Repair a Boot Loader Problem

In this lab, you repair an issue with the boot loader configuration on one of your machines.

1. Access the **server1.example.com** system using the GUI and log in as **root**.
2. Break **grub** with the following command, then reboot the VM:
3. [student@server1 ~]$ **sed -i "s/linux16/os16/" /boot/grub2/grub.cfg**

[student@server1 ~]$ **reboot**

* + The system should fail to boot right after coming out of grub.
  + error:can't find command `os16'.
  + unaligned pointer 0x3fed58bf

Aborted. Press any key to exit.

1. Reboot the **server1.example.com** VM using **Send Key** → **Ctrl+Alt+Del**, then interrupt the boot loader countdown timer.
2. Move the cursor to the default **boot** entry, then press **E** to edit that entry.
3. Look for text starting with **os16** (inserted with the **sed** command earlier). When you find the line that is blocking the boot process, modify it, then boot with these changes.
   * **os16** is not a valid **grub** directive. Change it to **linux16**.
   * Press **Ctrl+X** to boot your system with the modified configuration.
4. Wait for the system to boot, log in as **root**, and then generate a new **grub2** configuration. Do not immediately overwrite the existing configuration, but inspect the new config first.

[root@server1 ~]# **grub2-mkconfig > /tmp/newgrub**

* + Look at the differences between the broken existing **grub** and the new proposed configuration. (Ignore the lines about **msdos**.)

[root@server1 ~]# **diff /boot/grub2/grub.cfg /tmp/newgrub**

* + Commit the configuration to disk.

[root@server1 ~]# **grub2-mkconfig > /boot/grub2/grub.cfg**

1. Reboot your machine, and confirm that it boots normally again without user intervention.

[root@server1 ~]# **systemctl reboot**