



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

NC(1)

FreeBSD General Commands Manual

NC(1)

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



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

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????????? ??????? ?????????? ?????? ?????????????? ? ??????????????  
????????? ??????. ??? ?? ?????? ?????????? ?????????? ?????? ??????-  
????????? ? ?????????? ??????.
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-k ?????????? ??????(??????) ?????????? ????????????, ?????? ???,  
??? ?????? ?????????? ??? ??????. ?????????? ?????????????? ???  
????? ??? ??? -l.
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-l ?????? ??????? ??????????, ?????? ??????????? ? ??????????  
?????. ??????? ??????????? ??? ?????? ? ?????? ? ?????? -p,  
-s, ??? -z. ?????? ???, ?????? ??? ??? ?????????? ? ??????  
????? -w ??????????.
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-n ?? ?????????? ?????? ?????????????????? ??? ? ????????, ? ??????  
? ?????? ??????.
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-o ''Once-only ?????''. ?? ????????, nc ?? ??????? ?????? ??  
?????? EOF ?????????????? ?? ??????????? ???, ? ??????????  
?????? ?? ??? ???, ??? ??? ?? ?????? ?? ??????????. ??? -o  
????????? ?????????? ?????????? EOF.
```

-P proxy_username

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?? ????????????, ??? ?????????????? ??? ????? ???????, ??????????  
?????????????. ??? ?? ?????? ??? ????????????, ??? ?????? ???-  
????????? ?? ??????. ?? ?????? ?????? ?????? ??????????????  
????????????? ?????? ??? HTTP ??????????.
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-p source_port

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?????? ???, ?????? nc ?????? ??????????????. ??????? ??????-  
?????? ??? ??? ? ?????? ? ?????? -l.
```

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-r ?????? ?????? /??? ??? ?????? ?????????? ?????? ??????? ? ??????????  
??????, ?????? ? ??????????????????.
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-s ?????? RFC 2385 TCP MD5 ??????.
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-s source_ip_address

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IP ????????, ?????? ?????????????? ??? ?????? ??????.  
?????? ?????????? ??? ?????? ? ?????? ? ?????? -l.
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-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 ??????:



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

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????????????? ??????
?????? ???? ???? ???? ?????? ? ?????? ?????? ?????? ?????? ?? ??????-?
?? ?????. ??? -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!
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??? ?????? ???????? ?????? 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
```

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

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

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

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

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

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

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

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? ?????????? ?? ??? 42 ?? host.example.com ???????? HTTP ??????  
10.2.3.4, ??? 8080. ??? ?????? ??? ?????????? ssh(1);  
????????? ProxyCommand ???????? ? ssh_config(5) ??? ??????????  
????????? ??????????.
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```
$ nc -x10.2.3.4:8080 -Xconnect host.example.com 42
```

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

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

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????????? ????  
cat(1), ssh(1)
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?????  
????????????? ?????????? *Hobbit*.  
????????? ? ?????????? ipv6 Eric Jackson .
```

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