

Insecure about using public WiFi?
Connect to your home's OpenVPN
appliance, for free.

Paul Braren

TinkerTry.com/contact

A decorative background pattern of light blue circuit board traces and nodes is overlaid on a dark blue gradient background.

Insecure about using public WiFi? Connect to your home's OpenVPN appliance, for free.

Today, I'm highlighting a fun and practical use for a VM
you might want to run 24x7 in your home lab. Oh, with
Live Demo!

Why?

If you travel, especially outside of the country, or if you use anybody else's WiFi ever, then imagine...

...your own VPN service, with no additional monthly recurring costs. First, there are some technical hurdles to clear, that I've cleared for you...

VMware ESXi 5.5 Hypervisor left running at home, 24x7?

Yep, built one, since April 2011.

**Do I poke a hole in my firewall
(port forwarding on my router)
or do I go straight to my cable modem?**

**Let's go with the more secure way, which
turns out to be the more reliable way,
direct connect to the cable modem...**

Cable company allows multiple devices connected to cable modem?

Yes, thank you Cox Communications, who calls it “Multiple Computer Access,” with no additional charge on my particular service plan. I’ve heard Time Warner allows multiple IPs as well.

Is there a way to handle residential cable's typically dynamic IP address, using a free DDNS client, and a free DDNS service, that work well with this appliance (based on Ubuntu)?

Yes, “No-IP Linux Dynamic Update Client” and no-ip.com to the rescue!

How about a NIC where I can assign one of its ports directly to a single VM?

(VMDirectPath)

avoiding the need for promiscuous mode on virtual switch. Actually, eliminating the vSwitch entirely.

Yes, my Intel I-350 Dual Port works!

<http://amzn.to/1s8GwEH>

How about a server that is VMDirectPath capable?

Yes, vZilla, ASRock Z68 with Core i7, born in 2011. Inspiration behind me starting TinkerTry.com, since nobody was documenting about which affordable motherboard and CPU combo worked well with ESXi's VT-d support.

Let's take it for a spin, and see it work!

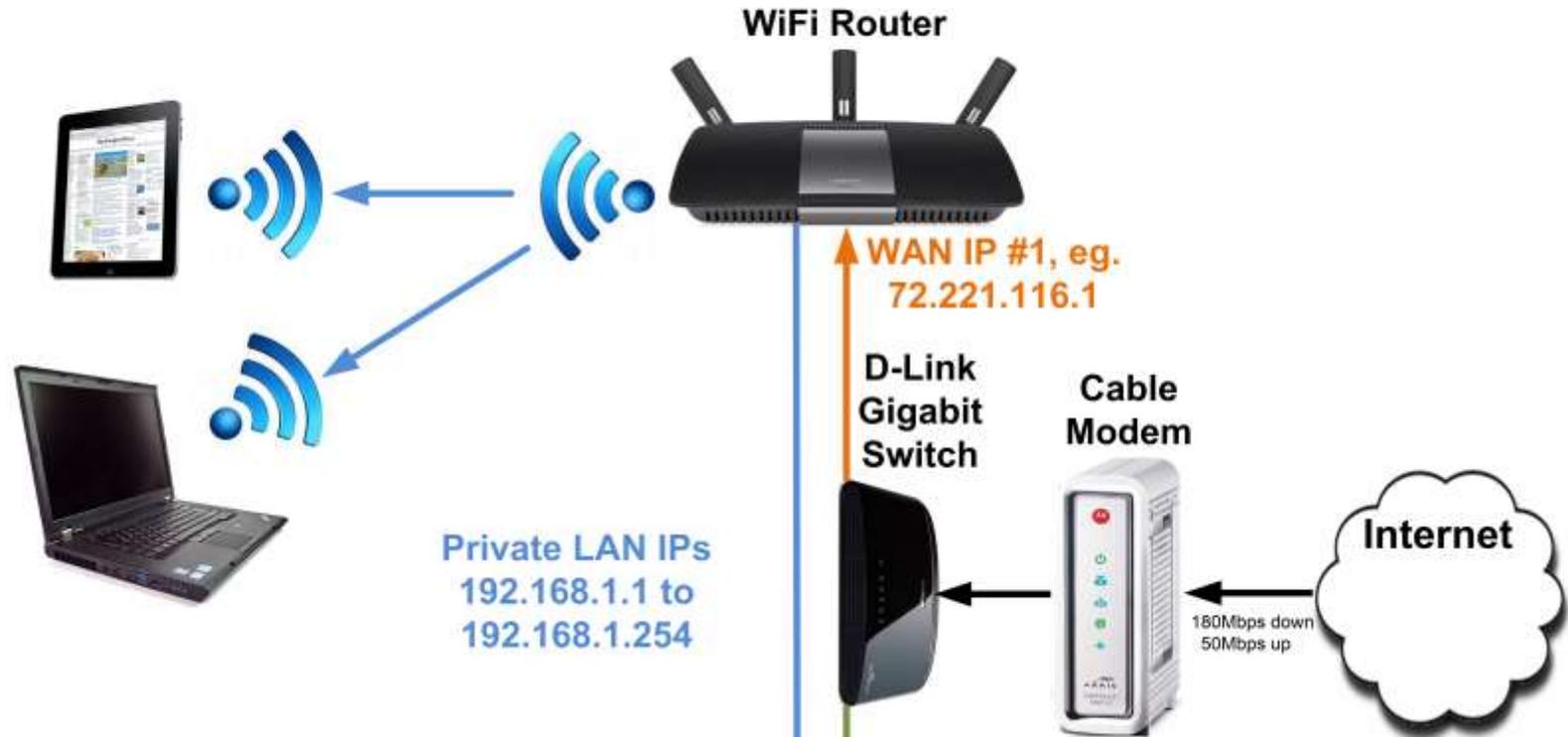
Windows 8.1 (Lenovo W520 laptop)

iOS 7 (iPhone 5)

Android 4.4.2 (Nexus 7)

all using the same WiFi connection to the internet...

My Home's Network Configuration



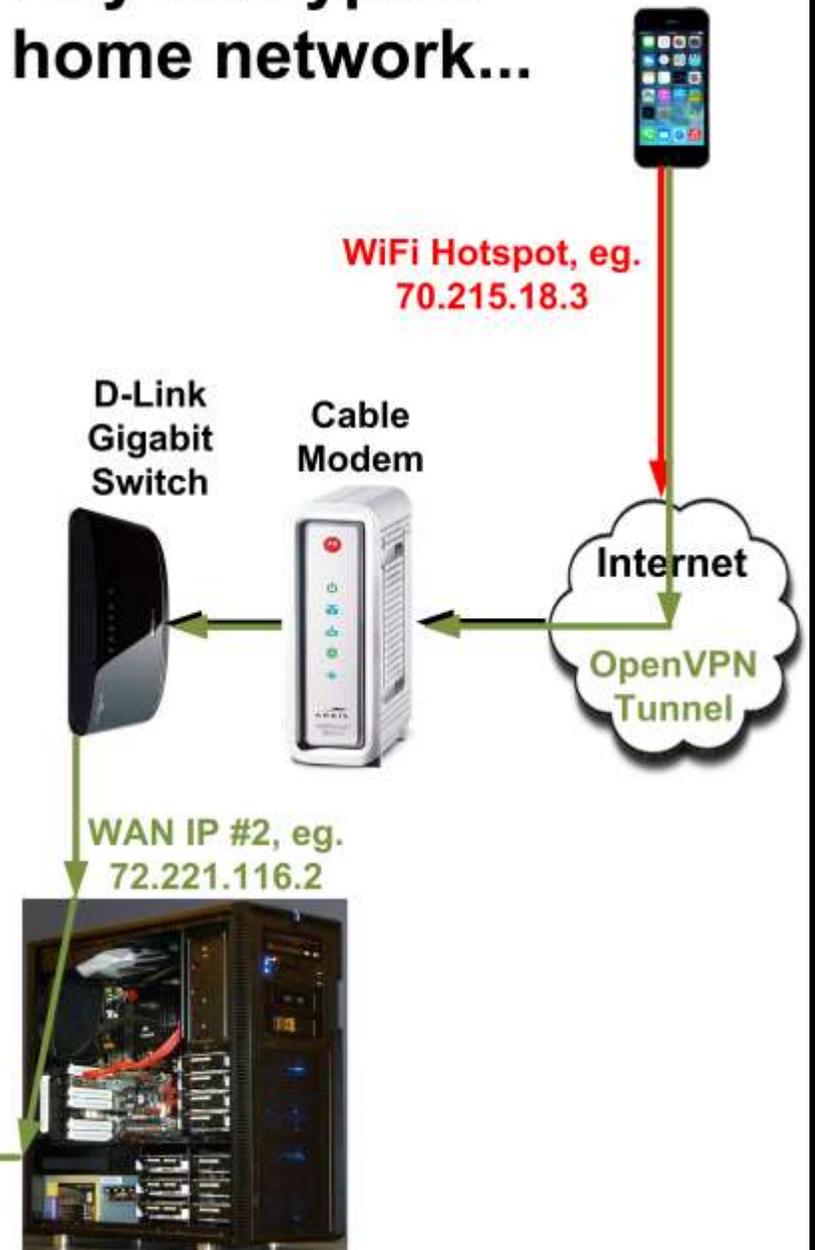
"vZilla" Core i7 host is running VMware ESXi 5.5 24x7, for VMs including
- Windows 8.1
- Windows 2012 Server R2 Essentials

vSwitch

Isolated VM with a dedicated gigabit NIC port*
Ubuntu OpenVPN Appliance
**requires Intel VT-d capable CPU/Chipset/BIOS*

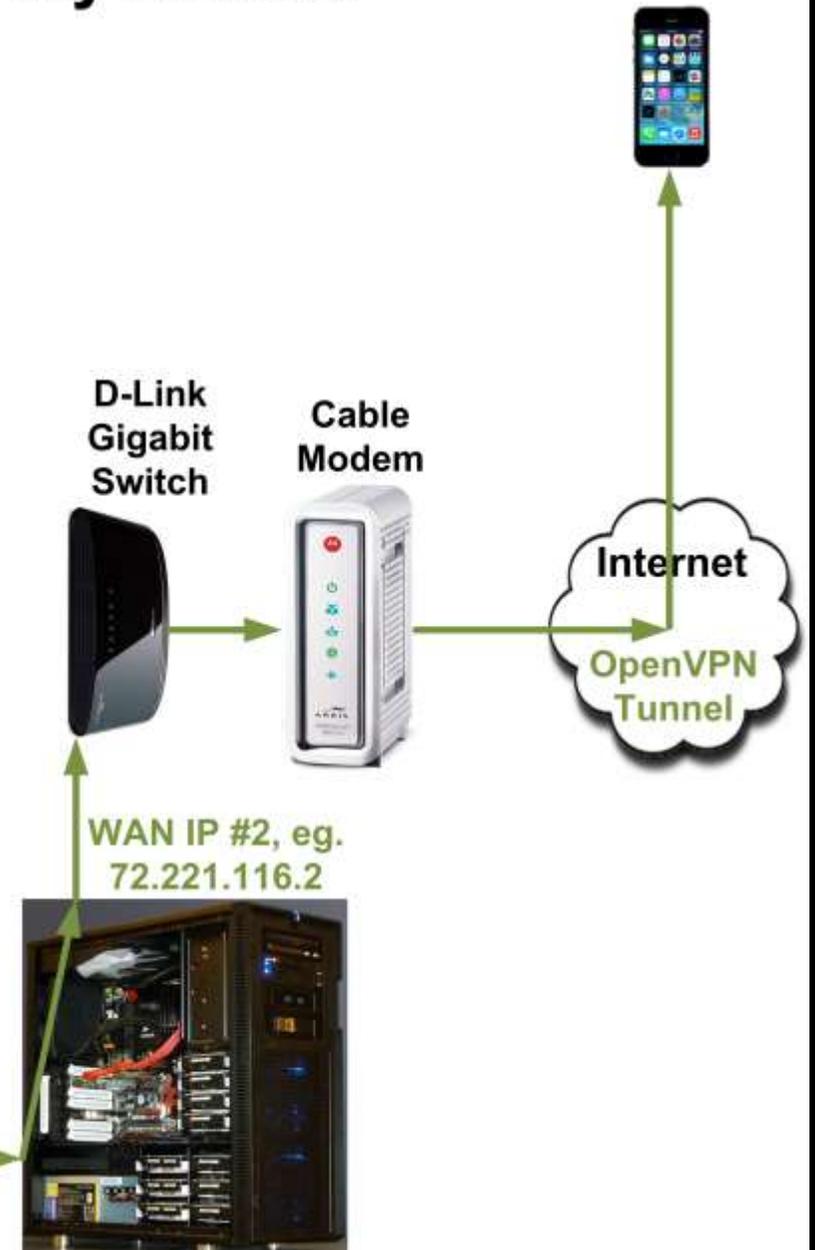


When away, here's my encrypted tunnel path back to home network...



Isolated VM with a dedicated gigabit NIC port*
Ubuntu OpenVPN Appliance
**requires Intel VT-d capable CPU/Chipset/BIOS*

...and back to my device.



Isolated VM with a dedicated gigabit NIC port*
Ubuntu OpenVPN Appliance
**requires Intel VT-d capable CPU/Chipset/BIOS*

This presentation is available at:

TinkerTry.com/jul242014

which will include a link to the soon-to-be-published “how to” video, describing exactly how I set all of this up.

Feedback always appreciated!

comments below articles work best

Paul Braren

TinkerTry.com/contact