Lab 01.2: Installing Xen
IN720 Virtualisation

Introduction

In this lab we will install the Xen hypervisor and associated tools. This means that we will actually

1. Install Ubuntu 14.04

2. Install the Xen hypervisor, converting our system installed above into the Dom0 guest.

3. Configure bridge networking

4. Try some Xen utilities to test our installation

1   Preliminary steps

Start by collecting your physical machine from the storeroom on the first floor, along with any cables or peripherals that you need. Get an installation disk from the front desk. (There aren't quite enough disks to go around, so share your disk when you're done with it.) Set up your computer in the lab and place the installation disk in the drive.

Reboot the machine, and as it POSTs you will need to press F12 to get a menu that lets you override the boot device order.

2   Install Ubuntu and Xen

To begin, simply install Ubuntu 14.04 with an installation disc. The installer is largely self explanatory so we will only describe the salient points here.

- Do not encrypt the `home` directory.
- When you get to the disk partitioning steps:
    1. Select guided partitioning using the entire disk and LVM.
    2. Install on the `SCSI1` disk.
    3. Use only 10GB for the installation volume group.
- Do not enable auto updates.
- Install the SSH server, but no other extra packages.

When you finish and reboot, you may need to tweak the BIOS a bit to be sure it boots of the correct disk.

Once the basic installation is done, use apt-get to install the `xen-hypervisor-4.4-amd64` package and reboot. Your system should boot into Xen with the operating system you installed as Dom0.

3   Configure bridged networking

Your Dom0 operating system should have the `bridge-utils` package installed already. You just need to configure the network interfaces. To do this, edit the file `/etc/network/interfaces` to look like this:

```
auto lo eth0 xenbr0
iface lo inet loopback

iface xenbr0 inet dhcp
  bridge_ports eth0

iface eth0 inet manual
```

Then start your newly configured interfaces with the command

```
 sudo ifdown eth0 && sudo ifup xenbr0 && sudo ifup eth0
```

4   Test that Xen is functioning

Finally, we will use a few basic xl commands to be sure that Xen is working properly. List your guest VMs with the command `sudo xl list`. You should see one entry for your Dom0 guest. Finally, run `sudo xl info` to get a summary of information about your Xen host.