

```
R1:
conf t
int e0/0
ip add 10.12.1.1 255.255.255.0
no shut
int e0/1
ip add 10.13.1.1 255.255.255.0
no sh
int lo 0
ip add 192.168.1.1 255.255.255.0
int lo 1
ip add 192.168.2.2 255.255.255.0
int lo 2
ip add 192.168.3.3 255.255.255.0
exit
```

```
R2:
conf t
int e0/0
ip add 10.12.1.2 255.255.255.0
no shut
int e0/1
ip add 10.24.1.2 255.255.255.0
no sh
exit
```

```
router bgp 200
  bgp router-id 2.2.2.2
  bgp log-neighbor-changes
  no bgp default ipv4-unicast
  neighbor 10.12.1.1 remote-as 100
  neighbor 10.24.1.4 remote-as 200
  !
  address-family ipv4
    neighbor 10.12.1.1 activate
    neighbor 10.24.1.4 activate
    neighbor 10.24.1.4 next-hop-self
  exit-address-family
```

```
R3:
conf t
int e0/0
ip add 10.13.1.3 255.255.255.0
no shut
int e0/1
ip add 10.35.1.3 255.255.255.0
no sh
exit
```

```
router bgp 300
  bgp router-id 3.3.3.3
  bgp log-neighbor-changes
  no bgp default ipv4-unicast
  neighbor 10.13.1.1 remote-as 100
  neighbor 10.35.1.5 remote-as 300
  !
  address-family ipv4
    neighbor 10.13.1.1 activate
    neighbor 10.13.1.1 soft-reconfiguration inbound
```

```
neighbor 10.35.1.5 activate
neighbor 10.35.1.5 next-hop-self
neighbor 10.35.1.5 soft-reconfiguration inbound
exit-address-family
```

R4:

```
conf t
int e0/0
ip add 10.24.1.4 255.255.255.0
no sh
int e0/1
ip add 10.46.1.4 255.255.255.0
no sh
exit
```

```
router bgp 200
  bgp router-id 4.4.4.4
  bgp log-neighbor-changes
  neighbor 10.24.1.2 remote-as 200
  neighbor 10.24.1.2 next-hop-self
  neighbor 10.46.1.6 remote-as 600
```

R5:

```
conf t
int e0/0
ip add 10.35.1.5 255.255.255.0
no sh
int e0/1
ip add 10.56.1.5 255.255.255.0
no sh
exit
```

```
router bgp 300
  bgp router-id 5.5.5.5
  bgp log-neighbor-changes
  neighbor 10.35.1.3 remote-as 300
  neighbor 10.35.1.3 next-hop-self
  neighbor 10.56.1.6 remote-as 600
```

R6:

```
conf t
int e0/0
ip add 10.46.1.6 255.255.255.0
no sh
int e0/1
ip add 10.56.1.6 255.255.255.0
no sh
int lo0
ip add 192.168.6.6 255.255.255.0
exit
```

```
router bgp 600
  bgp router-id 6.6.6.6
  bgp log-neighbor-changes
  network 192.168.6.0
  neighbor 10.46.1.4 remote-as 200 RM-ASPATH-PREPEND-IN in
  neighbor 10.56.1.5 remote-as 300
  neighbor 10.56.1.5 route-map RM-ASPATH-PREPEND out
```

```
route-map RM-ASPATH-PREPEND permit 10
  match ip address 1
  set as-path prepend 600
!
route-map RM-ASPATH-PREPEND permit 20
!
route-map RM-ASPATH-PREPEND-IN permit 10
  match ip address 2
  set as-path prepend 300
!
route-map RM-ASPATH-PREPEND-IN permit 20
  match ip address 3
  set origin incomplete
!
route-map RM-ASPATH-PREPEND-IN permit 30
!
route-map xyz permit 10
!
!
access-list 1 permit 192.168.6.0 0.0.0.255
access-list 2 permit 192.168.1.0 0.0.0.255
access-list 3 permit 192.168.3.0 0.0.0.255
```

=====  
Weight:

R1:  
per Neighbor: Weight will be applied to all the prefxes received from that neighbor.

-----  
router bgp 100  
neig 10.12.1.2 weight 1  
exit

clear ip bgp \* process

Per prefix:Weight will be applied to a specifc NLRI received from that neighbor.

ip prefix-list abc permit 192.168.16.0/24

```
route-map RM permit 10
match ip address prefix-list abc
set weight 2
route-map RM permit 20
exit
```

```
router bgp 100
neig 10.13.1.3 route-map RM-WT in
exit
do clear ip bgp *
```

=====

