Practical 6: Introduction to Virtual Machines

**Introduction**

In this lab we introduce virtual machines using a virtual machine host on your own machine i.e. VirtualBox. We will then briefly use Amazon EC2 which is a host for virtual machines on the cloud. We will create a new virtual machine and also connect to this via SSH with Putty

**1. VirtualBox Introduction**

Go to <https://www.virtualbox.org/> where you can download virtual box and get informative tutorials, other documentation and community links. Read the documentation for VirtualBox here: <https://www.virtualbox.org/manual/>

**2. Demonstrating sample VMs running on VirtualBox**

Get windows VMs for VirtualBox here: <http://www.modern.ie/en-us/virtualization-tools>

Get Ubuntu VM for VirtualBox here: <http://virtualboximages.com/Ubuntu+13.10+amd64+VirtualBox+VDI+Virtual+Appliance>

**3. Demonstrate sharing of data from host operating system to guest operating system**

<http://www.youtube.com/watch?v=7L-pWwBKLTE>

**4. Demonstrate VMs on the cloud using Amazon Web Services**

Connect to EC2 Linux/UNIX instances via Putty:

<http://www.youtube.com/watch?v=hJRSti6DsJg>

<http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/putty.html>

Download Putty:

<http://www.putty.org>

Connect to windows instance via RDP

<http://www.youtube.com/watch?v=tJ122hr01ZU>

**5. Demonstrate Secure copy of a file from local to a remote computer**

See <http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/putty.html>

**6. For submission**

Submit a written report on this lab to [billy.stack@staff.ittralee.ie](mailto:billy.stack@staff.ittralee.ie) that has:

* A brief explanation of VirtualBox, what we offered in the lab
* A brief explanation of Amazon Web Services EC2 and what was demonstrated in the lab
* Research what SSH is, and explain how it is used in cloud environments