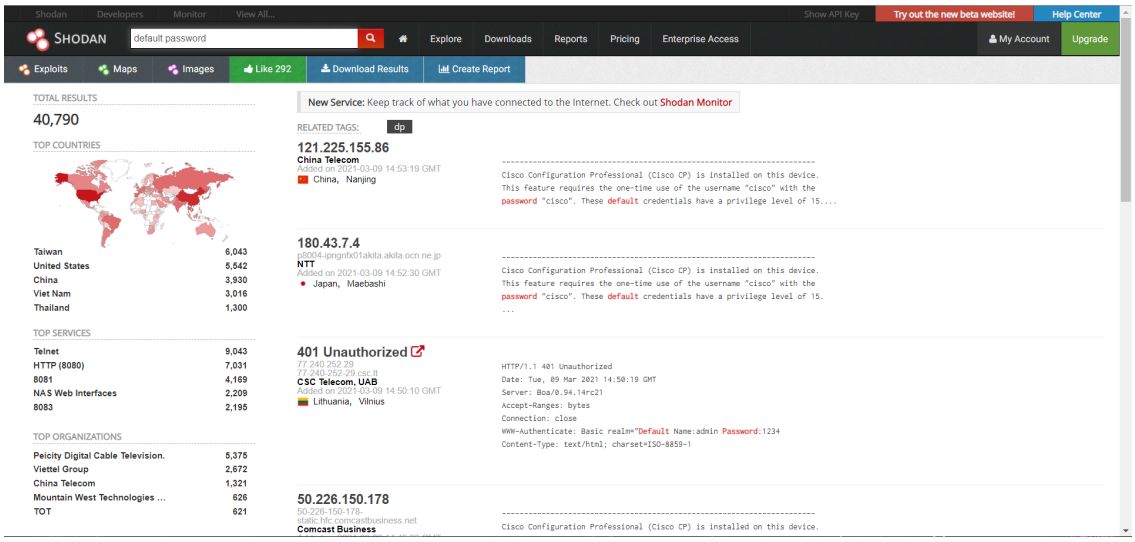
Shodan 体验

- xiabee

直接使用

- 搜索栏搜索`default password`，查找相关联网设备：

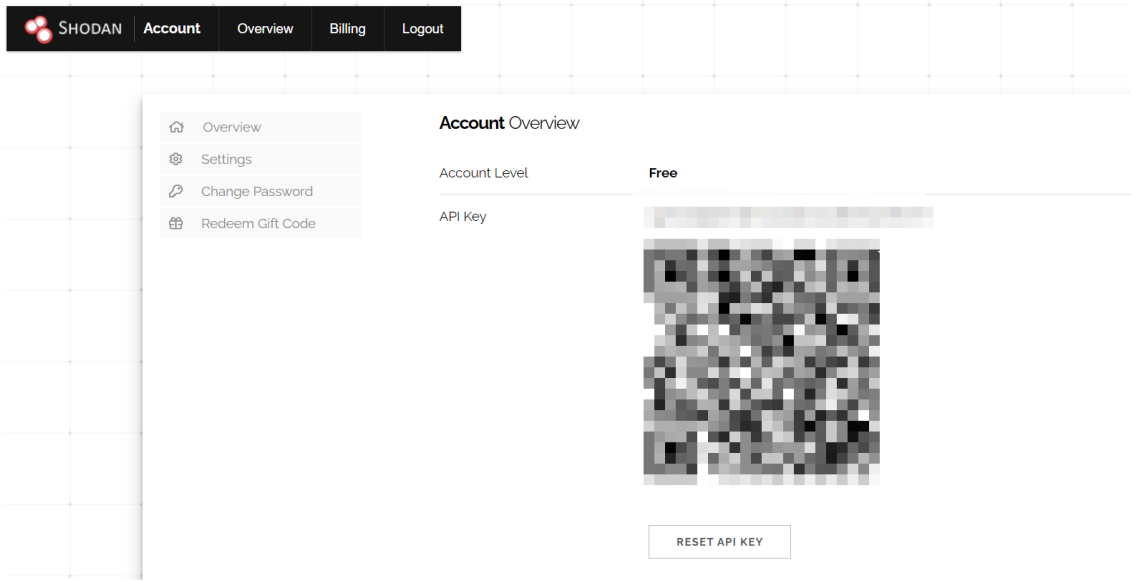


可以搜索到很多和默认密码相关的设备

- 查看详细信息

结合MSF使用

- 进入`shodan.io`，复制`API Key`



- 启动MSF

```
msfconsole
# 启动MSF
search shodan
# 查找相关exp
use auxiliary/gather/shodan_search
# 使用shodan_search模块
```

```
msf6 > search shodan

Matching Modules
================

   #  Name                                          Disclosure Date  Rank    Check  Description
   -  ----                                          ---------------  ----    -----  -----------
   0  auxiliary/gather/shodan_honeyscore                             normal  No     Shodan Honeyscore Client
   1  auxiliary/gather/shodan_host                                   normal  No     Shodan Host Port
   2  auxiliary/gather/shodan_search                                 normal  No     Shodan Search
   3  auxiliary/scanner/http/influxdb_enum                           normal  No     InfluxDB Enum Utility
   4  auxiliary/scanner/http/smt_ipmi_49152_exposure  2014-06-19     normal  No     Supermicro Onboard IPMI Port 49152
 Sensitive File Exposure


Interact with a module by name or index. For example info 4, use 4 or use auxiliary/scanner/http/smt_ipmi_49152_exposure

msf6 > use auxiliary/gather/shodan_search
msf6 auxiliary(gather/shodan_search) > 
```

- 查看相关参数: `show options`

```
msf6 auxiliary(gather/shodan_search) > show options

Module options (auxiliary/gather/shodan_search):

   Name           Current Setting  Required  Description
   ----           ---------------  --------  -----------
   DATABASE       false            no        Add search results to the database
   MAXPAGE        1                yes       Max amount of pages to collect
   OUTFILE                         no        A filename to store the list of IPs
   QUERY                           yes       Keywords you want to search for
   REGEX          .*               yes       Regex search for a specific IP/City/Country/Hostname
   SHODAN_APIKEY                   yes       The SHODAN API key
```

- 设置相关参数：

```
msf6 auxiliary(gather/shodan_search) > set SHODAN_APIKEY [redacted]
SHODAN_APIKEY => [redacted]
msf6 auxiliary(gather/shodan_search) > set QUERY netcam
QUERY => netcam
msf6 auxiliary(gather/shodan_search) >
```

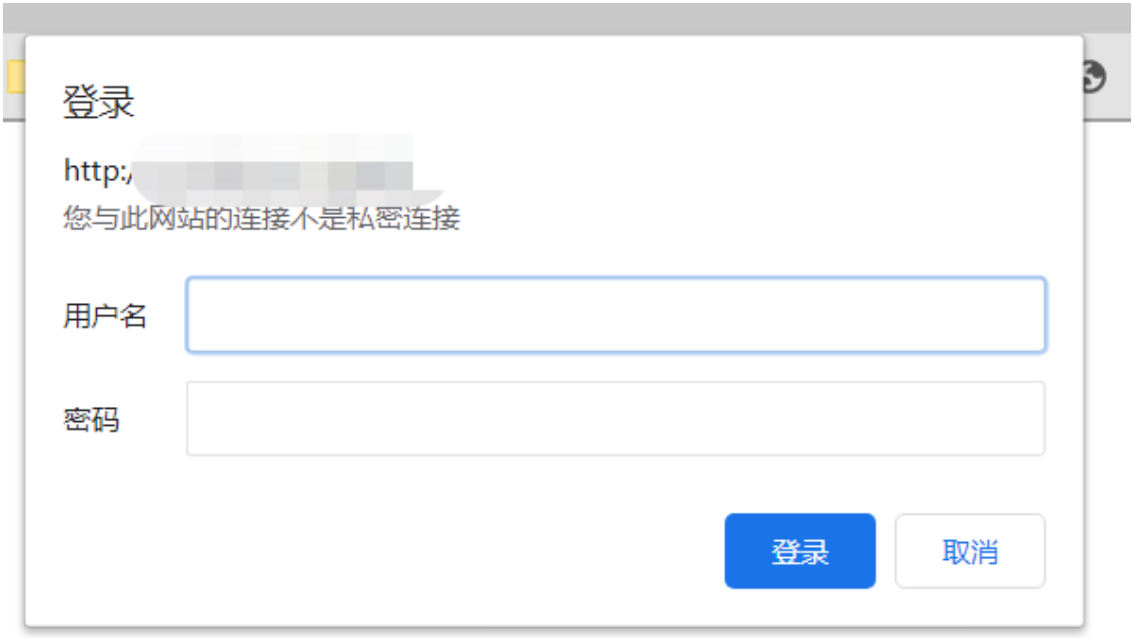
- exploit

```
msf6 auxiliary(gather/shodan_search) > run

[*] Total: 3835 on 39 pages. Showing: 1 page(s)
[*] Collecting data, please wait...

Search Results
==============

 IP:Port              City               Country        Hostname
 -------              ----               -------        --------
 1.4.193.68:80        Nonthaburi         Thailand       node-cw4.pool-1-4.dynamic.totinternet.net
 101.128.217.128:8001 Tangocho-taiza     Japan          128.217.128.101.dy.bbexcite.jp
 103.98.17.29:49153   New Taipei         Taiwan
 108.51.54.148:82     Fairfax            United States  pool-108-51-54-148.washdc.fios.verizon.net
 115.84.245.104:8038  Manila             Philippines    104.245.84.115.ids.service.static.eastern-tele.com
 116.49.94.132:8000   Central            Hong Kong      n1164994132.netvigator.com
 119.236.22.207:80    Central            Hong Kong      n11923622207.netvigator.com
 119.246.29.128:8000  Tsuen Wan          Hong Kong      119246029128.ctinets.com
 119.246.62.23:8000   Wong Tai Sin       Hong Kong      119246062023.ctinets.com
 12.204.91.4:80       Riverside          United States
 123.59.120.129:49153 N/A                China
 124.244.137.182:80   Chai Wan           Hong Kong      124244137182.ctinets.com
 124.244.202.26:8080  Shatin             Hong Kong      124244202026.ctinets.com
 124.85.16.25:8086    Monbetsu-honcho    Japan          p2451025-ipad37sapodori.hokkaido.ocn.ne.jp
 125.59.212.117:20000 Tsuen Wan          Hong Kong      cm125-59-212-117.hkcable.com.hk
 129.173.95.170:80    N/A                Canada         wc-2.Biochem.Dal.Ca
```

此时可以看到联网的摄像头设备

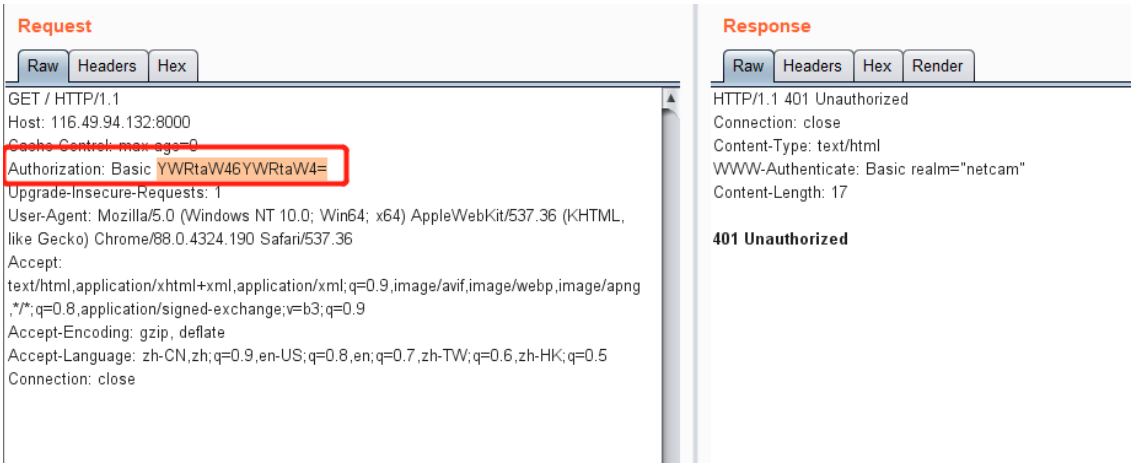
弱口令测试

- 随机选取一个地址，进入



要求我们身份验证.....直接用`Burp Suite`测试是否存在注入点

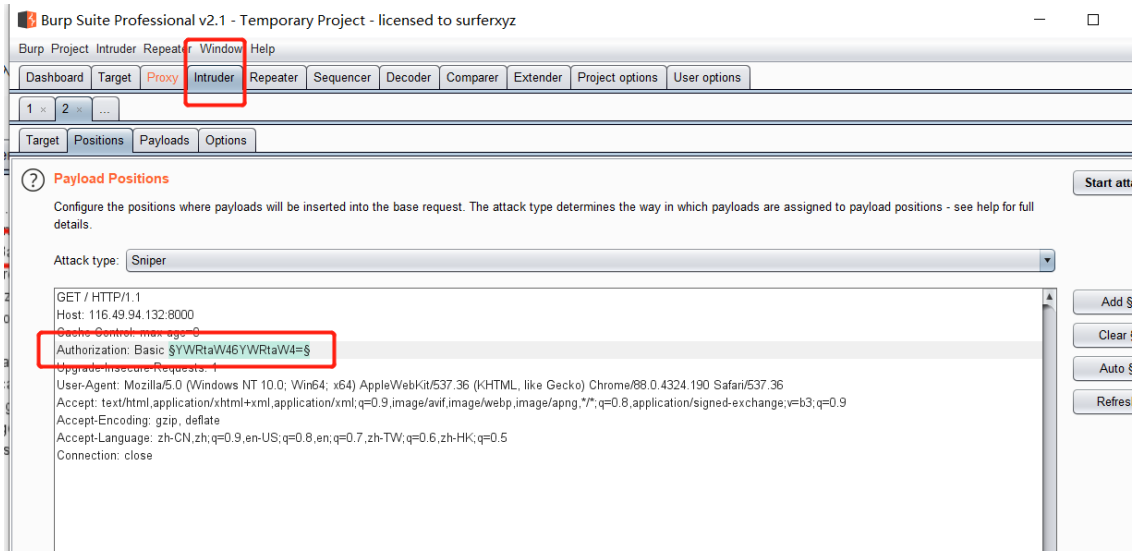
- 抓包结果：输入用户名：`admin`；输入密码：`admin`：



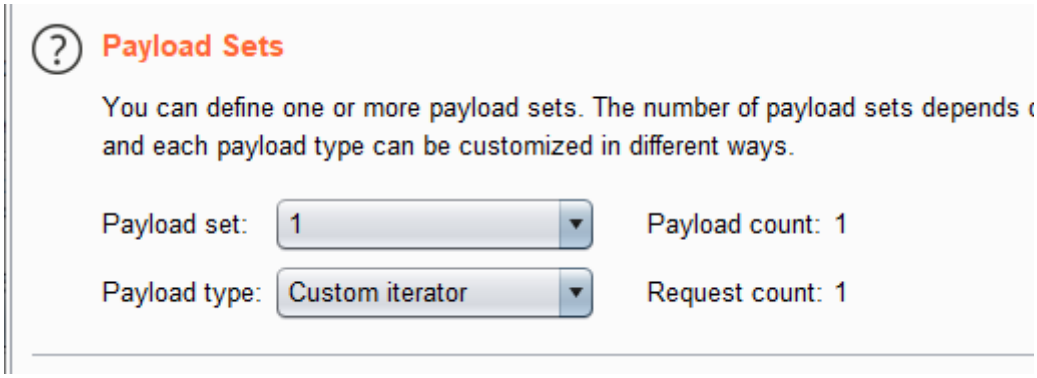
看到`Authorization: Basic`字段，基本确定其为刚刚输入的用户名和密码；

`YWRtaW46YWRtaW4=`经过`base64 decode`之后结果为`admin:admin`，推断密码以明文传输，并推断其结构为`base64encode($username:$password)`

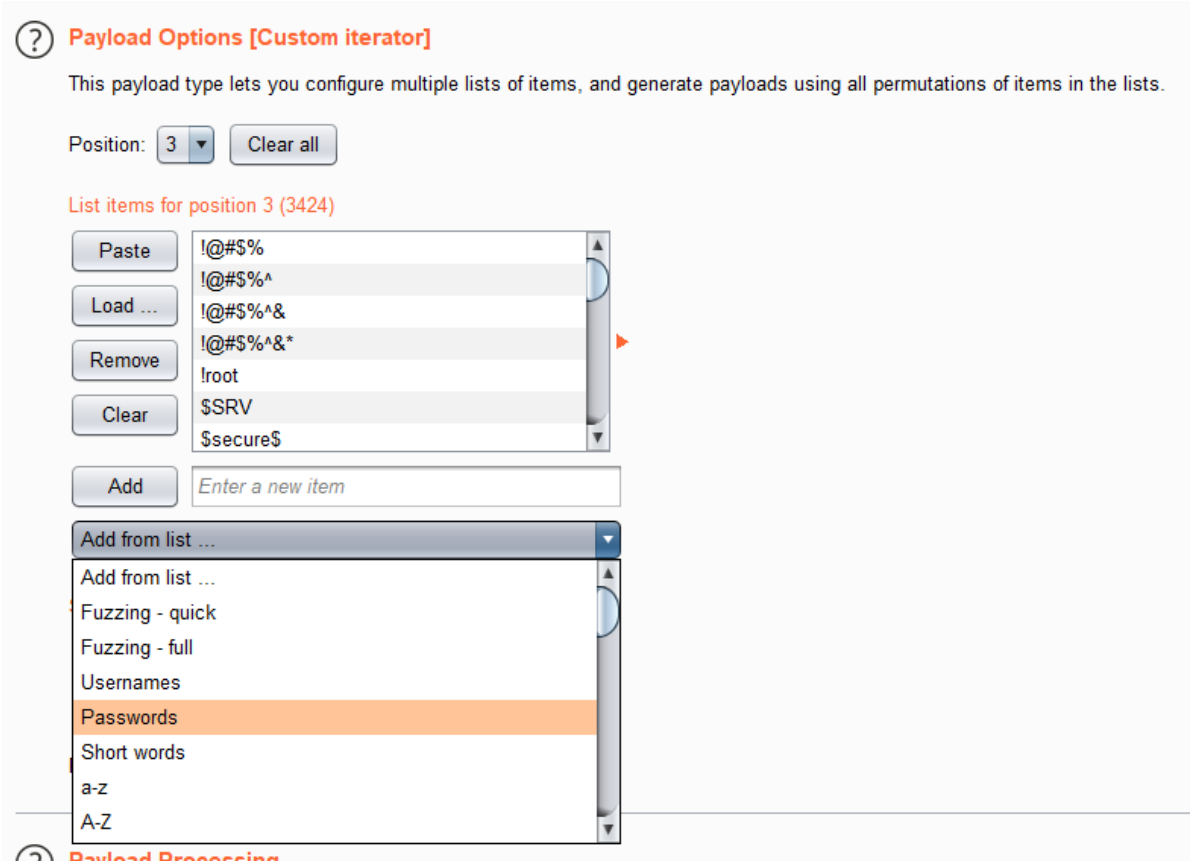
- 弱口令爆破



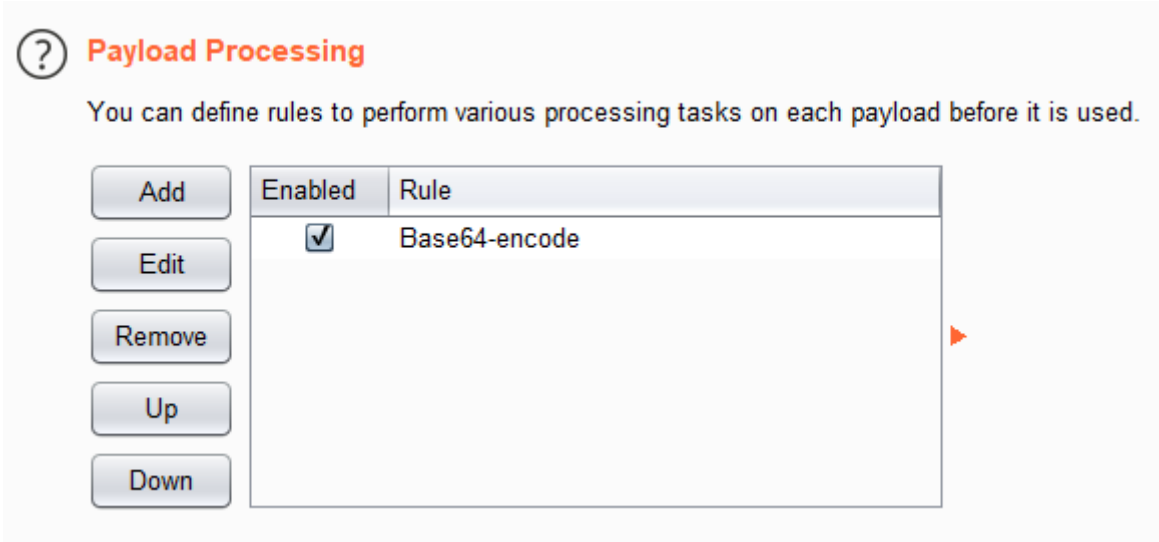
添加爆破点



payload为自定义迭代器

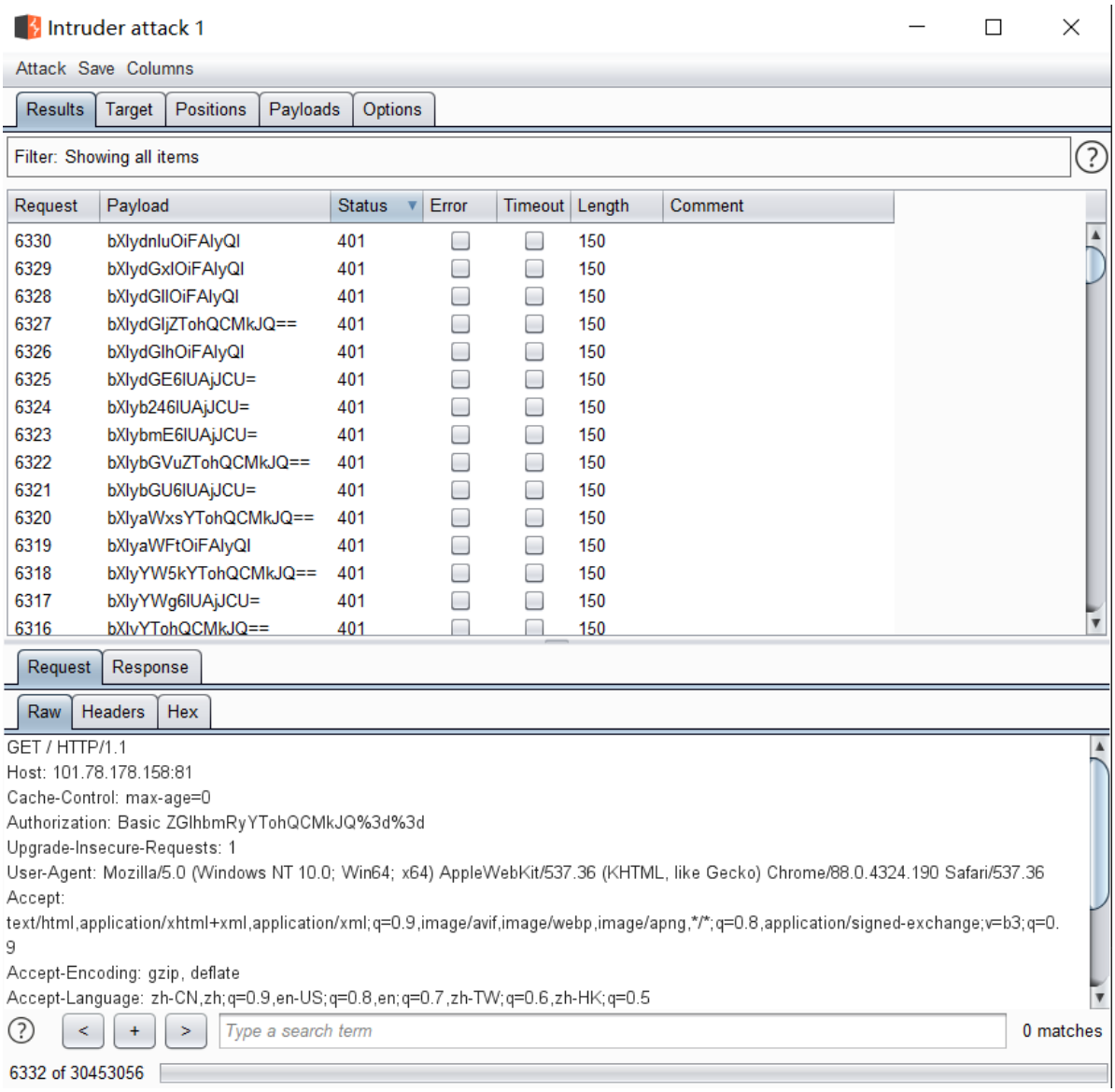


迭代器三部分分别设置为 常见用户名`Usernames`，冒号`:`，常见密码`Passwords`



对迭代对象进行`base64`编码

- 测试结果：

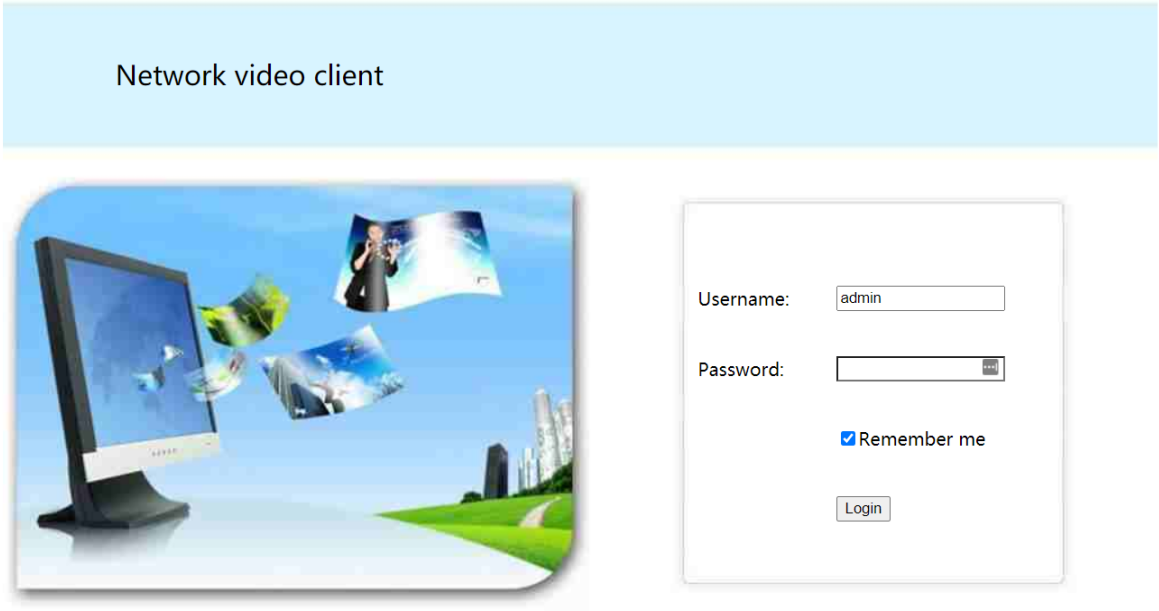


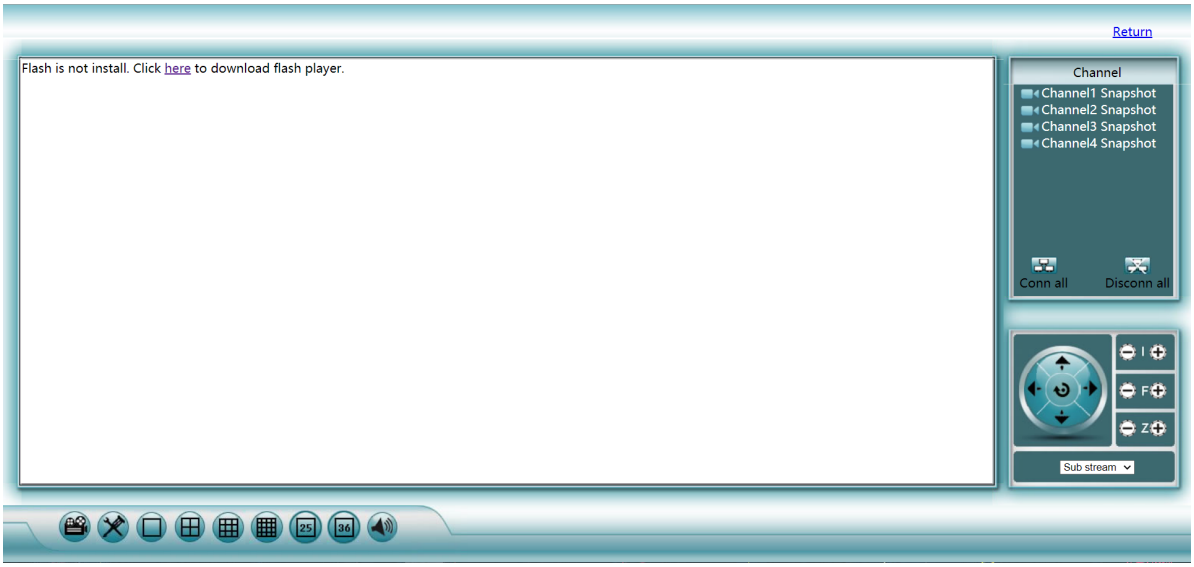
截至目前，依然没有找到正确的用户名密码对……

`Status`未出现`200`……

然后我换了一个站点：http://92.4.76.54:60001/

再次爆破，发现这位爷没设密码……





实验心得

- `shodan`是一个很强大的信息收集工具，可以为渗透测试提供很多有效信息
- `shodan`的`API`接口，结合`Metasploit`的使用，可以使得渗透测试与信息收集更加方便
- 相较于几年前，弱口令设备和用户已经没有那么常见，网民安全意识逐渐提升……
- 智能设备应修改默认口令，并定期更换口令，以防攻击者的恶意攻击