nc -- реализация подключений и ожиданий входящих соединений, через TCP и UDP

NC(1) **FreeBSD General Commands Manual** **NC(1)**

???????????

nc -- ?????????? ??????????? ? ???????? ???????? ??????????, ????? TCP ? UDP

??????? ?????

nc [-46DEdhklnorStUuvz] [-e IPsec_policy] [-i interval]
[-P proxy_username] [-p source_port] [-s source_ip_address] [-T ToS]
[-w timeout] [-X proxy_protocol] [-x proxy_address[:port]] [hostname]
[port[s]]

????????

??????? **nc** (??? **netcat**) ???????????? ??????????? ??? ?????, ??? ????????
TCP ??? UDP. ???????? TCP ??????????, ??????? UDP ???????, ??????????-
??? TCP ? UDP ??????, ???????????? ??????, ? ?????? ? ???????? IPv4 ?
IPv6. ? ??????? ?? telnet(1), nc ??????? ????????? ?? ??????? ?? ????-
??????? ????? ??????, ?????? ??????? ?? ?? ?????? ??????????? ?????, ???
??? ?????? telnet(1).

???????? ??????????:

- ??????????? TCP ????????????
- ????????? shell-????????? ??????????? HTTP ???????
- ???????????? ??????? ???????
- SOCKS ??? HTTP ProxyCommand ??? ssh(1)
- ? ??????, ?????? ??????

????????? ????????? ?????:

-4 ???????????? ?????? IPv4 ??????.

-6 ???????????? ?????? IPv6 ??????.

-D ???????? ??????? ?? ??????.

-d ?? ?????? ??????????? ????(stdin).

-h ??????? ??????? ?? nc.

-E ???????????? ?????????? "-e 'in ipsec esp/transport//require'

-e 'out ipsec esp/transport//require'", ??????? ???????? ?????-
??????? ????? IPsec ESP ? ????? ????????????

-e ???? ????????? IPsec ????????, ?? ????? ??????? ???????????
???????? IPsec, ?????? ??????????, ?????????? ?
ipsec_set_policy(3). ???? ??????????, ???? ???? ????? ????
??????? ??? ????, ?? ?????? ??????? ??? ??????? ???????????.

-i interval
????????? ???????? ???????? ????? ??????????? ? ???????????
???????? ??????. ??? ?? ?????? ???????? ???????? ????? ??????-
??????? ? ?????????? ??????.

-k ?????????? ???????(???????) ????????? ??????????, ????? ????,
??? ??????? ?????????? ???? ???????. ???????? ???????????? ???
????? ??? ????? -l.

-l ??????? ???????? ??????????, ?????? ??????????? ? ??????????
?????. ???????? ???????????? ??? ????? ? ?????? ? ??????? -p,
-s, ??? -z. ????? ????, ????? ???? ??? ????????? ? ???????
????? -w ????????????.

-n ?? ??????????? ??????? ????????????? ???? ? ????????, ? ??????
? ?????? ??????.

-o ''Once-only ?????''. ?? ?????????, nc ?? ????????? ?????? ??
??????? EOF ???????????? ?? ??????????? ????, ? ??????????
?????? ?? ??? ???, ???? ???? ?? ?????? ?? ??????????. ???? -o
????????? ???????? ????????? ??????? EOF.

-P proxy_username
??? ????????????, ????? ???????????? ?????? ???????, ??????????
?????????????. ???? ?? ??????? ??? ???????????, ????? ?????-
????????? ?? ???????. ?? ?????? ?????? ?????? ?????????????
????????????? ?????? ??? HTTP ??????????.

-p source_port
???????? ????, ??????? nc ?????? ???????????. ???????? ??????-
?????? ??? ????? ? ?????? ? ?????? -l.

-r ???????? ????? ?/??? ????? ?????????? ????? ??????? ? ?????????
???????, ?????? ? ???????????????.

-S ???????? RFC 2385 TCP MD5 ???????.

-s source_ip_address
IP ??????????, ??????? ???????????? ??? ??????? ???????.
???????? ???????????? ??? ????? ? ?????? ? ?????? -l.

-T ToS ??? ???????????? (ToS) IP ??? ??????????. ?????????? ????????,
???????????? ???????? "lowdelay", "throughput", "reliability",

??? 8-??????? ???????????????? ????????? ?????????????, ???
"0x".

-t ???????? RFC 854 DON'T ? WON'T ?????? ? DO ? WILL ???????. ???
?????? ????????? ??????????? nc ??? ????????? ???????? telnet
??????.

-U ??????????? ?????? (Unix Domain Sockets).

-u ??????????? UDP, ?????? ???????????? ??-????????? TCP.

-v ???????? ?????? ????????? ??????????.

-w timeout
???? ????????? ? ??????????? ???? ?? ??????????? ?????? ???
???????? ???? ??? ? ????????, ????? ????????? ?????????. ????
-w ?? ????????? c ?????? -l, ?.?. nc ????? ??????? ?????????
??????, ? ??? ??? ????? -w. ?? ????????? ???? ??? ?? ?????.

-X proxy_protocol
??????????? ????????? ????????, ??? ????????? ? ?????? ???????.
??????????? ????????? "4" (SOCKS v.4), "5" (SOCKS v.5) ?
"connect" (HTTPS proxy). ???? ???????? ?? ??????, ???????????
SOCKS 5 ??????.

-x proxy_address[:port]
??????????? ? ????? ????????? ?????? ? ??????? proxy_address ?
?????? port. ???? port ?? ??????, ????? ????? ?????????????
??????????? ????? ??? ?????? ????????? (1080 ??? SOCKS ? 3128
??? HTTPS).

-z ??????????? ?? ??????? ????????? ???????, ??? ??????? ?? ??????.
???????? ??????????? ??? ????? ? ?????? ? ?????? -l.

??? ????? ????? ???? ??????? ? ???? IP ?????? ??? ??? ????? (???? ??
?????? ????? -n). ?????? ??? ????? ?????? ???????????, ????? ?????? ?
????????????? ????? -l (??????? ????????? ??????).

????? ????? ???? ??????? ?? ??????, ???? ? ????????. ???????? ? ???????
nn-mm. ?????? ???? ?????????? ?????? ???? ??????, ????? ??????? ?
????????????? ????? -U (??????????? ?????).

??? ????? ????? ???? ??????? ? ???? IP ?????? ??? ??? ????? (???? ??
?????? ????? -n). ?????? ??? ????? ?????? ???????????, ????? ?????? ?
????????????? ????? -l (??????? ????????? ??????).

????? ????? ???? ??????? ?? ??????, ???? ? ????????. ???????? ? ???????
nn-mm. ?????? ???? ?????????? ?????? ???? ??????, ????? ??????? ?
????????????? ????? -U (??????????? ?????).

?????? ??????/??????

????? ????? ????????? ?????????? ?????? ??????/?????? ????????? nc. ?? ????? ??????? ????????? nc ??????? ????????? ???? ?? ??????????.

??????:

```
$ nc -l 1234
```

nc ??????? ???? 1234 ?? ??????????. ?? ?????? ??????? (??? ?? ?????? ??????) ?????????? ? ??????? ?? ????????????? ????:

```
$ nc 127.0.0.1 1234
```

?????? ????????? ?????????? ????? ???????. ???, ??? ????? ??????? ?? ?????? ???????, ????? ?????????? ?? ?????? ? ????????. ????? ????, ??? ????? ?????????? ??????????, nc ?? ???????, ????? ?? ?????? ????? ?????????????, ??? `server', ? ?????, ??? `client'. ?????????? ????? ???? ???????? ????????? EOF (`^D').

???????? ??????

?????????? ?????? ????? ???? ????????, ??? ?????????? ???????? ??????. ????? ?????????? ??????????? ? ???? ?? ?????? ?????????? ????? ???????? ?? ?????? ?????, ? ???? ? ????? ????? ????? ???? ????????? ? ????? ????????????????, ????? ?????????? ???????? ??????.

??????? ????????? nc ??? ???????????? ?????, c ?????????????? ?? ???? ??????:

```
$ nc -l 1234 > filename.out
```

?????????? ?????? ??????, ??? ?????????? ? ?????????? ???????? nc, ? ?????????????? ? ???? ???????????? ?????.

```
$ nc host.example.com 1234 < filename.in
```

????? ???????? ?????, ?????????? ???????????? ????????.

??????? ? ?????????

?????? ??????? ????????????? ? ???????? "???????????".??? ????? ?????? ?????? ?????????????, ????? ???? ?????????? ????????, ????? ?????? ?????????? ?????? ???? ????????. ????????, ??? ????????? ???????? ???????? ??? ?????:

```
$ echo -n "GET / HTTP/1.0rnrn" | nc host.example.com 80
```

???????? ????????, ??? ????? ????? ?????????? ????????? ????????? ??? ????????. ??? ????? ???? ???????????? ? ??????? sed(1), ???? ??? ??????????.

????? ??????? ?????? ????? ???? ????????, ????? ??????????? ????? ?????? ?????? ?????????? ????????. ??? ?????? ??????, ????? ????????????? SMTP ???????:

```
$ nc localhost 25 << EOF
HELO host .example.com
MAIL FROM:
RCPT TO:
DATA
Body of email.
.
QUIT
EOF
```

??????????? ??????

??????? ????? ????? ????? ??????? ? ????? ??????? ???????? ?? ????????-
??? ??????. ???? -z ????? ???? ???????????, ????? ?????? ?? ????????
?????? ?? ????????? ???????????. ????????:

```
$ nc -z host.example.com 20-30

Connection to host.example.com 22 port [tcp/ssh] succeeded!
Connection to host.example.com 25 port [tcp/smtp] succeeded!
```

??? ?????? ???????? ?????? 20 - 30.
????? ??? ????? ???? ???????????, ????? ?????? ????? ????????? ????
???????, ? ??? ??????. ??? ?????????? ???????? ????????????? ?????????.
??? ???????, ????? ??????? ???, ??????? ?????????? ??????????? ???????-
???, ????? ???????? ???, ????? ????? ???????? ???????????. ??? ?????
???? ????????? ????????? ?????????? ???? ???? ? ??????? ????? -w , ???
????? ??????????? ??????? "QUIT" ?? ???????:

```
$ echo "QUIT" | nc host.example.com 20-30
SSH-1.99-OpenSSH_3.6.1p2
Protocol mismatch.
220 host.example.com IMS SMTP Receiver Version 0.84 Ready
```

???????

??????? TCP ?????????? ?? ???? 42 ?? host.example.com, ????????? 31337,
??? ???????? ????, ? ???? ????? ? 5 ??????:

```
$ nc -p 31337 -w 5 host.example.com 42
```

??????? UDP ?????????? ?? ???? 53 ?? host.example.com:

```
$ nc -u host.example.com 53
```

??????? TCP ?????????? ?? ???? 42 ?? host.example.com ????????? 10.1.2.3,
??? ???????? IP:

```
$ nc -s 10.1.2.3 host.example.com 42
```

??????? TCP ?????????? ?? ???? 42 ?? host.example.com, ????????? IPsec
ESP ??? ????????? ? ?????????? ???????.

```
$ nc -E host.example.com 42
```

??????? TCP ?????????? ?? ???? 42 ?? host.example.com, ???????? IPsec ESP ?????? ??? ?????????? ???????

```
$ nc -e 'out ipsec esp/transport//require' host.example.com 42
```

??????? ? ??????? ?? Unix Domain Socket:

```
$ nc -lU /var/tmp/dsocket
```

?????????? ?? ???? 42 ?? host.example.com ???????? HTTP ?????? 10.2.3.4, ???? 8080. ???? ?????? ????? ???? ?????????? ssh(1); ???????? ProxyCommand ???????? ? ssh_config(5) ??? ???????? ??????? ??????????.

```
$ nc -x10.2.3.4:8080 -Xconnect host.example.com 42
```

??? ???? ??????? ??????, ?? ???? ??? ???????????? ?????? ????????????? ? ?????? ??????????? "ruser", ???? ?????? ???????? ???:

```
$ nc -x10.2.3.4:8080 -Xconnect -Pruser host.example.com 42
```

???????? ?????

cat(1), ssh(1)

??????

??????????? ?????????? ??????? *Hobbit* . ?????????? ? ?????????? ipv6 Eric Jackson .

?????????????

??????????? UDP ?????? ????? ?????? ???????? (?.?. ???????, ??? ????? ???????), ???????????? ?????????? ?????? -uz ??????????? ??????????.

FreeBSD 7.0 May 21, 2006 FreeBSD 7.0

Источник (получено *2026-11-21 04:56*):
http://muff.kiev.ua/content/nc-realizatsiya-podklyuchenii-i-ozhidanii-vkhodyashchikh-soedinenii-cherez-tcp-i-udp