

# MiniNet For Newbs

By Newbs

# What is MiniNet

- Network Emulator that creates a network of virtual hosts, switches, controllers, and links.
- Runs on standard Linux network software, and its switches support OpenFlow for highly flexible custom routing and Software-Defined Networking.

# How to set up

1. Download VM and mininet image
  - a. VirtualBox: <https://www.virtualbox.org/wiki/Downloads>
  - b. MiniNet: <http://mininet.org/download/>
2. Import the MiniNet image into VirtualBox
  - a. Username: mininet
  - b. Password: mininet
3. Setup Host-Only Network Adapter for Mininet VM (and/or Port Forwarding)
  - a. You should be able to SSH
4. Install an X11 Server if needed
  - a. Mac: XQuartz
  - b. PC: MobaXTerm or PuTTY/XMing combo

# Exploring MiniNet

Walkthrough: <http://mininet.org/walkthrough/>

- Run Wireshark on the VM in the background filtering on “of” packets on the localhost interface. Inspect packets
- Some mininet commands to try:
  - help, net, dump, h1 ping -c 1 h2, h1 ifconfig
- Project 3 Zip:
  - <http://courses.cs.washington.edu/courses/cse461/17wi/assignments/project3/project3.zip>
- See if you can create a network with 5 hosts h1-h5 and 2 switches s1-s2, where s1 is linked to hosts h1-h3 and s2 is linked to h4-h5