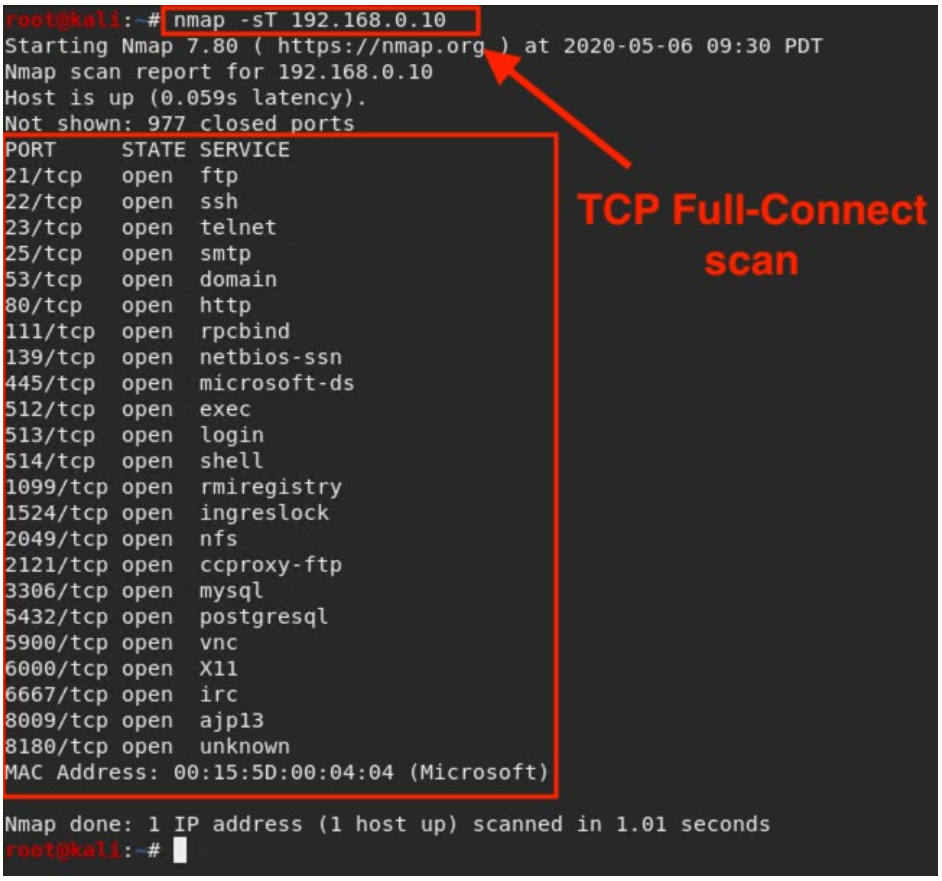
Solution Guide: Port Scanning with Nmap

In this activity, you used Nmap in an investigative capacity.

1. Perform a basic TCP connect scan against Metasploitable 2.

   - Run the command to perform a TCP connect scan:

     - `nmap -sT 192.168.0.10`

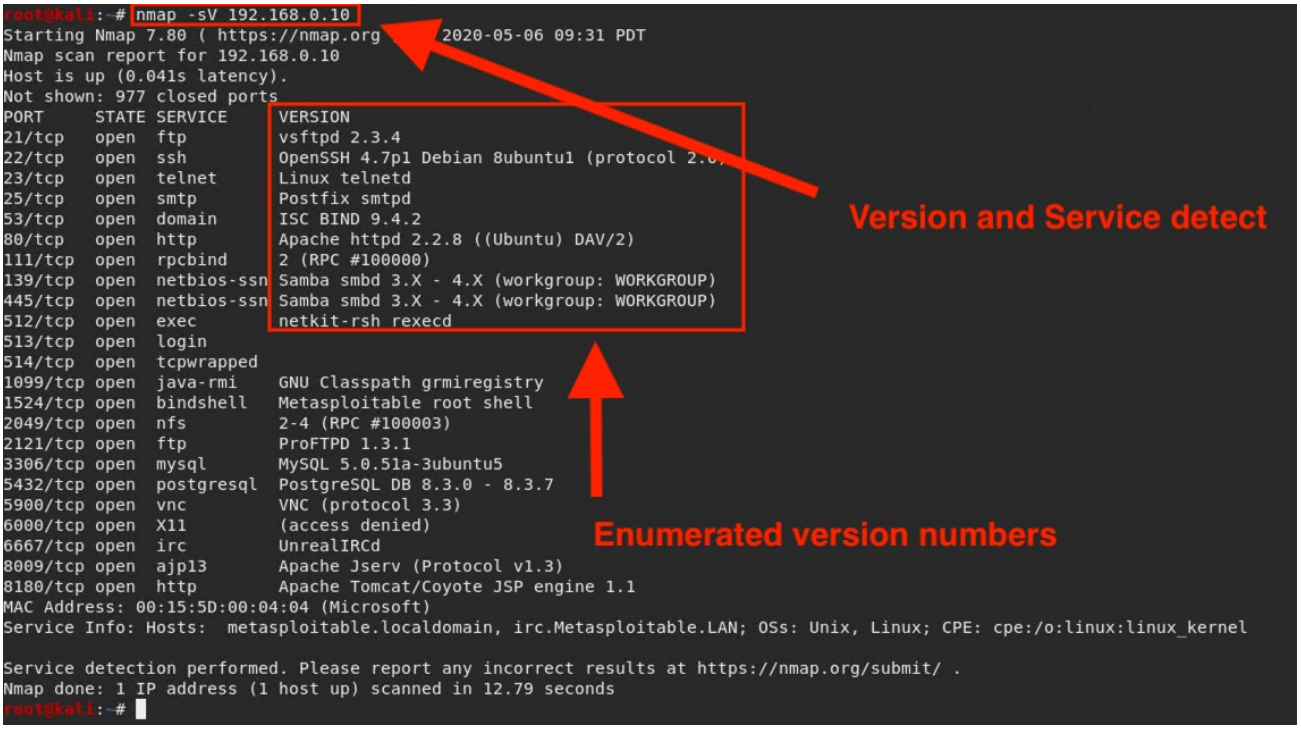


   - Of the ports listed, which two present the biggest potential vulnerability and why?
     - Port `5900`, service VNC, is a remote desktop connection that could be exploited to provide remote control to an attack.
     - Port `6667`, service IRC, can be used as a C2 channel that receives instructions from a botnet.

2. Run the command that performs a service and version detection scan against the target:

   - `nmap -sV 192.168.0.10`

   Notice that in addition to the service type, Nmap displays the enumerated version numbers.



- What web service and version is running?
  - Apache httpd 2.2.8 ((Ubuntu) DAV/2)
- Is this web service version vulnerable and if so what is it?
  - Yes, very. One possible vulnerability is CVE-2016-4975 (possible CRLF injection), which allows HTTP response splitting attacks for sites that use `mod_userdir` .

3. Look at port `21` . Google VSFTPD v2.3.4.
   - VSFTPD v2.3.4 is vulnerable to backdoor command execution, which presents a threat to organizations running this particular version of software.

- How is this information useful to an attacker?
  - Knowing the web server type and version number allows an attacker to compile a list of potential vulnerabilities to exploit.

3. Experiment with using various scan techniques and interpret the results.
   - Type `nmap` at the command prompt to get a list of commands that you can play with.