Datagram Protocol, Src Port: 68, Dst Port: 67
Bootstrap Protocol (Discover)
WPA2-P4-01-dec.cap
Packets: 522 · Displayed: 522 (100.0%)
Profile: Default
Hyper-V Manager
pFsense - Firewa...
Attacker Kali - Ex...
Public Downloads
VMshare
VMshare
Public Downloads
VMshare
9:41 PM
12/2/2022


Attacker Kali - External Workstation on CY301-ACUPP001 - Virtual Machine Connection
File Action Media Clipboard View Help
Applications Places Wireshark Fri 21:42
WPA2-P4-01-dec.cap
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
Wireshark · Protocol Hierarchy Statistics · WPA2-P4-01-dec.cap
Protocol Percent Packets
Frame 100.0
Ethernet 100.0
Internet Protocol Version 4 100.0
User Datagram Protocol 29.7
GQUIC (Google Quick UDP Internet Connections) 0.6
Domain Name System 4.4
Data 24.3
Bootstrap Protocol 0.4
Transmission Control Protocol 69.9
X11 0.2
Malformed Packet 0.2
Secure Sockets Layer 10.2
MSN Messenger Service 10.9
Hypertext Transfer Protocol 1.1
MP4 / ISOBMFF file format 0.2
JavaScript Object Notation 0.4
Data 1.3
Internet Control Message Protocol 0.4
No display filter.
Help
Copy
Close
WPA2-P4-01-dec.cap
Hyper-V Manager
pFsense - Firewa...
Attacker Kali - Ex...
Public Downloads
VMshare
VMshare
Public Downloads
VMshare
9:42 PM
12/2/2022

B2. We have a large % of the traffic is UDP or TCP packets as presented in the hierarchy for WPA2-P4-01-dec.cap.