

APP200-M4-1-Assignment-Pen Test Against a Target

Due No Due Date **Points** 25 **Submitting** a text entry box or a file upload
File Types pdf, doc, and docx

Exercise Objective(s)

By the end of this lab, the student should be able to:

🕒EO1: Conduct a penetration test of a target environment

Abstract

It is time to apply everything learned throughout the course and perform a penetration testing engagement against a machine. This will require writing a report on what was discovered. Remember to provide kudos when there was something the client did successfully.

System Requirements & Configuration

System Requirements

This lab will require a **Metasploitable3** VM and a Kali Linux VM.

Network Requirements

This lab should be done on a local Virtual Machine using NAT or NAT Network.

Software Requirements

Any browser and access to the command prompt/terminal.

Procedure – Detailed Lab Steps

Setup

This Lab/CTF is based entirely on **Metasploitable3**, accessible from here:

<https://github.com/rapid7/metasploitable3> ➡ [_\(https://github.com/rapid7/metasploitable3\)_](https://github.com/rapid7/metasploitable3).

Download and deploy an instance of Metasploitable3, the same way that was done for Metasploitable in earlier labs. The default login is **vagrant:vagrant**.

Using Kali Linux, or a different preferred attack machine, conduct a penetration test/CTF of the Metasploitable3 target machine.

Lab Execution

Metasploitable3 is designed as a CTF-style VM with 13 images of playing cards; the objective is to exploit the vulnerabilities and obtain as many cards as possible in the given four-hour time window:



Base Lab


As with other labs and versions of Metasploitable, there are built-in weaknesses that are exploitable with Metasploit. Use reconnaissance, mapping, scanning, and exploitation methodologies to attack the target, gain access, escalate privilege, achieve persistence, and identify as many vulnerabilities as possible within the given timeframe.

Submission: Submit a word document or pdf write-up detailing the discovered exploits/vulnerabilities.

Advanced Lab

Perform the base lab objectives without using the Metasploit Framework at all.

References

<https://github.com/rapid7/metasploitable3>  (<https://github.com/rapid7/metasploitable3>)

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Paper

Criteria	Ratings				Pts
<p>Organization/Formatting</p> <p>Was the paper was laid out properly? Was the paper properly formatted (margins, paragraphs, etc)?</p>	<p>10 pts Excellent</p> <p>Paper properly formatted. Contains all relevant sections, content well laid out. Executive Summary, Lessons Learned, Recommended Actions, Detailed Analysis, Relevant References (ex: Compliance Materials), Bibliography</p>	<p>7 pts Good</p> <p>Contains all relevant sections, layout difficult to follow. Some formatting issues.</p>	<p>4 pts Fair</p> <p>Some sections missing or content lacking. Formatting inconsistent throughout.</p>	<p>0 pts Needs Improvement</p> <p>Content not split into sections. No formatting.</p>	10 pts
<p>Content</p> <p>Was the content in each of the sections relevant for that audience? Executives, C-Suite, IR Team, etc.</p>	<p>5 pts Excellent</p> <p>All sections contained the proper detail and was written correctly for the target audience.</p>	<p>3 pts Good</p> <p>Content was too technical in the management sections (Exec Summary, etc.) or content not detailed enough in Lessons Learned or other sections.</p>	<p>2 pts Fair</p> <p>Content missing or seriously lacking for one or more sections.</p>	<p>0 pts Needs Improvement</p> <p>Sections left blank</p>	5 pts
<p>Visuals</p> <p>Was the paper visually appealing? This includes both the visual appearance</p>	<p>5 pts Excellent</p> <p>Paper visually appealing,</p>	<p>3 pts Good</p> <p>Paper not well presented, or</p>	<p>2 pts Fair</p> <p>Too few graphs or</p>	<p>0 pts Needs Improvement</p>	5 pts

Criteria	Ratings				Pts
and the appropriate use of charts, graphs, etc	appropriate use of charts, graphs, etc.	charts, graphs lacking appropriate detail	other visuals	No graphs or other visuals	
Spelling/Grammar Appropriate spelling and grammar usage.	5 pts Excellent No noticeable spelling or grammar errors.	3 pts Good Minimal spelling or grammar errors	2 pts Fair Noticeable spelling or grammar errors	0 pts Needs Improvement Unacceptable number of spelling or grammar errors.	5 pts
Total Points: 25					

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