

## EIGRP neighbor relationship

- Pass the authentication process
- Have the same configured AS number
- **Must believe that the source IP address of a received Hello is in that router's primary connected subnet on that interface**
- Match K values

The third item means that the primary ip address of the neighbor must be in the same subnet with the primary ip address of the received interface. But in this case the primary ip address of router A is 10.10.10.1/30 and it is not in the same subnet with the primary ip address of router B 10.10.10.6/30 -> no EIGRP neighbor relationship is formed.

### Config Example:

#### Router A configuration:

```
interface fa0/0
ip address 10.10.10.1 255.255.255.252
ip address 10.10.10.9 255.255.255.252 secondary
ip address 10.10.10.5 255.255.255.252 secondary
```

```
router eigrp 100
network 10.10.10.0 0.0.0.255
```

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#### Router B configuration:

```
interface fa0/0
ip address 10.10.10.6 255.255.255.252
ip address 10.10.10.2 255.255.255.252 secondary
ip address 10.10.10.10 255.255.255.252 secondary
```

```
router eigrp 100
network 10.10.10.0 0.0.0.3
network 10.10.10.4 0.0.0.3
network 10.10.10.8 0.0.0.3
```