

Answers to Even-numbered Exercises

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2. What happens if you transfer an executable program file in ASCII mode?

The file will be corrupted: Any bytes that match a NEWLINE will be altered, resulting in a program that will not execute properly.

4. How would you prevent local users logging in on the **vsftpd** server using their system username and password?

Put the following line in **/etc/vsftpd/vsftpd.conf**:

```
local_enable=NO
```

6. What is the difference between **cd** and **lcd** in **ftp**?

A **cd** command changes the remote working directory, while **lcd** changes the local working directory.

8. Why is it advantageous to run **vsftp** in a **chroot** jail?

Any program that listens for Internet connections is vulnerable to compromise. If a daemon that runs as **root** is compromised, the entire system is compromised. The **vsftpd** daemon does not run as **root**, but it may still be possible for a malicious user to use a local **root** exploit to gain **root** access. Running **vsftpd** in the restricted environment of a **chroot** jail makes it significantly less likely that a malicious user can compromise the system. Without **root** access, the malicious user can only see other files in the **chroot** jail, rendering an attack harmless.

10. How would you configure `vsftpd` to run through `xinetd`, and what would be the main advantage of doing this?

To configure `vsftpd` to run through `xinetd`, set `listen=NO` in `/etc/vsftpd/vsftpd.conf`, and create an `xinetd` configuration file for `vsftpd` in `/etc/xinetd.d`. This configuration allows you to provide more fine-grain access control to the server.