

# Day 8 - What's Under the Christmas Tree?

## Scenario

### Day 8: What's Under the Christmas Tree? - Story:

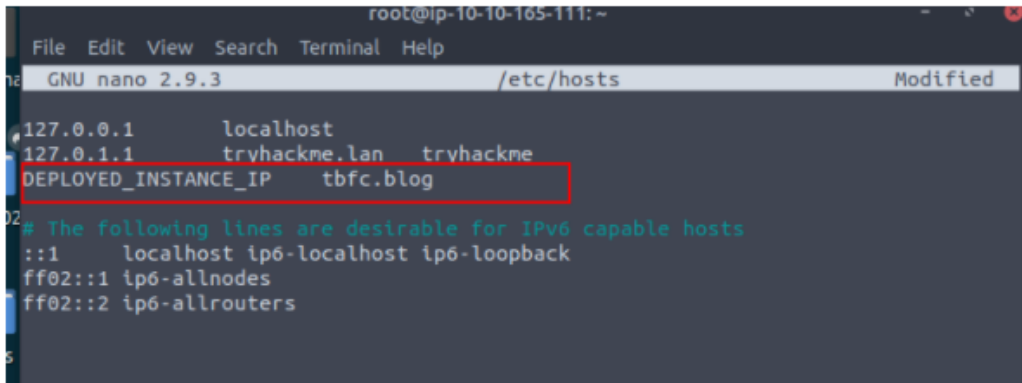
After a few months of probation, intern Elf McEager has passed with glowing feedback from Elf McSkidy. During the meeting, Elf McEager asked for more access to *The Best Festival Company's (TBFC's)* internal network as he wishes to know more about the systems he has sworn to protect.

Elf McSkidy was reluctant to agree. However, after Elf McEager's heroic actions in recovering christmas, Elf McSkidy soon thought this was a good idea. This was uncharted territory for Elf McEager - he had no idea how to begin finding out this information for his new responsibilities. Thankfully, TBFC has a wonderful up-skill program covering the use of Nmap for ElfMcEager to enrol in.

## 8.9. Challenge

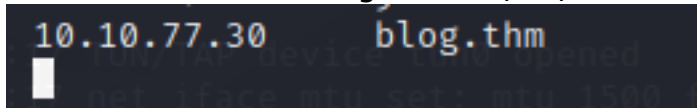
**Deploy** and use Nmap to scan the instance attached to this task. Take a note of the IP address of the Instance that you have deployed in this task: **10.10.198.215** and enumerate it for Elf McEager!

*Optional bonus:* As a result of Elf McEager managing to recover christmas in "Day 7 - The Grinch Really Did Steal Christmas", TBFC's website has been restored for all the elves to visit. Can you find it? I hear it's quite the read... You must add **10.10.198.215 tbfc.blog** to your **/etc/hosts** file before the application will load like below:



```
root@ip-10-10-165-111: ~
File Edit View Search Terminal Help
GNU nano 2.9.3 /etc/hosts Modified
127.0.0.1 localhost
127.0.1.1 tryhackme.lan tryhackme
DEPLOYED_INSTANCE_IP tbfc.blog
# The following lines are desirable for IPv6 capable hosts
::1 localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

first let's add the tbfc.blog into our /etc/hosts file



```
10.10.77.30 blog.thm
```

Question: When was Snort created?

When was Snort created?



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About 2,260,000 results (0.53 seconds)

# 1998

**Snort** is a free open source network intrusion detection system (IDS) and intrusion prevention system (IPS) **created** in 1998 by Martin Roesch, founder and former CTO of Sourcefire. **Snort** is now **developed** by Cisco, which purchased Sourcefire in 2013.

en.wikipedia.org › wiki › Snort\_(software)

[Snort \(software\) - Wikipedia](#)

now let's scan the host 10.10.198.215 without any flags  
//we've found 3 open ports here

```
(nobodyatall@0xDEADBEEF)-[~]  
$ nmap 10.10.198.215  
Starting Nmap 7.91 ( https://nmap.org ) at 2020-12-08 18:07 EST  
Nmap scan report for 10.10.198.215  
Host is up (0.17s latency).  
Not shown: 997 closed ports  
PORT      STATE SERVICE  
80/tcp    open  http  
2222/tcp  open  EtherNetIP-1  
3389/tcp  open  ms-wbt-server
```

let's set the -Pn flag to let nmap assume that the following host was active without performing any ping scan to make sure the host is live  
//sometimes like Windows machine they do block ICMP packets which let you assume that the host is not alive. This flag are useful in this scenario

```

(nobodyatall@0xDEADBEEF)-[~]
$ nmap -Pn 10.10.198.215
Host discovery disabled (-Pn). All addresses will be marked 'up' and scan times will be slower.
Starting Nmap 7.91 ( https://nmap.org ) at 2020-12-08 18:09 EST
Nmap scan report for 10.10.198.215
Host is up (0.17s latency).
Not shown: 997 closed ports
PORT      STATE SERVICE
80/tcp    open  http
2222/tcp  open  EtherNetIP-1
3389/tcp  open  ms-wbt-server

Nmap done: 1 IP address (1 host up) scanned in 13.59 seconds

```

now let's use the -A flag which will perform (OS detection, version detection, script scanning, and traceroute)

// this will includes much more detailed about the host & the services that's running on the open port

```

(nobodyatall@0xDEADBEEF)-[~]
$ nmap -A 10.10.198.215
Starting Nmap 7.91 ( https://nmap.org ) at 2020-12-08 18:11 EST
Nmap scan report for 10.10.198.215
Host is up (0.17s latency).
Not shown: 997 closed ports
PORT      STATE SERVICE        VERSION
80/tcp    open  http           Apache httpd 2.4.29 ((Ubuntu))
|_http-generator: Hugo 0.78.2
|_http-server-header: Apache/2.4.29 (Ubuntu)
|_http-title: TBFC&#39;s Internal Blog
2222/tcp  open  ssh            OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; prot
ocol 2.0)
|_ssh-hostkey:
|   2048 cf:c9:99:d0:5c:09:27:cd:a1:a8:1b:c2:b1:d5:ef:a6 (RSA)
|   256 4c:d4:f9:20:6b:ce:fc:62:99:54:7d:c2:b4:b2:f2:b2 (ECDSA)
|_  256 d0:e6:72:18:b5:20:89:75:d5:69:74:ac:cc:b8:3b:9b (ED25519)
3389/tcp  open  ms-wbt-server  xrdp
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap
.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 50.50 seconds

```

now to get the open ports service details only we can use -sV flag

```

(nobodyatall@0xDEADBEEF)-[~]
$ nmap -sV 10.10.198.215
Starting Nmap 7.91 ( https://nmap.org ) at 2020-12-08 18:14 EST
Nmap scan report for 10.10.198.215
Host is up (0.17s latency).
Not shown: 997 closed ports
PORT      STATE SERVICE        VERSION
80/tcp    open  http           Apache httpd 2.4.29 ((Ubuntu))
2222/tcp  open  ssh            OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; protocol 2.0)
3389/tcp  open  ms-wbt-server  xrdp
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 35.32 seconds

```

based on these results we know that the host is running a Ubuntu Linux distro

```
VERSION
Apache httpd 2.4.29 ((Ubuntu))
OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; protocol 2.0)
r_xrdo
```

Question: Use Nmap to determine the name of the Linux distribution that is running, what is reported as the most likely distribution to be running?

```
VERSION
Apache httpd 2.4.29 ((Ubuntu))
OpenSSH 7.6p1 Ubuntu 4ubuntu0.3 (Ubuntu Linux; protocol 2.0)
r_xrdo
```

now we can use the following NSE script to grab the http title of the webserver

//cmd to find the nse script: locate nse | grep http

```
/usr/share/nmap/scripts/http-title.nse
/usr/share/nmap/scripts/http-title.nse
/usr/share/nmap/scripts/http-title.nse
```

based on the scanned result, it seems that this webserver is most likely hosting a blog

```
$ nmap --script http-title tbfc.blog
Starting Nmap 7.91 ( https://nmap.org ) at 2020-12-08 18:23 EST
Nmap scan report for tbfc.blog (10.10.198.215)
Host is up (0.19s latency).
Not shown: 997 closed ports
PORT      STATE SERVICE
80/tcp    open  http
|_http-title: TBFC&#39;s Internal Blog
```

Question: Based on the value returned, what do we think this website might be used for?

```
PORT      STATE SERVICE
80/tcp    open  http
|_http-title: TBFC&#39;s Internal Blog
```