Week 4: Initial System Configuration & Security Implementation

Overview

In Week 4, I began configuring the Linux server and implementing foundational security controls. All work was performed via SSH from my workstation, demonstrating remote administration skills. Key tasks included SSH hardening, firewall configuration, and user privilege management.

1. SSH Hardening

I configured SSH to use **key-based authentication** and disabled password login to increase server security.

Commands:

```
# Generate SSH key on workstation
ssh-keygen -t rsa -b 4096

# Copy public key to server
ssh-copy-id username@server_ip

# Edit SSH configuration to disable password login
sudo nano /etc/ssh/sshd_config
# Set: PasswordAuthentication no

# Restart SSH service
sudo systemctl restart ssh
```

```
vboxuser@ubuntuS:~$ sudo apt install apparmor apparmpr-utils -y
[sudo] password for vboxuser:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package apparmpr-utils
vboxuser@ubuntuS:~$ aa-ststus
Command 'aa-ststus' not found, did you mean:
  command 'aa-status' from deb apparmor (4.0.1really4.0.1-0ubuntu0.24.04.5)
Try: sudo apt install <deb name>
vboxuser@ubuntuS:~$ sudo systemctl enable apparmor
Synchronizing state of apparmor.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable apparmor
vboxuser@ubuntuS:~$ sudo systemctl start apparmor
vboxuser@ubuntuS:~$ _
```

```
vboxuser@ubuntuS:~$ sudo apt install unattended-uperades -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package unattended-uperades
vboxuser@ubuntuS:~$ sudo dpkg-reconfigure --priority=low unattended-upfrades
dpkg-query: package 'unattened-upfrades' is not installed and no information is available
Use dpkg --info (= dpkg-deb --info) to examine archive files.
/usr/sbin/dpkg-reconfigure: unattened-upfrades is not installed
vboxuser@ubuntuS:~$ _
```

```
vboxuser@ubuntuS:~$ sudo apt install unattended-uperades -y
Reading package lists... Done
Building dependency tree... Done
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E: Unable to locate package unattended-uperades
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Use dpkg --info (= dpkg-deb --info) to examine archive files.
/usr/sbin/dpkg-reconfigure: unattened-upfrades is not installed
vboxuser@ubuntuS:~$ sudo unattended-upgrade --dry-run
vboxuser@ubuntuS:~$ _
```

```
boxuser@ubuntuS:~$ whoami
boxuser
boxuser@ubuntuS:~$ sudo whoami
[sudo] password for vboxuser:
orry, try again.
[sudo] password for vboxuser:
root
boxuser@ubuntuS:~$ _
```