

```
R1:Add a Tag
router bgp 100
  bgp router-id 1.1.1.1
  bgp log-neighbor-changes
  network 1.0.0.0
  network 20.1.1.0 mask 255.255.255.0
  neighbor 10.12.1.2 remote-as 100
  neighbor 10.12.1.2 send-community
  neighbor 10.12.1.2 route-map RM-UDC out
exit
```

```
ip bgp-community new-format
```

```
route-map RM-UDC permit 10
  match ip address 1
  set community 100:1
!
route-map RM-UDC permit 20
!
!
access-list 1 permit 1.0.0.0 0.255.255.255
```

```
R2:Append the tag
```

```
router bgp 100
  bgp router-id 2.2.2.2
  network 20.1.2.0 mask 255.255.255.0
  neighbor 10.12.1.1 remote-as 100
  neighbor 10.12.1.1 next-hop-self
  neighbor 10.23.1.3 remote-as 200
  neighbor 10.23.1.3 send-community
  neighbor 10.23.1.3 route-map RM-COMM-LIST out
  neighbor 10.25.1.5 remote-as 300
exit
```

```
ip bgp-community new-format
ip community-list 1 permit 100:1
```

```
route-map RM-COMM-LIST permit 10
  match community 1
  set community 100:2 additive
route-map RM-COMM-LIST permit 20
!
```

```
R3>Delete a Tag
```

```
router bgp 200
  bgp router-id 3.3.3.3
  bgp log-neighbor-changes
  network 20.1.3.0 mask 255.255.255.0
  neighbor 10.23.1.2 remote-as 100
  neighbor 10.34.1.4 remote-as 200
  neighbor 10.34.1.4 next-hop-self
  neighbor 10.34.1.4 send-community
  neighbor 10.34.1.4 route-map RM-DEL-COMM out
exit
```

```
ip bgp-community new-format
ip community-list 1 permit 100:1

!
route-map RM-DEL-COMM permit 10
  match community 1
  set comm-list 1 delete
route-map RM-DEL-COMM permit 20
!
```

R4: Block a Network

```
router bgp 200
  bgp router-id 4.4.4.4
  bgp log-neighbor-changes
  network 20.1.4.0 mask 255.255.255.0
  neighbor 10.34.1.3 remote-as 200
  neighbor 10.34.1.3 next-hop-self
  neighbor 10.34.1.3 route-map RM-NO-EXPORT in
  neighbor 10.47.1.7 remote-as 400
exit
```

```
ip bgp-community new-format
ip community-list 2 permit no-export
ip community-list 2 permit 100:2
!
```

```
route-map RM-NO-EXPORT deny 10
  match community 2
!
route-map RM-NO-EXPORT permit 20
```

=====

BGP Summarization with attribute-map

```
R7:
router bgp 400
network 10.7.7.0 mask 255.255.255.0
aggregate-address 20.1.0.0 255.255.0.0 as-set summary-only attribute-map RM-ADV-MAP
exit
```

```
ip bgp-community new-format
```

```
route-map RM-ADV-MAP permit 10
set community none
exit
```

BGP advertise-map/ Non-exist-map:

=====

```
R5:
ip prefix-list MONITOR seq 5 permit 10.23.1.0/24
!
ip prefix-list NW7 seq 5 permit 10.7.7.0 /24
```

```
route-map RM-ADV-MAP permit 10
match ip address prefix-list NW7
!
route-map RM-NEM permit 10
match ip address prefix-list MONITOR
exi
```

```
router bgp 300
neighbor 10.25.1.2 advertise-map RM-ADV-MAP non-exist-map RM-NEM
exi
```