



3.7 ?? NAT ????? DHCP ????

SoftEther VPN Server ??? SoftEther VPN Bridge ??? HUB ???SecureNAT ??????????
????? SecureNAT ?????????????????????????????

3.7.1 SecureNAT ??

SecureNAT ???

?SecureNAT (??????) ?????SoftEther VPN ?????????????????????????????????
SecureNAT ???

SecureNAT ????????????? NAT ?????? DHCP ??????? 2 ????????????? HUB ??????
SecureNAT ????????????? NAT????? DHCP ????????????????? 1 ?????????????????

???SecureNAT ?????????????????????[10.11 SecureNAT ?????????????????????](#) ?????????
??

SecureNAT ???SecureNAT ??????????????
VPN ???
??SecureNAT ?????????????????

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

??NAT ??????DHCP ????????? 2 ??
?? IP ?????????????????????
? IP ?????? (????????) ??? NAT ?????????????????????????????

SoftEther VPN ???NAT ??????DHCP ??????????????????
?? LAN ?????? LAN ??????????????????
?SecureNAT???????

????????SecureNAT ???? NAT ????????????????????? NAT ?????????????
???????????????? NAT ???
??SoftEther VPN ?
SecureNAT ??? SecureNAT ??
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SecureNAT ?????

?SecureNAT ?????????????????????????????????

- **????????????????????????????**
VPN Server ?? HUB ????????????????? HUB ????????????????? HUB ??????
???????????? VPN Server ???
?? HUB ????????????????????? 2????????????
SecureNAT ????????? HUB ????????????????????????????????? VPN Server ??????
??
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UNIX ????????????????? VPN Server ?? VPN Bridge ?????????????????????
???SecureNAT ??? NAT ?????????????????
- **DHCP ????????????**
SecureNAT ??????DHCP ????????????????????????????????????? HUB ? Ethernet ?????
????? DHCP ????????????????????????????????? HUB ????????????????? VPN Client
???????????????????????????????????? DHCP ????? IP ?????????????????????
???? HUB ?? DHCP ????? IP ????????????????????? HUB ? DHCP ?????????
???????????????????????????? HUB ??? DHCP ????? VPN Client ?? LAN ?????
????????????SecureNAT ????? DHCP ?????????????????????????????????
- **??**
??? (????????????????????????????????) ?????SoftEther VPN ????????????? VPN ?
???????????????????????????????? VPN Server ? VPN Bridge ????????????????? VPN
Client ??VPN ???
????????????????SoftEther VPN ???
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SoftEther VPN ?????????????????????????????????SecureNAT ????????????????? ?
????????????????? [10.11 SecureNAT ?????????????????????](#) ?????????

SecureNAT ??????

?SecureNAT ??????????????????????SecureNAT ??????????????VPN ?????????? ?? [?
? NAT ????? DHCP ?????] ??????????[? NAT ????? DHCP ????? (SecureNAT) ???]
???????? (???SecureNAT ??????????????????????????????????????)??? [SecureNAT ?????????]
?????????????

?vpngcmd????SecureNAT ?????????? "SecureNat"? "Nat" ??? "Dhcp" ??????????????
????SecureNAT ?????????????SecureNatEnable????????? ????

[3-7-2.png](#)

SecureNAT ???????

SecureNAT ?????????? NAT ?????? DHCP ??????????SecureNAT ?????????????????? ????????????????????????????????? SecureNAT ??????????????????

3.7.2 ?????????????????????????????

SecureNAT ????????? HUB ????????????? (????) ?????????????????????????????????
 ????

?VPN ?????????????[SecureNAT ???] ?????????[????????????????????????] ?????????
 ???

???	??	??????
MAC ????	???????????????????????????????? LAN ?????? LAN ?????????Ethernet ????????????????????? ??????1 ?? MAC ?????????????????????MAC ? ???????????	"00:AC" ?????? 6 ??? ???????
IP ????	????????????????????????????IP ????????????	192.168.30.1
?????????	IP ????????????????????? IP ????????????????????? ????	255.255.255.0

[3-7-3.png](#)

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3.7.3 ?? NAT ??

?? NAT ????????

SecureNAT ??? NAT ?????????????VPN ????????????? [?? NAT ??????] ??????????
 ?????????????????????????????????SecureNAT ????????????????? NAT ?????????????

?? NAT ?????????????????????????????????????

????????????????VPN ????????????? [SecureNAT ???] ??? [?? NAT ???] ?????????????
 ?vpncommand????NatSet????????????

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SecureNAT ??? NAT ?????? NAT ??????????????????????

3.7.4 ?? NAT ???????

??? NAT ???

- **?? NAT ??????**
 ??? NAT ???
 ? VPN Server / VPN Bridge ???
 HUB ??? 2 ????????????????? HUB ?????????????????????????????????????
 ??? (?? ?[10.11 SecureNAT](#)
[????????????????????????](#)? ??????????????????????)?
 ????????????????????? HUB ???
 ????????? NAT ???
- **????????????????????????????**
 ?? NAT ?????????? HUB ?????????????????? VPN Client ?????????????????? HUB
 ??? LAN ?????????????????? HUB ?????? LAN ?????????????????????????
 LAN ?????????????????????? HUB ?? SecureNAT ?????????????????????????
 ?????? IP ?????????????????? IP ?????????????????????????????? HUB ??? NAT ?

???????? NAT ?????????? API ?????? IP ??????
????????? VPN Client ??? localhost ???
VPN ?????? NAT ??????
?????

- ??????

SecureNAT ????? TCP/IP ????? TCP/IP ????? TCP/
IP ????? TCP/IP ?????
???? NAT ?????
NAT ?????
NAT ?????
????

- ICMP ??????

?? NAT ????? IP ?????
???? ICMP ????? ICMP ????? NAT ????? ICMP
???? API ?????
ICMP ????? SoftEther VPN ?????
??? NAT ????? ICMP ????? NAT ?????

- DNS ??????

?? NAT ????? IP ????? UDP 53 ????? (DNS
???) ????? HUB ????? DNS ?????
????

- ??????

?? NAT ????? TCP/IP ????? ACK?Nagle ???
???? TCP/IP ????? NAT ????? IP ?????
NAT ????? IP ????? 3 ?????

3.7.5 ?? DHCP ?????

?? DHCP ?????

SecureNAT ????? DHCP ????? NAT ????? DHCP
???? DHCP ????? HUB ??? 2 ????? DHCP
???? IP ????? IP ?????

?? DHCP ????? DHCP ????? IP ?????
??? Windows ?????

?? DHCP ????? DHCP ????? HUB
???? HUB ????? IP ????? DHCP ?????
??? HUB ?????

?? DHCP ????? IP ?????
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?? DHCP ??????

?? DHCP ????????????

SecureNAT ??? DHCP ??????????????VPN ?????????????? [?? DHCP ??????????????] ???
 ???SecureNAT ????????????????????? DHCP ?????????????????
 ??????

?? DHCP ???
 ?????????????????????VPN ????????????????????? [SecureNAT ???] ??? [?? DHCP ??????????] ??????
 ??????????vpncmd?????DhcpSet?????????????????

???	??	??????
?? IP ??????	???? DHCP ?????????????????????????????IP ????	192.168.30.10 ?? 192.168.30.200 ??
?????????	???????????? IP ?????????????????????????????????	255.255.255.0
??????	????? IP ??????????????????????	7,200 ?
?????????????????? ??????????????????	?? ???????????????? NAT ????????????????????????????? ??	192.168.30.1
????????????????? DNS ????????????	????????????????????DNS ????????????????? ???????????????? NAT ????????????????????????????? ??	192.168.30.1
?????????????????? ???	????????????????????DNS ????????????????? ????????????????????????????????	?? HUB ????????????????????? ?????????

3-7-8.png

?? DHCP ??????????

IP ????????????????

?? DHCP ?????????? IP ???????????? (IP ??????????) ??????????????????? ?IP ???????
????????????????VPN ?????????????? [?? DHCP ???????] ??????????????vpncmd????? ?
?DhcpTable???????????????

????????] ?????????????????????IP ?????????????????????
DNS ??????????
???????????????? Windows ????????? DHCP ?????????????????????
??DNS ???
???????????????? Windows ????????????????????????????????? DHCP ?????
????????????????

3.7.7 SecureNAT ?????

?? HUB ? SecureNAT ????????????? HUB ?????????SecureNAT ?????????????
????????????????????SecureNAT ????????????????????????????????????? (?????) ??
????????

?? HUB ???

3.7.8 SecureNAT ?????????

SecureNAT ??? NAT ????? DHCP ????????????????? HUB ?????????????????
????????

2012-12-06 15:44:52.557 SecureNAT: The DHCP entry 1 was created. MAC
address: 00-AC-85-40-B5-50, IP address: 192.168.30.10, host name: NT4,
expiration date: 7200 seconds
The TCP session 1 was created. Connection source 192.168.30.10:1079,
Connection destination 207.46.0.166:1863
2012-12-06 15:45:08.104 SecureNAT: The TCP session 1 was created.
Connection source 192.168.30.10:1079, Connection destination
207.46.0.166:1863
2012-12-06 15:45:08.401 SecureNAT: The connection to TCP session 1: Host
"baym-sb26.msgr.hotmail.com (207.46.0.166)", Port 1863 was successful.
2012-12-06 15:45:08.666 SecureNAT: The TCP session 1 was deleted.
2012-12-06 15:45:14.604 SecureNAT: The UDP session 2 was created.
Connection source 192.168.30.10:1048, Connection destination
192.168.30.1:53
2012-12-06 15:45:14.760 SecureNAT: The TCP session 3 was created.
Connection source 192.168.30.10:1080, Connection destination
65.54.239.140:1863
2012-12-06 15:45:15.479 SecureNAT: The TCP session 4 was created.
Connection source 192.168.30.10:1081, Connection destination
61.197.235.212:143
2012-12-06 15:45:15.494 SecureNAT: The connection to TCP session 4: Host
"us.softether.co.jp (61.197.235.212)", Port 143 was successful.