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



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.

Table of Content

- 1. Intro
- 2. <u>Disclaimer</u>
- 3. Table of Content
- 4. Credentials to Penetration Tester
- 5. Scope
 - <u>Mythology</u>
- 6. Executive Summary
- 7. <u>Timeline</u>
- 8. Finding's & Remediation
 - HOSTNAME (IP)
 - Finding
 - Privileges Escalation
 - Remediation
 - <u>Hostname1</u>
- 9. Attack Narrative
 - OSINT
 - <u>Discovery</u>
 - Initial Foot hold

- <u>Hostname1</u>
 - www-data to user
 - *What version of OS?*
 - *Is the AV up and running?*
 - *What group does www-data belong too and what are its rights?*
 - *What other users are on the system and what are there groups?*
 - *What is the network topology to this Node?*
 - *What access do I have to files and folders?*
 - *What are the applications, services, programs and there versions?*
 - *From www-data to user*
 - <u>user to admin</u>
 - *What version of OS?*
 - *Is the AV up and running?*
 - *What group does www-data belong too and what are its rights?*
 - *What other users are on the system and what are there groups?*
 - *What is the network topology to this Node?*

- *What access do I have to files and folders?*
- *What are the applications, services, programs and there versions?*
- <u>*From user to admin*</u>

10. Clean UP

11. References

• <u>(Domain Name) Exploit and Mitigation</u>
<u>References</u>

12. Appendix

- Loot
 - Nmap Scan Full
 - Nmap Scan Vul
 - Entire Nessus Scan
 - <u>Entire Nessus Scan</u>
 - Entire Nessus Scan
 - Entire Nessus Scan

• <u>Entire Nessus Scan</u>

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.

Certifications held by Robert Garcia









Scope

You have been chosen by Iron Corp to conduct a penetration test of their asset. They did system hardening and are expecting you not to be able to access their system.

The asset in scope is: ironcorp.me

Mythology

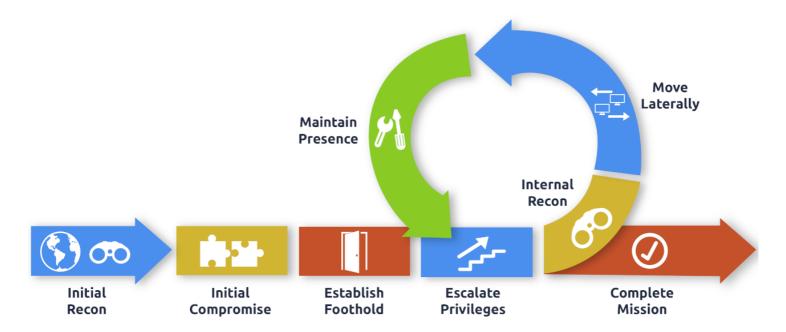
Mythology Followed: CompTIA Pen+200

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.



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

Timeline

Finding's & Remediation

HOSTNAME (IP)

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:

Severity	Factor High (LF:6.375)	Factor High	SL:9/M:9/0:7/S:1/ED:8/EE
RISK	Likelinood	· ·	Score Vector:

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:

Critical	High (LF:6.375)	High (IF:6.25)	SL:9/M:9/0:7/S:1/ED:8/EE
IRICK	Likelihood Factor	Impact Factor	Score Vector:

Remediation

Hostname1

I will tell you about issue briefly

FTX

- 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

Attack Narrative

OSINT

Target IP can change during engagement

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 10.10.20.22 --min-rate 5000
```

Screenshot: (Find entire scans in appendix)

```
3/tcp open domain syn-ack ttl 125 Simple DNS Plus 5/tcp open tcpwrapped syn-ack ttl 125 Simple DNS Plus 889/tcp open tcpwrapped syn-ack ttl 125 ssl-cert: Subject: commonName=WIN-8VMBKF3G815 Issuer: commonName=WIN-8VMBKF3G815
  Public Key type: rsa
Public Key bits: 2048
Signature Algorithm: sha256WithRSAEncryption
Not valid before: 2022-12-10T08:17:51
Not valid after: 2023-06-11T08:17:51
MD5: 321f528d75b55da0832f8a29010f7ae4
SHA-1: 34644dc62a0ee78fcf37882a8267a401c8debeb5
SHA-1: 34644dc62a0ee78fcf37882a8267a401c8debeb5
----BEGIN CERTIFICATE----
MIIC4jCCAcqgAwIBAgIQUHlY20/8uLdM5V0y4DOT0zANBgkqhkiG9w0BAQsFADAa
MRgwFgYDVQQDEw9XSU4t0FZNQktGM0c4MTUwHhcNMjIxMjEwMDgxNzUxWhcNMjMw
NjExMDgxNzUxWjAaMRgwFgYDVQQDEw9XSU4t0FZNQktGM0c4MTUwggEiMA0GCSqG
SIb3DQEBAQUAA4IBDwAwggEKAoIBAQCc9yj83VQyJJ9gBlyh2/cS/jnkQTkZ3168
9NQdKse/H77z3zknR01Umn322elmoaAGTQ2rmL8xsqT6wrUFH4XIczAittT3Chyp
MjXTud6EtKaP93IHpFHaALYCdgXtKq7yRhm+GiRxyklS5WVdZpmgc4kbE0jZWCHJ
M4dEFJ+6+lqUwcCrQdy+XTBXdKUxeMmjczMZzp864AqFUhP2UF3YH0QJ7jSwUlHv
U+ysiG18R/ENk8m+b3y1Z32YDqnW8knMVYkEuyeRxVj1Y0K09HYJEz6we8ukgi5b
oHckY07ic71A/6UmjxIW6PTk5A3ZptAD/ZMul94AGRX7sdC9WoDnAgMBAAGjJDAi
MBMGA1UdJQQMMAoGCCsGAQUFBwMBMAsGA1UdDwQEAwIEMDANBgkqhkiG9w0BAQsF
AAOCAQEACGQ2VWNak+5PL9lM672Th++KIr3ppXk3ipGdgYarxS55QVxRmb/TYWVx
+F2nzymwJd83hdbzQEtEBIC8mScbk9m7/0yBvWR9Z0MmBzLUlKdCsyf7x1mG2cTg
lTdjDRiVoJ8nnPUIo0822kNQglM3Nxu5VxfA+xrjzI6qVftBzs1j7gedHxTa+CV0
DgYfAwpL3y5bmIuiRKaarRXyR7h74fiLW5vnyDOCEBqV06/wNAZma3/T6STjVG7/
Km6o2DHxc7HwBBKSwphinj6E/GnpcDAdb07W9qjP8ZWDXF+PrpupDiyg51cndoKm
P7Fq/yyX3g+TmnmGl/rrZ5R31i/XQw==
----END CERTIFICATE----
ssl-date: 2022-12-11T08:23:18+00:00; 0s from scanner time.
_ssl-date: 2022-12-11T08:23:18+00:00; Os from scanner time.

080/tcp open http syn-ack ttl 125 Microsoft IIS httpd 10.0
 _http-open-proxy: Proxy might be redirecting requests
_http-title: Dashtreme Admin - Free Dashboard for Bootstrap 4 by Codervent
http-methods:
                           ported Methods: OPTIONS TRACE GET HEAD POST
           vice Info: OS: Windows: CPE: cpe:/o:microsoft:windows
```

After our basic scan we are going to do a deeper

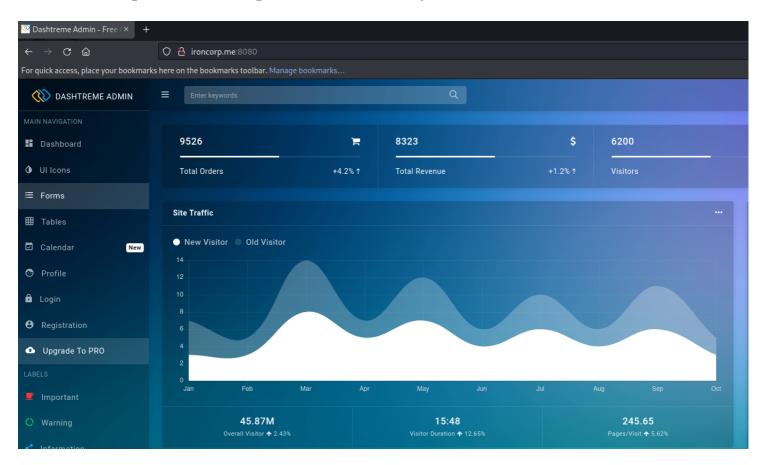
scan to see if we can pickup any extra services that I might have missed.

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

Screenshot: (Find entire scans in appendix)

Discovery

I wanted to take a look at the website since we know something is being hosted on port 8080.



I wanted to see if we can grab what we can from the website.

```
wget -r --no-parent http://ironcorp.me:8080/
```

Seems we got a few files to look at here. Another

tool I ran was Photon. This is to collect any end points or interesting files I might have missed from the wget scan.

photon -u http://ironcorp.me:8080/ -l 3 -t 100

![[Pasted image 20221211034848.png]] From looking at the Tables section of the website we can see users of some sort. ![[Pasted image 20221211035805.png]] We found another page as well that seems to have users. ![[Pasted image 20221211041120.png]] We start to build a username list with what we found above. After digging around we found a username format to the website. ![[Pasted image 20221211041325.png]] We can see the the name convention is last name and then first name.

Initial Foot hold

Hostname1

www-data to user

Username: Password

Proof of www-data

What version of OS?

CMD used:

Screenshot of output

Is the AV up and running?

CMD used:

Screenshot of output

What group does www-data belong too and what are its rights?

CMD used:

Screenshot of output

What other users are on the system and what are there groups?

CMD used:

Screenshot of output

What is the network topology to this Node?

CMD used:

Screenshot of output

What access do I have to files and folders?

CMD used:

Screenshot of output

What are the applications, services, programs and there versions?

CMD used:

Screenshot of output

CMD used: Screenshot of output user to admin Username: Password Proof of www-data What version of OS? CMD used: Screenshot of output Is the AV up and running? CMD used: Screenshot of output What group does www-data belong too and what are its rights? CMD used:

From www-data to user

Screenshot of output

What other users are on the system and what are there groups?

CMD used:

Screenshot of output

What is the network topology to this Node?

CMD used:

Screenshot of output

What access do I have to files and folders?

CMD used:

Screenshot of output

What are the applications, services, programs and there versions?

CMD used:

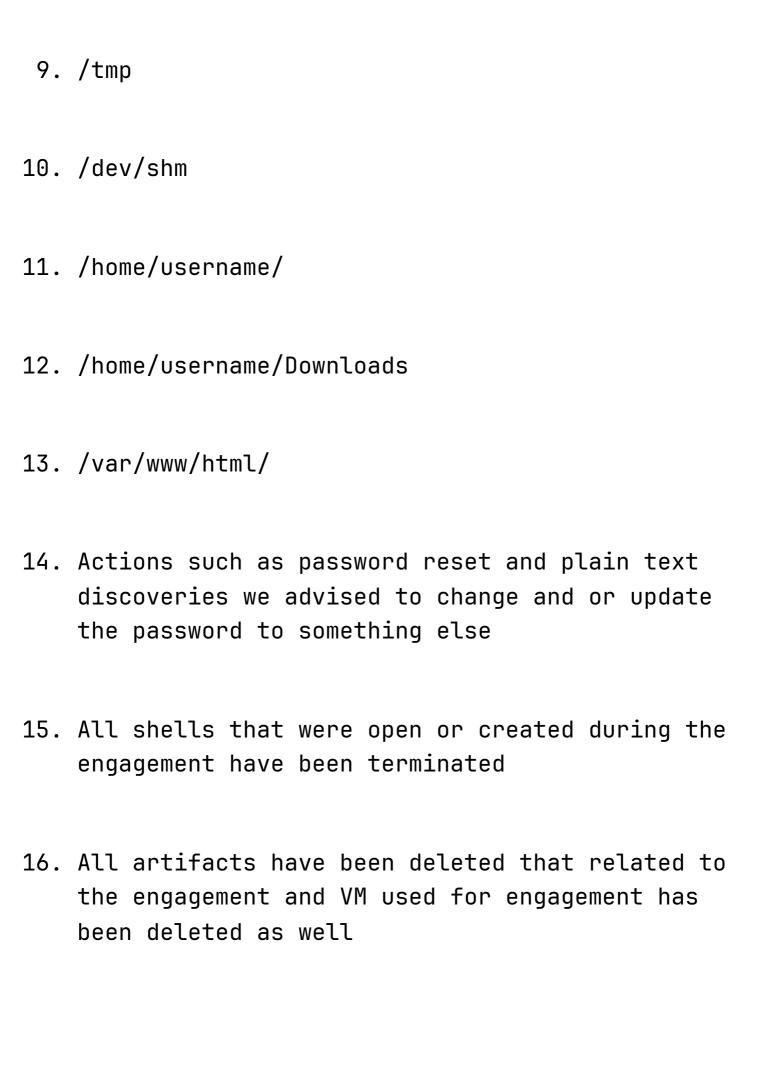
From user to admin

CMD used:

Screenshot of output

Clean UP

- 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



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 shar	re

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 10.10.20.22 -- min-rate 5000
Host discovery disabled (-Pn). All addresses will be
marked 'up' and scan times may be slower.
Starting Nmap 7.93 (https://nmap.org) at 2022-12-11
03:22 EST
NSE: Loaded 155 scripts for scanning.
NSE: Script Pre-scanning.
NSE: Starting runlevel 1 (of 3) scan.
Initiating NSE at 03:22
Completed NSE at 03:22, 0.00s elapsed
NSE: Starting runlevel 2 (of 3) scan.
Initiating NSE at 03:22
Completed NSE at 03:22, 0.00s elapsed
NSE: Starting runlevel 3 (of 3) scan.
Initiating NSE at 03:22
Completed NSE at 03:22, 0.00s elapsed
Initiating SYN Stealth Scan at 03:22
```

```
Scanning ironcorp.me (10.10.20.22) [65535 ports]
Discovered open port 8080/tcp on 10.10.20.22
Discovered open port 3389/tcp on 10.10.20.22
Discovered open port 135/tcp on 10.10.20.22
Discovered open port 53/tcp on 10.10.20.22
Increasing send delay for 10.10.20.22 from 0 to 5 due to
11 out of 21 dropped probes since last increase.
Completed SYN Stealth Scan at 03:22, 26.77s elapsed
(65535 total ports)
Initiating Service scan at 03:22
Scanning 4 services on ironcorp.me (10.10.20.22)
Completed Service scan at 03:23, 9.82s elapsed (4
services on 1 host)
NSE: Script scanning 10.10.20.22.
NSE: Starting runlevel 1 (of 3) scan.
Initiating NSE at 03:23
Completed NSE at 03:23, 17.71s elapsed
NSE: Starting runlevel 2 (of 3) scan.
Initiating NSE at 03:23
Completed NSE at 03:23, 8.13s elapsed
NSE: Starting runlevel 3 (of 3) scan.
Initiating NSE at 03:23
Completed NSE at 03:23, 0.00s elapsed
Nmap scan report for ironcorp.me (10.10.20.22)
Host is up, received user-set (0.20s latency).
Scanned at 2022-12-11 03:22:23 EST for 63s
Not shown: 65531 filtered tcp ports (no-response)
Some closed ports may be reported as filtered due to --
defeat-rst-ratelimit
PORT STATE SERVICE REASON
                                          VERSION
53/tcp open domain syn-ack ttl 125 Simple DNS Plus
135/tcp open tcpwrapped syn-ack ttl 125
```

```
3389/tcp open tcpwrapped syn-ack ttl 125
  ssl-cert: Subject: commonName=WIN-8VMBKF3G815
  Issuer: commonName=WIN-8VMBKF3G815
 Public Key type: rsa
  Public Key bits: 2048
  Signature Algorithm: sha256WithRSAEncryption
  Not valid before: 2022-12-10T08:17:51
  Not valid after: 2023-06-11T08:17:51
  MD5:
         321f528d75b55da0832f8a29010f7ae4
 SHA-1: 34644dc62a0ee78fcf37882a8267a401c8debeb5
  ----BEGIN CERTIFICATE----
MIIC4jCCAcqgAwIBAgIQUHlY20/8uLdM5V0y4D0T0zANBgkqhkiG9w0BA
QsFADAa
MRgwFgYDVQQDEw9XSU4t0FZNQktGM0c4MTUwHhcNMjIxMjEwMDgxNzUxW
hcNMjMw
NjExMDgxNzUxWjAaMRgwFgYDVQQDEw9XSU4t0FZNQktGM0c4MTUwggEiM
A0GCSqG
SIb3DQEBAQUAA4IBDwAwggEKAoIBAQCc9yj83VQyJJ9gBlyh2/cS/jnkQ
TkZ3168
9NQdKse/H77z3zknR01Umn322elmoaAGTQ2rmL8xsqT6wrUFH4XIczAit
tT3Chyp
MjXTud6EtKaP93IHpFHaALYCdgXtKq7yRhm+GiRxyklS5WVdZpmgc4kbE
0jZWCHJ
M4dEFJ+6+lqUwcCrQdy+XTBXdKUxeMmjczMZzp864AqFUhP2UF3YH0QJ7
jSwUlHv
```

```
U+ysiG18R/ENk8m+b3y1Z32YDqnW8knMVYkEuyeRxVj1Y0K09HYJEz6we
8ukgi5b
oHckY07ic71A/6UmjxIW6PTk5A3ZptAD/ZMul94AGRX7sdC9WoDnAgMBA
AGjJDAi
MBMGA1UdJQQMMAoGCCsGAQUFBwMBMAsGA1UdDwQEAwIEMDANBgkqhkiG9
w0BAQsF
AAOCAQEACGQ2VWNak+5PL9lM672Th++KIr3ppXk3ipGdgYarxS55QVxRm
b/TYWVx
+F2nzymwJd83hdbzQEtEBIC8mScbk9m7/0yBvWR9Z0MmBzLUlKdCsyf7x
1mG2cTq
lTdjDRiVoJ8nnPUIo0822kNQglM3Nxu5VxfA+xrjzI6qVftBzs1j7gedH
xTa+CV0
DgYfAwpL3y5bmIuiRKaarRXyR7h74fiLW5vnyD0CEBqV06/wNAZma3/T6
STjVG7/
Km6o2DHxc7HwBBKSwphinj6E/GnpcDAdb07W9qjP8ZWDXF+PrpupDiyg5
1cndoKm
 P7Fq/yyX3g+TmnmGl/rrZ5R31i/XQw=
|_----END CERTIFICATE----
time.
                        syn-ack ttl 125 Microsoft IIS
8080/tcp open http
httpd 10.0
|_http-open-proxy: Proxy might be redirecting requests
|_http-title: Dashtreme Admin - Free Dashboard for
```

```
Bootstrap 4 by Codervent
 http-methods:
   Supported Methods: OPTIONS TRACE GET HEAD POST
_ Potentially risky methods: TRACE
Service Info: OS: Windows; CPE: cpe:/o:microsoft:windows
Host script results:
| clock-skew: 0s
NSE: Script Post-scanning.
NSE: Starting runlevel 1 (of 3) scan.
Initiating NSE at 03:23
Completed NSE at 03:23, 0.00s elapsed
NSE: Starting runlevel 2 (of 3) scan.
Initiating NSE at 03:23
Completed NSE at 03:23, 0.00s elapsed
NSE: Starting runlevel 3 (of 3) scan.
Initiating NSE at 03:23
Completed NSE at 03:23, 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 62.86
seconds
           Raw packets sent: 131086 (5.768MB) | Rcvd: 10
(440B)
```

Nmap Scan Vul

```
# Nmap 7.93 scan initiated Sun Dec 11 03:26:57 2022 as:
nmap -Pn -p- --script safe, discovery, vuln, exploit -T4 -vv
--reason --script=vuln -oA vuln 10.10.20.22
Pre-scan script results:
  broadcast-avahi-dos:
    Discovered hosts:
      224.0.0.251
   After NULL UDP avahi packet DoS (CVE-2011-1002).
   Hosts are all up (not vulnerable).
|_http-robtex-shared-ns: *TEMPORARILY DISABLED* due to
changes in Robtex's API. See https://www.robtex.com/api/
  broadcast-wsdd-discover:
    Devices
      239.255.255.250
          Message id: dec333e8-37c8-49bf-bcfe-
38fa81689360
          Address: http://192.168.202.1:5357/a12ace66-
c55b-467c-99b0-219473bdb4d5/
          Type: Device pub:Computer
|_hostmap-robtex: *TEMPORARILY DISABLED* due to changes
in Robtex's API. See https://www.robtex.com/api/
  broadcast-dhcp-discover:
   Response 1 of 1:
      Interface: eth0
      IP Offered: 192.168.202.130
      DHCP Message Type: DHCPOFFER
```

```
Server Identifier: 192.168.202.254
      IP Address Lease Time: 30m00s
     Subnet Mask: 255.255.255.0
     Router: 192.168.202.2
     Domain Name Server: 192.168.202.2
      Domain Name: localdomain
      Broadcast Address: 192.168.202.255
      NetBIOS Name Server: 192.168.202.2
     Renewal Time Value: 15m00s
     Rebinding Time Value: 26m15s
 ipv6-multicast-mld-list:
    fe80::922c:adf3:509:4b65:
     device: eth0
     mac: 005056c00008
     multicast_ips:
                                  (NDP Solicited-node)
       ff02::1:ff09:4b65
       ff02::1:ff59:8ceb
                                  (Solicited-Node
Address)
                                  (Link-local Multicast
   ff02::1:3
Name Resolution)
                                  (Solicited-Node
     ff02::1:ff4d:7adf
Address)
  ff02::1:3
                                  (Link-local Multicast
Name Resolution)
                                  (Solicited-Node
       ff02::1:ff59:8ceb
Address)
```

```
ff02::1:3
                                  (Link-local Multicast
Name Resolution)
       ff02::1:ff4d:7adf
                                  (Solicited-Node
Address)
                                  (mDNSv6)
        ff02::fb
       ff02::c
                                  (SSDP)
                                  (Link-local Multicast
       ff02::1:3
Name Resolution)
|_eap-info: please specify an interface with -e
  broadcast-igmp-discovery:
    192.168.202.1
      Interface: eth0
      Version: 2
      Group: 224.0.0.251
      Description: mDNS (rfc6762)
   192.168.202.1
      Interface: eth0
      Version: 2
      Group: 224.0.0.252
      Description: Link-local Multicast Name Resolution
(rfc4795)
    192.168.202.1
      Interface: eth0
     Version: 2
      Group: 239.255.255.250
      Description: Organization-Local Scope (rfc2365)
   Use the newtargets script-arg to add the results as
targets
 broadcast-listener:
    ether
        ARP Request
          sender ip sender mac
                                       target ip
```

```
192.168.202.1 005056c00008 192.168.202.2
         192.168.202.2 005056e3b4c7 192.168.202.130
   udp
       DHCP
         srv ip
                   cli ip
                                    mask
                        vendor
              dns
gw
         192.168.202.254 192.168.202.129 255.255.255.0
192.168.202.2 192.168.202.2 -
         192.168.202.254 192.168.202.130 255.255.255.0
192.168.202.2 192.168.202.2 -
         192.168.202.254 192.168.202.129 255.255.255.0
192.168.202.2 192.168.202.2 -
    MDNS
         Generic
           ip
                    ipv6 name
           192.168.202.1
                              _teamviewer._tcp.local
| broadcast-ping:
   IP: 192.168.202.2 MAC: 005056e3b4c7
|_ Use --script-args=newtargets to add the results as
targets
targets-ipv6-multicast-slaac:
   IP: fe80::4617:42c7:8459:8ceb MAC: 005056c00008
IFACE: eth0
IP: fe80::d9ed:71cc:d24d:7adf MAC: 005056c00008
IFACE: eth0
_ Use --script-args=newtargets to add the results as
targets
| broadcast-dns-service-discovery:
   224.0.0.251
   2020/tcp teamviewer
       Address=192.168.202.1 fe80::922c:adf3:509:4b65
| targets-ipv6-multicast-mld:
```

```
IP: fe80::922c:adf3:509:4b65 MAC: 005056c00008
IFACE: eth0
  Use --script-args=newtargets to add the results as
targets
| targets-asn:
_ targets-asn.asn is a mandatory parameter
Nmap scan report for ironcorp.me (10.10.20.22)
Host is up, received user-set (0.27s latency).
Scanned at 2022-12-11 03:27:38 EST for 1955s
Not shown: 65528 filtered tcp ports (no-response)
PORT STATE SERVICE
                      REASON
53/tcp open domain syn-ack ttl 125
| dns-zone-transfer:
| ironcorp.me.
                SOA win-8vmbkf3g815.
hostmaster.
             NS
| ironcorp.me.
                          win-8vmbkf3g815.
admin.ironcorp.me. A 127.0.0.1
| internal.ironcorp.me. A 127.0.0.1
|_ironcorp.me.
              SOA win-8vmbkf3g815.
hostmaster.
dns-nsec-enum:
_ No NSEC records found
dns-nsec3-enum:
|_ DNSSEC NSEC3 not supported
135/tcp open msrpc syn-ack ttl 125
3389/tcp open ms-wbt-server syn-ack ttl 125
time.
 rdp-enum-encryption:
   Security layer
     CredSSP (NLA): SUCCESS
```

```
CredSSP with Early User Auth: SUCCESS
     RDSTLS: SUCCESS
 ssl-cert: Subject: commonName=WIN-8VMBKF3G815
 Issuer: commonName=WIN-8VMBKF3G815
 Public Key type: rsa
 Public Key bits: 2048
 Signature Algorithm: sha256WithRSAEncryption
  Not valid before: 2022-12-10T08:17:51
  Not valid after: 2023-06-11T08:17:51
 MD5: 321f528d75b55da0832f8a29010f7ae4
  SHA-1: 34644dc62a0ee78fcf37882a8267a401c8debeb5
  ----BEGIN CERTIFICATE----
MIIC4jCCAcqgAwIBAgIQUHlY20/8uLdM5V0y4D0T0zANBgkqhkiG9w0BA
QsFADAa
MRgwFgYDVQQDEw9XSU4t0FZNQktGM0c4MTUwHhcNMjIxMjEwMDgxNzUxW
hcNMjMw
NjExMDgxNzUxWjAaMRgwFgYDVQQDEw9XSU4t0FZNQktGM0c4MTUwggEiM
A0GCSqG
SIb3DQEBAQUAA4IBDwAwggEKAoIBAQCc9yj83VQyJJ9gBlyh2/cS/jnkQ
TkZ3168
9NQdKse/H77z3zknR01Umn322elmoaAGTQ2rmL8xsqT6wrUFH4XIczAit
tT3Chyp
MjXTud6EtKaP93IHpFHaALYCdgXtKq7yRhm+GiRxyklS5WVdZpmgc4kbE
OjZWCHJ
M4dEFJ+6+lqUwcCrQdy+XTBXdKUxeMmjczMZzp864AqFUhP2UF3YH0QJ7
```

```
jSwUlHv
U+ysiG18R/ENk8m+b3y1Z32YDqnW8knMVYkEuyeRxVj1Y0K09HYJEz6we
8ukgi5b
oHckY07ic71A/6UmjxIW6PTk5A3ZptAD/ZMul94AGRX7sdC9WoDnAgMBA
AGjJDAi
MBMGA1UdJQQMMAoGCCsGAQUFBwMBMAsGA1UdDwQEAwIEMDANBgkqhkiG9
w0BAQsF
AAOCAQEACGQ2VWNak+5PL9lM672Th++KIr3ppXk3ipGdgYarxS55QVxRm
b/TYWVx
+F2nzymwJd83hdbzQEtEBIC8mScbk9m7/0yBvWR9Z0MmBzLUlKdCsyf7x
1mG2cTq
lTdjDRiVoJ8nnPUIo0822kNQglM3Nxu5VxfA+xrjzI6qVftBzs1j7gedH
xTa+CV0
DgYfAwpL3y5bmIuiRKaarRXyR7h74fiLW5vnyD0CEBgV06/wNAZma3/T6
STjVG7/
Km6o2DHxc7HwBBKSwphinj6E/GnpcDAdb07W9qjP8ZWDXF+PrpupDiyg5
1cndoKm
 P7Fq/yyX3g+TmnmGl/rrZ5R31i/XQw=
 _----END CERTIFICATE----
  ssl-enum-ciphers:
    TLSv1.0:
      ciphers:
        TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (ecdh_x25519)
```

```
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (ecdh_x25519)
- A
       TLS_DHE_RSA_WITH_AES_256_CBC_SHA (dh 2048) - A
       TLS_DHE_RSA_WITH_AES_128_CBC_SHA (dh 2048) - A
       TLS_RSA_WITH_AES_256_CBC_SHA (rsa 2048) - A
       TLS_RSA_WITH_AES_128_CBC_SHA (rsa 2048) - A
       TLS_RSA_WITH_3DES_EDE_CBC_SHA (rsa 2048) - C
       TLS_RSA_WITH_RC4_128_SHA (rsa 2048) - C
       TLS_RSA_WITH_RC4_128_MD5 (rsa 2048) - C
      compressors:
       NULL
     cipher preference: server
     warnings:
        64-bit block cipher 3DES vulnerable to SWEET32
attack
        Broken cipher RC4 is deprecated by RFC 7465
        Ciphersuite uses MD5 for message integrity
   TLSv1.1:
      ciphers:
       TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (ecdh_x25519)
 Α
       TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (ecdh_x25519)
 Α
       TLS_DHE_RSA_WITH_AES_256_CBC_SHA (dh 2048) - A
       TLS_DHE_RSA_WITH_AES_128_CBC_SHA (dh 2048) - A
        TLS_RSA_WITH_AES_256_CBC_SHA (rsa 2048) - A
       TLS_RSA_WITH_AES_128_CBC_SHA (rsa 2048) - A
       TLS_RSA_WITH_3DES_EDE_CBC_SHA (rsa 2048) - C
       TLS_RSA_WITH_RC4_128_SHA (rsa 2048) - C
       TLS_RSA_WITH_RC4_128_MD5 (rsa 2048) - C
      compressors:
       NULL
```

```
cipher preference: server
     warnings:
        64-bit block cipher 3DES vulnerable to SWEET32
attack
        Broken cipher RC4 is deprecated by RFC 7465
        Ciphersuite uses MD5 for message integrity
   TLSv1.2:
      ciphers:
        TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384
(ecdh_x25519) - A
        TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
(ecdh_x25519) - A
        TLS_DHE_RSA_WITH_AES_256_GCM_SHA384 (dh 2048) - A
       TLS_DHE_RSA_WITH_AES_128_GCM_SHA256 (dh 2048) - A
       TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384
(ecdh_x25519) - A
       TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256
(ecdh_x25519) - A
       TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (ecdh_x25519)
 Α
       TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (ecdh_x25519)
 Α
        TLS_DHE_RSA_WITH_AES_256_CBC_SHA (dh 2048) - A
       TLS_DHE_RSA_WITH_AES_128_CBC_SHA (dh 2048) - A
       TLS_RSA_WITH_AES_256_GCM_SHA384 (rsa 2048) - A
        TLS_RSA_WITH_AES_128_GCM_SHA256 (rsa 2048) - A
       TLS_RSA_WITH_AES_256_CBC_SHA256 (rsa 2048) - A
       TLS_RSA_WITH_AES_128_CBC_SHA256 (rsa 2048) - A
       TLS_RSA_WITH_AES_256_CBC_SHA (rsa 2048) - A
       TLS_RSA_WITH_AES_128_CBC_SHA (rsa 2048) - A
       TLS_RSA_WITH_3DES_EDE_CBC_SHA (rsa 2048) - C
       TLS_RSA_WITH_RC4_128_SHA (rsa 2048) - C
```

```
TLS_RSA_WITH_RC4_128_MD5 (rsa 2048) - C
      compressors:
       NULL
     cipher preference: server
     warnings:
        64-bit block cipher 3DES vulnerable to SWEET32
attack
        Broken cipher RC4 is deprecated by RFC 7465
        Ciphersuite uses MD5 for message integrity
   least strength: C
  rdp-ntlm-info:
   Target_Name: WIN-8VMBKF3G815
   NetBIOS_Domain_Name: WIN-8VMBKF3G815
   NetBIOS_Computer_Name: WIN-8VMBKF3G815
   DNS_Domain_Name: WIN-8VMBKF3G815
   DNS_Computer_Name: WIN-8VMBKF3G815
   Product_Version: 10.0.14393
   System_Time: 2022-12-11T08:35:06+00:00
8080/tcp open http-proxy syn-ack ttl 125
|_http-jsonp-detection: Couldn't find any JSONP
endpoints.
| http-vhosts:
_128 names had status 200
|_http-wordpress-enum: Nothing found amongst the top 100
resources, use --script-args search-limit=<number|all> for
deeper analysis)
|_http-drupal-enum: Nothing found amongst the top 100
resources, use --script-args number=<number|all> for
deeper analysis)
_http-fetch: Please enter the complete path of the
directory to save data in.
|_http-litespeed-sourcecode-download: Request with null
```

```
byte did not work. This web server might not be
vulnerable
|_http-date: Sun, 11 Dec 2022 08:35:03 GMT; -1s from
local time.
  http-slowloris-check:
   VULNERABLE:
   Slowloris DOS attack
      State: LIKELY VULNERABLE
      IDs: CVE:CVE-2007-6750
        Slowloris tries to keep many connections to the
target web server open and hold
        them open as long as possible. It accomplishes
this by opening connections to
        the target web server and sending a partial
request. By doing so, it starves
       the http server's resources causing Denial Of
Service.
     Disclosure date: 2009-09-17
     References:
        http://ha.ckers.org/slowloris/
        https://cve.mitre.org/cgi-bin/cvename.cgi?
name=CVE-2007-6750
| http-auth-finder:
  Spidering limited to: maxdepth=3; maxpagecount=20;
withinhost=ironcorp.me
   url
                                        method
   http://ironcorp.me:8080/login.html FORM
|_http-wordpress-users: [Error] Wordpress installation
was not found. We couldn't find wp-login.php
 http-methods:
   Supported Methods: OPTIONS TRACE GET HEAD POST
```

```
|_ Potentially risky methods: TRACE
_http-malware-host: Host appears to be clean
| http-enum:
|_ /login.html: Possible admin folder
 http-php-version: Logo query returned unknown hash
f5f97997227a3aa4fcc08f4788018883
_Credits query returned unknown hash
f5f97997227a3aa4fcc08f4788018883
|_http-chrono: Request times for /; avg: 756.69ms; min:
654.25ms; max: 929.96ms
 http-headers:
   Content-Length: 20040
   Content-Type: text/html
   Last-Modified: Sun, 23 Feb 2020 11:30:30 GMT
   Accept-Ranges: bytes
   ETag: "0f1ea73cead51:0"
   Server: Microsoft-IIS/10.0
   Date: Sun, 11 Dec 2022 08:35:08 GMT
   Connection: close
    (Request type: HEAD)
|_http-title: Bad Request
 http-grep:
    (1) http://ironcorp.me:8080/:
      (1) email:
       + mccoy@example.com
    (1)
http://ironcorp.me:8080/assets/plugins/Chart.js/Chart.min
.js:
  (1) email:
  + emn178@gmail.com
11025/tcp open unknown syn-ack ttl 125
```

```
49667/tcp open unknown
                             syn-ack ttl 125
49670/tcp open unknown
                           syn-ack ttl 125
Host script results:
|_clock-skew: mean: 0s, deviation: 0s, median: 0s
 qscan:
 PORT FAMILY MEAN (us)
                           STDDEV
                                     LOSS (%)
                245518.60 93507.24
                                     0.0%
 53
    0
 135 0
                257728.50
                          78327.81
                                     0.0%
 3389 0
                234205.80 65312.21 0.0%
 8080 0
                240624.00 77326.54
                                     0.0%
 11025 0
                          80371.41
                276576.11
                                     10.0%
 49667 0
                218970.78 43474.63
                                     10.0%
1_49670 0
                262611.00 79955.62 10.0%
|_ipidseg: Unknown
 dns-brute:
   DNS Brute-force hostnames:
     mx.ironcorp.me - 23.202.231.169
     stats.ironcorp.me - 23.202.231.169
     mx0.ironcorp.me - 23.202.231.169
     svn.ironcorp.me - 23.221.222.250
     syslog.ironcorp.me - 23.202.231.169
     mx1.ironcorp.me - 23.202.231.169
     test.ironcorp.me - 23.221.222.250
     test1.ironcorp.me - 23.202.231.169
     test2.ironcorp.me - 23.202.231.169
     mysql.ironcorp.me - 23.221.222.250
     testing.ironcorp.me - 23.221.222.250
     news.ironcorp.me - 23.221.222.250
     upload.ironcorp.me - 23.221.222.250
     noc.ironcorp.me - 23.202.231.169
     vm.ironcorp.me - 23.221.222.250
```

```
ns.ironcorp.me - 23.202.231.169
vnc.ironcorp.me - 23.221.222.250
ns0.ironcorp.me - 23.221.222.250
ns1.ironcorp.me - 23.202.231.169
ns2.ironcorp.me - 23.202.231.169
vpn.ironcorp.me - 23.202.231.169
web.ironcorp.me - 23.221.222.250
web2test.ironcorp.me - 23.221.222.250
ns3.ironcorp.me - 23.221.222.250
ops.ironcorp.me - 23.202.231.169
webftp.ironcorp.me - 23.202.231.169
whois.ironcorp.me - 23.202.231.169
oracle.ironcorp.me - 23.221.222.250
wiki.ironcorp.me - 23.202.231.169
owa.ironcorp.me - 23.221.222.250
www.ironcorp.me - 23.221.222.250
pbx.ironcorp.me - 23.202.231.169
www2.ironcorp.me - 23.202.231.169
s3.ironcorp.me - 23.202.231.169
xml.ironcorp.me - 23.221.222.250
secure.ironcorp.me - 23.221.222.250
server.ironcorp.me - 23.221.222.250
shop.ironcorp.me - 23.202.231.169
sip.ironcorp.me - 23.221.222.250
sql.ironcorp.me - 23.202.231.169
squid.ironcorp.me - 23.202.231.169
host.ironcorp.me - 23.221.222.250
ssh.ironcorp.me - 23.202.231.169
http.ironcorp.me - 23.202.231.169
admin.ironcorp.me - 23.202.231.169
ssl.ironcorp.me - 23.202.231.169
id.ironcorp.me - 23.221.222.250
```

```
administration.ironcorp.me - 23.202.231.169
stage.ironcorp.me - 23.202.231.169
images.ironcorp.me - 23.202.231.169
ads.ironcorp.me - 23.202.231.169
adserver.ironcorp.me - 23.202.231.169
alerts.ironcorp.me - 23.221.222.250
info.ironcorp.me - 23.221.222.250
alpha.ironcorp.me - 23.221.222.250
internal.ironcorp.me - 23.202.231.169
ap.ironcorp.me - 23.221.222.250
internet.ironcorp.me - 23.202.231.169
apache.ironcorp.me - 23.202.231.169
intra.ironcorp.me - 23.221.222.250
app.ironcorp.me - 23.202.231.169
intranet.ironcorp.me - 23.221.222.250
apps.ironcorp.me - 23.202.231.169
ipv6.ironcorp.me - 23.221.222.250
appserver.ironcorp.me - 23.221.222.250
lab.ironcorp.me - 23.202.231.169
aptest.ironcorp.me - 23.202.231.169
ldap.ironcorp.me - 23.221.222.250
auth.ironcorp.me - 23.202.231.169
linux.ironcorp.me - 23.221.222.250
backup.ironcorp.me - 23.221.222.250
local.ironcorp.me - 23.221.222.250
beta.ironcorp.me - 23.202.231.169
log.ironcorp.me - 23.202.231.169
blog.ironcorp.me - 23.202.231.169
chat.ironcorp.me - 23.221.222.250
citrix.ironcorp.me - 23.221.222.250
cms.ironcorp.me - 23.202.231.169
main.ironcorp.me - 23.221.222.250
```

```
manage.ironcorp.me - 23.202.231.169
mgmt.ironcorp.me - 23.221.222.250
corp.ironcorp.me - 23.221.222.250
mirror.ironcorp.me - 23.221.222.250
crs.ironcorp.me - 23.221.222.250
mobile.ironcorp.me - 23.221.222.250
cvs.ironcorp.me - 23.221.222.250
monitor.ironcorp.me - 23.202.231.169
mssql.ironcorp.me - 23.202.231.169
devel.ironcorp.me - 23.221.222.250
mta.ironcorp.me - 23.202.231.169
database.ironcorp.me - 23.202.231.169
development.ironcorp.me - 23.221.222.250
db.ironcorp.me - 23.202.231.169
devsql.ironcorp.me - 23.202.231.169
demo.ironcorp.me - 23.202.231.169
devtest.ironcorp.me - 23.202.231.169
dev.ironcorp.me - 23.202.231.169
dhcp.ironcorp.me - 23.221.222.250
direct.ironcorp.me - 23.202.231.169
dmz.ironcorp.me - 23.202.231.169
dns.ironcorp.me - 23.202.231.169
dns0.ironcorp.me - 23.221.222.250
dns1.ironcorp.me - 23.202.231.169
dns2.ironcorp.me - 23.221.222.250
download.ironcorp.me - 23.202.231.169
en.ironcorp.me - 23.221.222.250
erp.ironcorp.me - 23.221.222.250
eshop.ironcorp.me - 23.221.222.250
f5.ironcorp.me - 23.202.231.169
fileserver.ironcorp.me - 23.221.222.250
firewall.ironcorp.me - 23.202.231.169
```

```
forum.ironcorp.me - 23.221.222.250
      qit.ironcorp.me - 23.202.231.169
      gw.ironcorp.me - 23.221.222.250
      help.ironcorp.me - 23.202.231.169
      helpdesk.ironcorp.me - 23.221.222.250
      home.ironcorp.me - 23.221.222.250
 _fcrdns: FAIL (No PTR record)
  port-states:
   tcp:
      open: 53,135,3389,8080,11025,49667,49670
      filtered: 1-52,54-134,136-3388,3390-8079,8081-
11024, 11026-49666, 49668-49669, 49671-65535
| unusual-port:
   WARNING: this script depends on Nmap's
service/version detection (-sV)
 dns-blacklist:
    SPAM
      12.apews.org - FAIL
     list.quorum.to - FAIL
|_path-mtu: PMTU = 1500
Post-scan script results:
  reverse-index:
   53/tcp: 10.10.20.22
   135/tcp: 10.10.20.22
   3389/tcp: 10.10.20.22
   8080/tcp: 10.10.20.22
   11025/tcp: 10.10.20.22
   49667/tcp: 10.10.20.22
   49670/tcp: 10.10.20.22
Read data files from: /usr/bin/../share/nmap
# Nmap done at Sun Dec 11 04:00:13 2022 -- 1 IP address
```

(1 host up) scanned in 1996.05 seconds