

## Relazione Esplorazione di Nmap

Nella seguente immagine e primo passaggio utilizzo il comando specifico per scansionare la rete e nello specifico, come illustrato di seguito per visualizzare il manuale di Nmap:

- [analyst@secOps ~]\$ man nmap

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NMAP(1)                                Nmap Reference Guide                                NMAP(1)

NAME
    nmap - Network exploration tool and security / port scanner

SYNOPSIS
    nmap [Scan Type...] [Options] [target specification]

DESCRIPTION
    Nmap ("Network Mapper") is an open source tool for network exploration
    and security auditing. It was designed to rapidly scan large networks,
    although it works fine against single hosts. Nmap uses raw IP packets
    in novel ways to determine what hosts are available on the network,
    what services (application name and version) those hosts are offering,
    what operating systems (and OS versions) they are running, what type of
    packet filters/firewalls are in use, and dozens of other
    characteristics. While Nmap is commonly used for security audits, many
    systems and network administrators find it useful for routine tasks
    such as network inventory, managing service upgrade schedules, and
    monitoring host or service uptime.

    The output from Nmap is a list of scanned targets, with supplemental
    information on each depending on the options used. Key among that
    information is the "interesting ports table". That table lists the
    port number and protocol, service name, and state. The state is either
    open, filtered, closed, or unfiltered. Open means that an application
    on the target machine is listening for connections/packets on that
    port. Filtered means that a firewall, filter, or other network
    obstacle is blocking the port so that Nmap cannot tell whether it is
    open or closed. Closed ports have no application listening on them,
    though they could open up at any time. Ports are classified as
    unfiltered when they are responsive to Nmap's probes, but Nmap cannot
    determine whether they are open or closed. Nmap reports the state
    combinations open|filtered and closed|filtered when it cannot determine
    which of the two states describe a port. The port table may also
    include software version details when version detection has been
    requested. When an IP protocol scan is requested (-s0), Nmap provides
    information on supported IP protocols rather than listening ports.

    In addition to the interesting ports table, Nmap can provide further
    information on targets, including reverse DNS names, operating system
    guesses, device types, and MAC addresses.

    A typical Nmap scan is shown in Example 1. The only Nmap arguments used
    in this example are -A, to enable OS and version detection, script
    scanning, and traceroute; -T4 for faster execution; and then the
    hostname.

Example 1. A representative Nmap scan
```

Nella seguente immagine, muovendomi con la freccia su e giù posso avanzare sulla pagina del manuale o tornare indietro per leggere tutte le varie spiegazioni dei comandi con **nmap**:

```
A typical Nmap scan is shown in Example 1. The only Nmap arguments used
in this example are -A, to enable OS and version detection, script
scanning, and traceroute; -T4 for faster execution; and then the
hostname.

Example 1. A representative Nmap scan

# nmap -A -T4 scanme.nmap.org

Nmap scan report for scanme.nmap.org (74.207.244.221)
Host is up (0.029s latency).
rDNS record for 74.207.244.221: li86-221.members.linode.com
Not shown: 995 closed ports
PORT      STATE SERVICE      VERSION
22/tcp    open  ssh          OpenSSH 5.3p1 Debian 3ubuntu7 (protocol 2.0)
|_ ssh-hostkey: 1024 8d:60:f1:7c:ca:b7:3d:0a:d6:67:54:9d:69:d9:b9:dd (DSA)
|_ 2048 79:f8:09:ac:d4:e2:32:42:10:49:d3:bd:20:82:85:ec (RSA)
80/tcp    open  http         Apache httpd 2.2.14 ((Ubuntu))
|_ http-title: Go ahead and ScanMe!
646/tcp   filtered ldap
1720/tcp  filtered H.323/Q.931
```

Nella seguente immagine e procedimento illustrato, utilizzo il comando specifico per scansionare il localhost della macchina, come illustrato di seguito:

- **nmap -A -T4 localhost**

```
[analyst@secOps ~]$ nmap -A -T4 localhost
Starting Nmap 7.70 ( https://nmap.org ) at 2024-10-25 06:23 EDT
Nmap scan report for localhost (127.0.0.1)
Host is up (0.000034s latency).
Other addresses for localhost (not scanned): ::1
Not shown: 998 closed ports
PORT      STATE SERVICE VERSION
21/tcp    open  ftp      vsftpd 2.0.8 or later
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
|_--rw-r--r--    1 0          0          0 Mar 26  2018 ftp_test
```

```
Nmap scan report for 127.0.1.92
Host is up (0.00011s latency).
Not shown: 998 closed ports
PORT      STATE SERVICE VERSION
21/tcp    open  ftp      vsftpd 2.0.8 or later
| ftp-anon: Anonymous FTP login allowed (FTP code 230)
|_--rw-r--r--    1 0          0          0 Mar 26  2018 ftp_test
| ftp-syst:
|   STAT:
| FTP server status:
|   Connected to 127.0.0.1
|   Logged in as ftp
|   TYPE: ASCII
|   No session bandwidth limit
|   Session timeout in seconds is 300
|   Control connection is plain text
|   Data connections will be plain text
|   At session startup, client count was 11
|   vsFTPD 3.0.3 - secure, fast, stable
|_End of status
22/tcp    open  ssh      OpenSSH 7.7 (protocol 2.0)
```

Nella seguente immagine e illustrazione utilizzo il comando specifico per vedere il rapporto della scansione di rete, fatta con il comando **nmap**:

```
[analyst@secOps ~]$ nmap -A -T4 scanme.nmap.org
Starting Nmap 7.70 ( https://nmap.org ) at 2024-10-25 06:38 EDT
Nmap scan report for scanme.nmap.org (45.33.32.156)
Host is up (0.18s latency).
Other addresses for scanme.nmap.org (not scanned): 2600:3c01::f03c:91ff:fe18:bb2f
Not shown: 995 closed ports
PORT      STATE SERVICE      VERSION
22/tcp    open  ssh          OpenSSH 6.6.1p1 Ubuntu 2ubuntu2.13 (Ubuntu Linux; protocol 2.0)
|_ ssh-hostkey:
|   1024 ac:00:a0:1a:82:ff:cc:55:99:dc:67:2b:34:97:6b:75 (DSA)
|   2048 20:3d:2d:44:62:2a:b0:5a:9d:b5:b3:05:14:c2:a6:b2 (RSA)
|   256  96:02:bb:5e:57:54:1c:4e:45:2f:56:4c:4a:24:b2:57 (ECDSA)
|_  256  33:fa:91:0f:e0:e1:7b:1f:6d:05:a2:b0:f1:54:41:56 (ED25519)
53/tcp    open  domain       dnsmasq 2.84
|_ dns-nsid:
|_ bind.version: dnsmasq-2.84
80/tcp    open  http         Apache httpd 2.4.7 ((Ubuntu))
|_ http-server-header: Apache/2.4.7 (Ubuntu)
|_ http-title: Go ahead and ScanMe!
9929/tcp  open  nping-echo   Nping echo
31337/tcp open  tcpwrapped
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 21.39 seconds
```