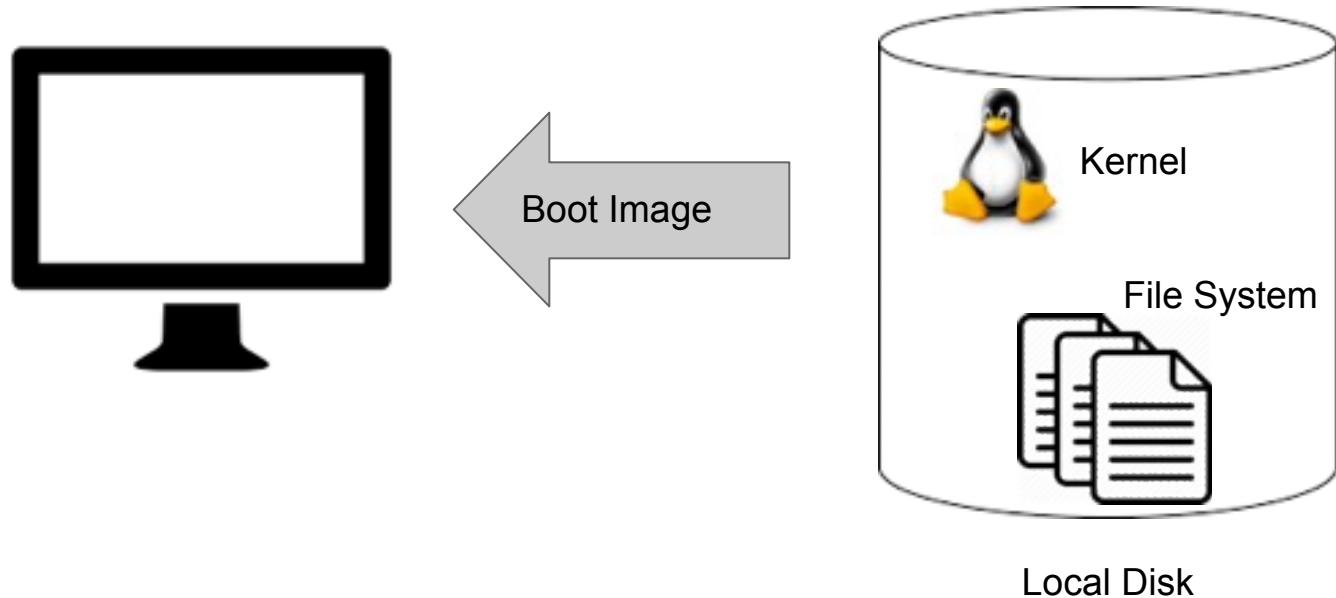


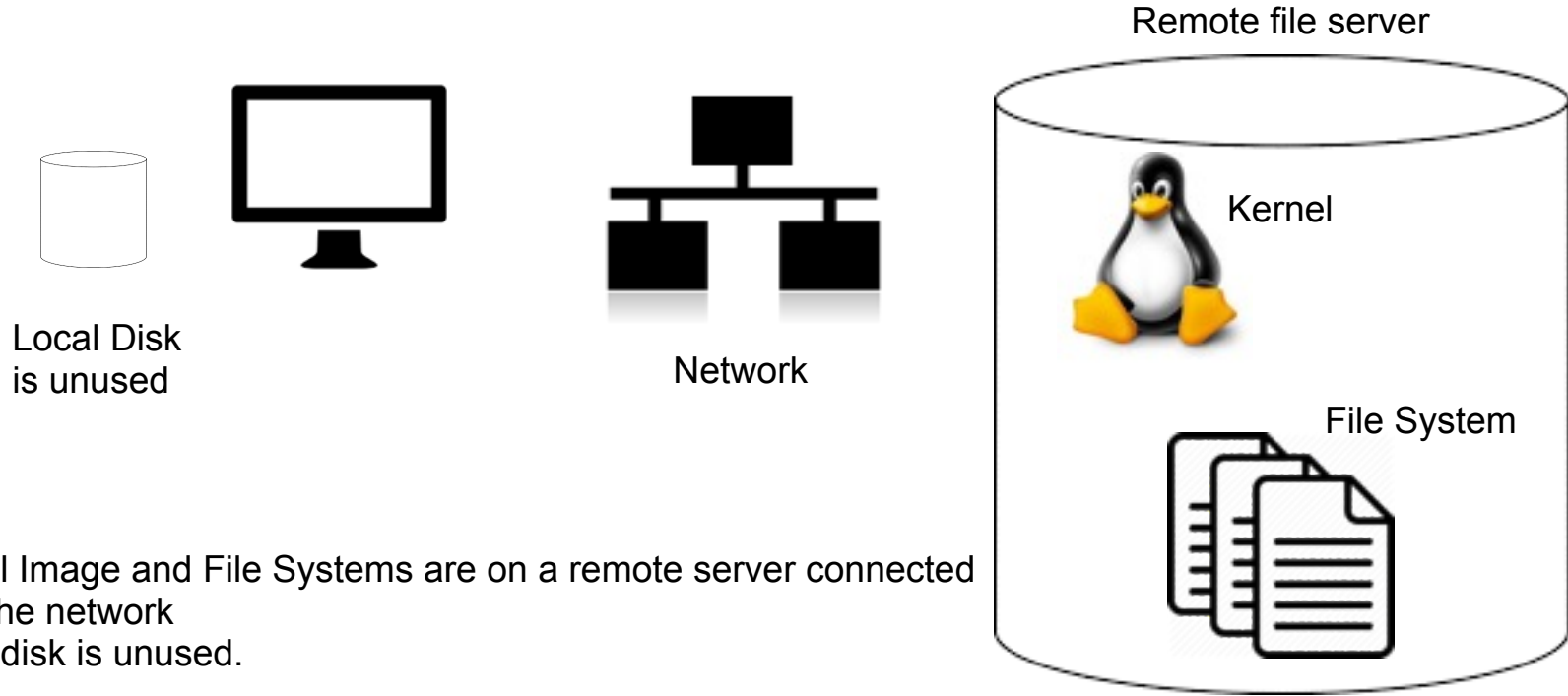
Network Boot Image

Normally, a computer boots from its local hard drive

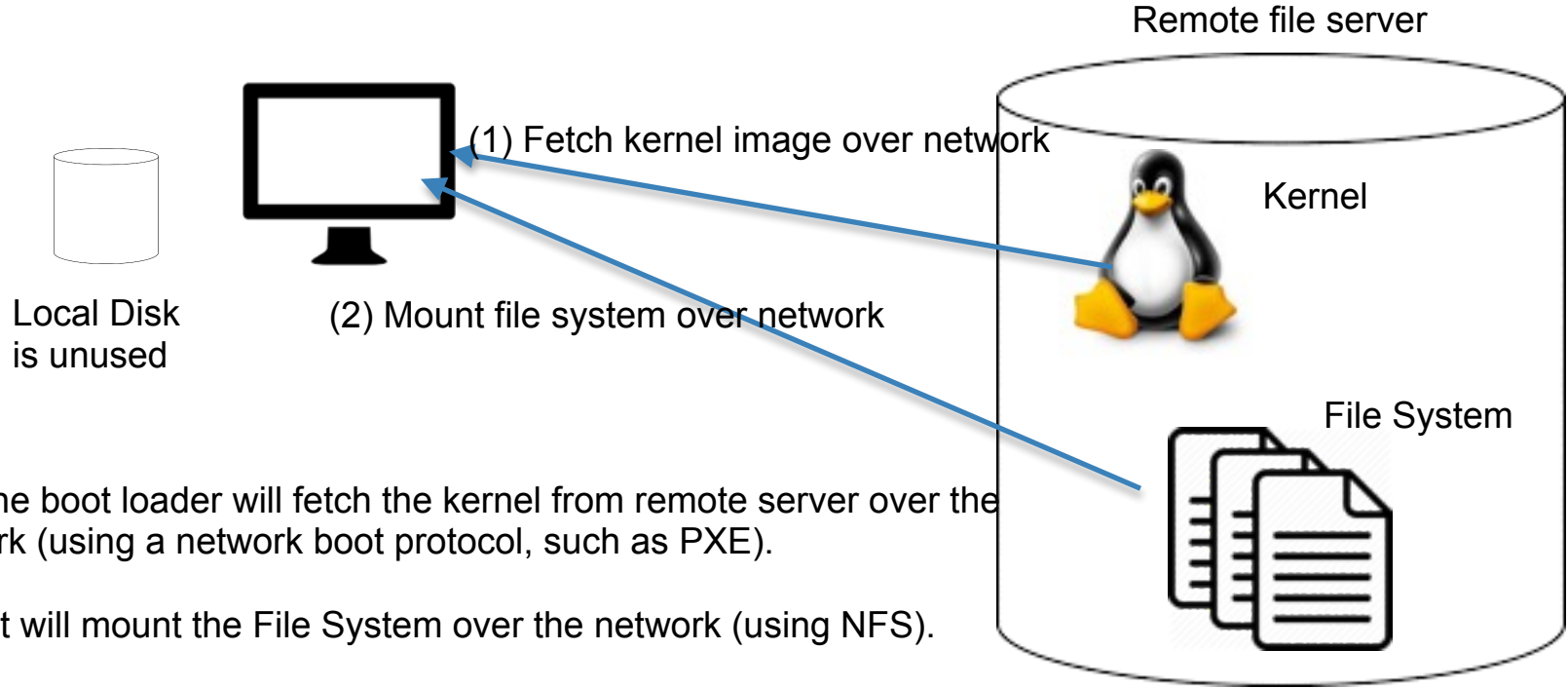


- First the kernel (the operating system boots up) from the local disk
- Then your file system (storage for your files) is “mounted” by the kernel, again from the local disk

The alternative: Network boot



How network boot works



Do this first before you do anything else

- Log into your CS LDAP account (your CS account...not bingsuns)
- Open a text terminal (using xterm or Terminal programs)
- Read the contents of .virtual_access file
 - `$ cat .virtual_access`
 - Don't forget the DOT at the start of the file name
- **Write down** (in paper) the cryptic password.
 - This is the root password for your linux system that you'll need later.
- If you every forget your root password in the future or need to reset it, simply delete the .virtual_access file. The system will reset your root password and generate a new .virtual_access file within a few minutes.
 - If this doesn't work, please email the system administrator (csadmin@binghamton.edu)

Now load **YOUR OWN** Linux kernel over the network

1.Reboot the machine.

2.**Do not simply press the power button.**

- It may corrupt the currently loaded file-system
- Either use the reboot option in the GUI
- Or press Ctrl-Alt-F1 (all at once) to go to text console. Then press Ctrl-Alt-Del to reboot the machine.

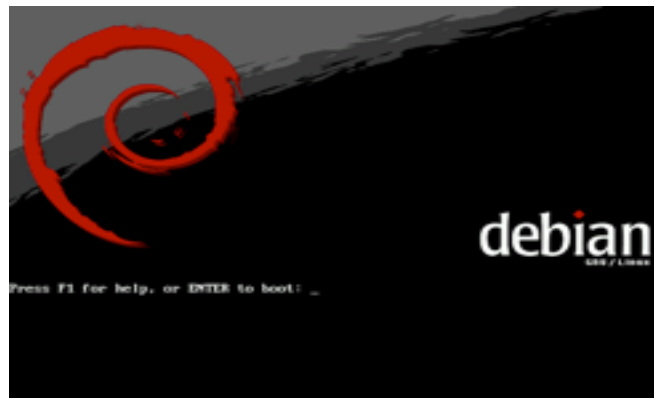
3.Then wait till you see the Debian Splash screen

4.At the “boot:” prompt, quickly enter your kernel name

- boot: <yourid>
- <yourid> = same as your LDAP ID
- But the two are not related.

5.If you ever corrupt your default kernel <yourid> then you can boot a backup kernel <yourid>.safe

- <yourid>.safe is never corrupted.



If your GUI doesn't work, there's text console

In fact there are six text Consoles

- Select one of them by pressing Ctrl-Alt-F1, to Ctrl-Alt-F6 keys

GUI can be accessed by Ctrl-Alt-F7

Try it now.

Log in as root into your Linux system

- After your system boots up, it should display a graphical login screen
- But you can't log in from GUI yet!
 - Because there's no valid user account configured in your system
- So, you have to first log in as root and create a regular user account
 - But you can't log in as root from the graphical mode
- So, Press Ctrl-Alt-F1
 - You'll get a text console
 - now log in as root using the password that you wrote down in slide 5
 - Userid: root
 - passwd: what you wrote down
- Immediately change your root password to something you can remember, but not too simple
 - `$ passwd`

Next, create a regular user account

- **\$ adduser** <userid_of_your_choice>
 - Follow the prompts, and create a password for the new user account
 - but skip entering the address, phone number etc, not needed.
- Add the new account to “sudoers” list
 - sudoers = special users who are allowed to execute commands as root
 - **\$ vi /etc/sudoers**
 - (or use any other editor)
 - Add a line
 - **userid ALL=(ALL) ALL**
 - Quit the editor
- Then press Ctrl-Alt-F7 to go back to GUI
- Log in using the account id and password that you just created
- There you go!
- Familiarize yourself with the environment
 - Find the web browser, text editor, terminal, etc.
 - Make you you have gcc, make, gdb etc installed.