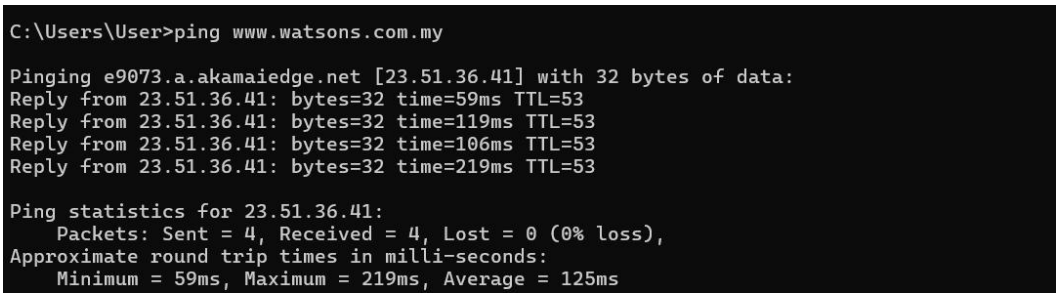
(ITS64904 Computer Intrusion Detection)

Practical 2: Perform Footprinting Through Ping Command

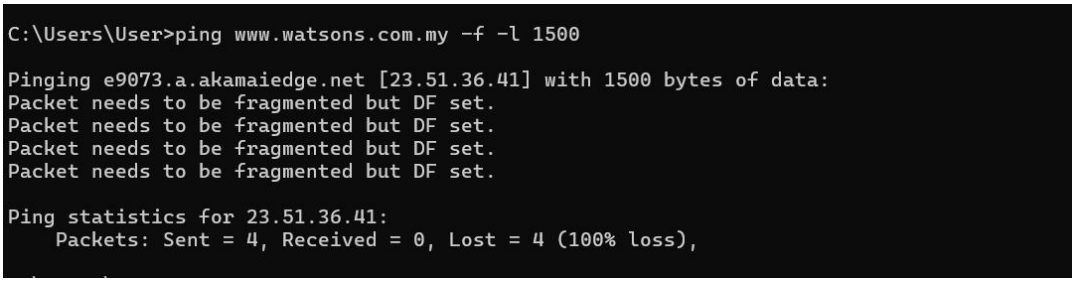
Date: 11/10/2024

1. Using the Command Prompt window and type in **ping** www.watsons.com.my and press Enter to get its IP address. The result below will shows that the the target domain's IP address is (23.51.36.41). It will also shows the on Ping Statistics such as packet sent, packet received, packet lost, and approximately round trip times.



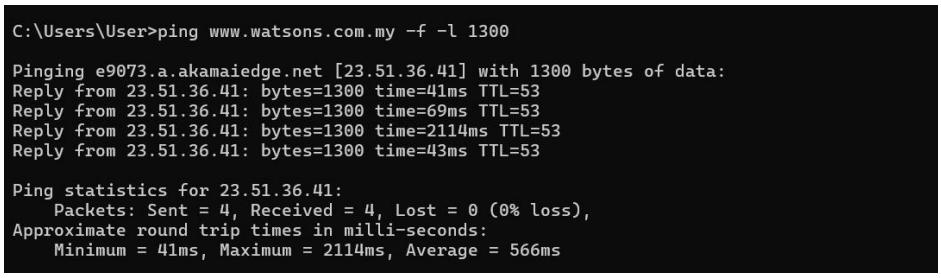
Screenshot 1

2. Next part is to type in **ping** www.watsons.com.my **-f -l 1500**. This ping will shows the response needs to be fragmented, but the DF set means the frame is too large to be on the network. The packet was not sent as we used the -f switch with the ping command, which returned that kind of error.



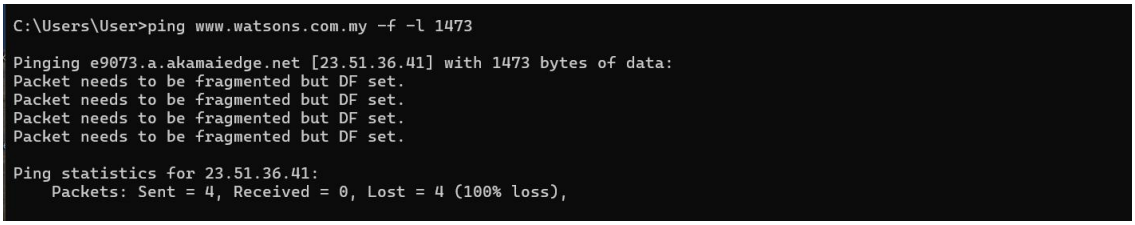
Screenshot 2

3. The output will be different if using the **ping** www.watsons.com.my **-f -l 1300** as the maximum packet size is less than 1500 bytes and more than 1300 bytes.

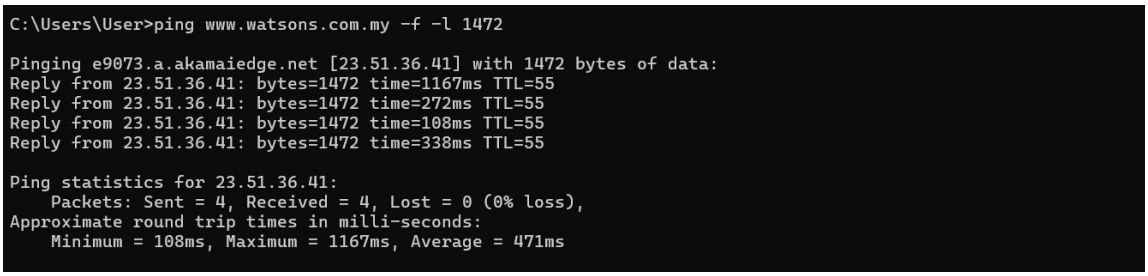


Screenshot 3

4. With different values like **ping www.watsons.com.my -f -l 1472** it replies with a successful ping. While **ping** www.watsons.com.my **-f -l 1473** replies with Packets need to be fragmented but DF set. This indicates 1472 bytes is the maximum frame size on this machine's network.

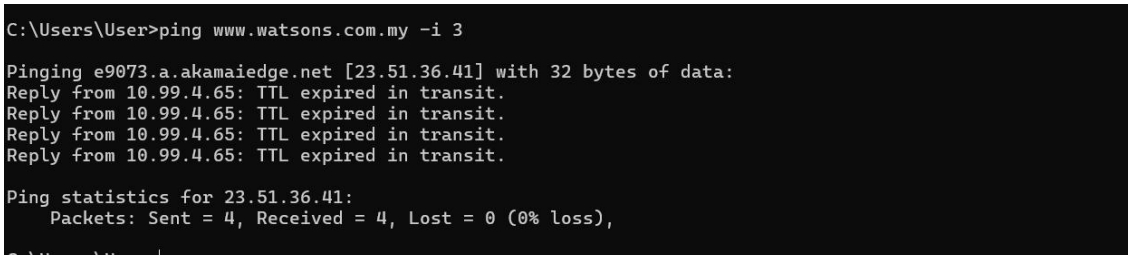


Screenshot 4



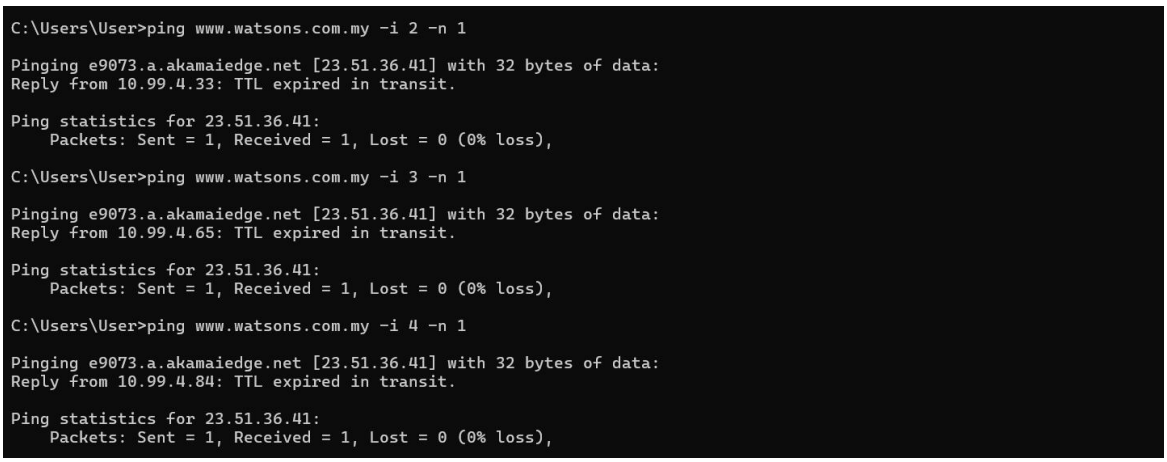
Screenshot 5

5. In the Command Prompt with the **ping** www.watsons.com.my **-i 3** it will set the time to live (-i) value as 3. **Reply from 10.99.4.65: TTL expired in transit**, which means that the router (10.99.4.65, students will have some other IP address) discarded the frame because its TTL has expired which means it reached 0.



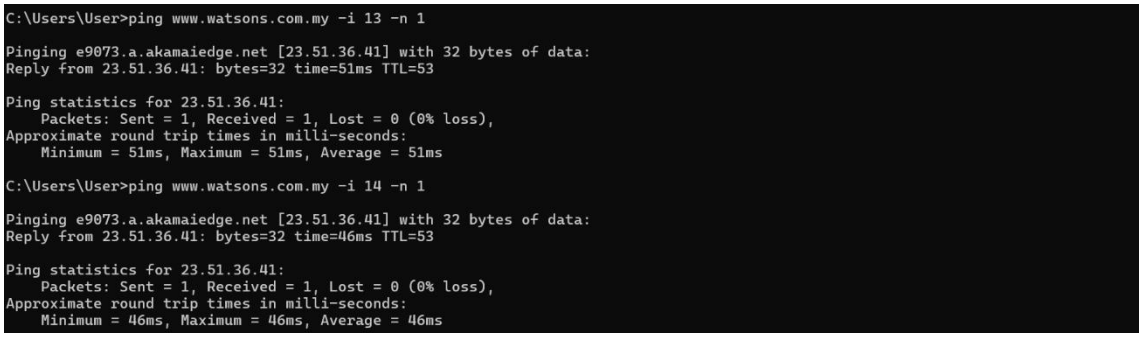
Screenshot 6

6. The **ping** www.watsons.com.my **-i 2 -n 1** will set the TTL to 2 and the -n value to 1 to check the packet's life span. The same is true for the **ping** www.watson.com.my **-i 3-n 1,** which will set the TTL value to 3. The **ping www.watsons .com.my -i 4 -n 1** also sets the TTL value to 4.

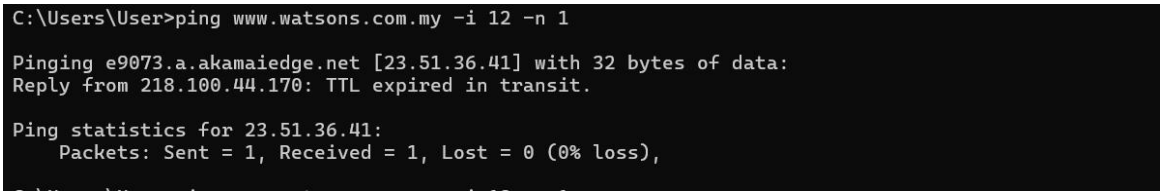


Screenshot 7

7. The successful pin to reach www.watsons.com.my is 13 hops. This will reach the IP address of www.watsons.com.my (23.51.36.41). The **ping www.watsons.com.my -i 12 -n 1** will show **Reply from 218.100.44.170: TTL expired in transit.** This implies that the destination host receives the reply at a time-to-live value of 13 (23.51.36.41).



Screenshot 8



Screenshot 9

8. To summarize from this report:

   Maximum hops are: 13

   Maximum frame size of the packet: 1472 bytes (23.51.36.41)