

## **Shodan Command-Line Interface**

easy install shodan

Get your API Key (https://account.shodan.io)

# Installation

The **shodan** command-line interface (CLI) is packaged with the official Python library for Shodan, which means if you're running the latest version of the library you already have access to the CLI. To install the new tool simply execute:

easy\_install shodan

Or if you're running an older version of the Shodan Python library and want to upgrade:

easy install -U shodan

Once the tool is installed you have to initialize the environment with your API key using shodan init

shodan init YOUR\_API\_KEY

You can get your API key from your Shodan account page located at:

Get your API Key (https://account.shodan.io)

## **Command Overview**

The **shodan** CLI has a lot of commands, the most popular/ common ones are documented below. For the full list of commands just run the tool without any arguments:

\$ shodan

### count

Returns the number of results for a search query.

#### Example

```
$ shodan count microsoft iis 6.0 5310594
```

### download

Search Shodan and download the results into a file where each line is a JSON banner. For more information on what the banner contains check out:

Banner Specification (https://developer.shodan.io/api/banner-specification)

By default it will only download 1,000 results, if you want to download more look at the --limit flag.

The **download** command is what you should be using most often when getting results from Shodan since it lets you save the results and process them afterwards using the **parse** command. Because paging through results uses query credits, it makes sense to always store searches that you're doing so you won't need to use query credits for a search you already did in the past.

#### Example

### host

See information about the host such as where it's located, what ports are open and which organization owns the IP.

#### Example

```
$ shodan host 189.201.128.250
```

```
189.201.128.250
Hostnames:
                          customer-250.xertix.com
City:
                          Mexico
                         Mexico
Country:
Organization:
                         Metro Net, S.A.P.I. de C.V.
Number of open ports:
                          1
Vulnerabilities:
Ports:
    443 Fortinet FortiGate 50B or FortiWifi 80C firewall http config
        |-- SSL Versions: SSLv3, TLSv1, TLSv1.1, TLSv1.2
        |-- Diffie-Hellman Parameters:
                Bits:
                                1024
                Generator:
                Fingerprint:
                                RFC2409/Oakley Group 2
```



Returns your Internet-facing IP address.

#### Example

```
$ shodan myip
199.30.49.210
```

### parse

Use **parse** to analyze a file that was generated using the **download** command. It lets you filter out the fields that you're interested in, convert the JSON to a CSV and is friendly for pipe-ing to other scripts.

#### Example

The following command outputs the IP address, port and organization in CSV format for the previously downloaded Microsoft-IIS data:

```
$ shodan parse --fields ip_str,port,org --separator , microsoft-data.json.gz
```

```
216.28.245.171,80,Web Force Systems,
103.41.16.147,80,
218.244.142.211,80,China Network Information Center,
81.22.98.166,80, Kriter Internet Hiz.Ltd.Sti.,
75.149.30.138,443, Comcast Business Communications,
23.108.235.233,80, Nobis Technology Group, LLC,
207.57.69.157,8080, Verio Web Hosting,
66.129.113.13,80, Peak 10,
168.143.6.120,8080, Verio Web Hosting,
218.0.3.56,80,China Telecom Ningbo,
104.202.81.231,80,
98.191.178.20,443,Cox Communications,
108.186.164.90,80, Peg Tech,
23.105.63.236,80, Nobis Technology Group, LLC,
67.227.184.237,8443,Smash Data Design,
107.163.173.34,80,
185.22.198.84,80,Nexto SAS,
72.29.22.40,80,Cybercon,
216.119.84.188,80, CrystalTech Web Hosting,
104.221.145.60,80,
198.171.51.81,8080, Verio Web Hosting,
209.10.173.10,443, Quality Technology Services, N.J., LLC,
```

### search

This command lets you search Shodan and view the results in a terminal-friendly way. By default it will display the IP, port, hostnames and data. You can use the **--fields** parameter to print whichever banner fields you're interested in.

#### Example

To search Microsoft IIS 6.0 and print out their IP, port, organization and hostnames use the following command:

```
$ shodan search --fields ip_str,port,org,hostnames microsoft iis 6.0
```

```
81.171.175.68 80 Star Technology Services Limited
178.73.238.43 80 Portlane Networks AB
113.245.76.199 5900 China Telecom HUNAN
149.210.160.163 80 Transip B.V. nowarkrengelink.com
23.92.216.117 80 Res.pl Isp S.c. mailingrolout.com
202.69.233.212 443 Verio Web Hosting kubota-rvc23-0727001.com
190.78.179.228 8080 CANTV Servicios, Venezuela 190-78-179-228.dyn.dsl.cantv.net
202.64.182.223 80 Hayashi Telempu Co., Ltd.
198.104.15.120 443 Verio Web Hosting wholesalechildrensclothing.com.au
208.64.139.67 80 Desync Networks 119-a.webmasters.com
212.227.51.115 443 Internet AG s535322526.online.de
178.208.77.241 81 McHost.Ru v112059.vps.mcdir.ru
208.249.80.153 443 Cruzio www12153.cruzio.com
87.243.209.223 8080 Hotchilli Internet statio-87-243-209-223.adsl.hotchilli.net
183.89.74.87 81 3BB Broadband mx-11-183.89.74-87.dynamic.3bb.co.th
178.236.77.90 80 Excellent Hosting Sweden AB
54.201.193.170 80 Amazon.com ec2-54-201-193-170.us-west-2.compute.amazonaws.com
106.186.28.222 80 Linode, LLC 11608-222.members.linode.com
54.85.166.63 80 Merck and Co. ec2-54-85-166-63.compute-1.amazonaws.com
208.131.128.136 80 WestHost greenstreetstudios.org
```

## **Videos**

### Getting a List of Top Website Hackers

```
HACKED BY Ghost99
HackeD bY Whoami
HACKED By M4G!C_MUN5H!
\sim[+]\sim Hacked By W@X V@MP!R3 \sim[+]\sim
~:: Hacked by Mr. DellatioNx196 :: ~.\
Hacked By Best Cracker
Hacked By Fares Ksa HackeR ~ تم الاخت&
#1585;اق من قبل فار&
#1587; الس&#1593 °#1608;ديه هك&#
Hacked By Team Cyber Warriors
Hacked By Mr.NeMo
Hacked by United Islamic Cyber For
HACKED BY ERSYAD
Hacked By sHaMpoO
Hacked By Zentak
Hacked By Team System Dz
Hacked By GHoST61
Welcome to HackeD By Virus IRAQ | HackeD By Virus IRAQ
Hacked By 3xp1r3 Cr4ck - 3xp1r3 Cyber Army
Hacked by Zentak
hacked by ox souhail
    00:00
                                                   Recorded with asciinema
```

## **Analyzing Telnet Usage on the Internet**

```
achillean@demo:~$ shodan stats --facets telnet.option --limit 20 port:23
Top 20 Results for Facet: telnet.option
                               7,925,937
echo
                               6,350,731
sga
                              3,752,283
naws
lflow
                               3,267,040
ttype
                              1,763,585
status
                                 314,328
                                2 2 274
tspeed
new_environ
                                2 . 7
                                2 ,3/
xdisploc
linemode
                                 1 ,380
noopt
old_environ
                                  565,د.
                                  7,863
authentication
suppress_local_echo
                                  3,292
tm
                                  3,139
                                  1,395
encrypt
brk
                                    259
com_port_option
                                      75
tn3270e
                                      48
sndloc
                                      48
     00:00
                                                              Recorded with asciinema
```