Lab 10 Template – Ethan Roepke

1. **Screenshot of ssh server active status**

(5 points)

A computer screen shot of a black screen

Description automatically generated

1. **Three potential services/options to configure.  Why or why not configure them.**

(10 points)

Three potential services to configure SSH server is configuring public key authentication, two-factor authentication, and changing port number. We should configure public key authentication because it is more secure than password based authentication. Users would have to have access to the private key to access the server. This will minimize password based breaches. Configuring a two factor authentication will add an additional layer of protection for users being required to having a time based one time password, as well as the original password. Changing the port number can give a level of security but I think we should not configure them because it can make the administration more complex because you will need to remember the custom port every time you connect.

1. **Screenshot of desktop ssh connection to www2**

(5 points)

A screenshot of a computer program

Description automatically generated

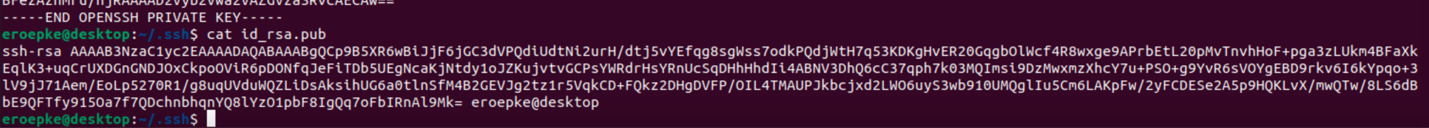
1. **Explain the purpose of the fingerprint and randomart image and when you would use them.**

(10 points)

The randomart image is used to be an easier way for us to validate keys. It is not useful for us, the user but, can be very useful for a user using a connection through SSH to be allowed to connect to the server. Key fingerprint in SSH is a key that is verified when you try to login to a remote computer using SSH.

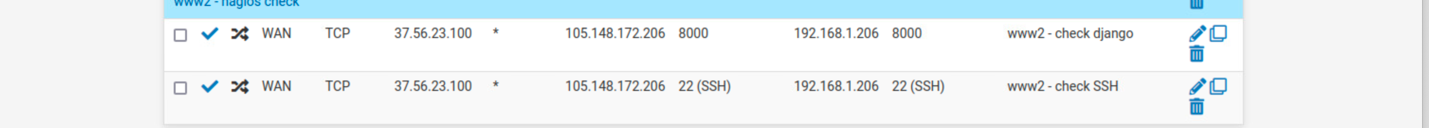
1. **Screenshot of the public key.**

(5 points)



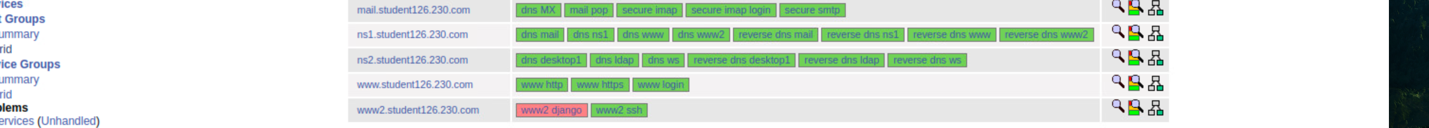
1. **Include a screenshot of your successful NAT rule for ssh on www2.**

( 5 points)



1. **Include a screenshot of the Nagios status showing ssh services are functioning on www2.**

(5 points)



1. **Screenshot of the Nagios services for the desktop with it being red.**

(5 points)

A screenshot of a computer

Description automatically generated

1. **Screenshot of UFW rules for desktop**

(5 points)

A screenshot of a computer

Description automatically generated

1. **Screenshot of the Nagios services for the desktop turning green after UFW rules.**

(5 points)

A screenshot of a computer

Description automatically generated

1. **Screenshot of UFW rules for ns2**

(5 points)

A black screen with white text

Description automatically generated

1. **Screenshot of 6 additional sets of UFW rules (ns1, www, mail, ldap, www2, ws)**

(10 points)

**Ns1**

**A screenshot of a computer

Description automatically generated**

**www**

**A screenshot of a computer

Description automatically generated**

**mail**

**A screenshot of a computer

Description automatically generated**

**ldap**

**A screenshot of a computer screen

Description automatically generated**

**www2**

**A screenshot of a computer screen

Description automatically generated**

**ws**

A screenshot of a computer

Description automatically generated

1. **Screenshot of successful LDAP query on partner's network.**

(10 points)

A screenshot of a computer program

Description automatically generated

1. **Final network diagram.**

(15 points)

A diagram of a network

Description automatically generated