

```
ip access-list extended 101
permit ip 172.16.0.0 0.0.255.255 255.255.255.128 0.0.0.127
exit
router bgp 200
neig 1.1.1.1 distribute-list 101 in
```

172.16.0.0/12

172.16.0.0/16 to 172.31.0.0/16

```
8 4 h h
172.16.0.0
172.31.0.0
 128 64 32 16
16 0 0 0 1 0 0 0 0
31 0 0 0 1 1 1 1 1
```

255.240.0.0

```
8 8
172.16.0.0
```

```
172.16.0.0/16 <16-31>
NW SNM
```

```
-----
10.0.0.0 0.0.0.0 255.255.0.0 0.0.0.0
10.0.0.0/16
```

```
10.0.0.0 0.0.255.0 255.255.255.0 0.0.0.255
```

```
10.0.0.0/24
10.0.1.0/24
10.0.2.0/24
10.0.255.0/24
```

10.0.x.0 Ge 24

```
0=Exact match
1=ignore
```

```
R1
conf t
int e0/0
ip add 192.168.12.1 255.255.255.0
no sh
int lo0
ip add 10.0.0.1 255.255.255.0
int lo1
ip add 10.0.1.1 255.255.255.0
int lo 2
```

```
ip ad 10.0.2.2 255.255.255.0
int lo 3
ip add 10.0.255.1 255.255.255.0
int lo 4
ip add 10.0.254.1 255.255.255.224
int lo 5
ip add 10.0.254.33 255.255.255.224
int lo 6
ip add 10.0.28.1 255.255.255.240
```

```
router bgp 100
neig 192.168.12.2 remote-as 200
net 10.0.0.0 m 255.255.255.0
net 10.0.1.0 m 255.255.255.0
net 10.0.2.0 m 255.255.255.0
net 10.0.255.0 m 255.255.255.0
net 10.0.254.0 m 255.255.255.224
net 10.0.254.32 m 255.255.255.224
net 10.0.28.0 m 255.255.255.240
```

```
*> 10.0.0.0/24 192.168.12.1 0 0 100 i
*> 10.0.1.0/24 192.168.12.1 0 0 100 i
*> 10.0.28.0/28 192.168.12.1 0 0 100 i
*> 10.0.254.0/27 192.168.12.1 0 0 100 i
*> 10.0.255.0/24 192.168.12.1 0 0 100 i
```

R2

ACL/Distribute-list

```
-----
access-list 101 permit ip 10.0.0.0 0.0.255.0 255.255.255.0 0.0.0.255
```

```
router bgp 200
neighbor 192.168.12.1 distribute-list 101 in
exit
```

ACL/Route-Map

```
access-list 101 permit ip 10.0.0.0 0.0.255.0 255.255.255.0 0.0.0.255
```

```
route-map RM-BLK deny 10
match ip address 101
route-map RM-BLK permit 20
```

```
router bgp 200
bgp log-neighbor-changes
```

```
network 2.2.2.0 mask 255.255.255.0
neighbor 192.168.12.1 remote-as 100
neighbor 192.168.12.1 soft-reconfiguration inbound
neighbor 192.168.12.1 route-map RM-BLK in
exit
```

```
R2
conf t
int lo 10
ip add 172.16.0.1 255.255.255.0
int lo 11
ip add 172.16.1.1 255.255.255.128
int lo 12
ip add 172.16.1.129 255.255.255.128
int lo 13
ip add 172.16.2.1 255.255.255.192
int lo 14
ip add 172.16.100.0 255.255.255.254
int lo 15
ip add 172.17.3.1 255.255.252.0
int lo 16
ip add 172.16.4.4 255.255.255.255
```

```
Router bgp 200
net 172.16.0.0 m 255.255.255.0
net 172.16.1.0 m 255.255.255.128
net 172.16.1.128 m 255.255.255.128
net 172.16.2.0 m 255.255.255.192
net 172.16.100.0 m 255.255.255.254
net 172.17.3.0 m 255.255.252.0
net 172.16.4.4 m 255.255.255.255
exit
```

```
172.16.0.0/ >= 25
```

```
access-list 100 permit ip 172.16.0.0 0.0.255.255 255.255.255.128 0.0.0.127
```

```
R1(config)#do sh run | s bgp
router bgp 100
  bgp log-neighbor-changes
  network 1.0.0.0
  network 10.0.0.0 mask 255.255.255.0
  network 10.0.1.0 mask 255.255.255.0
  network 10.0.2.0 mask 255.255.255.0
  network 10.0.12.0 mask 255.255.254.0
  network 10.0.28.0 mask 255.255.255.240
  network 10.0.254.0 mask 255.255.255.224
  network 10.0.254.32 mask 255.255.255.224
  network 10.0.255.0 mask 255.255.255.0
  network 10.1.1.0 mask 255.255.255.0
  neighbor 192.168.12.2 remote-as 200
```

```
neighbor 192.168.12.2 soft-reconfiguration inbound
neighbor 192.168.12.2 distribute-list 100 in
exit
```

```
Prefix list
ip prefix-list abc seq 5 permit 172.16.0.0/16 ge 25
!
```

```
Router bgp 100
neighbor 192.168.12.2 prefix-list abc in
exit
```

```
=====
Route-map RM-DENY deny 10
match ip add 100
Route-map RM-DENY permit 20
exit
```

```
Router bgp 100
neighbor 192.168.12.2 route-map RM-DENY in
exit
```

```
access-list 100 permit ip 172.16.0.0 0.0.255.255 255.255.255.128 0.0.0.127
```