

# Introduction to Home Router

For the free video please see  
<http://itfreetraining.com/lab#router-intro>

This video is the first in a series of videos that go through the whole process of installing and configuring a router using Lubuntu. This series of videos goes through installing vSphere to run the virtual machine, and installing and configuration Lubuntu on that virtual machine. The process is simpler on different dedicated hardware or different virtual solutions.

# Software/Hardware Used

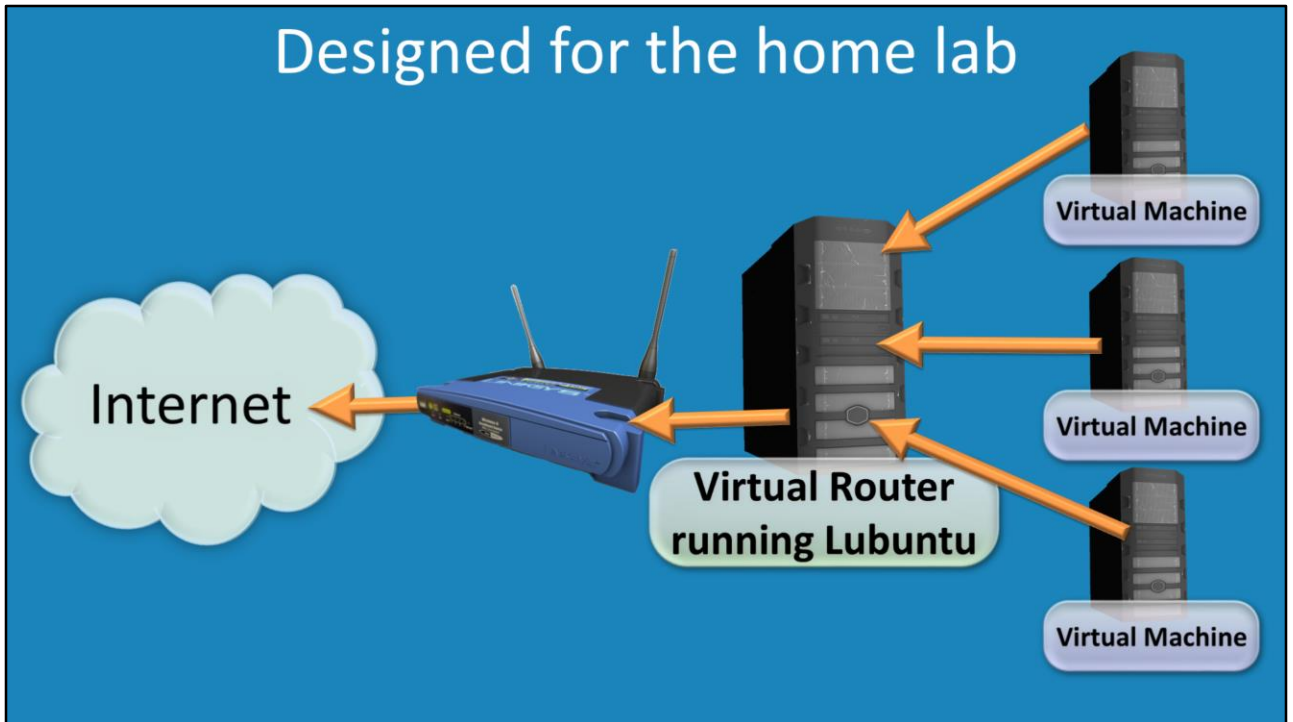
- VMWare vSphere Hypervisor
  - Requires dedicated computer
  - Could also use Hyper-V or VMware Workstation
- Ubuntu 12.10
  - Lightweight version of Ubuntu
  - Uses minimal desktop and applications

## **Software/Hardware Used**

For this series VMWare vSphere Hypervisor will be used. This software hosts virtual machines and is free from VMware, however it does require a dedicated computer to run the software on. If you do not have a dedicated computer, you can try other virtual machines. If you have Windows 8 you can run Hyper-V. VMware also has VMware workstation however this is commercial software. There is other free virtualization software that is available, the important consideration is that the virtualization solution that you choose supports the number of network cards that you require. For this virtual router, 10 network cards are used.

In this case Ubuntu 12.10 was used. You could also use other distributions of Linux. Depending on which distribution you use, the process should be simpler. In some cases the network setup may be different, for example Red Hat uses different configuration files. Ubuntu was chosen as it comes with a lightweight desktop. The server version of Ubuntu does not come with a desktop, although it can be installed if you want it. If you are happy to only use the command prompt, Ubuntu server may be a better choice for you.

## Designed for the home lab



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This router is designed to provide a bridge between a virtual machine and the internet. When set up correctly, virtual networks will be able to be created. These virtual networks are isolated from the other networks and thus you can use services like DHCP without affecting other networks. Since multiple networks are supported, you can configure virtual networks, for example you can have a New York, LA and London network. If you are performing Active Directory installs, you can configure these networks to have their own Domain Controllers on them and configure sites for these networks. The router also supports Terdo which means that IPv6 packets are transferred to the internet using IPv4. This means that your virtual machine will be able to access the internet using IPv6 even if your ISP and home router do not support IPv6.

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References

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