## Virtual Machine Configuration and Testing

# 1. Why would the default networking setup used in the setup of the VirtualBox discussed by the author not work for the kinds of security testing this article discusses? What two setups does the article recommend instead?

Because if the default way is used, you wouldn't be able to get an internet connection. The VirtualBox Host-Only Ethernet Adapter will allow you to get an internet connection within the virtual machine. The article also says to enable a DHCP server.

### 2. What is "host-only" networking?

Host-only networking creates a network that is completely contained within the host computer. Host-only networking provides a network connection between the virtual machine and the host computer, using a virtual Ethernet adapter that is visible to the host operating system.

## What are some activities you could engage in with the setup discussed in this article, and why would you engage in them?

You could use this to create virtual machines for security testing purposes. This is beneficial because you can then safely test network configurations to see if they will work the way you want them to.

### **Router Optimization**

# 1. Based on your research, how would you respond to the request to increase the power of the router? Is boosting the power possible? What would be the impact of doing so? Explain to the customer why this would or wouldn't work, based on your research.

It is possible, but it's not something you want to abuse. The more you boost the power, the higher the chance that you can actually destroy your device. Routers have their limits and pushing it could even make the WiFi connection even worse. Think of it like running, when you sprint the whole time you get tired more quickly. This can also apply to WiFi routers on high power demand.

### What options would you recommend instead for solving the coverage issue?

You could either install some sort of WiFi booster where the signal is weak or place the router in a central location where the signal would be almost equal everywhere.