

Creazione di 3 Macchine Virtuali **Stabilire una comunicazioni tra esse**

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Introduzione al esercizio.

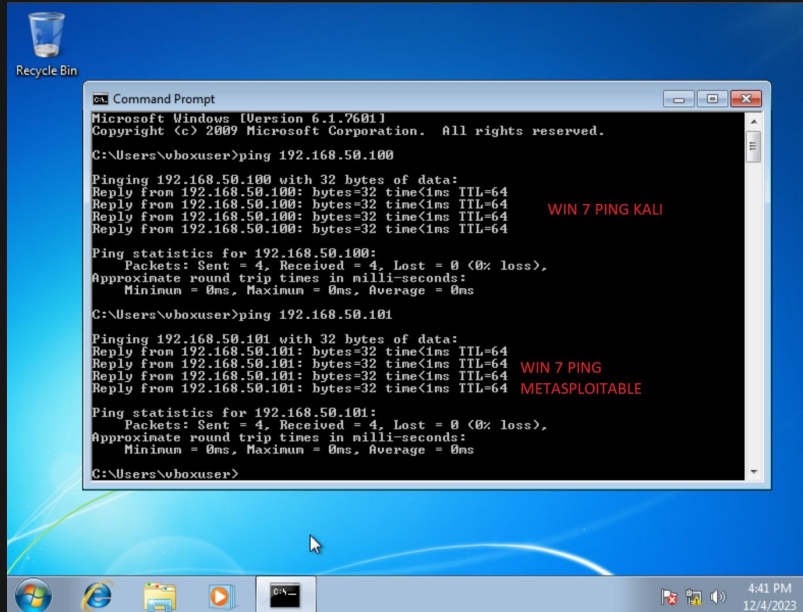
Per prima cosa ho installato le tre macchine virtuali con i seguenti OS(Sistemi operativi):

1. Windows 7
2. Kali Linux
3. Metaspitable 2

E successivamente ho inserito le impostazioni di rete che mi avrebbero permesso di farle comunicare tra di loro.

A seguire i risultati dei test

Windows 7



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\uboxuser>ping 192.168.50.100

Pinging 192.168.50.100 with 32 bytes of data:
Reply from 192.168.50.100: bytes=32 time<1ms TTL=64
Reply from 192.168.50.100: bytes=32 time<1ms TTL=64
Reply from 192.168.50.100: bytes=32 time<1ms TTL=64
Reply from 192.168.50.100: bytes=32 time<1ms TTL=64
Ping statistics for 192.168.50.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\uboxuser>ping 192.168.50.101

Pinging 192.168.50.101 with 32 bytes of data:
Reply from 192.168.50.101: bytes=32 time<1ms TTL=64
Reply from 192.168.50.101: bytes=32 time<1ms TTL=64
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C:\Users\uboxuser>
```

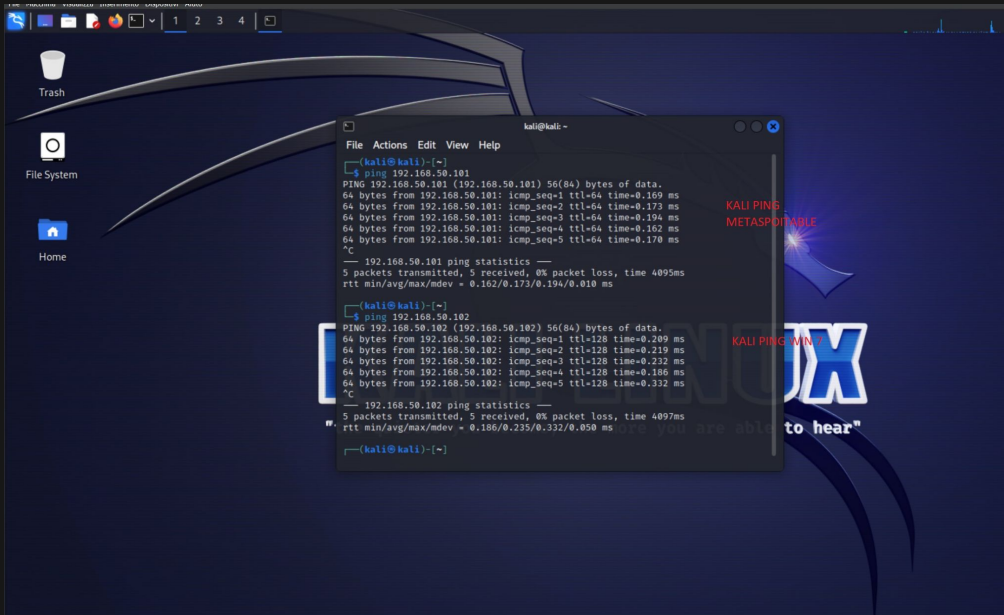
- **Ping verso Kali**

Come si può vedere dal CDM i pacchetti viene ricevuto e windows riceve una risposta.

- **Ping verso Meta.**

Stessa cosa per quando riguarda i pacchetti inviati a Meta.

Kali Linux



The screenshot shows a Kali Linux desktop with a dark blue background. On the left, there are icons for 'Trash', 'File System', and 'Home'. A terminal window is open in the center, displaying the results of two ping commands. The first command is 'ping 192.168.50.101', which corresponds to the IP address of the Kali machine (as seen in the terminal's prompt). The second command is 'ping 192.168.50.102'. The terminal output shows that both ping tests were successful with 0% packet loss. A red arrow points from the text 'KALI PING METASPOTABLE' to the first ping command. Another red arrow points from the text 'KALI PING WIN 7' to the second ping command. The terminal window has a title bar that says 'kali@kali -'.

```
kali@kali:~$ ping 192.168.50.101
PING 192.168.50.101 (192.168.50.101) 56(84) bytes of data:
64 bytes from 192.168.50.101: icmp_seq=1 ttl=64 time=0.169 ms
64 bytes from 192.168.50.101: icmp_seq=2 ttl=64 time=0.173 ms
64 bytes from 192.168.50.101: icmp_seq=3 ttl=64 time=0.194 ms
64 bytes from 192.168.50.101: icmp_seq=4 ttl=64 time=0.162 ms
64 bytes from 192.168.50.101: icmp_seq=5 ttl=64 time=0.170 ms
^C
--- 192.168.50.101 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4095ms
rtt min/avg/max/ndev = 0.162/0.173/0.194/0.010 ms

kali@kali:~$ ping 192.168.50.102
PING 192.168.50.102 (192.168.50.102) 56(84) bytes of data:
64 bytes from 192.168.50.102: icmp_seq=1 ttl=128 time=0.209 ms
64 bytes from 192.168.50.102: icmp_seq=2 ttl=128 time=0.219 ms
64 bytes from 192.168.50.102: icmp_seq=3 ttl=128 time=0.222 ms
64 bytes from 192.168.50.102: icmp_seq=4 ttl=128 time=0.186 ms
64 bytes from 192.168.50.102: icmp_seq=5 ttl=128 time=0.332 ms
^C
--- 192.168.50.102 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4097ms
rtt min/avg/max/ndev = 0.186/0.235/0.332/0.050 ms

kali@kali:~$
```

● Ping verso Meta

L'invio di pacchetti verso meta non presenta nessun problema.

● Ping verso Win7

Stessa cosa per quando riguarda i pacchetti inviati a Windows 7 ma in questo caso risultava un problema che poi approfondirò.

Metasploitable 2

```
, pipe 3
msfadmin@metasploitable:~$ ping 192.168.50.100
PING 192.168.50.100 (192.168.50.100) 56(84) bytes of data.
64 bytes from 192.168.50.100: icmp_seq=1 ttl=64 time=0.187 ms
64 bytes from 192.168.50.100: icmp_seq=2 ttl=64 time=0.337 ms
64 bytes from 192.168.50.100: icmp_seq=3 ttl=64 time=0.158 ms
64 bytes from 192.168.50.100: icmp_seq=4 ttl=64 time=0.158 ms
64 bytes from 192.168.50.100: icmp_seq=5 ttl=64 time=0.169 ms

--- 192.168.50.100 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 3999ms
rtt min/avg/max/mdev = 0.158/0.203/0.337/0.070 ms
msfadmin@metasploitable:~$ ping 192.168.50.102
PING 192.168.50.102 (192.168.50.102) 56(84) bytes of data:
64 bytes from 192.168.50.102: icmp_seq=1 ttl=128 time=0.283 ms
64 bytes from 192.168.50.102: icmp_seq=2 ttl=128 time=0.202 ms
64 bytes from 192.168.50.102: icmp_seq=3 ttl=128 time=0.331 ms
64 bytes from 192.168.50.102: icmp_seq=4 ttl=128 time=0.188 ms

--- 192.168.50.102 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 2997ms
rtt min/avg/max/mdev = 0.188/0.251/0.331/0.058 ms
```

● Ping verso Kali

Con Kali nessun tipo di problema.

● Ping verso Win7

Anche in questo caso come con Kali verso Win 7 prima di riuscire ho riscontrato un problema.

Problemi di Firewall Win7

A causa del Firewall di Win 7 in primo
approcio non mi era possibile far ricevere i
pacchetti alla macchina virtuale.

Investigato ho scoperto che ciò era dovuto
dal firewall che per motivi di sicurezza blocca i
pacchetti in entrata.

Ho risolto il problema aggiungendo una
regola al firewall che permette la ricezione dei
pacchetti in entrata.

