

An abstract graphic on the left side of the slide, consisting of a network of thin, light-blue lines and small circles, resembling a circuit board or a neural network. The lines are vertical and horizontal, with some diagonal connections, and the circles are placed at various points along these lines.

PACKAGE MANAGEMENT

PACKAGE MANAGEMENT SYSTEM

- Packages are used to package software for linux, like an installer
- Some package formats:
 - Ubuntu – deb/dpkg
 - Red Hat – RPM and YUM
 - Solaris – pkgadd
- What is a package management system?
 - Set of tools/utilities to make it easier to install, upgrade, remove and configure software packages.
 - Typically connect to the internet and download packages from remote servers
- Why are some better than others?
 - Package managers that do not recursively get dependencies are more difficult to use.

PACKAGE MANAGEMENT SYSTEM

- Ubuntu uses APT (Advanced Packaging Tool)
 - Synaptic and aptitude are Front End interfaces
 - Synaptic has GUI
 - aptitude has text based GUI
- APT uses `/etc/apt/sources.list` to list which servers to download the packages from
 - Can add more servers and more packages
 - Can setup your own repositories (repos) for package distribution
 - Would be useful if maintaining internal software (and even caching/approving updates) in a corporation

PACKAGE MANAGEMENT SYSTEM

- Snippet from `/etc/apt/sources.list` :

```
#  
# deb cdrom:[Ubuntu-Server 9.10 _Karmic Koala_ - Release i386 (20091027.2)]/ karmic main restricted  
  
#deb cdrom:[Ubuntu-Server 9.10 _Karmic Koala_ - Release i386 (20091027.2)]/ karmic main restricted  
# See http://help.ubuntu.com/community/UpgradeNotes for how to upgrade to  
# newer versions of the distribution.  
  
deb http://us.archive.ubuntu.com/ubuntu/ karmic main restricted  
deb-src http://us.archive.ubuntu.com/ubuntu/ karmic main restricted  
  
## Major bug fix updates produced after the final release of the  
## distribution.  
deb http://us.archive.ubuntu.com/ubuntu/ karmic-updates main restricted  
deb-src http://us.archive.ubuntu.com/ubuntu/ karmic-updates main restricted
```

- Notice, by default CDROM is not part of the package manager sources
 - Why?

USING APT

- First step, always update your sources:
 - `apt-get update`
- Second step, apply upgrades
 - `apt-get upgrade`
- Third step, install what ever you want:
 - `apt-get install WHATEVER`
- `apt-get install openssh-server`

FINDING APPS

- Can use apt-cache to help find apps in APT
 - `apt-cache search openssh`
- Can alternatively use aptitude
 - `aptitude`
- Or... can google and try to find help
 - Ubuntu has a wonderful community with lots of info on the net!