"Range In A Box" HOWTO
Using The Virginia Cyber Range Kali Linux RaspberryPi
Link - vacr.io/2018-riab-howto   v2018-08-14a_tweeks

VIRGINIA CYBER RANGE

The Virginia Cyber Range "Range In A Box" (RIAB) is a custom designed Kali Linux image running on a RaspberryPi embedded computer configured to be used from a laptop or enabled (with WiFi) for stand-alone mode. The Kali Linux install on this device simulates the type of experience an educator would have access too (in the cloud) using the Virginia Cyber Range, and is preloaded with several of our more simple, high school / 2yr college level exercises currently in use on the range. Each exercise maps to standardized NIST KSA (Knowledge, Skills and Abilities) as well as CAE KU (Knowledge Units).

After you're done running through the five included VACR exercises, this device is also perfect tool for continued use as a remote pen testing system, WiFi/Bluetooth sniffing box or just running portable network administrator diagnostics tool.

Logging Into Your "Range In A Box":
All you need to log into and use your RIAB is a laptop with an Ethernet port (some Macs may need an adapter).
1) Set connect your laptop to your RIAB's Ethernet port.
2) Power up your RIAB by plugging it into a 2-2.5A USB charger
   via micro-USB port (right)
3) While the RIAB boots (blinking green light), go to your operating
   System's networking configuration and set your ethernet's IP
   to the statuc IP of 192.168.2.254, 255.255.255.0. If you're not
   Sure how to do this, see here:

Micro-USB Power Input
Recommended 5V @ 2A

                    https://websetnet.net/assign-static-ip-address-windows-os/
4) Once your static IP is set, open your OS' remote desktop tool and point it to the
   RIAB's IP address of 192.168.2.1 and click "Connect".

   *TIP: In Windows the remote desktop tool is just called **Remote Desktop Connection** and on Mac OSX download the app **Microsoft Remote Dekstop 8.0**.*

5) After connecting to the RIAB via your Remote Desktop app, log in to the RIAB's rdp
    login with the credentials username/password = root / toor
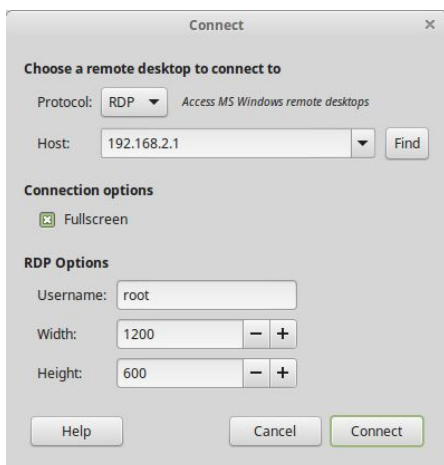
After logging in, you should see a desktop similar to the one below. Open the **Cyber Range Sample Exercises** folder to start trying out some of the sample Virginia Cyber Range beginner level security class exercises (related classroom course material not provided).
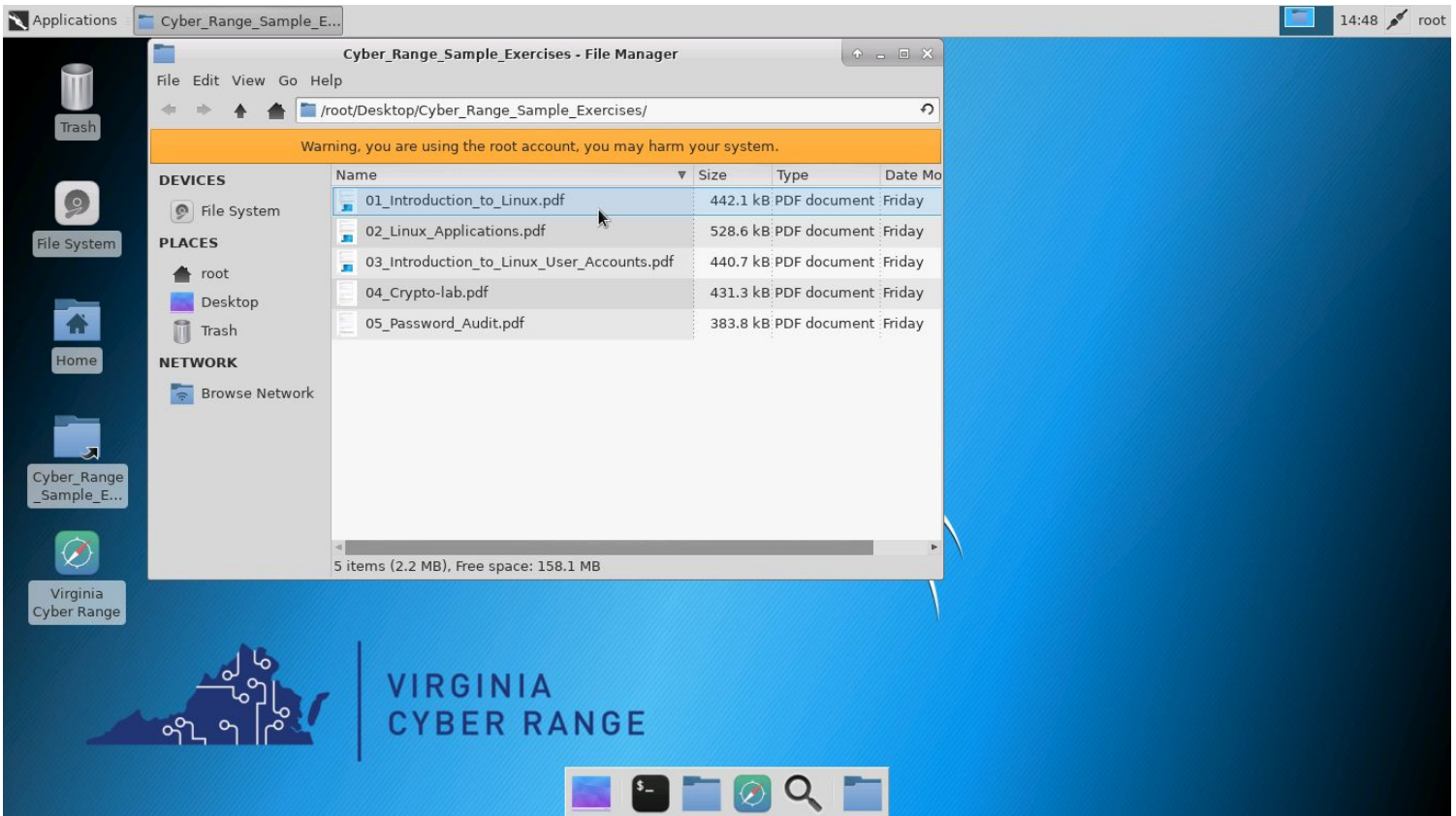
The block diagram below illustrates what you now have at your fingertips. A complete network diagnostics & security scanner that fits in your pocket! After you complete the Virginia Cyber Range sample exercises, you can use this RIAB device to perform network scans, audit/sniff your Company's WiFi security, hook up a webcam and monitor sensitive environments, or just learn how to use metasploit and network security, attack and defense tools.
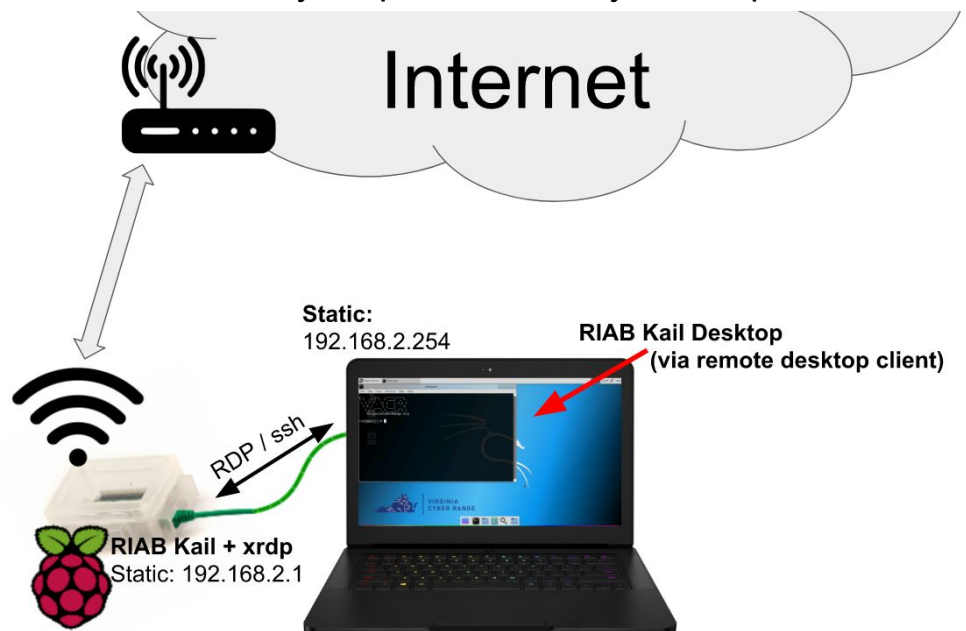
WARNING: As with any Network security auditing tool set, never access or scan a system or network you do not manage yourself or have permission to access and audit. Using any network scanning or active networking tools is considered to be recon for attack and is often be interpreted as hostile intent.