

# SHELL SHOCK

## BACKBOX LINUX & METASPLOIT



@AndreaDraghetti

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# About Me

BackBox Team Member

Over Security Founder

Independent Security Researcher

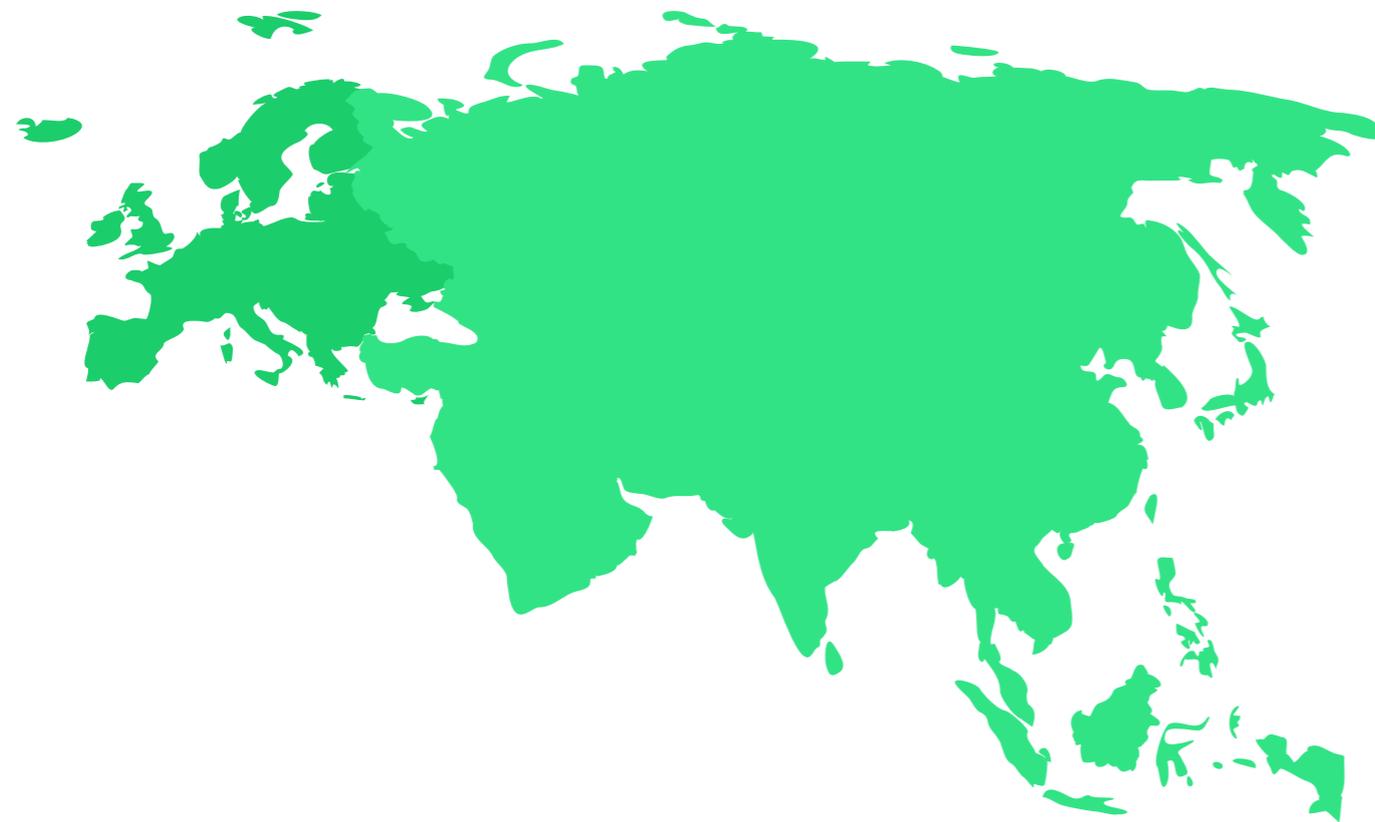
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# About BackBox

BackBox is distribution Free and Open Source, founded in 2010 by an Italian team and is designed for Ethical Hacker. Dedicated in Penetration Testing and Security Assessment.

Based on Ubuntu 04.14 LTS, it offers over 100 Tools dedicated to the world of IT Security and Computer Forensics and has a release plan scheduled every 4 months.

# Look At The World



## DistroWatch

BackBox is the 56th most popular Linux distribution in the world, the second most successful distribution of Penetration Testing.



The 37% users of BackBox is Asian.



BackBox 4.4 in 30 days got about 50,000 downloads.

# Screenshot



# Main Tools

nmap

dir3arch

OpenVAS

ZAP

sqlmap

Metasploit

Armitage

wpscan

w3af

fang

weevely

john

Wireshark

Ettercap

wxHexEditor

setoolkit

dex2jar

aircrak-ng

can-utils

BeEF

# Social and More

BackBox is present in the major social networks, on IRC and on the official website where you will find the Forum and the Wiki.

[backbox.org](http://backbox.org)  
[facebook.com/backbox.linux](https://facebook.com/backbox.linux)  
[twitter.com/backboxlinux](https://twitter.com/backboxlinux)  
[#backbox](https://irc.autistici.org/#backbox) [irc.autistici.org](https://irc.autistici.org)

# Metasploit Framework



**100%**

It is a Open Source and Free project dedicated to the development and execution of exploits.



**95%**

It allows you to attach the 95% of operating systems vulnerable, even mobile platforms.



**1500**

The framework includes over 1500 Exploit for Windows, Linux, Mac, Android, iOS, etc.

# Screenshot

```
Terminale - andrea@backbox: ~
File Modifica Visualizza Terminale Schede Aiuto

Metasploit

=[ metasploit v4.11.5-dev-7c5d292 ]
+ -- --=[ 1507 exploits - 868 auxiliary - 252 post ]
+ -- --=[ 436 payloads - 37 encoders - 8 nops ]
+ -- --=[ Free Metasploit Pro trial: http://r-7.co/trymsp ]

msf > show

Encoders
=====

Name          Disclosure Date Rank Description
-----
cmd/echo      good          Echo Command Encoder
cmd/generic_sh manual        Generic Shell Variable Substitution Command Encoder
cmd/ifs       low          Generic ${IFS} Substitution Command Encoder
cmd/perl      normal       Perl Command Encoder
cmd/powershell_base64 excellent    Powershell Base64 Command Encoder
cmd/printf_php_mq manual       printf(1) via PHP magic_quotes Utility Command Encoder
generic/eicar manual       The EICAR Encoder
generic/none  normal      The "none" Encoder
mipsbe/byte_xori normal      Byte XORi Encoder
mipsbe/longxor normal      XOR Encoder
mipsle/byte_xori normal      Byte XORi Encoder
```

# Shellshock

CVE-2014-6271, CVE-2014-6277, CVE-2014-6278,  
CVE-2014-7169, CVE-2014-7186 e CVE-2014-7187

Shellshock, also known as Bashdoor, is a vulnerability Bash Shell discovered in September 2014. Several Web services using Bash, an attacker could exploit this vulnerability to execute arbitrary commands.



**Wopbot** was the first botnet to use Shellshock exploit, accused of launching DDoS attacks.



# 1,5millions

CloudFlare has estimated that it had identified 1.5 million attacks per day.

# Vectors



## CGI-BIN

It is the interface between a web server and an executable that produces dynamic content; It has been identified as the main attack vector.



## DHCP Clients

Some DHCP clients when authenticating welcome requests Bash. WiFi Open can be exploited.



## OpenSSH

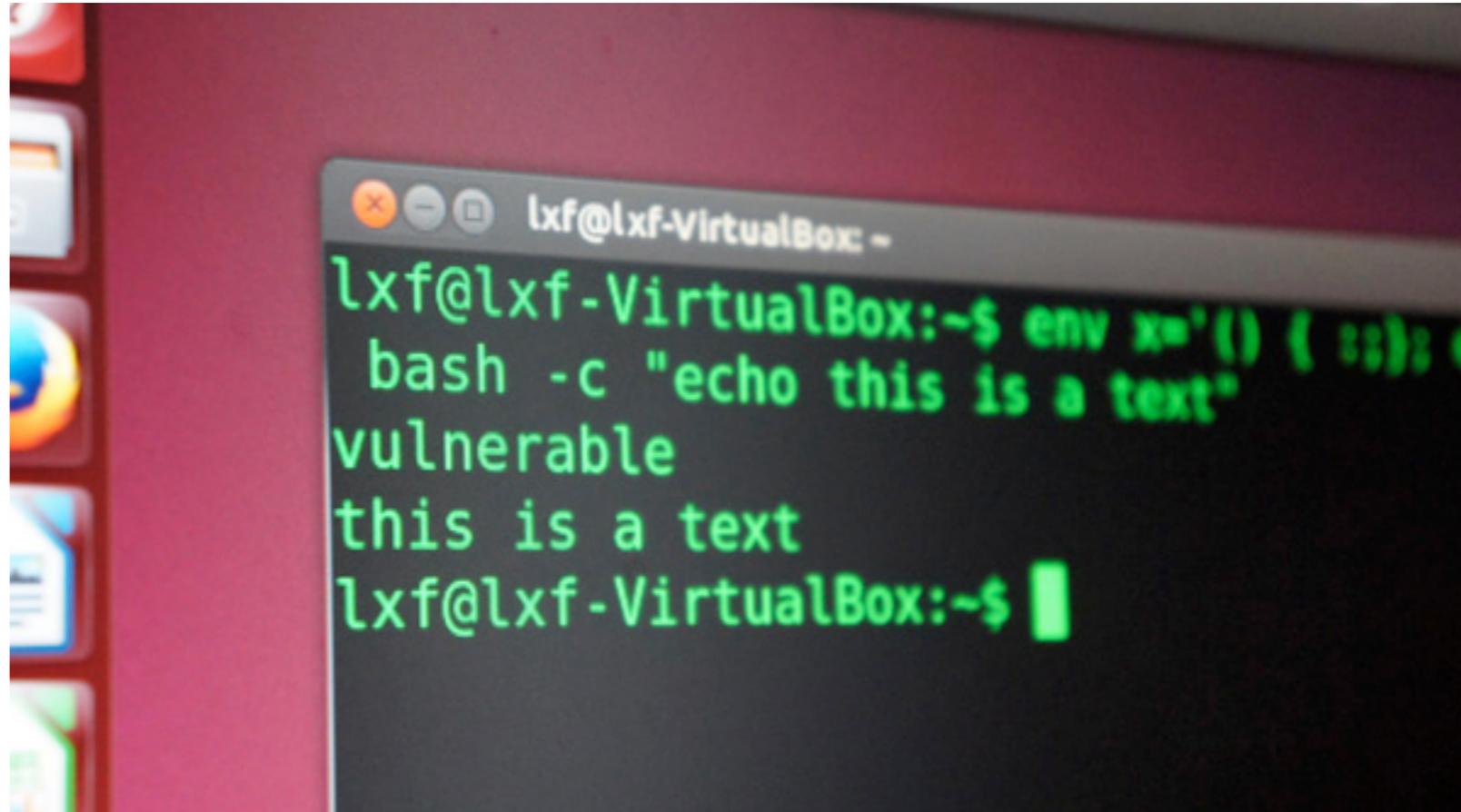
OpenSSH has a function of "ForceCommand", where a default command is executed at login, allows you to execute commands without restrictions.



## Qmail

When using Bash to process the mail, the mail server Qmail internally performs the commands in the external inputs.

# CVE-2014-6271

A screenshot of a terminal window titled 'lxf@lxf-VirtualBox: ~'. The terminal shows a command being entered: 'env x='() { :; }; echo vulnerable' bash -c "echo this is a text". The output of the command is displayed as 'vulnerable' followed by 'this is a text' on the next line. The prompt 'lxf@lxf-VirtualBox:~\$' is visible at the end of the line.

```
lxf@lxf-VirtualBox:~$ env x='() { :; }; echo vulnerable' bash -c "echo this is a text"
vulnerable
this is a text
lxf@lxf-VirtualBox:~$
```

env x='() { :; }; echo vulnerable' bash -c "echo this is a test"

This is the original form of vulnerability, concerns a specially created environment variable containing a function, followed by arbitrary commands.

# Demonstration

Exploiting the vulnerability CVE-2014-6271 attack a vulnerable system, we will use as a carrier a CGI script in Web Server.

Test Environment:

BackBox 4.4

Ubuntu 12.04

# Video

<https://youtu.be/XDivO7DRO5w>

# Questions?



Credits: Opening image of CloudFlare