Machine details

- Target Machine IP Address: `10.129.1.14`

Enumeration

Nmap scan

I'm starting off with an Nmap scan. This should point us in the right direction.

```
┌──(adhdⓀkali)-[~/Desktop/HTB/Notes/Starting Point/2 - Fawn]
└─$ sudo nmap -sV -sC 10.129.1.14
Starting Nmap 7.94 ( https://nmap.org ) at 2024-07-30 18:51 PDT
Nmap scan report for 10.129.1.14
Host is up (0.16s latency).
Not shown: 996 closed tcp ports (reset)
PORT      STATE    SERVICE    VERSION
7/tcp     filtered echo
21/tcp    open     ftp        vsftpd 3.0.3
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
|_-rw-r--r--    1 0        0              32 Jun 04  2021 flag.txt
| ftp-syst:
|   STAT:
| FTP server status:
|      Connected to ::ffff:10.10.14.42
|      Logged in as ftp
|      TYPE: ASCII
|      No session bandwidth limit
|      Session timeout in seconds is 300
|      Control connection is plain text
|      Data connections will be plain text
|      At session startup, client count was 1
```

```
|      vsFTPd 3.0.3 - secure, fast, stable
|_End of status
10001/tcp filtered scp-config
32785/tcp filtered unknown
Service Info: OS: Unix

Service detection performed. Please report any incorrect results at
https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 13.38 seconds
```

> **Command Breakdown:**
>
> - `sC`: Runs script scan with the default scripts in Nmap and on your computer
>   - You can see the default scripts on your computer by entering `locate *.nse` in your terminal.
> - `sV`: Checks for versions

Key Information:

```
PORT      STATE    SERVICE    VERSION
7/tcp     filtered echo
21/tcp    open     ftp        vsftpd 3.0.3
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
|_-rw-r--r--    1 0        0              32 Jun 04  2021 flag.txt
| ftp-syst:
|   STAT:
| FTP server status:
|      Connected to ::ffff:10.10.14.42
|      Logged in as ftp
|      TYPE: ASCII
|      No session bandwidth limit
|      Session timeout in seconds is 300
|      Control connection is plain text
|      Data connections will be plain text
|      At session startup, client count was 1
|      vsFTPd 3.0.3 - secure, fast, stable
|_End of status
10001/tcp filtered scp-config
32785/tcp filtered unknown
Service Info: OS: Unix
```

> **Result Breakdown:**
>
> - 4 ports are open: 7, 21, 10001, and 32785.

- Port 7: This is **filtered** and runs the Echo Protocol. It relays ICMP datagrams.
- Port 21: Is **open** and running FTP. FTP is File Transfer Protocol, which is a standard network protocol.
  - We can see it allows anonymous login.
  - We can see what version of FTP is being used (`vsftpd 3.0.3`). This could be potentially important so it's something to keep in mind.
  - We're also given a FTP status code of `230`, which means a connection was successful through anonymous login.
  - This is what we should be looking into!
- Port 10001: This is **filtered** and this is the port for Network Data Management Protocol (NDMP). Used primarily for backup of network-attached storage (NAS) devices.
  - Not what we're looking for.

    > Ubiquiti UniFi access points broadcast to 255.255.255.255:10001 (UDP) to locate the controller(s).

- Port 32785: This is **filtered**. I think it's an unassigned port.
  - Probably not something we're interested in.

- The target machine is running a Unix OS.

Foothold

Port 21 was our most interesting find. We're going to take a look at it and try to get a foothold using the FTP service it's running.

FTP Successful Login Attempt - anonymous

Usual login for FTP looks like this: `ftp username:password@my.domain.com`, but we can see we can login anonymously from our Nmap scan.

Terminal:

```
┌──(adhd㉿kali)-[~/Desktop/HTB/Notes/Starting Point/2 - Fawn]
└─$ ftp 10.129.1.14
Connected to 10.129.1.14.
220 (vsFTPd 3.0.3)
Name (10.129.1.14:adhd): anonymous
331 Please specify the password.
Password:
230 Login successful.
```

```
Remote system type is UNIX.
Using binary mode to transfer files.
ftp>
```

> **Result breakdown:**
> `ftp 10.129.1.14`: We start off by connecting to FTP on the target machine. Once we're connected, we can try logging in.
> After connecting, we're given confirmation on the version of FTP running, as well at the status code for a successful connection (`230`).
> Logging in anonymously means we use `anonymous` as our username, and when we're prompted for a password, we don't type anything, and just hit the Enter button on our keyboard.

We're in!

Let's start poking around in the target machine.

Enumeration pt.2

Let's see what files are here.

```
ftp> ls
229 Entering Extended Passive Mode (|||33584|)
150 Here comes the directory listing.
-rw-r--r--    1 0        0              32 Jun 04  2021 flag.txt
226 Directory send OK.
ftp>
```

> **Command Breakdown:**
>
> - FTP uses a few commands that are the same in Linux. What we want to do is list the items in our directory.

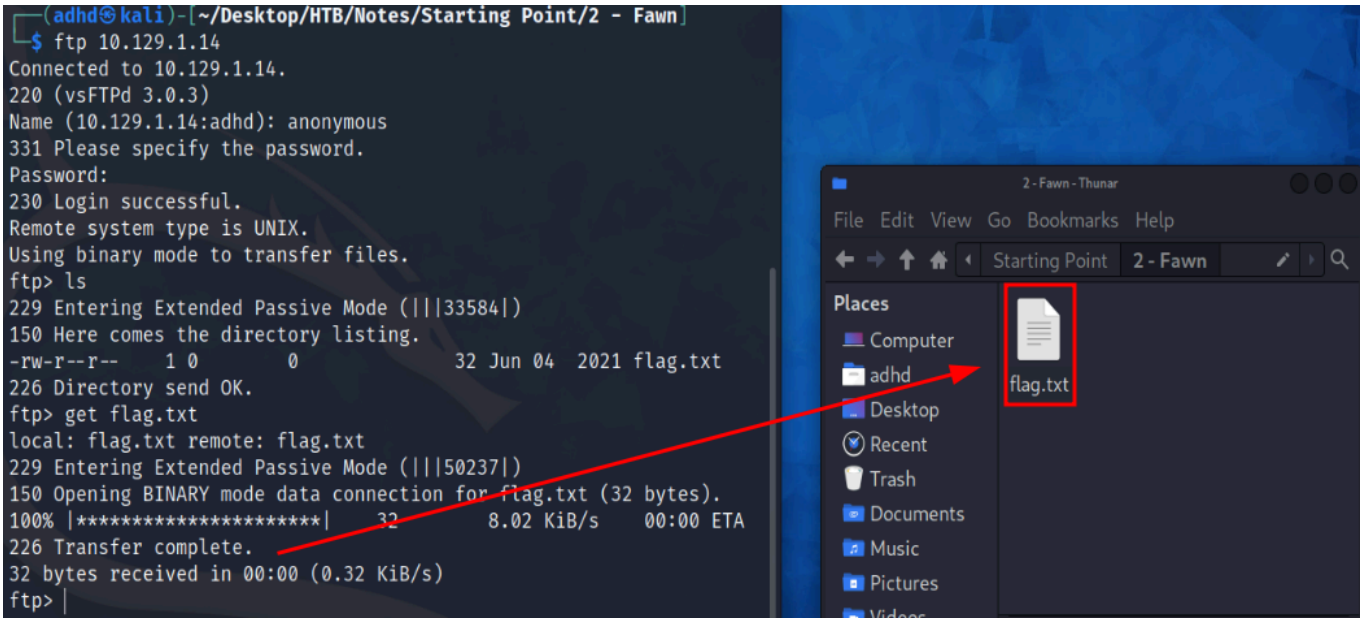
> **Result breakdown:**
> And we can spot there's a flag.txt file. Now we just need to read the flag.

```
ftp> get flag.txt
local: flag.txt remote: flag.txt
229 Entering Extended Passive Mode (|||50237|)
150 Opening BINARY mode data connection for flag.txt (32 bytes).
100% |**********************|    32        8.02 KiB/s    00:00 ETA
226 Transfer complete.
```

```
32 bytes received in 00:00 (0.32 KiB/s)
ftp>
```

> **Command Breakdown:**
>
> - `get` is the command we use in FTP if we want to be able to read it. This command will download the file.

> **Result breakdown:**
> The file is downloaded into the directory where we have our terminal open in. We can go ahead and simply open it and read it!



Flag:

```
035db21c881520061c53e0536e44f815
```

HTB Tasks

HTB Task 1:

What does the 3-letter acronym FTP stand for? >

`File transfer Protocol`

HTB Task 2:

Which port does the FTP service listen on usually?

`21`

HTB Task 3:

FTP sends data in the clear, without any encryption. What acronym is used for a later protocol designed to provide similar functionality to FTP but securely, as an extension of the SSH protocol?

`SFTP`

HTB Task 4:

What is the command we can use to send an ICMP echo request to test our connection to the target?

`ping`

HTB Task 5:

From your scans, what version is FTP running on the target?

`vsftpd 3.0.3`

HTB Task 6:

From your scans, what OS type is running on the target?

`Unix`

HTB Task 7:

What is the command we need to run in order to display the 'ftp' client help menu?

```
ftp -h
```

HTB Task 8:

What is username that is used over FTP when you want to log in without having an account?

```
anonymous
```

HTB Task 9:

What is the response code we get for the FTP message 'Login successful'?

```
230
```

HTB Task 10:

There are a couple of commands we can use to list the files and directories available on the FTP server. One is dir. What is the other that is a common way to list files on a Linux system.

```
ls
```

HTB Task 11:

What is the command used to download the file we found on the FTP server?

```
get
```

Root Flag:

```
035db21c881520061c53e0536e44f815
```

#FTP #protocols #reconnaissance #Anonymous/GuestAccess