

Frequently Asked Questions

Question

Ethernet <> A B G 5 @ 5 7 8 = B 5 @ = 5 B = 0 FreeBSD = 0 > A = > 2 5 netgraph

Answer

5 > 1 E > 4 8 <> A > 5 4 8 = 8 B L 4 2 5 D 8 7 8 G 5 A : 8 E A 5 B 8 Ethernet G 5 @ 5 7
8 = B 5 @ = 5 B.
< 5 5 < 2 A 5 @ 2 5 @ 0.

BSD1

2 A 5 B 5 2 K E 8 = B 5 @ D 5 9 A 0
= B 5 @ D 5 9 A 1 em0 2 = 5 H = 8 9 IP 1.1.1.1
= B 5 @ D 5 9 A 2 em1 2 = C B @ 5 = = 8 9 IP 192.168.1.1

BSD2

2 A 5 B 5 2 K E 8 = B 5 @ D 5 9 A 0
= B 5 @ D 5 9 A 1 em0 2 = 5 H = 8 9 IP 2.2.2.2
= B 5 @ D 5 9 A 2 em1 2 = C B @ 5 = = 8 9 IP 192.168.1.2

5 6 4 C A 5 @ 2 5 @ 0 < 8 8 < 5 5 B A O < 0 @ H @ C B 8 7 8 @ C 5 < 0 O 8 = B 5 @ = 5 B
A 2 O 7 L G 5 @ 5 7 2 = 5 H = 8 5 8 = B 5 @ D 5 9 A K.
! > 5 4 8 = 8 B L = C 6 = > A 5 B 8 = 0 8 = B 5 @ D 5 9 A 0 E em1 > 1 > 8 E
A 5 @ 2 5 @ > 2.

0 : 1 C 4 5 B 2 K 3 ; O 4 5 B L 3 @ 0 D 2 6 8 2 C N 4 ; O A 5 @ 2 5 @ 0 «bsd1 ». ; O
B > = = 5 ; O 1 C 4 5 < 8 A ? > ; L 7 > 2 0 B L udp ? > @ B 7 7 7 7

! > 7 4 0 5 < C 7 5 ; ng_bridge 8 ? > 4 : ; N G 0 5 < : 5 3 > E C : C «link0 » E C :
A 5 B 5 2 > 3 > 8 = B 5 @ D 5 9 A 0 «em1 » «lower ».

ngctl mkpeer em1: bridge lower link0

0 7 K 2 0 5 < B > ; L : > G B > A > 7 4 0 = = K 9 C 7 5 ; 8 < 5 = 5 < «switch », 5 3 >
< > 6 = > = 0 9 B 8 ? > ? C B 8 «em1:lower ».

ngctl name em1:lower switch

> 4 : ; N G 0 5 < : «link1 » = 0 H 5 3 > «switch » upper A 5 B 5 2 > 3 > 8 = B 5 @ D 5 9 A 0
«em1 ».

ngctl connect switch: em1: link1 upper

! > 7 4 0 5 < C 7 5 ; ng_ksocket 8 ? > 4 : ; N G 0 5 < : 5 3 > E C : C «inet/dgram/udp » «link2 »
= 0 H 5 3 > «switch »

```
ngctl mkpeer switch: ksocket link2 inet/dgram/udp
```

```
0 7 K 2 0 5 < B > ; L : > G B > A > 7 4 0 = = K 9 ksocket «switch_socket », 5 3 > < > 6 = >
= 0 9 B 8 ? > ? C B 8 «switch:link2 »
```

```
ngctl name switch:link2 switch_socket
```

```
B ? @ 0 2 ; O 5 < : > < 0 = 4 C «bind » = 0 H 5 < C «switch_socket », A ? 0 @ 0 < 5 B @ 0 < 8.
ksocket 7 0 9 < 5 B ? > @ B 7 7 7 7 = 0 IP 1.1.1.1.
```

```
ngctl msg switch_socket: bind inet/1.1.1.1:7777
```

```
B ? @ 0 2 ; O 5 < : > < 0 = 4 C «connect » = 0 H 5 < C «switch_socket », A
? 0 @ 0 < 5 B @ 0 < 8. ksocket ? > 4 : ; N G 8 B A O : ? > @ B C 7 7 7 7 ? > IP 0 4 @ 5 A C 2.2.2.2.
```

```
ngctl msg switch_socket: connect inet/2.2.2.2:7777
```

```
B ? @ 0 2 ; O 5 < : > < 0 = 4 C < > 4 C ; N ng_ether A 5 B 5 2 > 3 > 8 = B 5 @ D 5 9 A 0 em1
? 5 @ 5 9 B 8 2 @ 5 6 8 < ? @ > A ; C H : 8 ? 0 : 5 B > 2, 0 4 @ 5 A > 2 0 = = K E = 5
5 < C. 0 < 2 5 4 L B 5 ? 5 @ L = 5 > 1 E > 4 8 < > ? @ 8 = 8 < 0 B L ? 0 : 5 B K 4 ; O
C A B @ > 9 A B 2 = 0 E > 4 O I 8 E A O 2 = 0 H 5 9 2 8 @ B C 0 ; L = > 9 A 5 B 8.
```

```
ngctl msg em1: setpromisc 1
```

```
ngctl msg em1: setautosrc 0
```

```
; O A 5 @ 2 5 @ 0 «bsd2 » = 0 < ; 8 H L = C 6 = > ? > < 5 = O B L ? 0 @ 0 < 5 B @ K
: > < 0 = 4 bind 8 connect < 5 A B 0 < 8.
```

```
; O ? @ > A B > B K 8 A ? > ; L 7 > 2 0 = 8 O 2 A Q M B > O > D > @ < 8 ; 2 sh A : @ 8 ? B.
A : @ 8 ? B 5 8 A ? > ; L 7 C 5 B A O 5 I Q > 4 = 0 : > < 0 = 4 0 ngctl shutdown. - B 0
: > < 0 = 4 0 ? > A K ; 0 5 B A ? 5 F 8 0 ; L = > 5 : > = B @ > ; L = > 5
A > > 1 I 5 = 8 5 < > 4 C ; N, C : 0 7 0 = = > < C 2 ? 0 @ 0 < 5 B @ 5. - B >
A > > 1 I 5 = 8 5 ? @ 8 = 8 < 0 5 B : 0 6 4 K 9 < > 4 C ; L, ? > 4 @ > 1 = 5 5 2 «man
< > 4 C ; L ». 1 K G = > M B 0 : > < 0 = 4 0 2 K 7 K 2 0 5 B C = 8 G B > 6 5 = 8 5
< > 4 C ; O 8 @ 0 7 @ K 2 2 A 5 E 5 3 > A 2 O 7 5 9.
```

```
#!/bin/sh
```

```
self=1.1.1.1
```

```
peer=2.2.2.2
```

```
port=7777
```

```
if=em1
```

```
case "&#036;1" in
```

```
    start)
```

```
        echo "Starting netgraph switch."
```

```
        ngctl mkpeer &#036;{if}: bridge lower link0
```

```
        ngctl name &#036;{if}:lower switch
```

```
ngctl connect switch: &#036;{if}: link1 upper
ngctl mkpeer switch: ksocket link2 inet/dgram/udp
ngctl name switch:link2 switch_socket
ngctl msg switch_socket: bind inet/&#036;{self}:&#036;{port}
ngctl msg switch_socket: connect inet/&#036;{peer}:&#036;{port}
ngctl msg &#036;{if}: setpromisc 1
ngctl msg &#036;{if}: setautosrc 0
echo "Ok."
exit 0
;;
stop)
    echo "Stopping netgraph switch."
    ngctl shutdown switch_socket:
    ngctl shutdown switch:
    ngctl shutdown &#036;{if}:
    echo "Ok."
    exit 0
    ;;
restart)
    sh &#036;0 stop
    sh &#036;0 start
    ;;
*)
    echo "Usage: `basename &#036;0` { start | stop | restart }"
    exit 64
    ;;
esac
```

```
> A < > B @ 8 < G B > ? > ; C G 8 ; > A L
[root@bsd1] /usr/local/etc/rc.d/> ngctl list
There are 5 total nodes:
Name: em0 Type: ether ID: 00000001 Num hooks: 0
Name: em1 Type: ether ID: 00000002 Num hooks: 2
Name: switch Type: bridge ID: 000000f6 Num hooks: 3
Name: ngctl16408 Type: socket ID: 00000100 Num hooks: 0
Name: switch_socket Type: ksocket ID: 000000fa Num hooks: 1
```

7 O B > > B A N 4 0: <https://habr.com/post/86553/>

Details

Info Saturday 17 November 2018 - 01:07:44 by vampyr

Vampyr`s House!

<https://415.spb.ru/ins/faq/faq.php?0.cat.83>

! B @ 0 = 8 F 0 4/4
