BIS_Lab_4_427008954

by Naresh Choudhary

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Business Information Security Lab 4

Task 1:

Two vulnerability scanner tools on Kali Linux:

1. OpenVAS
2. Sparta

Tool for web application analysis:

1. OWASP ZAP

Task 2:

Documentation link for OpenVAS: http://openvas.org/
Documentation link for Sparta: http://sparta.secforce.com/documentation/
Documentation link for OWASP ZAP: www.owasp.org/index.php/OWASP_Zed_Attack_Proxy_Project

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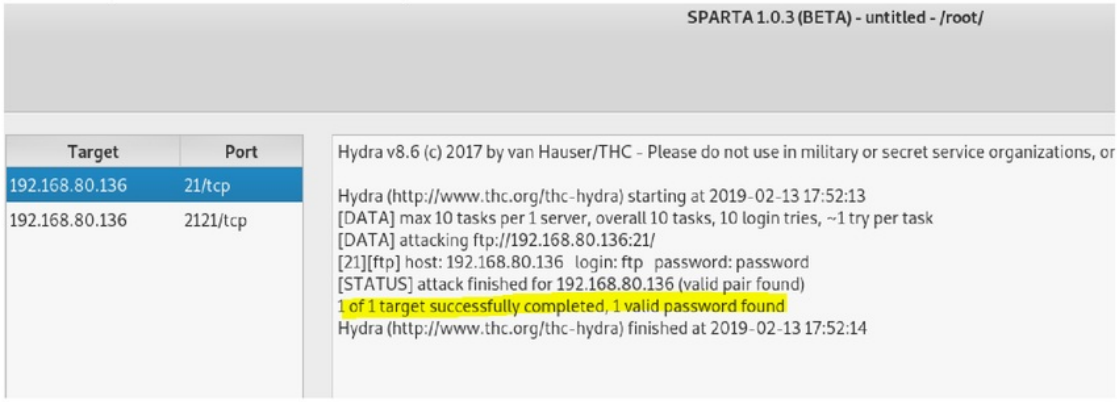
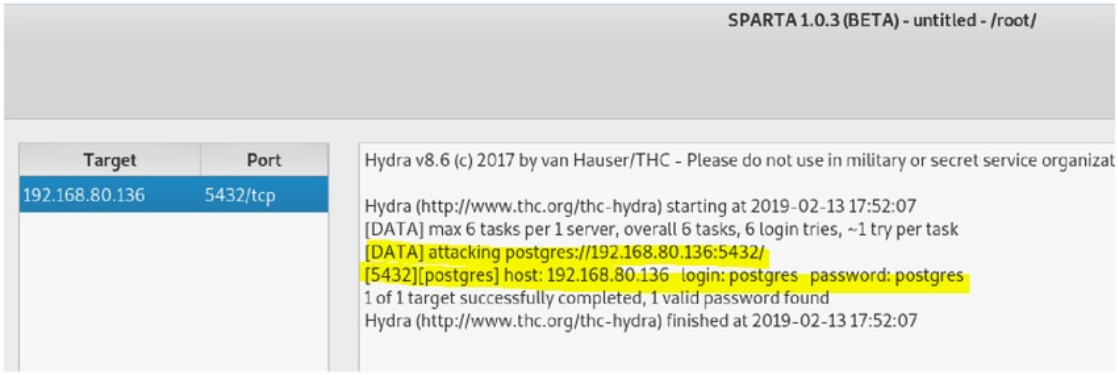
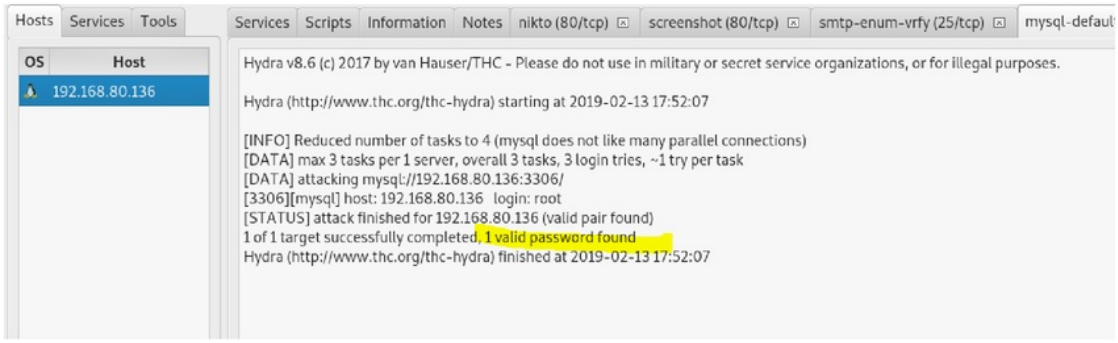
Task 4:

(A) Scan results of Sparta & OpenVAS

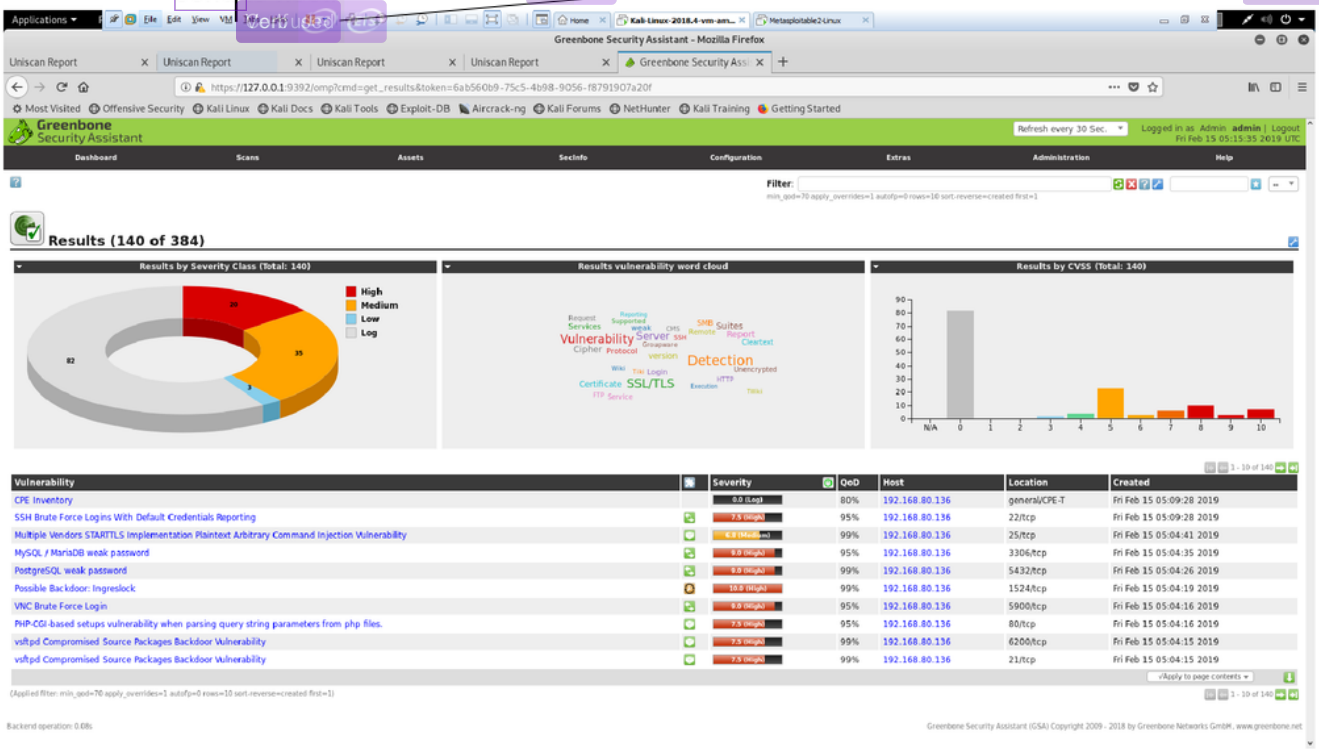
1. Sparta result shows two passwords.



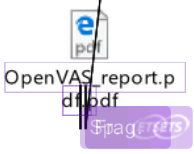




2. OpenVas shows 140 vulnerabilities based on priority. High priority vulnerabilities inlcuded use of DistCC 2.x, running of rlogin service, vsft pd(prone to backdoor hack), rexec service. OpenVas report (attached) shows the default username and password of Metasploit2. Many unspecified SQL-injection vulnerabilities were found. Further, Web servers were misconfigured resulting in dangerous HTTP PUT and delete message be send to host.

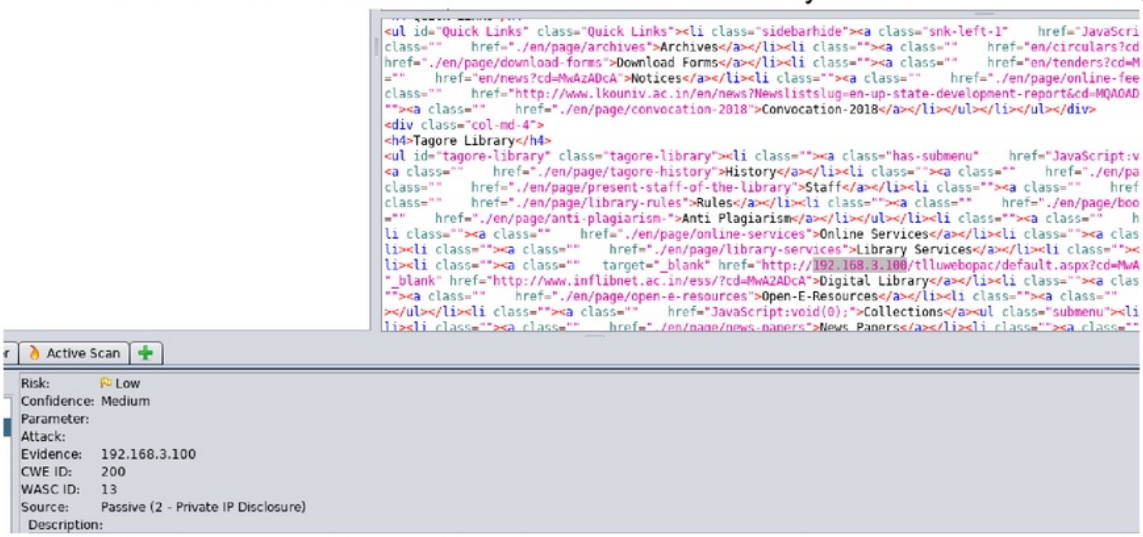


Detailed report:

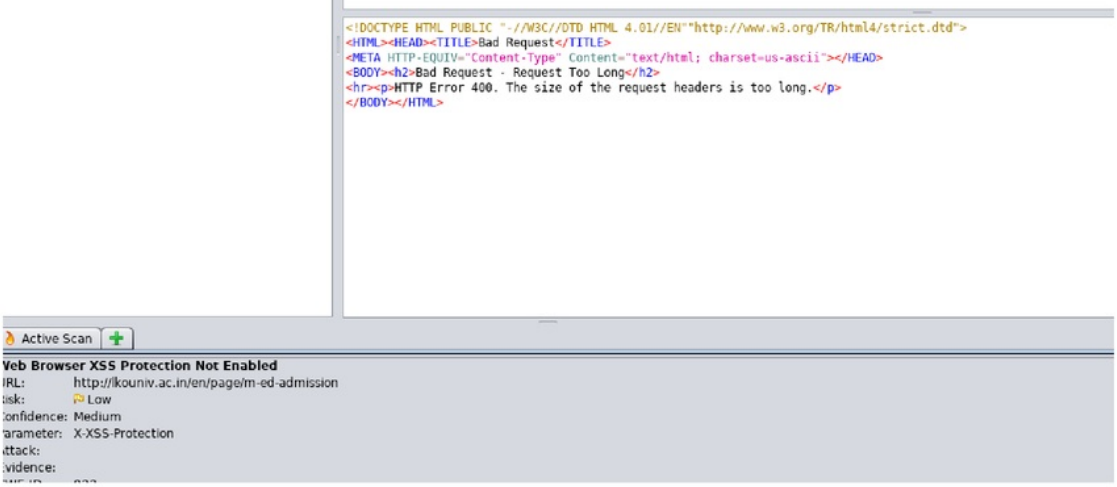


(B) Scan results for OWASP ZAP (Scan results of url lkounic.ac.in):

- A private IP (such as 10.x.x.x, 172.x.x.x, 192.168.x.x) or an Amazon EC2 private hostname (for example, ip-10-0-56-78) was found in a response body. Internal servers ip can help hacker to attack the same or find a link to enter into the system.



- XSS protection is disable. It can cause hacker to run unauthorized scripts



- An attacker can access files, directories and commands that are potentially dangerous using Path Traversal attack technique. Contents that are sensitive can be accessed by manipulate a URL. Usually web sites restrict access to "web document root" or "CGI root" directory. These directories contain the files that are used by user access and the executable used for web apps functions. It uses special-character "/" to alter the resource location requested in the URL.

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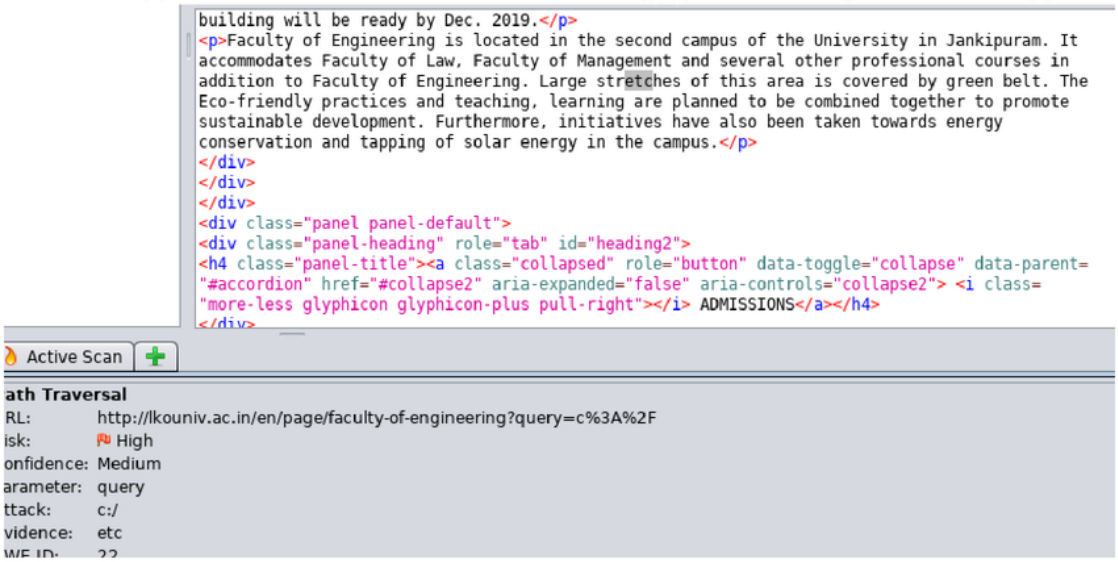
A web app can be vulnerable due to improper handling of user-supplied input.



Task 5:

Scan from sparta found 3 username and passwords of Metasploit2. These are the default username and passwords set while installing Metasploit2. These include ftp, postgresql and SQL passwords. Using these hackers can perform SQL injection to hack, corrupt or service denial. Older version of PHP were detected which are prone to an information-disclosure vulnerability. It could have been updated to PHP version 5.4+ (which is recommended by PHP). Similarly, older version of Ruby permits unauthorized systems to execute commands dangerous to system. Reports from OpenVAS shows the extract version of SQL through which unattended vulnerabilities can be exploited.

Similarly for web scanning of lkouniv.ac.in, private IP addresses, path traversal technique and sql injection can be performed. Moreover in html pages, JavaScript can be written to access internal information. There should be a filter which doesn't allow JavaScript codes to run which are embedded in html pages. Similarly XSS protector is present which could be used to input unauthorized commands.

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GRADEMARK REPORT

FINAL GRADE

16/20

GENERAL COMMENTS

Instructor

Task 5 is incomplete as per the rubric Student's assessment of the cybersecurity risk to (a) Metasploitable2 and (b) lkouniv.ac.in from network based attack? a. Your answer provides specific vulnerabilities that can be exploited by an attacker from any remote location. [Maximum 3 Points] b. Your answer provides details (in layman's terms) on how the vulnerabilities can be exploited. [Maximum 3 Points] c. You provide some information on how easy or difficult it is to exploit these vulnerabilities. [Maximum 3 Points] d. You have cited all sources of information in answering this question. [Maximum 1 Point]

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Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Confused You have a spelling mistake near the word **of** that makes **of** appear to be a confus word error.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Sentence Cap. Remember to capitalize the first word of each sentence.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Article Error You may need to use an article before this word.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Article Error You may need to use an article before this word.

Confused You have used **send** in this sentence. You may need to use **sent** instead.

Verb This verb may be incorrect. Proofread the sentence to make sure you have used the corr form of the verb.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Frag. This sentence may be a fragment or may have incorrect punctuation. Proofread the sent to be sure that it has correct punctuation and that it has an independent clause with a complete subject and predicate.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Proofread This part of the sentence contains a grammatical error or misspelled word that ma your meaning unclear.

Verb This verb may be incorrect. Proofread the sentence to make sure you have used the corr form of the verb.

Article Error You may need to use an article before this word.

Article Error You may need to use an article before this word. Consider using the article **the**

Confused You have used **a** in this sentence. You may need to use **an** instead.

Proofread This part of the sentence contains a grammatical error or misspelled word that ma your meaning unclear.

Proofread This part of the sentence contains a grammatical error or misspelled word that ma your meaning unclear.

P/V You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Article Error You may need to use an article before this word.

S/V This subject and verb may not agree. Proofread the sentence to make sure the subject agr with the verb.

Article Error You may need to remove this article.

P/V You have used the passive voice in this sentence. Depending upon what you wish to emphasize in the sentence, you may want to revise it using the active voice.

Article Error You may need to use an article before this word.

Article Error You may need to use an article before this word.

Sp. This word is misspelled. Use a dictionary or spellchecker when you proofread your work.

Missing "," You may need to place a comma after this word.

Article Error You may need to use an article before this word.