Infection Monkey

Information Security Inc.

iSEC
information security inc.

Contents

- About Infection Monkey
- Architecture
- Requirements
- Testing Setup
- Installing Infection Monkey
- Running Infection Monkey
- References

About Infection Monkey

- The Infection Monkey is an open source security tool for testing a data center's resiliency to perimeter breaches and internal server infection
- The Monkey uses various methods to self propagate across a data center and reports success to a centralized Command and Control(C&C) server

Architecture

- Monkey - A tool which infects other machines and propagates to them
- Monkey Island - A C&C server with a dedicated UI to visualize the Chaos Monkey's progress inside the data center

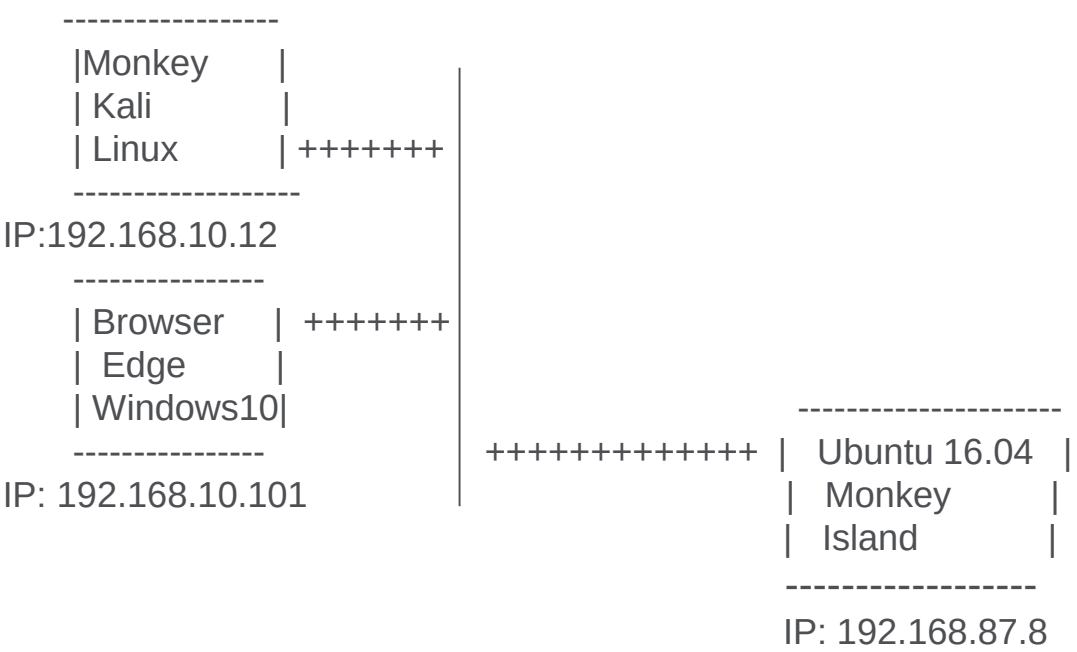
Architecture

- The monkey is composed of three separate parts
- * The Infection Monkey itself - PyInstaller compressed python archives
- * Sambacry binaries - Two linux binaries, 32/64 bit
- * Mimikatz binaries - Two windows binaries, 32/64 bit

Requirements

- The C&C Server has been tested on Ubuntu 14.04,15.04 and 16.04
- The Monkey itself has been tested on Windows XP, 7, 8.1 and 10
- The Linux build has been tested on Ubuntu server (multiple versions)

Testing Setup



Installing Infection Monkey

- Installing the InfectionMonkey on Linux
- Downloading Infection Monkey

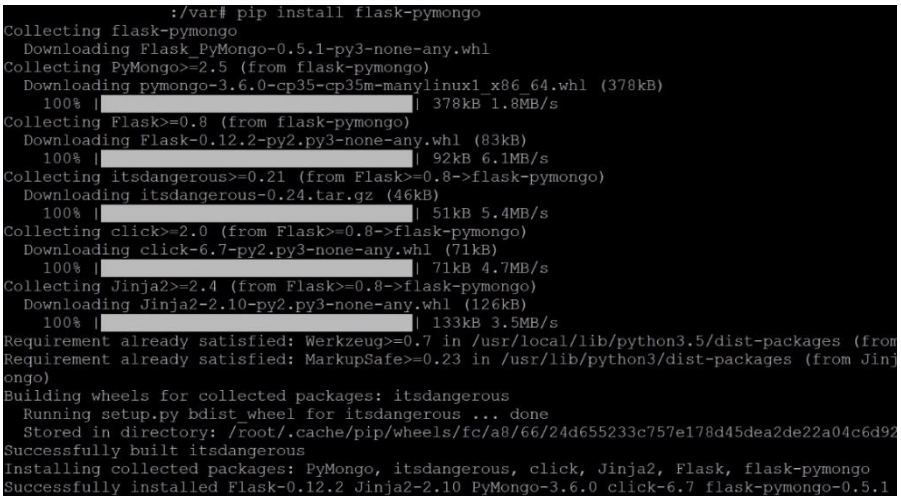
Installing Infection Monkey

- Installing the InfectionMonkey on Linux
- Unpacking the tarball

```
                :~/Monkey# tar -xf infection_monkey.tgz
                :~/Monkey# ls -lah
total 112M
drwxr-xr-x  2 root root 4.0K Feb 12 19:26 .
drwx------ 57 root root  16K Feb 12 19:26 ..
-rwxr-xr-x  1 root root 2.5K Sep  7  2016 example.conf
-rw-r--r--  1 root root  56M Feb 12 19:26 infection_monkey.tgz
-rw-r--r--  1 root root  56M Sep  7  2016 monkey_island.deb
-rwxr-xr-x  1 root root  11K Sep  7  2016 README.md
```

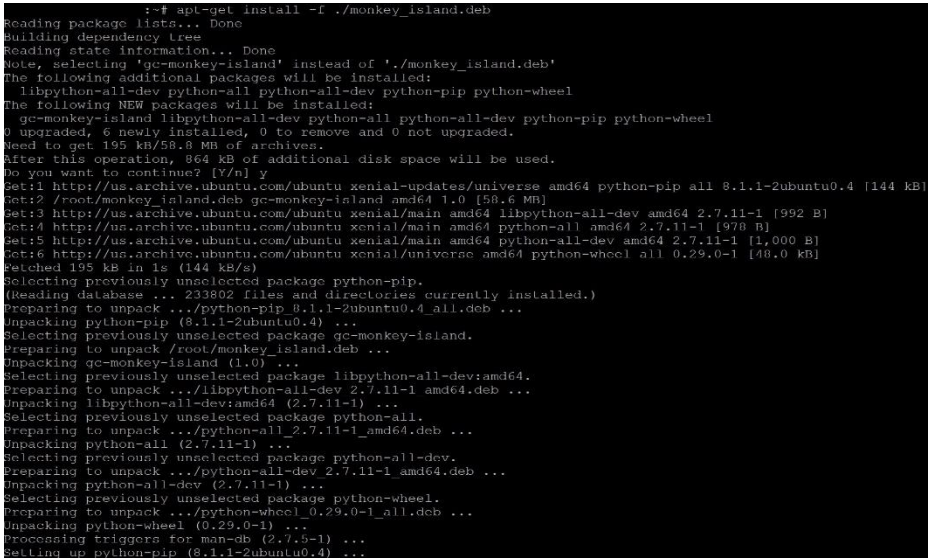
Installing Infection Monkey

- Installing the InfectionMonkey on Linux
- Installing Flask-pymongo



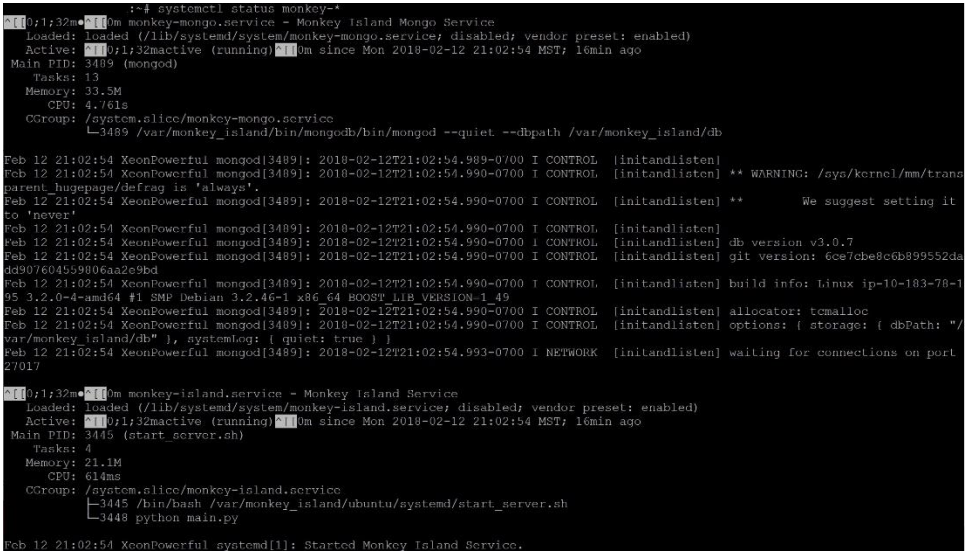
Installing Infection Monkey

- Installing the Monkey on Linux
- Installing the Monkey Island



Installing Infection Monkey

- Installing the Monkey on Linux
- Verify the Monkey service is functional



Installing Infection Monkey

- Installing the Monkey on Linux
- Verify the Monkey service is functional

```
root@XeonPowerful:~# netstat -anepl | less
Active Internet connections (servers and established)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       User       Inode      PID/Program name
tcp        0      0 0.0.0.0:22              0.0.0.0:*               LISTEN      0          16165      3040/sshd
tcp        0      0 127.0.0.1:631           0.0.0.0:*               LISTEN      0          29603      4975/cupsd
tcp        0      0 0.0.0.0:443             0.0.0.0:*               LISTEN      0          28619      4482/vmware-hostd
tcp        0      0 0.0.0.0:445             0.0.0.0:*               LISTEN      0          28541      4447/smbd
tcp        0      0 0.0.0.0:902             0.0.0.0:*               LISTEN      0          25969      3488/vmware-authdla
tcp        0      0 0.0.0.0:5000            0.0.0.0:*               LISTEN      0          264961     3448/python
tcp        0      0 0.0.0.0:27017           0.0.0.0:*               LISTEN      0          265579     3489/mongod
```

Installing Infection Monkey

- Access the Monkey's Island GUI by browsing to https://192.168.87.8:5000/admin/index.html

Running Infection Monkey

- The Monkey can be run in two ways =>

1) With the Monkey Island as the initial attacker. This will use the Monkey Island server as a starting position for the Monkey, from which it will expand based on the configuration

Running Infection Monkey

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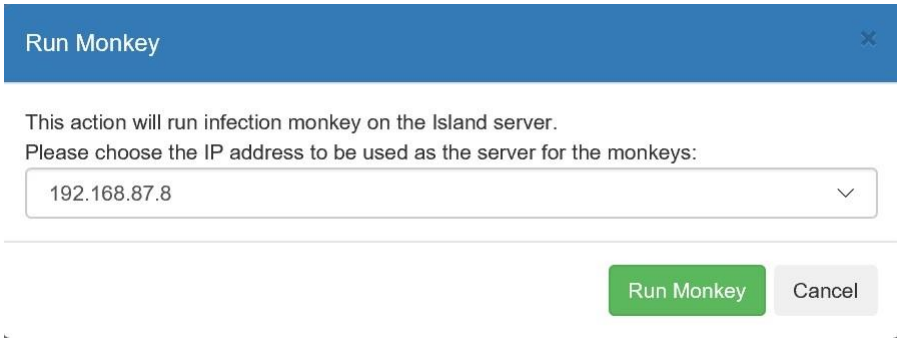

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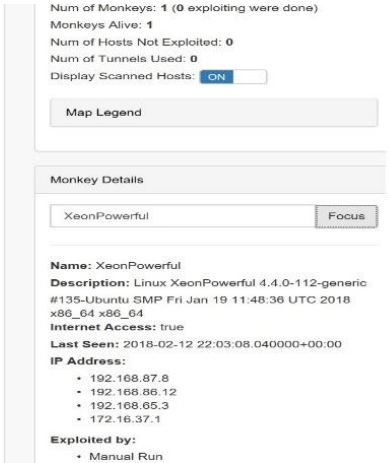
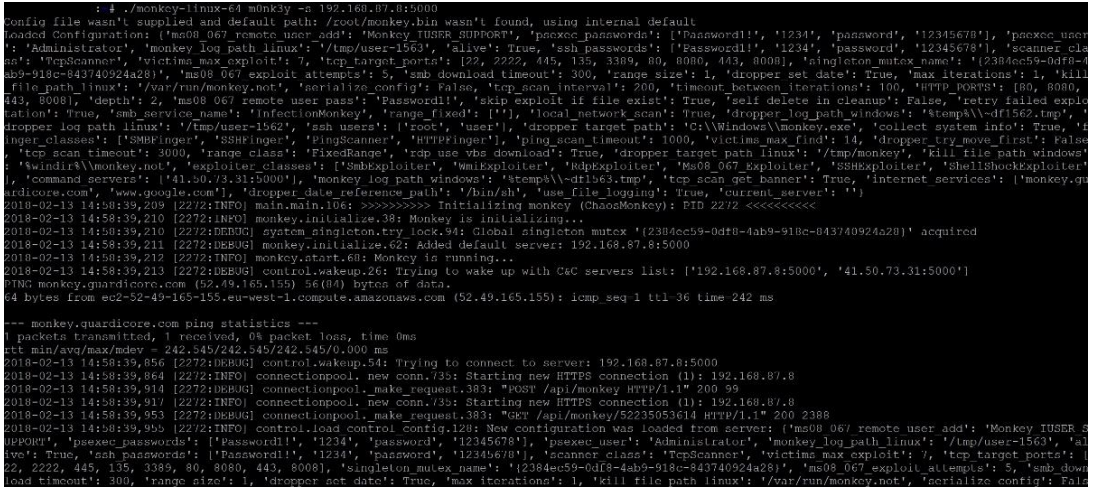


Running Infection Monkey

2) Running the Monkey from a machine elsewhere network
Download the appropriate Monkey executable (Linux/Windows and matching 32/64 bitness) using the following path [https://192.168.87.8:5000/api/monkey/download/[binaryToDownload]](https://192.168.87.8:5000/api/monkey/download/[binaryToDownload]) (monkey-windows-32.exe, monkey-windows-64.exe, monkey-linux-32, monkey-linux-64)

Running Infection Monkey

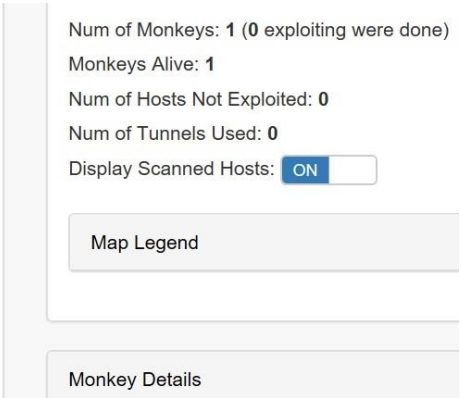
- Execute the Monkey from the console, passing the server address as a parameter and the magic keyword for execution
- Example “./monkey m0nk3y -s 192.168.87.8:5000”



Running Infection Monkey

- Execute the Monkey from the console, passing the server address as a parameter and the magic keyword for execution
- Example “./monkey-linux-64 m0nk3y -s 192.168.87.8:5000”

kali2017
192.168.10.12



Running Infection Monkey

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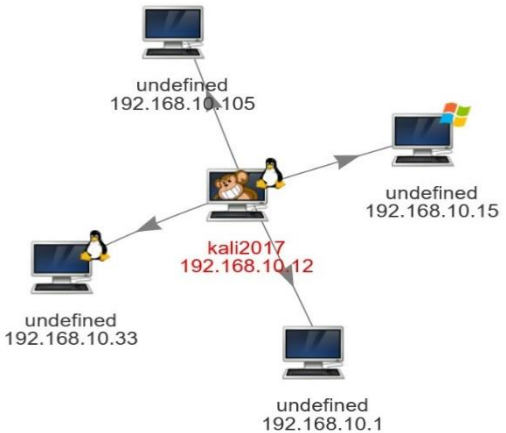

References

- Official website
https://www.guardicore.com/infectionmonkey/

- Github
https://github.com/guardicore/monkey