Austin Brown

CPE 434-01

3/29/2021

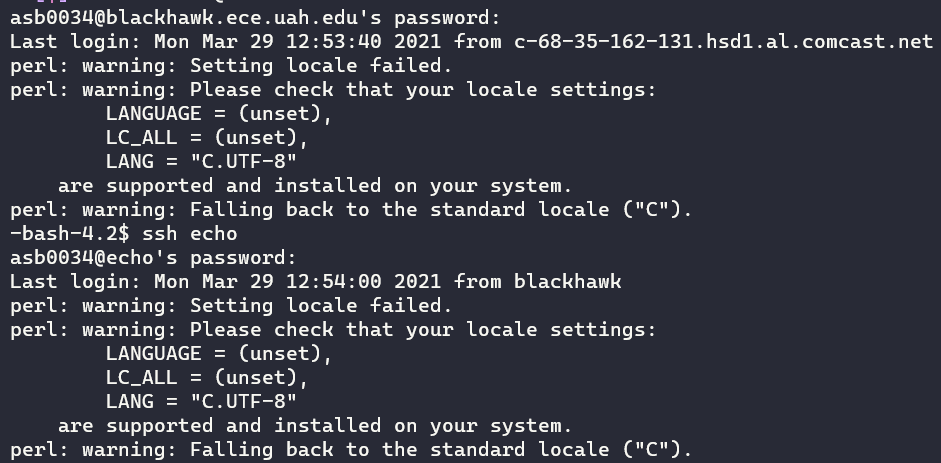
Lab 11 Part 2

**PreTask**

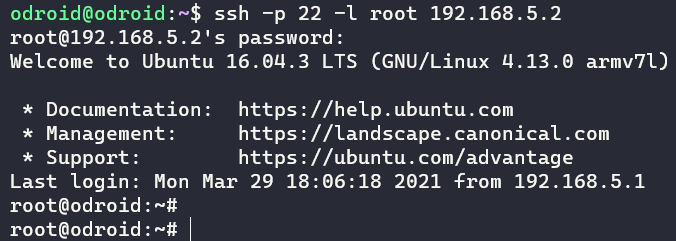
Limit login attempts, encryption, and multi-factor authentication will all work.

**Subtask 1**

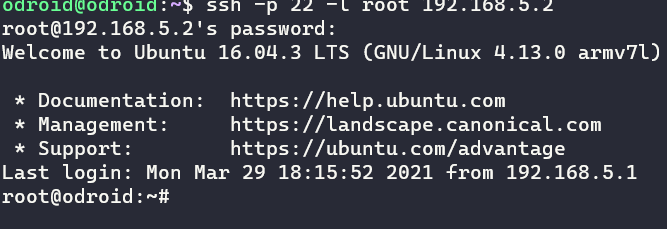
1.

****

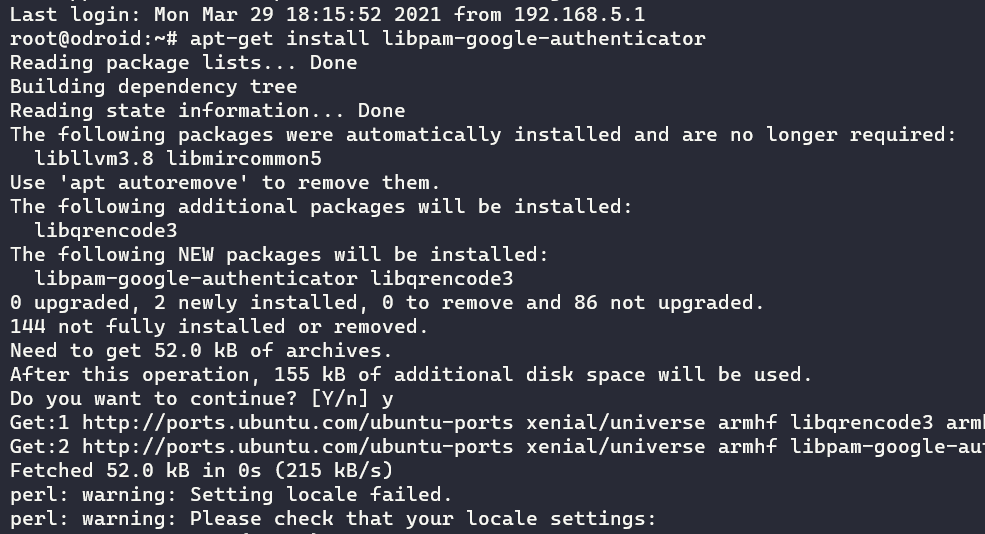
2.



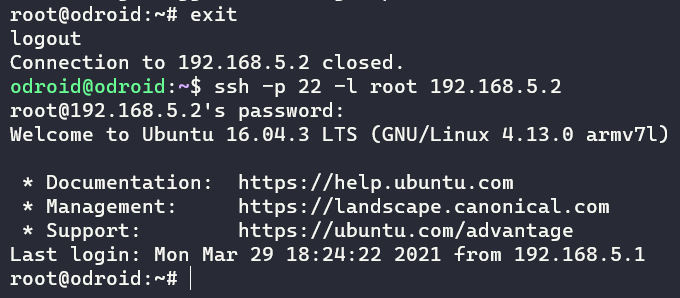
3.



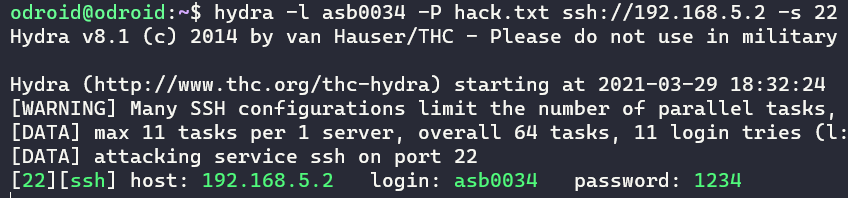
4.



5.



6.



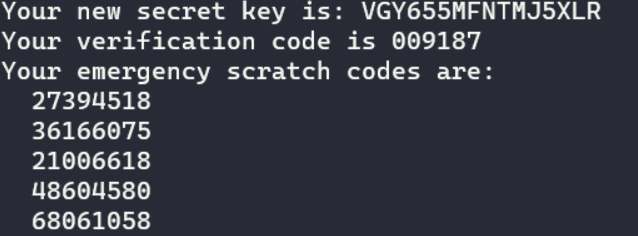
7. I have not changed the password.

8. Installed Authenticator

9.



10.



11.

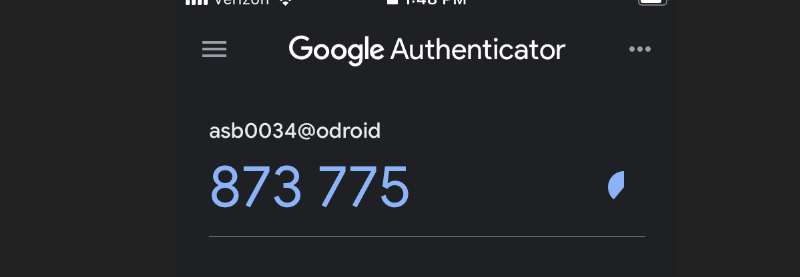
Update file – save info for later

Prevent token from being used more than once – prevent man in the middle

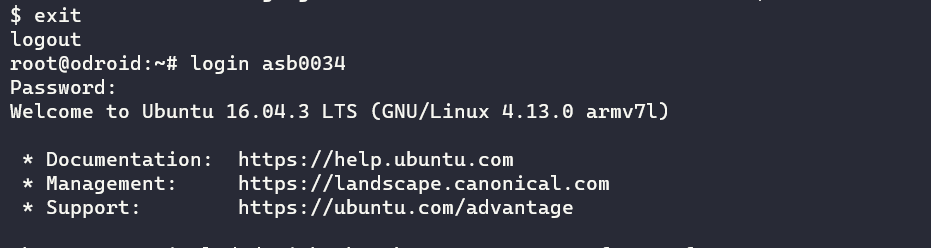
Increase time token is valid – account for latency

Limit login attempts – prevent brute forcing

12.

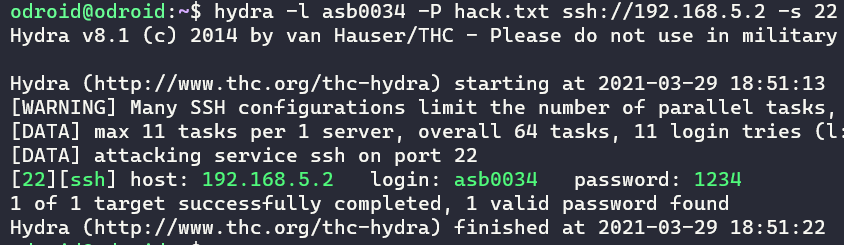


15.



No difference. I could login.

16.

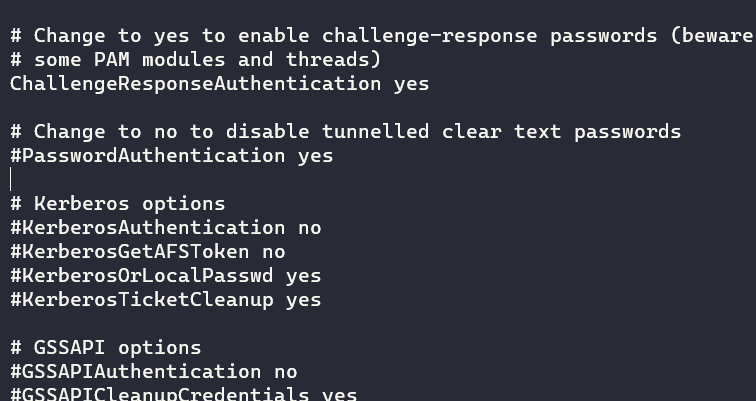


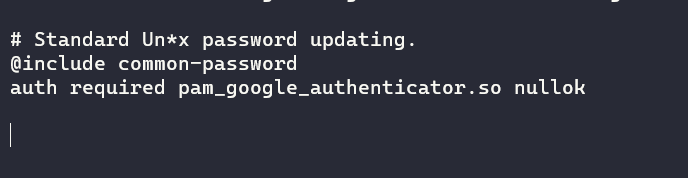
I could get into the account. This is likely because 2FA is not configured yet.

17. Hydra is not installed on guest.

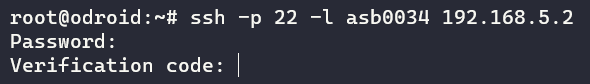
**Subtask 3**

19.



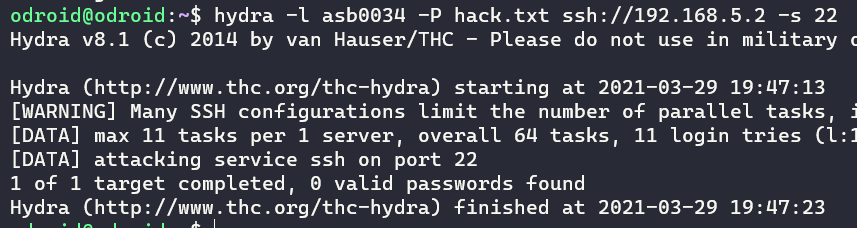


20.



I was not allowed to login until I entered the code from google authenticator.

22.



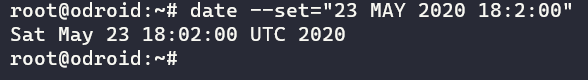
The attack failed because hydra didn’t know the key.

**Tampering**

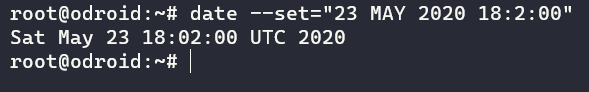
23.

NTP servers are used to sync times across various systems.

24.

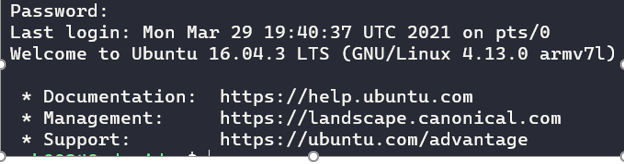






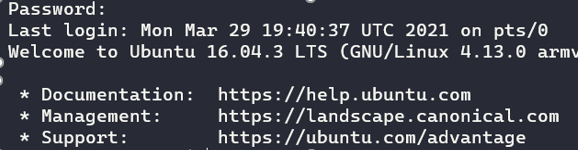
The times are different.

25.

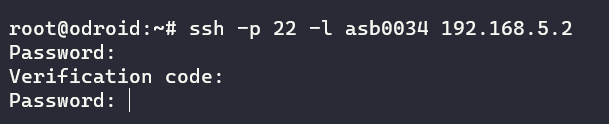


I can login. The date corrects itself.

26



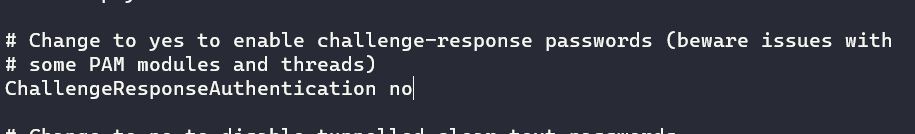
27.



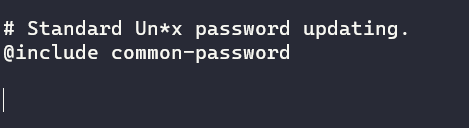
I cannot log in. Entering a verification code does nothing.

**Finishing**

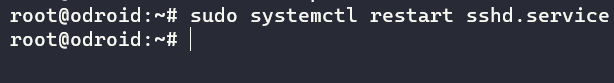
28.



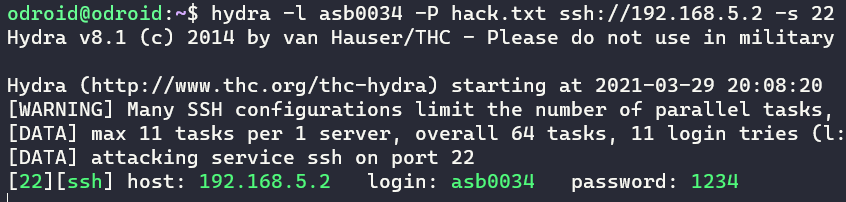
29.



30.



31.



32.