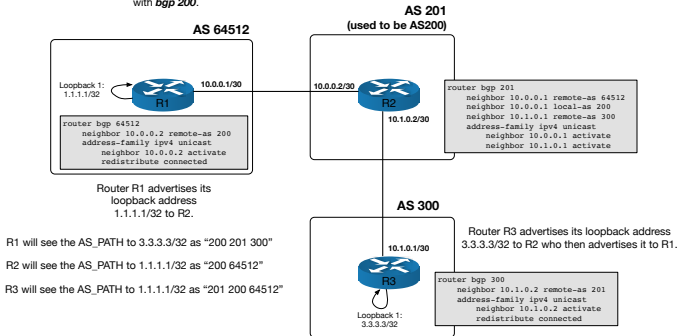


## local-as command

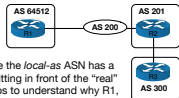


The Cisco **local-as** command is used to make one AS appear as another as from the perspective of BGP peers. This is typically used in circumstances where a large number of peers would need to change their **remote-as** - for example if an ISP changes its AS and does not want to change the configuration on all of its Customer Edge routers.

In this example AS200 has been changed to AS 201. The BGP neighbour configuration on R2 has had **local-as** configured to enable the peering with R1 to establish. Note the addition of 200 in the AS\_PATHs below even though no router is configured with **bgp 200**.



### Visual Help



If it helps, visualise the **local-as** ASN has a "fake" ASN (200) sitting in front of the "real" one (201). This helps to understand why R1, sees the path to 3.3.3.3 as 200, 201, 300.

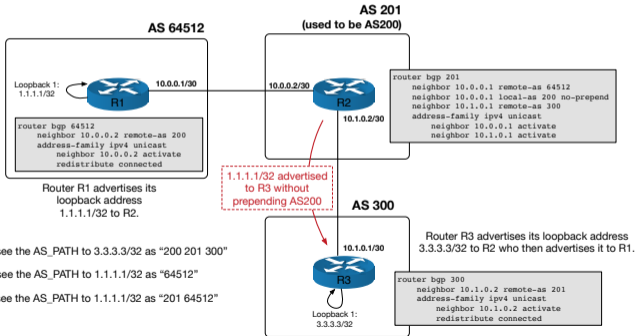


## local-as command

### Using no-prepend

If the *no-prepend* argument is used, when a router receives a prefix from a peer with *local-as* configured, it will not prepend the AS number in the *local-as* command to the AS\_PATH, when putting it in its BGP table. So R2 will not see the *local-as* AS number in its path to 1.1.1.1/32 and not include it in its advertisement to R3. Note this will not change how R1 sees 3.3.3.3/32. This is because R2 did not receive 3.3.3.3/32 from a peer with *local-as* configured.

Changing the *local-as* configuration will cause the BGP session to flap.

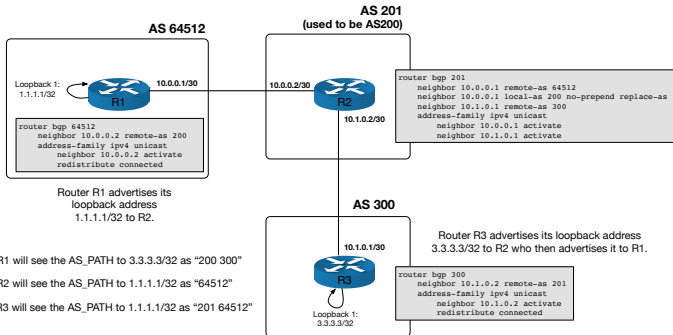




## Using replace-as

The **replace-as** argument will replace the *actual* AS with the AS in the **local-as** command when advertising a prefix. This effectively hides the true AS from the neighbour. This means that R1 will no longer see 201 in the AS path. It will only see 200.

Neither **no-prepend** nor **replace-as** can be used on iBGP peers since iBGP advertisements do not adjust the AS Path attribute.





## Using dual-as

This argument allows a neighbor to establish a BGP session with either the real AS number or the AS number configured under *local-as*. The AS number that is used in the peering will affect the resulting AS Path. For example R1 has been changed to peer with AS 201 rather than 200. This changes the AS Path it sees to 3.3.3.3/32.

When used with eBGP, the *dual-as* argument must be used in conjunction with *no-prepend* and *replace-as*.

### AS 64512

Loopback 1:  
1.1.1.1/32



10.0.0.1/30

```
router bgp 64512
 neighbor 10.0.0.2 remote-as 201
 address-family ipv4 unicast
 neighbor 10.0.0.2 activate
 redistribute connected
```

Router R1 advertises its loopback address 1.1.1.1/32 to R2.

### AS 201 (used to be AS200)

10.0.0.2/30



10.1.0.2/30

```
router bgp 201
 neighbor 10.0.0.1 remote-as 64512
 neighbor 10.0.0.1 local-as 200 no-prepend replace-as replace-as
 neighbor 10.1.0.1 remote-as 300
 address-family ipv4 unicast
 neighbor 10.0.0.1 activate
 neighbor 10.1.0.1 activate
```

### AS 300

10.1.0.1/30



Loopback 1:  
3.3.3.3/32

```
router bgp 300
 neighbor 10.1.0.2 remote-as 201
 address-family ipv4 unicast
 neighbor 10.1.0.2 activate
 redistribute connected
```

Router R3 advertises its loopback address 3.3.3.3/32 to R2 who then advertises it to R1.

R1 will see the AS\_PATH to 3.3.3.3/32 as "201 300"

R2 will see the AS\_PATH to 1.1.1.1/32 as "64512"

R3 will see the AS\_PATH to 1.1.1.1/32 as "201 64512"