

BGP community

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Community BGP

Le community BGP sono dei tag con specifici valori che possono essere propagati ai BGP neighbors, i quali a seconda del valore community ricevuto intraprendono delle azioni per determinare politiche di routing.

L'invio di community BGP deve essere esplicitamente indicato:

```
router bgp 10
neighbor 10.10.10.1 remote-as 20
neighbor 10.10.10.1 send-community
```

Le Community BGP vengono assegnate da route-map:

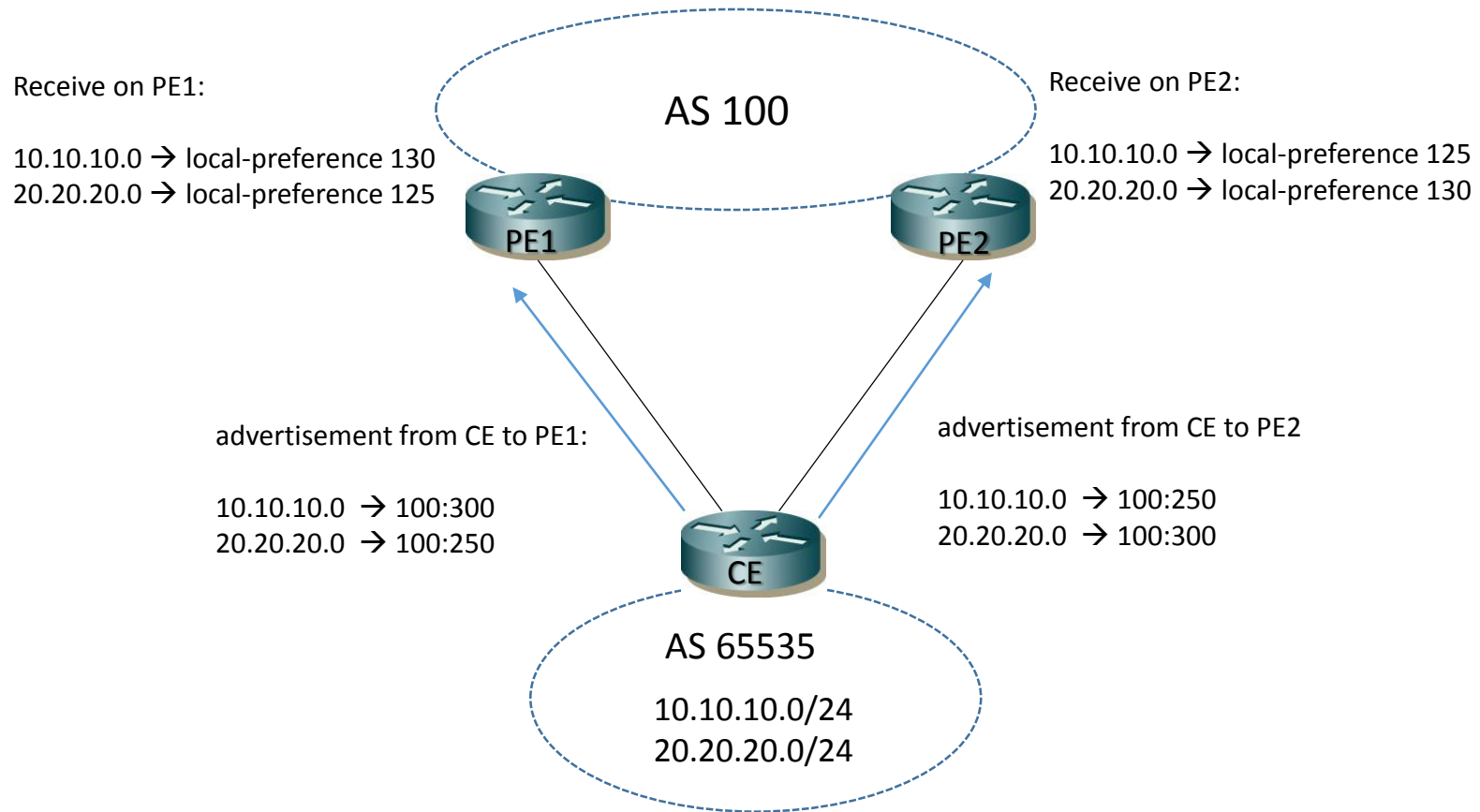
```
route-map PIPPO permit 10
match ip address <ip address>
set community AS:NN
```

e referenziate sempre da route-map:

```
ip community-list 1 permit
!
route-map PLUTO permit 10
match community 1
set local-preference 120
!
```

Community BGP setting example

Mapping tra la community BGP value e il valore di local-preference stabilita tra il CE ed i PE del Services Provider



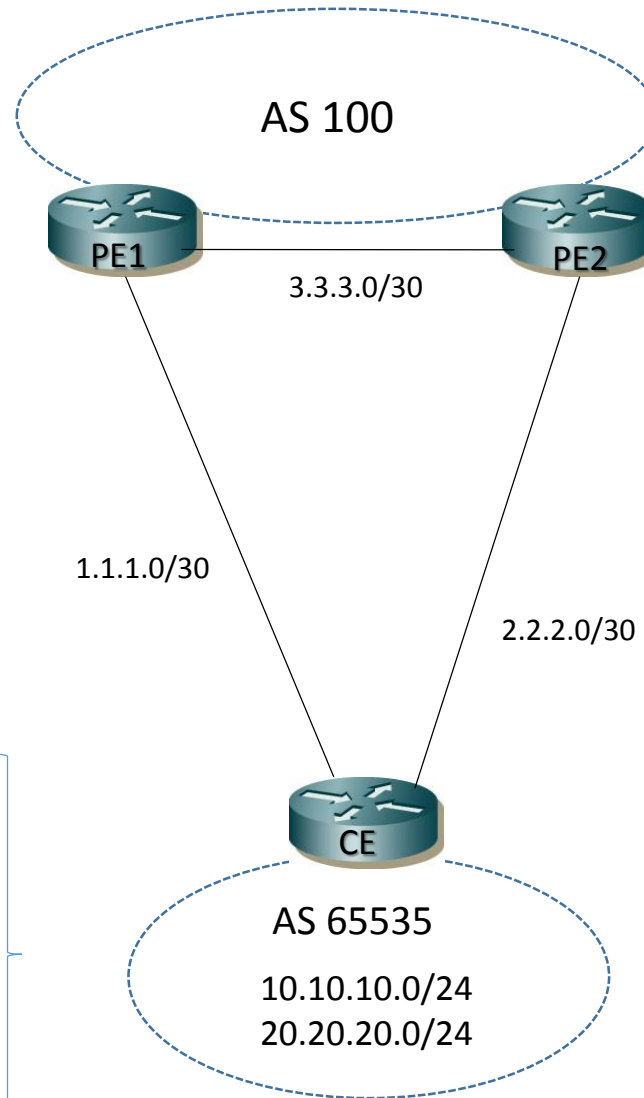
Community BGP setting example

```

router bgp 65535
 neighbor 3.3.3.2 remote-as 100
 neighbor 3.3.3.2 next-hop-self
 !
 neighbor 1.1.1.2 remote-as 65535
 neighbor 1.1.1.2 route-map FROM-CE in
 !
 ip bgp community new-format
 !
 ip community-list 1 permit 100:300
 ip community-list 2 permit 100:250
 !
 route-map FROM-CE permit 10
 match community 1
 set local-preference 130
 !
 route-map FROM-CE permit 10
 match community 2
 set local-preference 125
  
```

```

access-list 101 permit ip host 10.10.10.0 host 255.255.255.0
access-list 102 permit ip host 20.20.20.0 host 255.255.255.0
 !
 route-map TO-PE1
 match ip address 101
 set community 100:300
 !
 route-map TO-PE2
 match ip address 102
 set community 100:250
  
```



```

router bgp 65535
 neighbor 3.3.3.1 remote-as 100
 neighbor 3.3.3.1 next-hop-self
 !
 neighbor 2.2.2.2 remote-as 65535
 neighbor 2.2.2.2 route-map FROM-CE in
 !
 ip bgp community new-format
 !
 ip community-list 1 permit 100:300
 ip community-list 2 permit 100:250
 !
 route-map FROM-CE permit 10
 match community 1
 set local-preference 130
 !
 route-map FROM-CE permit 10
 match community 2
 set local-preference 125
  
```

```

router bgp 65535
 network 10.10.10.0 mask 255.255.255.0
 network 20.20.20.0 mask 255.255.255.0
 !
 neighbor 1.1.1.1 remote-as 100
 neighbor 1.1.1.1 send-community
 neighbor 1.1.1.1 route-map TO-PE1out
 !
 neighbor 2.2.2.2 remote-as 100
 neighbor 2.2.2.2 send-community
 neighbor 2.2.2.1 route-map TO-PE2out
  
```