System Administration

Updating your Kernel

Why Update?

- You may need to use a piece of hardware that is only supported in a later kernel
- An older kernel may have security problems or performance issues that a newer kernel fixes

Why to not update

- Certain software may not work with the newer kernel
- 'Bleeding edge' kernels may have bugs and not be as stable

How to Update

- Red Hat releases a new kernel RPM
- You download it

How to Update

The First Fundamental Rule of System Administration:

Cover your Butt

How to Update

- ***INSTALL*** the new package, not ***UPDATE*** it.
- Installing the new kernel puts the new kernel and related files in place, and adds them to the boot loader configuration, but it does not touch your current kernel.
- Updating the kernel (rpm -Uvh) will replace the old kernel with the new kernel. If the new kernel doesn't work properly, you can't return to the old one

Boot to try new kernel

- Red Hat EL 4 and later operate differently than previous versions in that when you install a new kernel, they automatically makes that kernel the default
- It does this by changing the `default=` line in the `grub.conf` file

Update grub.conf

- You can change the default kernel in the `grub.conf` file
- `default=0`

  starts the first kernel defined
- `default=1`

  starts the second kernel defined

Exercise

- Examine `/boot/grub/grub.conf` and see what it currently looks like
- Install the new kernel
  - download from http://tech.ait.iastate.edu/linux/linuxed/
- Examine the `/boot/grub/grub.conf` file to see the changes made in there
  - Where was the new kernel placed in the grub.conf?