

```
R1:
conf t
int s2/0
ip add 10.12.1.1 255.255.255.0
no sh
int lo 0
ip add 1.1.1.1 255.0.0.0
exit
```

```
router bgp 100
neig 10.12.1.2 remote-as 200
net 1.0.0.0
exit
```

```
R2:
conf t
int s2/0
ip add 10.12.1.2 255.255.255.0
no sh
int e0/0
ip add 10.23.1.2 255.255.255.0
no sh
int lo 0
ip add 2.2.2.2 255.0.0.0
exit
```

```
router bgp 200
neig 10.12.1.1 remote-as 100
neig 10.23.1.3 remote-as 300
net 2.0.0.0
exit
```

```
R3:
conf t
int s2/0
ip add 10.34.1.3 255.255.255.0
no sh
int e0/0
ip add 10.23.1.3 255.255.255.0
no sh
int lo 0
ip add 3.3.3.3 255.0.0.0
exit
```

```
router bgp 300
neig 10.23.1.2 remote-as 200
neig 10.34.1.4 remote-as 400
net 3.0.0.0
exit
```

```
R4:
conf t
int s2/0
ip add 10.34.1.4 255.255.255.0
no sh
int lo 0
ip add 4.4.4.4 255.0.0.0
```

```
exit
```

```
router bgp 400
neig 10.34.1.3 remote-as 300
net 4.0.0.0
exit
```

```
=====
1.Block all prefixes originated in as 300 on R1.
```

```
ip as-path access-list deny _300$
ip as-path access-list permit . *
```

```
router bgp 100
neig 10.12.1.2 filter-list 1 in
exit
```

```
2-Block all the prefixes that are traversed through as 300
```

```
ip as-path access-list 2 deny _300_
ip as-path access-list 2 permit . *
```

```
router bgp 100
neig 10.12.1.2 filter-list 1 in
exit
```

```
router bgp 100
no neig 10.12.1.2 filter-list 1 in
exit
```

```
=====
3. To block prefixes locally originated.
```

```
R3:
ip as-path access-list 3 deny ^$
ip as-path access-list 3 permit .*
```

```
router bgp 300
neig 10.23.1.2 filter-list 3 out
neig 10.34.1.4 filter-list 3 out
exit
```

```
4.To block prefixes learned from peer AS R2.
```

```
ip as-path access-list 4 deny ^200_
ip as-path access-list 4 permit .*
```

```
router bgp 300
neig 10.23.1.2 filter-list 4 in
exit
```

```
do clear ip bgp * so
```

```
5. To block all prefixes originated in directly connecte neig
```

```
ip as-path access-list 5 deny ^[0-9]+$
ip as-path access-list 5 permit .*
```

```
router bgp 300
```

```
neig 10.23.1.2 filter-list 5 in
neig 10.34.1.4 filter-list 5 in
exit
```

```
=====
BGP backdoor
```

```
R2:
conf t
int s2/0
Desc Eigrp link connected to R3
ip add 10.23.1.2 255.255.255.0
no sh
int e0/0
Desc conn to R1-ebgp
ip add 10.12.1.2 255.255.255.0
no sh
int lo 0
Desc ebgp peering
ip add 2.2.2.2 255.255.255.255
int lo 1
Desc LAN
ip add 20.0.0.2 255.0.0.0
exit
```

```
R3:
conf t
int s2/0
Desc Eigrp link connected to R3
ip add 10.23.1.3 255.255.255.0
no sh
int e0/0
Desc conn to R1-ebgp
ip add 10.13.1.3 255.255.255.0
no sh
int lo 0
Desc ebgp peering
ip add 3.3.3.3 255.255.255.255
int lo 1
Desc LAN
ip add 30.0.0.3 255.0.0.0
exit
```

```
R1
conf t
int e0/0
Desc conn to R2-ebgp
ip add 10.12.1.1 255.255.255.0
no sh
int e0/1
Desc conn to R3-ebgp
ip add 10.13.1.1 255.255.255.0
no sh
int lo 0
Desc ebgp peering
ip add 1.1.1.1 255.255.255.255
int lo 1
Desc LAN
ip add 10.0.0.1 255.0.0.0
```

```
exit
```

```
R3:
```

```
ip route 1.1.1.1 255.255.255.255 10.13.1.1
```

```
router bgp 300
  bgp log-neighbor-changes
  network 30.0.0.0
  neighbor 1.1.1.1 remote-as 100
  neighbor 1.1.1.1 update-source Loopback0
  neighbor 1.1.1.1 disable-connected-check
```

```
R2:
```

```
ip route 1.1.1.1 255.255.255.255 10.12.1.1
```

```
router bgp 200
  bgp log-neighbor-changes
  network 20.0.0.0
  neighbor 1.1.1.1 remote-as 100
  neighbor 1.1.1.1 ebgp-multihop 255
  neighbor 1.1.1.1 update-source Loopback0
```

```
R1
```

```
ip route 2.2.2.2 255.255.255.255 10.12.1.2
ip route 1.1.1.1 255.255.255.255 10.13.1.3
```

```
router bgp 100
  net 10.0.0.0
  neig 2.2.2.2 remote-as 200
  neig 2.2.2.2 update-source lo 0
  neig 2.2.2.2 ebgp-multihop 255
  neig 3.3.3.3 remote-as 300
  neig 3.3.3.3 update-source lo 0
  neighbor 3.3.3.3 disable-connected-check
  exit
```

```
! BGP backdoor config
```

```
R3
router bgp 300
  net 20.0.0.0 m 255.0.0.0 backdoor
  exit
```

```
R2
router bgp 200
  net 30.0.0.0 m 255.0.0.0 backdoor
  exit
```