

Layer3 switch

```
# sh int port-channel 3
Port-channel3 is up, line protocol is up (connected)
Hardware is EtherChannel, address is 000b.be80.232b (bia 000b.be80.232b)
Internet address is 172.45.2.1/29
MTU 1500 bytes, BW 300000 Kbit, DLY 1000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Half-duplex, 300Mb/s
input flow-control is off, output flow-control is off
Members in this channel: Gig1/0/5 ,Gig1/0/6 ,
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:08, output 00:00:05, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue :0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
956 packets input, 193351 bytes, 0 no buffer
Received 956 broadcasts, 0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
0 watchdog, 0 multicast, 0 pause input
0 input packets with dribble condition detected
2357 packets output, 263570 bytes, 0 underruns
0 output errors, 0 collisions, 10 interface resets
0 babbles, 0 late collision, 0 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
```

```
# sh etherchannel summary
Flags: D - down P - in port-channel
I - stand-alone s - suspended
H - Hot-standby (LACP only)
R - Layer3 S - Layer2
U - in use f - failed to allocate aggregator
u - unsuitable for bundling
w - waiting to be aggregated
d - default port
```

```
Number of channel-groups in use: 4
Number of aggregators: 4
```

Group Port-channel Protocol Ports

-----+-----+-----+-----
1 Po1(SU) PAgP Gig1/0/1(P) Gig1/0/2(P)
3 Po3(RU) PAgP Gig1/0/5(P) Gig1/0/6(P)
4 Po4(SU) LACP Gig1/0/3(P) Gig1/0/4(P)
5 Po5(SU) PAgP Gig1/0/9(P) Gig1/0/10(P)

Layer 2 switch(Dhcp server)

```
interface Port-channel3
switchport mode trunk

ip dhcp excluded-address 172.16.45.1
ip dhcp excluded-address 172.16.45.2
ip dhcp excluded-address 172.16.45.3
ip dhcp excluded-address 172.16.45.4
!
ip dhcp pool vlan100
network 172.16.45.0 255.255.255.0
default-router 172.16.45.254
```