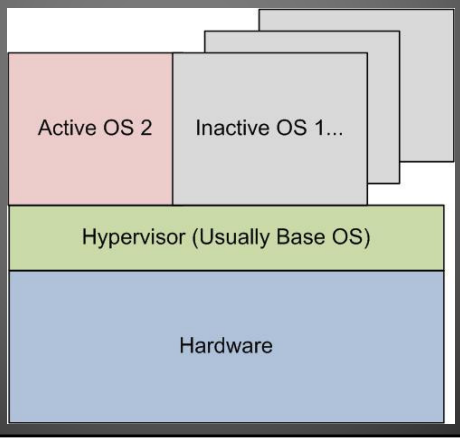
Virtualization

Get the most from your hardware and your PC setup time

What is Virtualization?

Running more than one Operating system on a computer at one time, so that they share the hardware.



What is Virtualization?

- Originated with IBM Mainframes in the 1960's when several companies might share one computer (and not wish to share data access)
- Modern Personal Computers have enough power to run more than one operating system at a time.
- Consider ½ of a new PC: 2 cpu's, 1GB RAM, 50GB HDD… it's more than a full older PC…

Why Virtualization?

- Pain-free experimentation
- Security
- Only "pay" the performance for what you use: especially programs that run continuously
- Leverage setup time by duplicating "base" environment easily and adding programs that may be hard to uninstall

Options

- Light virtualization: running some subset of an OS within another. Great for a few needed programs, but not 100% the same as a full OS
- Full virtualization: Running multiple full environments simultaneously – software can't tell but usually some HW limitations.
- Not Recommended: Multiple Boot OS's, Removable HDD's, Multiple low end PC's

Light Virtualization

- Cygwin (free): Linux Bash on Windows
  It's great to have a console environment on Windows machines.
- WINE (free): Windows on Linux
  Most commonly used for IE, WMP.
- CrossOver ($40): Windows on Mac or Linux
  A user-friendly commercial version of WINE.

Full Virtualization

- Windows on Mac:
  VMWare Fusion, Parallels Desktop
- Linux on Windows:
  VMWare Workstation, Special Distributions
- Windows on Windows or Linux:
  VMWare workstation, MS Virtual PC

Not (no longer) Recommended

- Multiple Boot OS's
  Harder to maintain, you can't run more than one OS at once (BootCamp, GRUB, etc)
- Removable HDD's
  Loud, difficult, and still one at a time
- Multiple low end PC's
  Simple to setup SW & multiple at once, but you pay whether you use it or not & it gets more cumbersome with use.

Questions?