

Intro To XEN

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[Http://www.friocorte.com/presentation](http://www.friocorte.com/presentation)

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XEN Basics

- What is XEN?
 - A paravirtualising virtual machine monitor
- Xen Layout/Design
 - A hypervisor – xen.gz
 - A Host or Domain-0 OS – vmlinuz-XEN-0
 - Host OS provides all guest OS file access
 - One or more guest or Domain-U – vmlinuz-XEN-U
 - Can be file/lvm/device/network backed

XEN Installation

- Prerequisites:
 - Linux OS (2.4 or 2.6 kernel)
 - Iproute2(guest and host networking)
 - Bridge-utils (for guest networking)
 - Twisted (again for guest networking)
 - Curl-devel
 - Zlib-devel
 - Python 2.2-devel(xend daemon and xm command)

Installing XEN-0

- Package based
 - FC4 uses kernel-XEN-0 and kernel-XEN-U packages
- Source based
 - Follow install instructions from main documentation
 - [Http://www.cl.cam.ac.uk/Research/SRG/netos/xen/readmes/user/user.html](http://www.cl.cam.ac.uk/Research/SRG/netos/xen/readmes/user/user.html)

Creating A Guest

- Create a disk image
 - Use dd to create a sparse image file
 - Use mkfs to format image file
 - Create a Linux image file
 - Very easy with YUM
 - Create at least /dev/zero /dev/console and /dev/null
 - Use YUM with the --installroot switch
 - Other solutions exist
 - debbootstrap, gentoo stage 3 install, etc...

Commands Galore

- xend
- xm
- Custom build scripts
 - Will be available at
<http://www.friocorte.com/presentation>

Advanced XEN

- Guest pausing and restoration
 - Domain-U can be ‘paused’ where all instructions/memory is stored in a persistent state
 - Domain can then be restarted to it’s previous state
- Guest Migration
 - Move a XEN domain-U to another XEN domain-0
 - New domain-0 host must be on the same layer 2 segment
 - Works best if domain-U uses a network backed vbd (eg. NFS) and vbd resides on a third host

XEN Resources

- List of URL's and other resources will be posted to the website.